MIDWAY RISING

Local Mobility Analysis

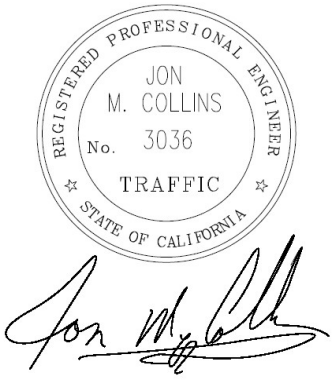
PRJ #: 1106734



AUGUST 2024 | VERSION 5

Prepared By:

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EXECUTIVE SUMMARY

This Local Mobility Analysis (LMA) evaluates the potential transportation effects associated with the proposed Midway Rising project. The City of San Diego (City) Transportation Study Manual (TSM) dated September 2022 was used to develop this LMA. A Vehicle Miles Traveled (VMT) analysis was also performed per California Environmental Quality Act (CEQA) and the results are provided in a separate document. A Community Plan Amendment (CPA) was also developed as a separate document to modify circulation element roadways planned in the Midway-Pacific Highway Community Plan (2018). The CPA can be found in **Appendix B**. The proposed Midway Rising development is located at 3220, 3240, 3250, and 3500 Sports Arena Boulevard and 3467, 3487, and 3495 Kurtz Street (privately-owned parcels), in the City of San Diego, CA.

PROJECT OVERVIEW

The Midway Rising project proposes to demolish the existing 16,000-seat San Diego Sports Arena and all commercial buildings on-site and construct a mixed-use development within the Midway Pacific-Highway Community Planning Area including a new Entertainment Center. A Midway Rising Specific Plan will include both the existing Sports Arena site and 3 adjacent privately-owned parcels along Kurtz Street.

The project is located between Kurtz Street to the northeast, Sports Arena Boulevard to the southwest, and Hancock Street to the northeast, and commercial development to the southeast. **Figure ES-1** shows the proposed conceptual site plan for the project. The details of each proposed land use are as follows:

- Entertainment
  - New 16,000-seat Entertainment Center
  - 3,500-seat theater (to be located within the privately-owned parcels area)
- Residential
  - 4,627 multi-family dwelling units, including:
    - 2,627 market-rate units
    - 2,000 affordable units, including
      - 1,538 units (≤ 50% Area Median Income (AMI))
      - 462 units (50-80% AMI).
- Commercial
  - 140,000 square-feet of commercial, including
    - 60,000 square-feet retail
    - 40,000 square-feet quality restaurant
    - 40,000 square-feet high-turnover sit-down restaurant

Construction of the project is proposed to occur in two phases, as illustrated in **Figure ES-2**.

- Phase 1 consists of the project site east of Frontier Drive with the exception of the privately-owned parcels, including construction of the proposed Frontier Drive, to be completed in 2030. During the construction of Phase 1, the Sports Arena and existing commercial uses west of Frontier Drive will remain operational.
- Phase 2 construction includes the remainder of the project site west of Frontier Drive plus the privately-owned parcels, to be completed by 2035.

EXISTING ARENA OPERATIONS

The existing arena is currently accessible via five driveways; four are inbound/outbound and one is outbound-only. Three driveways are located on Sports Arena Boulevard and two are located on Kurtz Street. **Figure ES-3** illustrates the existing driveways and operations for the project site during an event.

The existing arena currently has a 16,000-seat capacity for sporting events and 10,500-seat capacity for concerts due to the u-shaped seating layout. Currently, 3,861 parking spaces are provided via surface lot space for the Sports Arena and surrounding commercial uses. Additionally, surrounding on-street parking and adjacent commercial lots were observed to be used by spectators to avoid parking costs (typically $35 per vehicle, verified through site visits) on-site for events.

TRANSPORTATION ANALYSIS

STUDY AREA

The study area was determined per the City of San Diego TSM. The proposed study area consists of 40 study intersections, including 24 signalized intersections, 10 unsignalized intersections, 6 unsignalized project driveways, and 23 roadway segments.

The study area is illustrated in **Figure ES-4**. The study intersections and study segments are listed in Section 2.1 of the LMA.

ANALYSIS SCENARIOS

The following scenarios were analyzed in the LMA report:

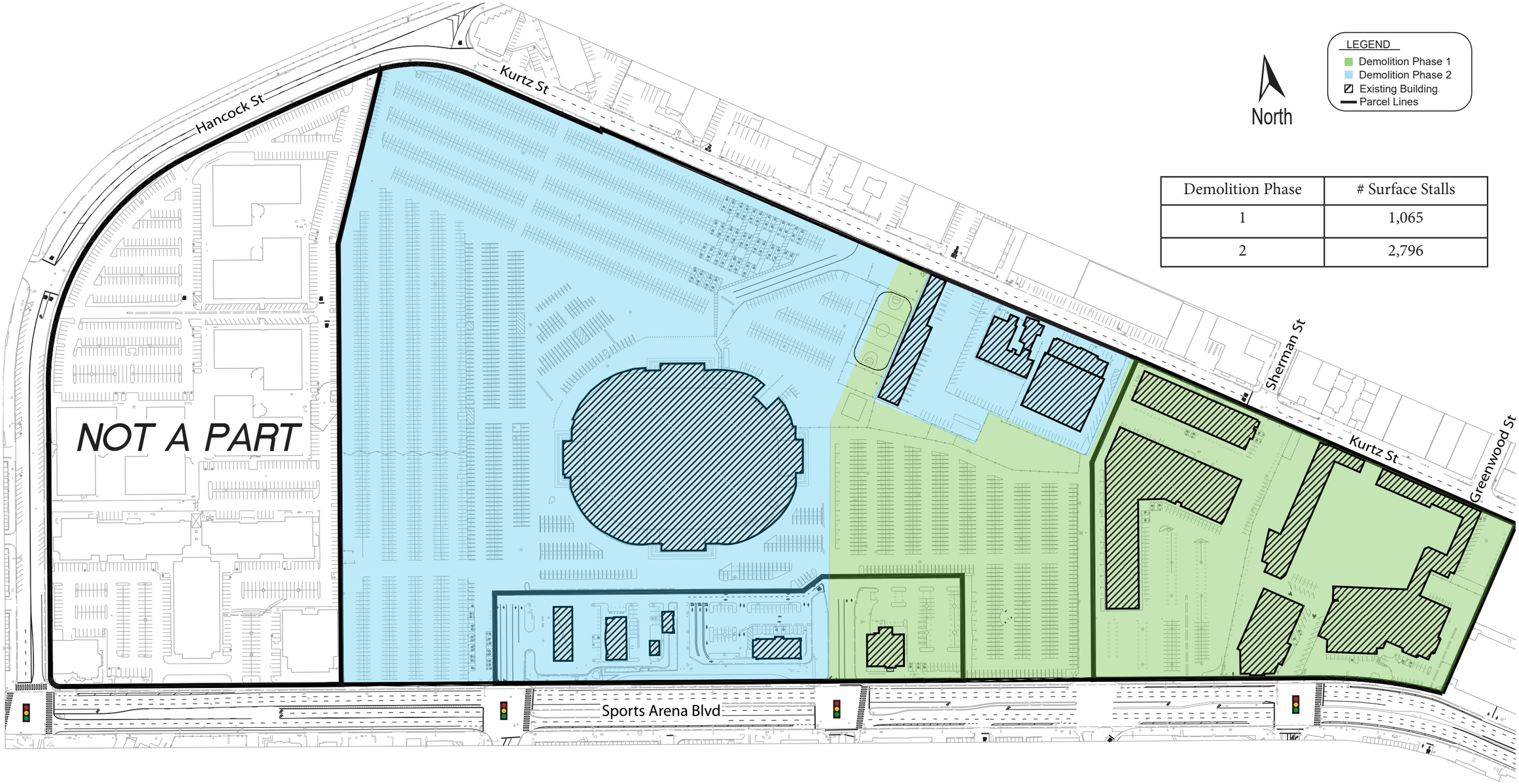
- ***Existing (2023):*** Represents the traffic conditions of the existing street network (as of December 2023), lane geometry, signal timing, and traffic volumes observed on a weekday, event day in 2023.
- ***Opening Year (2030) Base:*** Represents the traffic conditions on the existing street network assumed to be in place in year 2030, and a 0.55% annual growth rate in traffic volumes. Includes the NAVWAR redevelopment Near-Term with Year 2030 Alternative 2 project trips.
- ***Opening Year (2030) Plus Project Phase 1:*** Represents the Opening Year (2030) Base scenario with the addition of the proposed project Phase 1 trips and roadway network.
- ***Opening Year (2035) Base:*** Represents the traffic conditions on the existing street network anticipated to be in place in year 2035. The Opening Year (2035) Base traffic volumes were developed by applying a 0.55% annual growth rate to the existing (2023) traffic volumes and adding NAVWAR project trips for the future year 2035. The NAVWAR Near-Term with Year 2030 Alternative 2 project trips were linearly interpolated between NAVWAR Near-Term with Year 2030 Alternative 2 and Year 2050 with Alternative 2 scenario trips to develop cumulative project trips for 2035. Resulting trips were added to the project study intersections contained within the NAVWAR study area.
- ***Opening Year (2035) Plus Project Phase 2 Buildout:*** Represents the Opening Year (2035) Base scenario with the addition of the proposed project Phase 2 trips and roadway network.

Figure ES-1. Proposed Conceptual Site Plan



BASEMAP SOURCE: SAFDIE RABINES ARCHITECTS

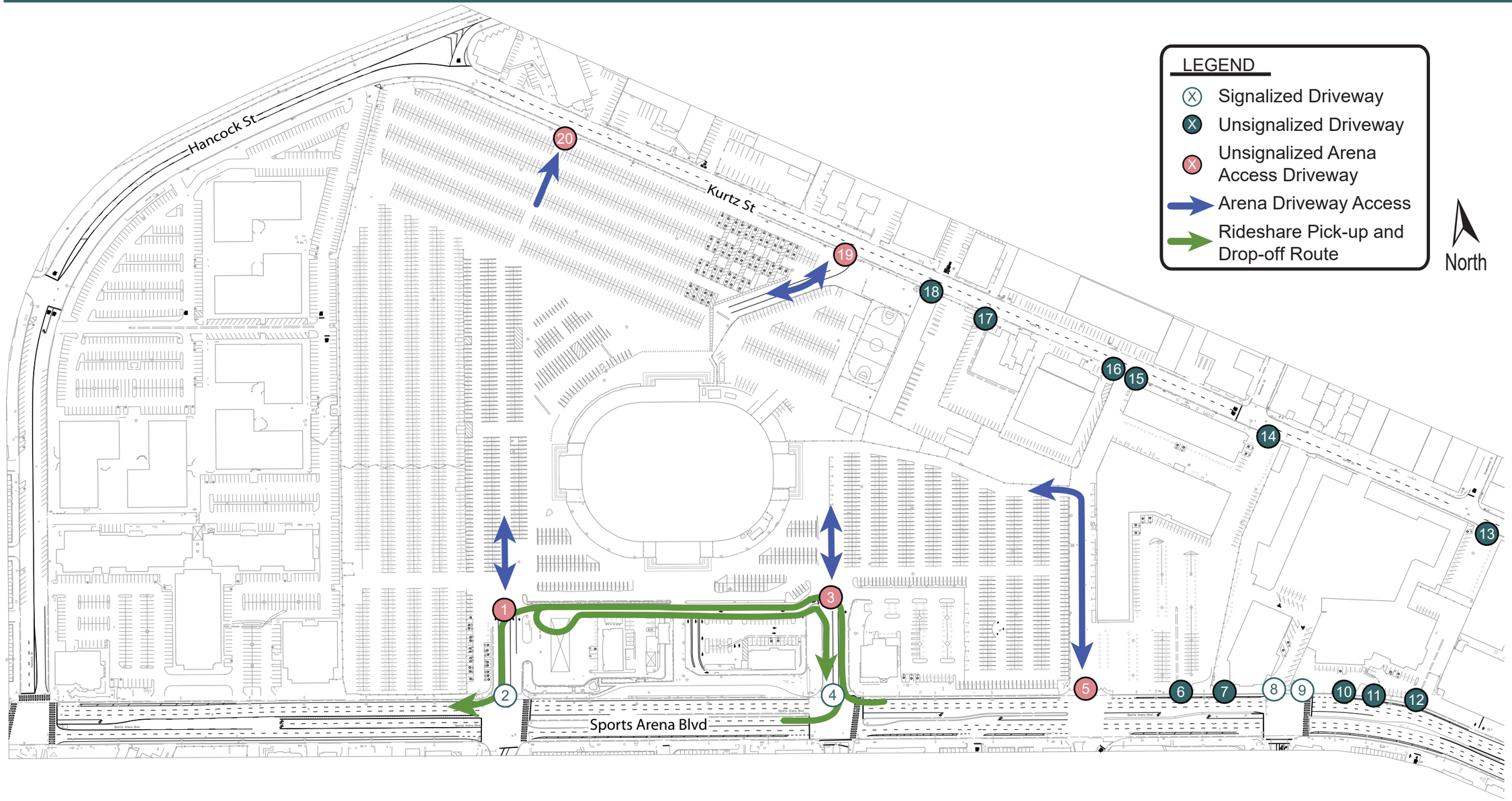
Figure ES-2. Project Demolition Phasing



Demolition Phase	# Surface Stalls
1	1,065
2	2,796

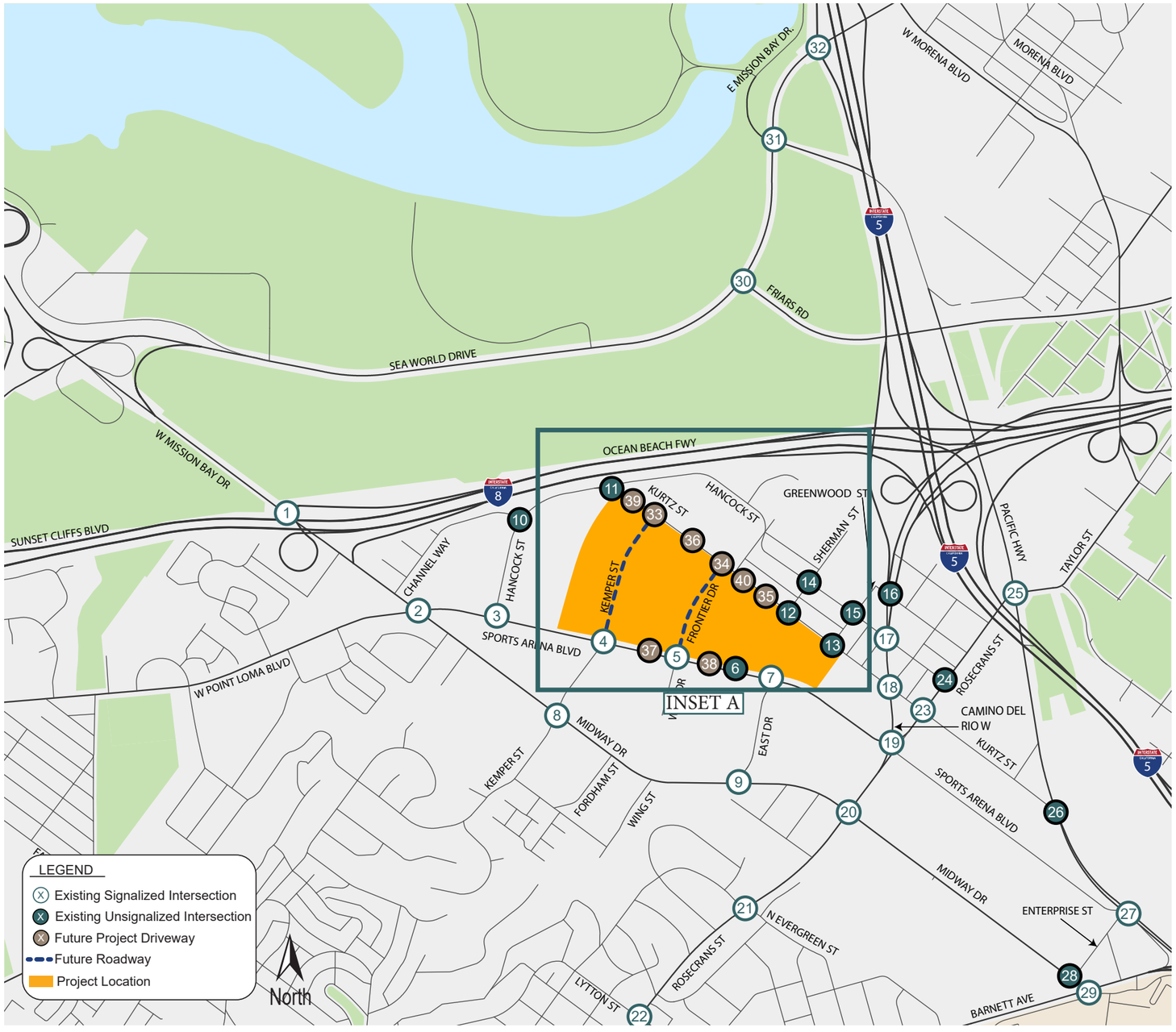
BASEMAP SOURCE: PROJECT DESIGN CONSULTANTS A BOWMAN COMPANY

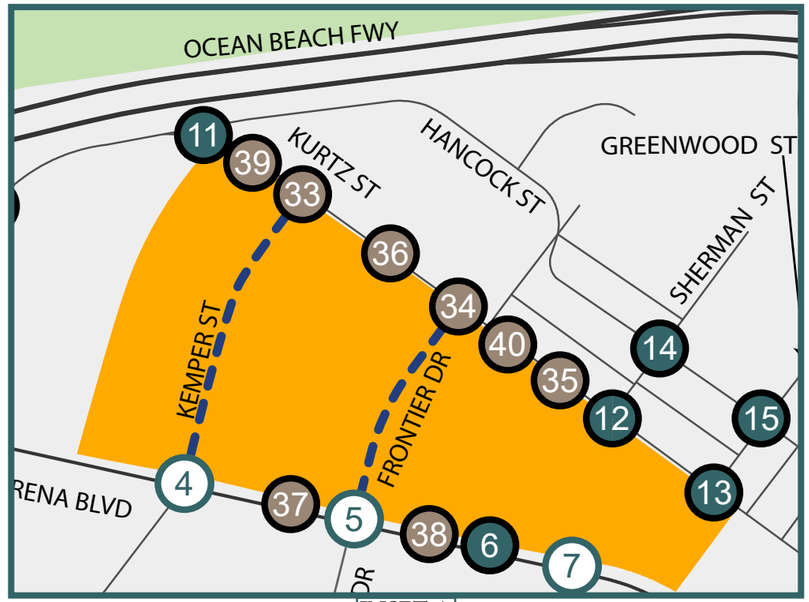
Figure ES-3. Existing Driveways and Site Operations

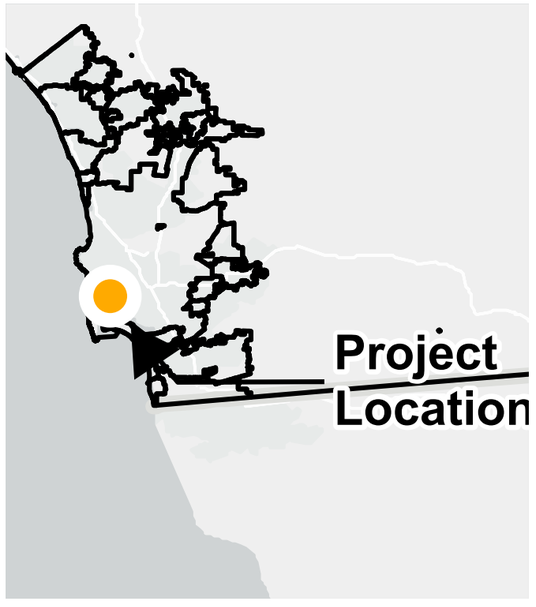


BASEMAP SOURCE: PROJECT DESIGN CONSULTANTS A BOWMAN COMPANY

Figure ES-4. Study Area Map







PROJECT TRANSPORTATION DEMAND

The following sections describe the project trip generation, trip distribution, and trip assignment through the study area.

Proposed Entertainment Center

The existing arena currently has a 16,000-seat capacity for sporting events and 10,500-seat capacity for concerts. The Entertainment Center will maintain a 16,000-seat capacity for sporting events and increase the concert capacity to 14,500 seats. The Entertainment Center is anticipated to continue to host similar types and sizes of events as the existing Sports Arena. The planned program of events (type, size, and frequency) for the future Entertainment Center is summarized in **Table ES-1**.

Table ES-1. Planned Events for Proposed Entertainment Center

Event	No. of Events/Year	Average Spectators
San Diego Gulls	38	8,500
San Diego Seals	9	6,500
San Diego Strike Force	8	3,000
Concert – Full	25	14,500
Concert – Half	25	7,500
Family Shows	8	3,500
Ice Shows	6	3,000
Motorsports	1	4,000
Boxing	1	8,000
Wrestling	2	4,000
Rodeos	1	3,000
High School Sports	5	1,500
Other Sports	2	4,000
Graduations & Trade Shows	10	300
Private / Catered Events	25	8,500
Total	**166**	

On-site parking for the Entertainment Center will be provided via parking garages on Block E2 and Block B2, west of Frontier Drive, and Block H1, east of Frontier Drive (See **Figure ES-1** for Block locations). **Table ES-2** summarizes the number of parking spaces that will be provided on-site during an event by Block, not including on-street parking on Kemper Street, Frontier Drive, and Kurtz Street.

Table ES-2. Proposed Event Parking Spaces by Block

Block	Available Parking Spaces (Phase 1)	Event Parking Spaces (Phase 2)
Block B2	0	565
Block E2	0	754
Block H1	781	781
Surface Parking	2,683	0
Total	**3,464**	**2,100**

The project will provide 2,100 spaces to accommodate events (along with transit, rideshare, biking, and walking) for up to 10,000 attendees. The 2,100 spaces are considered "right sized" for the site; the parking provided enables for the site to accommodate parking for a typical event on-site and minimize empty parking structures/spaces through the year (200 days of the year with no event). Limiting the amount of available parking has been found to encourage spectators to utilize other modes of transportation and potentially minimize the amount of traffic to be added to the roadway network. For events over 10,000 spectators, Midway Rising Project will maintain contracts with several entities—e.g., adjacent parking structures, business parks, and major landowners—for the use of their parking lots as overflow event parking.

The trips generated by the Entertainment Center were assigned to the roadway network based on available parking in each Block, and additional trips were assigned to overflow parking sites nearby the project site. **Figure ES-5** illustrates the locations of the overflow parking sites for the Entertainment Center.

TRIP GENERATION RATES

The project transportation demand was developed using San Diego Municipal Code Land Development Code Trip Generation Manual (2003). The San Diego Trip Generation Manual, Institute of Transportation Engineers (ITE) Trip Generation Manual, and San Diego Association of Governments (SANDAG) Trip Generation Manual, trip generation rates for entertainment land uses are not reflective of the anticipated operations for the proposed Entertainment Center. Thus, trip rates for the proposed Entertainment Center were manually developed based on previous arena studies, existing driveway counts, anticipated mode shift, and parking availability. The assumptions for the trip generation analysis for each land use are further detailed in Section 4.1 of this LMA.

The trip generation rates used for the proposed land uses are summarized in **Table ES-3**.

TRIP GENERATION RATE ADJUSTMENTS

Commercial trip generation rates included reductions for multimodal trips and internal capture (mixed-use). Additionally, trip generation rates were adjusted for the Commuter PM and Pre-Event Peak periods, based on the assumption that a portion of retail- and restaurant-goers will avoid the project site and surrounding area during these peaks on event days as compared to non-event days.

The residential and retail trip generation rates for the Pre-Event PM peak hour are based on vehicle time of day distributions ("bell curve factor") provided in the ITE Trip Generation Manual, 11th Edition for Multifamily Mid-Rise (ITE Code 221) and Shopping Center (ITE Code 820). Both land uses were observed to generate a lower portion of ADT in the 6-7 PM hour compared to the 5-6 PM hour.

Figure ES-5. Entertainment Center Off SIte Overflow Parking

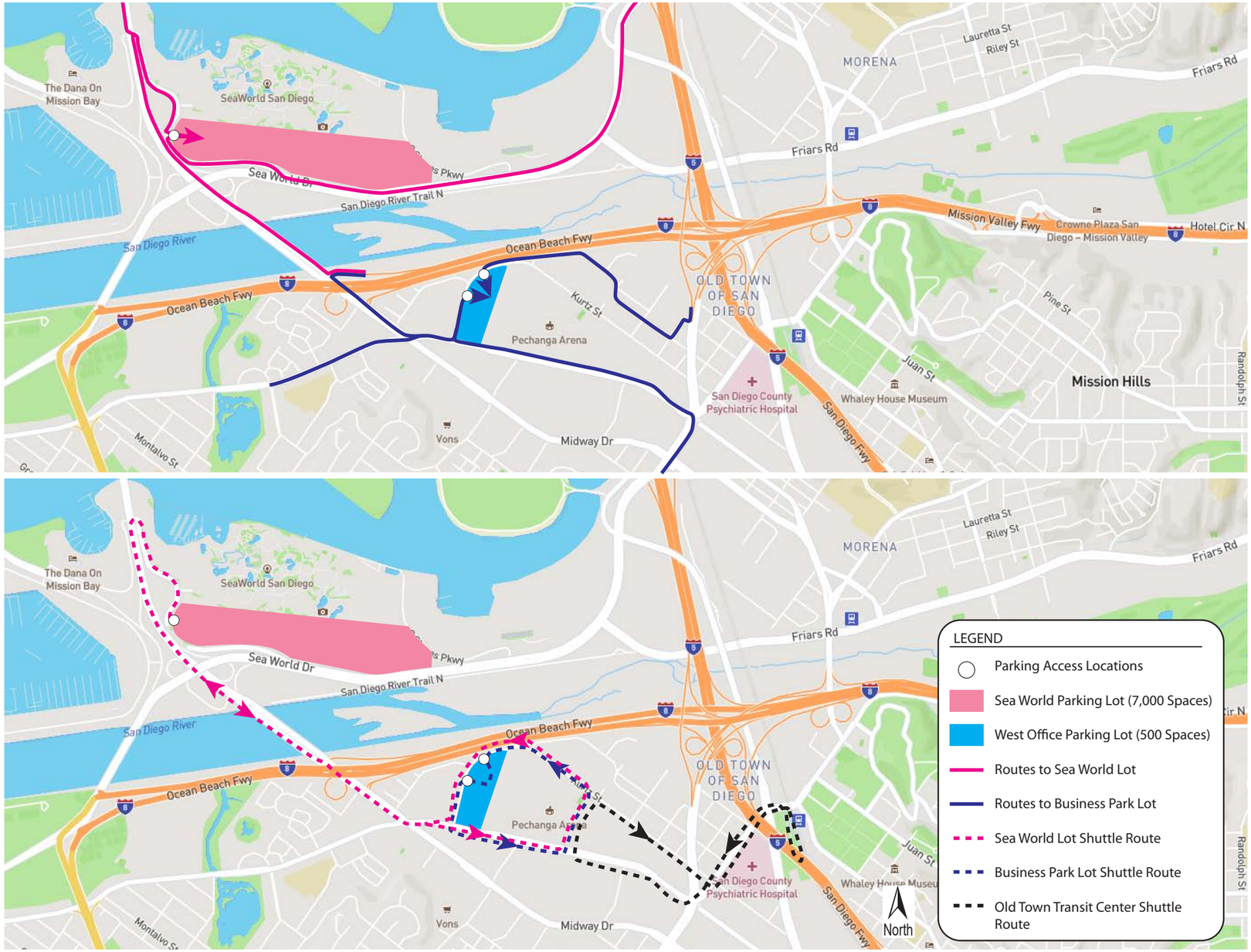


Table ES-3. Trip Generation Rates for Proposed Project (Cumulative Trip Rates)

Land Use[1]		Daily Rates-Cumulative	Weekday Event-Day									Weekend Non-Event Day		
			AM Commuter Peak Hour[2]			PM Commuter Peak Hour[3]			Pre-Event PM Peak Hour[4]			Midday Peak Hour[5]		
			Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Proposed Raw Rates														
*	Entertainment Center Event - Spectators	2.0	0	0	0	0.20	0.20	0	0.40	0.40	0	0	0	0
*	Entertainment Center - Employees	2.0	0	0	0	0.25	0.25	0	0.00	0.00	0	0	0	0
SD	Multiple Dwelling Unit - Over 20 dwelling units/acre	6.0	8%	2	8	9%	7	3	9%	7	3	9%	7	3
SD	Restaurant - Quality	90	1%	6	4	8%	7	3	8%	7	3	8%	7	3
SD	Restaurant - High Turnover (sit-down)	104	8%	5	5	8%	6	4	8%	6	4	8%	6	6
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	49	3%	6	4	10%	5	5	10%	5	5	10%	5	5

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]AM Commuter Peak Hour = Morning Peak Hour (8-9 AM)

[3]PM Commuter Peak Hour = Evening Commute Peak Hour (5-6 PM)

[4]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[5]Weekend Midday Peak = Midday peak hour (11 AM-12 PM) during a non-event day

*Entertainment Center trip generation is based on number of maximum number of seats and employees expected for that peak period. Proposed Raw Trips is not based on a rate but rather using assumptions listed below:

Spectator Arrival - 20% during Commute PM Peak Hour; 40% during Pre-Event PM Peak Hour

Employee Arrival - 25% during PM Peak Hour; 0% during Pre-Event PM Peak Hour

Table ES-3. Trip Generation Rates for Proposed Project (Driveway Trip Rates)

Land Use[1]		Daily Rates-Driveway	Weekday Event-Day									Weekend Non-Event Day		
			AM Commuter Peak Hour[2]			PM Commuter Peak Hour[3]			Pre-Event PM Peak Hour[4]			Midday Peak Hour[5]		
			Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Proposed Raw Rates														
SD	Restaurant - Quality	100	1%	6	4	8%	7	3	8%	7	3	8%	7	3
SD	Restaurant - High Turnover (sit-down)	130	8%	5	5	8%	6	4	8%	6	4	8%	6	4
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	70	3%	6	4	10%	5	5	10%	5	5	10%	5	5

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]AM Commuter Peak Hour = Morning Peak Hour (8-9 AM)

[3]PM Commuter Peak Hour = Evening Commute Peak Hour (5-6 PM)

[4]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[5]Weekend Midday Peak= Midday peak hour (11 AM-12 PM) during a non-event day

RESIDENTIAL AND COMMERCIAL TRIP GENERATION

The proposed commercial land use trip generation calculations are based on rates for Multiple Dwelling Unit (Over 20 dwelling units/acre) for the proposed residential land use, and Restaurant (Quality), Restaurant (High-Turnover/sit-down), and Shopping Center (Community) for the commercial land uses.

Two different trip generation calculations were performed for the commercial land uses:

1. Trip generation based on cumulative trip rates
2. Trip generation based on driveway trip rates

The driveway trip rates were used to calculate commercial trips at all project driveways, while cumulative trip rates were used to calculate commercial trips at the remaining study intersections.

ENTERTAINMENT CENTER TRIP GENERATION CALCULATIONS

Two different sets of trip generation calculations were performed for the entertainment land use on the project site:

1. Typical Event: 14,500 spectators
2. Full Capacity Event: 20,000 spectators (combined maximum capacity of Entertainment Center and theater)

Although the transportation analysis was performed for the two event sizes, project effect determination is based on the 14,500-spectator event for the proposed scenario as the “typical” maximum event. The 20,000-spectator scenario is a maximum capacity event for the Entertainment Center and the theater combined, which is expected to occur up to 2 times per year. Operational results of the maximum capacity event will be used to develop traffic management strategies including temporary traffic control, additional signage, and traffic signal modifications that would be used for these larger spectator events.

TRIP GENERATION RESULTS

Trip generation for the project site was estimated for the event-day weekday Commuter AM (7-10 am), Commuter PM (4-6 pm), Pre-Event PM (6-7 pm), and Weekend Midday (11am-1pm) peak hours. Two trip generation estimates were produced for the Pre-Event PM peak:

- Typical-capacity events – 14,500 spectators
- Full-capacity events – 20,000 spectators

The existing site trip generation was subtracted from the proposed trip generation to calculate the net new trips generated by the proposed project. The net new trips generated by the proposed project are reported below.

Trip Generation Results with Typical Event

Trip generation calculations were prepared for the proposed project and a typical event with 14,500 spectators under Opening Year (2030) Plus Project Phase 1 with both cumulative rates and driveway rates, as described below.

The Opening Year (2030) Plus Project Phase 1 is expected to generate approximately 3,614 net new daily cumulative trips with 14,500 spectators at the Entertainment Center, and the portion of residential and

commercial land uses proposed for east of Frontier Drive. The proposed project net new peak hour trips are presented below:

- 5 AM Commuter Peak Hour Trips (-228 inbound / 234 outbound)
- 841 PM Commuter Peak Hour Trips (873 inbound / -33 outbound)
- 432 Pre-Event PM Peak Hour Trips (523 inbound / -92 outbound)
- -590 Weekend Midday Peak Hour Trips (-309 inbound / -280 outbound)

The Opening Year (2030) Plus Project Phase 1 is expected to generate approximately 5,586 net new daily commercial driveway trips for the portion of commercial land uses proposed east of Frontier Drive. The proposed project net new commercial, peak hour driveway trips are presented below:

- 62 AM Commuter Peak Hour Trips (-16 inbound / 78 outbound)
- 201 PM Commuter Peak Hour Trips (120 inbound / 82 outbound)
- -304 Pre-Event PM Peak Hour Trips (193 inbound / -112 outbound)
- 732 Weekend Midday Peak Hour Trips (426 inbound / 306 outbound)

The Opening Year (2035) Plus Project Phase 2 Buildout scenario is expected to generate approximately 22,514 net new daily cumulative trips with 14,500 spectators at the Entertainment Center, and full buildout of residential and commercial land uses. The proposed project net new peak hour trips are presented below:

- 1,450 AM Commuter Peak Hour Trips (86 inbound / 1,363 outbound)
- 2,055 PM Commuter Peak Hour Trips (1,684 inbound / 371 outbound)
- 1,321 Pre-Event PM Peak Hour Trips (1,106 inbound / 215 outbound)
- 885 Weekend Midday Peak Hour Trips (911 inbound / -27 outbound)

The Opening Year (2035) Plus Project Phase 2 Buildout scenario is expected to generate approximately -915 net new daily commercial driveway trips for full buildout of commercial land uses. The proposed project net new commercial, peak hour driveway trips are presented below:

- -228 AM Commuter Peak Hour Trips (-156 inbound / -72 outbound)
- -329 PM Commuter Peak Hour Trips (-196 inbound / -134 outbound)
- -1,175 Pre-Event PM Peak Hour Trips (-807 inbound / -368 outbound)
- -617 Weekend Midday Peak Hour Trips (-170 inbound / -447 outbound)

Trip Generation Results with Full Capacity Event

Under the full-capacity event scenario, peak hour trips were developed for the Pre-Event PM peak hour only, as it is assumed to be the worst-case scenario. Trip generation results are described below.

Opening Year (2030) Plus Project Phase 1 is expected to generate approximately 7,027 net new daily cumulative trips, with 1,145 (1,143 inbound / 1 outbound) weekday, Pre-Event PM peak hour cumulative trips with 20,000 spectators, and the portion of residential and commercial land uses proposed for east of Frontier Drive.

Opening Year (2030) Plus Project Phase 1 is expected to generate approximately -3,588 net new daily commercial driveway trips, with -1,198 (-820 inbound / -378 outbound) weekday Pre-Event PM peak hour trips for the portion of commercial land uses proposed for east of Frontier Drive.

Opening Year (2035) Plus Project Phase 2 Buildout scenario is expected to generate approximately 32,401 net new daily cumulative trips with 2,586 (2,218 inbound / 369 outbound) weekday Pre-Event PM peak hour trips with 20,000 spectators, and full buildout of residential and commercial land uses.

Opening Year (2035) Plus Project Phase 2 Buildout scenario is expected to generate approximately 5,586 net new daily commercial driveway trips with -304 (-193 inbound / -112 outbound) weekday Pre-Event PM peak hour trips with full buildout of commercial land uses.

TRIP DISTRIBUTION

Trip distribution patterns were created for each land use to and from applicable parking locations within and nearby the project site. Three geographic areas (or zones) were chosen to develop the regional trip distribution for each proposed land use. The zones were selected for each land use to represent comparable travel patterns to the proposed project, based on their location and similarity in characteristics with the proposed land uses. The three sites selected are identified as follows:

- Residential neighborhoods located north and south of Point Loma Boulevard were chosen for the proposed Residential land use to reflect the mid- to high-density nature of the project.
- Liberty Station was chosen for the proposed commercial land uses as it contains boutique-retail and restaurant and beverage uses, similar to the project.
- Sports Arena was chosen for the proposed Entertainment Center as the project proposes to redevelop the existing Sports Arena.

Additional details on trip distribution development are in Section 4.2 of the LMA.

TRANSPORTATION ANALYSIS RESULTS

Table ES-4 provides a summary of the intersection LOS for all intersections and scenarios analyzed as part of this LMA at the end of this section of the Executive Summary. **Table ES-5** provides a summary of the roadway segment LOS analysis for all locations and all scenarios.

EXISTING CONDITIONS ANALYSIS

The existing (2023) scenario was analyzed at the study intersections based on the existing (2023) lane geometry and traffic volumes. Existing (2023) conditions lane geometrics and traffic volumes are provided in Chapter 3 of the LMA. Existing (2023) conditions level of service results for all study intersections are included in Chapter 3 of this LMA.

Under existing (2023) conditions, all intersections operate at LOS D or better in all peak hours except:

- Intersection #2 – Midway Drive & W Point Loma Boulevard & Sports Arena Boulevard (PM: LOS E; Pre-Event: LOS E)
- Intersection #5 – West Drive / Frontier Drive & Sports Arena Boulevard (Pre-Event: LOS F)
- Intersection #6 – Target Driveway & Sports Arena Boulevard (PM: LOS E; WKND: LOS F)
- Intersection #16 – Camino del Rio W & Moore Street (WKND: LOS E)
- Intersection #17 – Camino del Rio W & Hancock Street (AM: LOS F; PM: LOS F; Pre-Event: LOS F)
- Intersection #20 – Rosecrans Street & Midway Drive (AM: LOS E; PM: LOS E; Pre-Event: LOS E; WKND: LOS E)
- Intersection #27 – Pacific Highway & Enterprise Street (PM: LOS F; WKND: LOS F)
- Intersection #29 – Barnett Avenue & Midway Drive (PM: LOF F)

Table ES-4. LOS Summary

#	INTERSECTION	PEAK HOUR	EXISTING	2030 Baseline	2035 Baseline	2030 Plus Project	2035 Plus Project	2030 Plus Improvements	2035 Plus Improvements
			LOS (a)	LOS (a)	LOS (a)	LOS (a)	LOS (a)	LOS (a)	LOS (a)
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	1. Weekday AM	B	B	B	B	B	-	-
		2. Weekday Commuter PM	C	C	C	C	D	-	-
		3. Weekday Pre-Event PM (14.5k)	B	C	C	C	C	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	C	C	-	-
		5. Weekend Midday	C	C	C	C	D	-	-
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	1. Weekday AM	C	C	C	C	D	E	F
		2. Weekday Commuter PM	E	E	E	F	F	E	E
		3. Weekday Pre-Event PM (14.5k)	E	E	E	E	F	E	E
		4. Weekday Pre-Event PM (20k)	-	-	-	F	F	E	F
		5. Weekend Midday	D	E	E	E	F	E	E
3	Commercial Dwy 1/Hancock St & Sports Arena Blvd	1. Weekday AM	A	A	A	B	C	-	-
		2. Weekday Commuter PM	B	B	B	C	C	-	-
		3. Weekday Pre-Event PM (14.5k)	B	B	B	C	C	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	C	C	-	-
		5. Weekend Midday	B	B	B	B	C	-	-
4	Kemper St & Sports Arena Blvd	1. Weekday AM	B	B	B	B	B	-	-
		2. Weekday Commuter PM	C	B	B	C	D	-	-
		3. Weekday Pre-Event PM (14.5k)	C	C	C	D	D	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	D	D	-	-
		5. Weekend Midday	B	C	C	C	C	-	-
5	West Dr/Frontier Dr & Sports Arena Blvd	1. Weekday AM	B	B	B	B	C	C	D
		2. Weekday Commuter PM	C	C	C	F	F	D	E
		3. Weekday Pre-Event PM (14.5k)	F	F	F	F	F	D	E
		4. Weekday Pre-Event PM (20k)	-	-	-	F	F	E	D
		5. Weekend Midday	D	D	D	F	F	E	D
6	Target Dwy & Sports Arena Blvd	1. Weekday AM	B	B	B	B	B	-	-
		Worst Mvmt	SB	SB	SB	WBL	WBL	-	-
		2. Weekday Commuter PM	E	E	F	C	C	-	-
		Worst Mvmt	SB	SB	SB	WBL	WBL	-	-
		3. Weekday Pre-Event PM (14.5k)	D	D	D	C	C	-	-
		Worst Mvmt	SB	SB	SB	WBL	WBL	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	C	C	-	-
		Worst Mvmt	-	-	-	WBL	WBL	-	-
		5. Weekend Midday	F	F	F	F	E	-	-
		Worst Mvmt	SB	SB	SB	WBL	WBL	-	-
7	East Dr & Sports Arena Blvd	1. Weekday AM	A	A	A	A	A	-	-
		2. Weekday Commuter PM	C	C	C	B	B	-	-
		3. Weekday Pre-Event PM (14.5k)	C	C	C	B	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	B	B	-	-
		5. Weekend Midday	B	B	B	B	B	-	-
8	Kemper St & Midway Dr	1. Weekday AM	B	B	B	B	C	-	-
		2. Weekday Commuter PM	D	D	D	D	D	-	-
		3. Weekday Pre-Event PM (14.5k)	C	C	C	C	D	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	D	D	-	-
		5. Weekend Midday	C	C	C	C	C	-	-
9	Commercial Dwy 2/East Dr & Midway Dr	1. Weekday AM	A	A	A	A	A	-	-
		2. Weekday Commuter PM	B	B	B	B	B	-	-
		3. Weekday Pre-Event PM (14.5k)	B	B	B	B	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	B	B	-	-
		5. Weekend Midday	B	B	B	C	B	-	-
10	Hancock St & Channel Way	1. Weekday AM	A	A	A	A	B	-	-
		2. Weekday Commuter PM	A	A	A	B	C	-	-
		3. Weekday Pre-Event PM (14.5k)	A	A	A	B	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	B	B	-	-
		5. Weekend Midday	A	A	A	B	B	-	-
11	Kurtz St & Hancock St	1. Weekday AM	A	A	A	A	A	-	-
		2. Weekday Commuter PM	B	B	B	A	A	-	-
		3. Weekday Pre-Event PM (14.5k)	C	B	B	A	A	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	A	A	-	-
		5. Weekend Midday	B	B	B	A	A	-	-
12	H1 Dwy 2/Sherman St & Kurtz St	1. Weekday AM	A	A	A	B	C	-	-
		2. Weekday Commuter PM	A	A	A	C	C	-	-
		3. Weekday Pre-Event PM (14.5k)	B	A	A	C	C	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	C	C	-	-
		5. Weekend Midday	A	A	A	C	B	-	-
13	Kurtz St & Greenwood St	1. Weekday AM	A	A	A	A	B	-	-
		2. Weekday Commuter PM	B	B	B	B	B	-	-
		3. Weekday Pre-Event PM (14.5k)	B	B	B	A	A	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	A	A	-	-
		5. Weekend Midday	B	B	B	B	A	-	-
14	Sherman St & Hancock St	1. Weekday AM	A	A	A	A	A	A	A
		2. Weekday Commuter PM	A	A	A	C	C	C	C
		3. Weekday Pre-Event PM (14.5k)	C	B	B	F	E	F	E
		4. Weekday Pre-Event PM (20k)	-	-	-	F	E	F	E
		5. Weekend Midday	A	A	A	A	B	A	B
15	Greenwood St & Hancock St	1. Weekday AM	A	A	A	A	A	-	-
		2. Weekday Commuter PM	A	A	A	B	B	-	-
		3. Weekday Pre-Event PM (14.5k)	B	A	A	B	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	C	B	-	-
		5. Weekend Midday	A	A	A	A	A	-	-
16	Camino Del Rio W & Moore St	1. Weekday AM	D	D	D	D	D	-	-
		Worst Mvmt	EB	EB	EB	EB	EB	-	-
		2. Weekday Commuter PM	D	D	D	E	E	-	-
		Worst Mvmt	EB	EB	EB	EB	EB	-	-
		3. Weekday Pre-Event PM (14.5k)	C	C	D	E	E	-	-
		Worst Mvmt	EB	EB	EB	EB	EB	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	E	E	-	-
		Worst Mvmt	-	-	-	EB	EB	-	-
		5. Weekend Midday	E	E	F	F	F	-	-
		Worst Mvmt	WB	WB	WB	WB	WB	-	-
17	Camino Del Rio W & Hancock St	1. Weekday AM	F	F	F	F	F	C	C
		2. Weekday Commuter PM	F	B	B	B	B	C	C
		3. Weekday Pre-Event PM (14.5k)	F	B	B	B	B	C	C
		4. Weekday Pre-Event PM (20k)	-	-	-	B	B	C	C
		5. Weekend Midday	C	C	C	C	D	C	C
18	Camino Del Rio W & Kurtz St	1. Weekday AM	A	A	A	A	A	-	-
		2. Weekday Commuter PM	A	A	A	B	B	-	-
		3. Weekday Pre-Event PM (14.5k)	A	A	A	B	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	B	B	-	-
		5. Weekend Midday	A	A	A	B	A	-	-
19	Rosecrans St & Sports Arena Blvd & Camino Del Rio W	1. Weekday AM	C	C	C	C	C	C	D
		2. Weekday Commuter PM	D	D	D	E	D	E	D
		3. Weekday Pre-Event PM (14.5k)	D	D	D	D	D	D	D
		4. Weekday Pre-Event PM (20k)	-	-	-	D	D	E	D
		5. Weekend Midday	D	D	E	E	F	E	E
20	Rosecrans St & Midway Dr	1. Weekday AM	E	E	E	E	E	D	D
		2. Weekday Commuter PM	E	E	E	E	E	D	D
		3. Weekday Pre-Event PM (14.5k)	E	E	E	E	E	D	D
		4. Weekday Pre-Event PM (20k)	-	-	-	F	F	D	D
		5. Weekend Midday	E	E	F	F	F	D	D

Notes:
(a) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition and Highway Capacity Manual 2000 Edition* and performed using Synchro 11

Table ES-4. LOS Summary

#	INTERSECTION	PEAK HOUR	EXISTING	2030 Baseline	2035 Baseline	2030 Plus Project	2035 Plus Project	2030 Plus Improvements	2035 Plus Improvements
			LOS (a)	LOS (a)	LOS (a)	LOS (a)	LOS (a)	LOS (a)	LOS (a)
21	Rosecrans St & N Evergreen St	1. Weekday AM	C	B	B	B	B	-	-
		2. Weekday Commuter PM	C	C	C	C	C	-	-
		3. Weekday Pre-Event PM (14.5k)	C	B	B	B	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	B	B	-	-
		5. Weekend Midday	C	C	C	C	C	-	-
22	Rosecrans St & Lytton St	1. Weekday AM	D	E	F	E	E	D	E
		2. Weekday Commuter PM	D	D	E	D	E	D	D
		3. Weekday Pre-Event PM (14.5k)	D	D	D	D	D	C	C
		4. Weekday Pre-Event PM (20k)	-	-	-	D	D	C	C
		5. Weekend Midday	D	D	D	D	D	C	C
23	Rosecrans St & Kurtz St	1. Weekday AM	B	B	C	C	C	-	-
		2. Weekday Commuter PM	C	C	C	C	C	-	-
		3. Weekday Pre-Event PM (14.5k)	B	B	B	B	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	B	B	-	-
		5. Weekend Midday	C	C	C	C	C	-	-
24	Rosecrans St & Hancock St	1. Weekday AM	A	A	A	A	A	-	-
		Worst Mvmt	SE	SE	SE	NBL	NBL		
		2. Weekday Commuter PM	B	B	B	A	A	-	-
		Worst Mvmt	SE	SE	SE	NBL	NBL		
		3. Weekday Pre-Event PM (14.5k)	B	B	B	B	B	-	-
		Worst Mvmt	SE	SE	SE	NBL	NBL		
		4. Weekday Pre-Event PM (20k)	-	-	-	B	B	-	-
		Worst Mvmt	-	-	-	NBL	NBL		
		5. Weekend Midday	A	A	A	A	A	-	-
		Worst Mvmt	SE	SE	SE	NBL	NBL		
25	Pacific Hwy & Rosecrans St/Taylor St	1. Weekday AM	C	C	C	C	C	-	-
		2. Weekday Commuter PM	C	C	C	C	C	-	-
		3. Weekday Pre-Event PM (14.5k)	C	C	D	C	C	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	C	C	-	-
		5. Weekend Midday	C	C	C	C	C	-	-
26	Kurtz St & Pacific Hwy	1. Weekday AM	B	C	C	C	C	A	A
		Worst Mvmt	EB	NBL	NBL	EB	NBL		
		2. Weekday Commuter PM	D	F	F	F	F	A	A
		Worst Mvmt	EB	EB	EB	EB	EB		
		3. Weekday Pre-Event PM (14.5k)	C	F	F	F	F	A	A
		Worst Mvmt	EB	EB	EB	EB	EB		
		4. Weekday Pre-Event PM (20k)	-	-	-	F	F	A	A
		Worst Mvmt	-	-	-	EB	EB		
		5. Weekend Midday	C	C	C	C	C	A	A
		Worst Mvmt	EB	EB	EB	EB	EB		
27	Pacific Hwy & Enterprise St	1. Weekday AM	C	C	D	D	D	-	-
		2. Weekday Commuter PM	F	C	D	E	E	-	-
		3. Weekday Pre-Event PM (14.5k)	F	C	C	E	E	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	E	E	-	-
		5. Weekend Midday	B	B	B	B	B	-	-
28	Midway Dr & Enterprise St	1. Weekday AM	B	B	B	B	B	-	-
		Worst Mvmt	SB	SB	SB	SB	SB		
		2. Weekday Commuter PM	C	C	E	D	E	-	-
		Worst Mvmt	SB	SB	SB	SB	SB		
		3. Weekday Pre-Event PM (14.5k)	C	C	D	C	E	-	-
		Worst Mvmt	SB	SB	SB	SB	SB		
		4. Weekday Pre-Event PM (20k)	-	-	-	D	E	-	-
		Worst Mvmt	-	-	-	SB	SB		
		5. Weekend Midday	C	C	C	C	C	-	-
		Worst Mvmt	SB	SB	SB	SB	SB		
29	Barnett Ave & Midway Dr	1. Weekday AM	B	C	C	B	C	B	C
		2. Weekday Commuter PM	F	D	E	C	E	C	D
		3. Weekday Pre-Event PM (14.5k)	C	C	D	C	D	C	C
		4. Weekday Pre-Event PM (20k)	-	-	-	C	D	C	C
		5. Weekend Midday	C	C	C	C	C	B	C
30	Sea World Dr & Friars Rd	1. Weekday AM	A	A	A	A	A	-	-
		2. Weekday Commuter PM	A	A	A	A	A	-	-
		3. Weekday Pre-Event PM (14.5k)	A	A	A	A	A	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	A	A	-	-
		5. Weekend Midday	A	A	A	A	A	-	-
31	Sea World Dr & E Mission Bay Dr/Pacific Highway	1. Weekday AM	B	B	B	B	B	-	-
		2. Weekday Commuter PM	C	C	C	C	C	-	-
		3. Weekday Pre-Event PM (14.5k)	B	C	C	C	C	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	C	C	-	-
		5. Weekend Midday	C	C	C	C	C	-	-
32	Southbound On Ramp/I-5 Southbound Off Ramp & Sea World	1. Weekday AM	C	C	C	D	C	-	-
		2. Weekday Commuter PM	C	C	C	C	C	-	-
		3. Weekday Pre-Event PM (14.5k)	C	C	C	C	C	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	C	C	-	-
		5. Weekend Midday	B	B	B	B	B	-	-
33	Kemper St & Kurtz St	1. Weekday AM	-	-	-	-	B	-	-
		2. Weekday Commuter PM	-	-	-	-	B	-	-
		3. Weekday Pre-Event PM (14.5k)	-	-	-	-	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	-	B	-	-
		5. Weekend Midday	-	-	-	-	B	-	-
34	Frontier Dr & Kurtz St	1. Weekday AM	-	-	-	B	B	-	-
		2. Weekday Commuter PM	-	-	-	C	B	-	-
		3. Weekday Pre-Event PM (14.5k)	-	-	-	B	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	C	B	-	-
		5. Weekend Midday	-	-	-	B	B	-	-
35	H1 Dwy 1 & Kurtz St	1. Weekday AM	-	-	-	B	B	-	-
		2. Weekday Commuter PM	-	-	-	B	A	-	-
		3. Weekday Pre-Event PM (14.5k)	-	-	-	A	A	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	A	A	-	-
		5. Weekend Midday	-	-	-	B	A	-	-
36	E2 Dwy & Kurtz St	1. Weekday AM	-	-	-	-	B	-	-
		2. Weekday Commuter PM	-	-	-	-	B	-	-
		3. Weekday Pre-Event PM (14.5k)	-	-	-	-	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	-	B	-	-
		5. Weekend Midday	-	-	-	-	B	-	-
37	Sports Arena Blvd & B2 Dwy	1. Weekday AM	-	-	-	-	B	-	-
		2. Weekday Commuter PM	-	-	-	-	C	-	-
		3. Weekday Pre-Event PM (14.5k)	-	-	-	-	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	-	B	-	-
		5. Weekend Midday	-	-	-	-	C	-	-
38	Sports Arena Blvd & F/G Dwy	1. Weekday AM	-	-	-	B	B	-	-
		2. Weekday Commuter PM	-	-	-	C	C	-	-
		3. Weekday Pre-Event PM (14.5k)	-	-	-	A	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	A	B	-	-
		5. Weekend Midday	-	-	-	C	C	-	-
39	A3 Dwy & Kurtz St	1. Weekday AM	-	-	-	-	C	-	-
		2. Weekday Commuter PM	-	-	-	-	C	-	-
		3. Weekday Pre-Event PM (14.5k)	-	-	-	-	C	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	-	C	-	-
		5. Weekend Midday	-	-	-	-	C	-	-
40	X Dwy & Kurtz St	1. Weekday AM	-	-	-	B	B	-	-
		2. Weekday Commuter PM	-	-	-	B	B	-	-
		3. Weekday Pre-Event PM (14.5k)	-	-	-	A	B	-	-
		4. Weekday Pre-Event PM (20k)	-	-	-	A	B	-	-
		5. Weekend Midday	-	-	-	B	B	-	-

Notes:

(a) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition and Highway Capacity Manual 2000 Edition* and performed using Synchro 11

Table ES-5. Roadway Segment LOS Summary

ID	Roadway Segment	Extents	Existing Conditions Volumes					2030 Base					2030 (14.5k) With Project Phase 1						2030 (20k) With Project Phase 1						2035 Base					2035 (14.5k) With Project Phase 2 Buildout						2035 (20k) With Project Phase 2 Buildout				
			Weekday Event-Day					Weekday Event-Day					Weekday Event-Day						Weekday Event-Day						Weekday Event-Day					Weekday Event-Day						Weekday Event-Day				
			Functional Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	Functional Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	With Project Classification[6]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	Project Effect (Y/N?)	With Project Classification[6]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]		Functional Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]		With Project Classification[6]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	Project Effect (Y/N?)	With Project Classification[6]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp	6 Lane Prime Arterial	60,000	13,193	0.220	A	6 Lane Prime Arterial	60,000	14,045	0.234	A	6 Lane Prime Arterial	60,000	18,097	0.302	A	N	6 Lane Prime Arterial	60,000	17,842	0.297	A	6 Lane Prime Arterial	60,000	14,709	0.245	A	6 Lane Prime Arterial	60,000	22,588	0.376	A	N	6 Lane Prime Arterial	60,000	22,821	0.380	A
2		I-8 EB On Ramp to W Point Loma Boulevard	5 Lane Major Arterial	45,000	27,964	0.621	C	5 Lane Major Arterial	45,000	29,387	0.653	C	5 Lane Major Arterial	45,000	36,536	0.812	D	N	5 Lane Major Arterial	45,000	35,490	0.789	D	5 Lane Major Arterial	45,000	30,471	0.677	C	5 Lane Major Arterial	45,000	43,625	0.969	**E**	Y	5 Lane Major Arterial	45,000	43,871	0.975	**E**
3		W Point Loma Boulevard to Hancock Street	5 Lane Collector (with two-way left-turn Lane)	37,500	17,736	0.473	C	5 Lane Collector (with two-way left-turn Lane)	37,500	18,742	0.500	C	5 Lane Collector (with two-way left-turn Lane)	37,500	29,071	0.775	D	N	5 Lane Collector (with two-way left-turn Lane)	37,500	27,862	0.743	D	5 Lane Collector (with two-way left-turn Lane)	37,500	19,520	0.521	C	5 Lane Collector (with two-way left-turn Lane)	37,500	42,489	1.133	**F**	Y	5 Lane Collector (with two-way left-turn Lane)	37,500	42,749	1.140	**F**
4		Hancock Street to Kemper Street	5 Lane Collector (with two-way left-turn Lane)	37,500	17,736	0.473	C	5 Lane Collector (with two-way left-turn Lane)	37,500	18,758	0.500	C	5 Lane Collector (with two-way left-turn Lane)	37,500	22,578	0.602	C	N	5 Lane Collector (with two-way left-turn Lane)	37,500	21,981	0.586	C	5 Lane Collector (with two-way left-turn Lane)	37,500	19,547	0.521	C	5 Lane Collector (with two-way left-turn Lane)	37,500	29,012	0.774	D	N	5 Lane Collector (with two-way left-turn Lane)	37,500	29,149	0.777	D
5		Kemper Street to Frontier Drive	5 Lane Major Arterial	45,000	17,736	0.394	B	5 Lane Major Arterial	45,000	18,736	0.416	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	24,174	0.604	C	N	4 Lane Major Arterial (with 2 flexible lanes)	40,000	23,103	0.578	C	5 Lane Major Arterial	45,000	19,509	0.434	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	30,559	0.764	D	N	4 Lane Major Arterial (with 2 flexible lanes)	40,000	30,751	0.769	D
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	18,662	0.373	A	6 Lane Major Arterial	50,000	19,627	0.393	A	4 Lane Major Arterial (with 2 flexible lanes)	40,000	22,981	0.575	C	N	4 Lane Major Arterial (with 2 flexible lanes)	40,000	21,463	0.537	C	6 Lane Major Arterial	50,000	20,385	0.408	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	23,468	0.587	C	N	4 Lane Major Arterial (with 2 flexible lanes)	40,000	23,551	0.589	C
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	23,191	0.464	B	6 Lane Major Arterial	50,000	24,463	0.489	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	26,696	0.667	C	N	4 Lane Major Arterial (with 2 flexible lanes)	40,000	25,178	0.629	C	6 Lane Major Arterial	50,000	25,459	0.509	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	27,753	0.694	C	N	4 Lane Major Arterial (with 2 flexible lanes)	40,000	27,836	0.696	C
8		Rosecrans Street to Pacific Highway	2 Lane Collector (without two-way left turn lane)	8,000	1,391	0.174	A	2 Lane Collector (without two-way left turn lane)	8,000	1,745	0.218	A	2 Lane Collector (without two-way left turn lane)	8,000	5,373	0.672	D	N	2 Lane Collector (without two-way left turn lane)	8,000	5,067	0.633	D	2 Lane Collector (without two-way left turn lane)	8,000	2,101	0.263	A	2 Lane Collector (without two-way left turn lane)	8,000	6,044	0.755	D	N	2 Lane Collector (without two-way left turn lane)	8,000	6,044	0.755	D
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	60,833	1.014	**F**	6 Lane Prime Arterial	60,000	63,039	1.051	**F**	6 Lane Prime Arterial	60,000	66,546	1.109	**F**	N	6 Lane Prime Arterial	60,000	65,280	1.088	**F**	6 Lane Prime Arterial	60,000	64,667	1.078	**F**	6 Lane Prime Arterial	60,000	72,101	1.202	**F**	N	6 Lane Prime Arterial	60,000	72,248	1.204	**F**
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	60,833	1.014	**F**	6 Lane Prime Arterial	60,000	63,047	1.051	**F**	6 Lane Prime Arterial	60,000	66,659	1.111	**F**	N	6 Lane Prime Arterial	60,000	65,385	1.090	**F**	6 Lane Prime Arterial	60,000	64,681	1.078	**F**	6 Lane Prime Arterial	60,000	72,221	1.204	**F**	N	6 Lane Prime Arterial	60,000	72,362	1.206	**F**
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	50,998	0.850	D	6 Lane Prime Arterial	60,000	52,827	0.880	D	6 Lane Prime Arterial	60,000	55,015	0.917	**E**	Y	6 Lane Prime Arterial	60,000	53,666	0.894	D	6 Lane Prime Arterial	60,000	54,177	0.903	D	6 Lane Prime Arterial	60,000	58,630	0.977	**E**	Y	6 Lane Prime Arterial	60,000	58,703	0.978	**E**
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Collector (with two-way left-turn Lane)	30,000	9,822	0.327	A	4 Lane Collector (with two-way left-turn Lane)	30,000	10,427	0.348	B	2 Lane Collector (with 2 flexible lanes)	15,000	11,658	0.777	D	N	2 Lane Collector (with 2 flexible lanes)	15,000	11,494	0.766	D	4 Lane Collector (with two-way left-turn Lane)	30,000	10,647	0.355	B	2 Lane Collector (with 2 flexible lanes)	15,000	11,080	0.739	D	N	2 Lane Collector (with 2 flexible lanes)	15,000	11,093	0.740	D
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	54,078	1.082	**F**	6 Lane Major Arterial	50,000	57,706	1.154	**F**	6 Lane Major Arterial	50,000	61,743	1.235	**F**	N	6 Lane Major Arterial	50,000	61,609	1.232	**F**	6 Lane Major Arterial	50,000	60,671	1.213	**F**	6 Lane Major Arterial	50,000	65,461	1.309	**F**	N	6 Lane Major Arterial	50,000	65,502	1.310	**F**
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	24,332	0.811	D	4 Lane Collector (with two-way left-turn Lane)	30,000	25,483	0.849	**E**	4 Lane Collector (with two-way left-turn Lane)	30,000	26,032	0.868	**E**	N	4 Lane Collector (with two-way left-turn Lane)	30,000	26,047	0.868	**E**	4 Lane Collector (with two-way left-turn Lane)	30,000	26,355	0.879	**E**	4 Lane Collector (with two-way left-turn Lane)	30,000	26,567	0.886	**E**	N	4 Lane Collector (with two-way left-turn Lane)	30,000	26,581	0.886	**E**
15	Kurtz Street	Kemper Street to Frontier Drive	2 Lane Collector (one-way)	17,500	3,160	0.181	A	2 Lane Collector (one-way)	17,500	3,260	0.186	A	2 Lane Collector (without two-way left turn lane)	15,000	11,254	0.750	D	N	2 Lane Collector (without two-way left turn lane)	8,000	10,686	1.336	**F**	2 Lane Collector (one-way)	17,500	3,333	0.190	A	2 Lane Collector (without two-way left turn lane)	8,000	17,429	2.179	**F**	Y	2 Lane Collector (without two-way left turn lane)	8,000	17,670	2.209	**F**
16		Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	3,160	0.181	A	2 Lane Collector (one-way)	17,500	3,276	0.187	A	2 Lane Collector (without two-way left turn lane)	8,000	8,597	1.075	**F**	Y	2 Lane Collector (without two-way left turn lane)	8,000	8,478	1.060	**F**	2 Lane Collector (one-way)	17,500	3,361	0.192	A	2 Lane Collector (without two-way left turn lane)	8,000	12,157	1.520	**F**	Y	2 Lane Collector (without two-way left turn lane)	8,000	12,210	1.526	**F**
17		Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	5,031	0.287	A	2 Lane Collector (one-way)	17,500	5,220	0.298	A	2 Lane Collector (one-way)	17,500	8,536	0.488	B	N	2 Lane Collector (one-way)	17,500	8,507	0.486	B	2 Lane Collector (one-way)	17,500	5,359	0.306	A	2 Lane Collector (one-way)	17,500	11,278	0.644	C	N	2 Lane Collector (one-way)	17,500	11,329	0.636	C
18	Hancock Street	Sports Arena Boulevard to Channel Way	2 Lane Collector (without two-way left turn lane)	8,000	3,452	0.432	B	2 Lane Collector (without two-way left turn lane)	8,000	3,571	0.446	C	4 Lane Collector (without two-way left turn lane)	15,000	11,181	0.745	D	N	4 Lane Collector (without two-way left turn lane)	15,000	10,568	0.705	D	2 Lane Collector (without two-way left turn lane)	8,000	3,659	0.457	C	4 Lane Collector (without two-way left turn lane)	15,000	18,264	1.218	**F**	Y	4 Lane Collector (without two-way left turn lane)	15,000	18,387	1.226	**F**
19		Channel Way to Kurtz St	2 Lane Collector (with two-way left-turn Lane)	15,000	3,348	0.223	A	2 Lane Collector (with two-way left-turn Lane)	15,000	3,463	0.231	A	4 Lane Collector (without two-way left turn lane)	15,000	10,173	0.678	D	N	4 Lane Collector (without two-way left turn lane)	15,000	9,560	0.637	C	2 Lane Collector (with two-way left-turn Lane)	15,000	3,548	0.237	A	4 Lane Collector (without two-way left turn lane)	15,000	17,253	1.150	**F**	Y	4 Lane Collector (without two-way left turn lane)	15,000	17,376	1.158	**F**
20		Kurtz Street to Greenwood Street	2 Lane Collector (one-way)	17,500	4,248	0.243	A	2 Lane Collector (one-way)	17,500	4,406	0.252	A	2 Lane Collector (one-way)	17,500	7,339	0.419	A	N	2 Lane Collector (one-way)	17,500	7,337	0.419	A	2 Lane Collector (one-way)	17,500	4,523	0.258	A	2 Lane Collector (one-way)	17,500	8,592	0.491	B	N	2 Lane Collector (one-way)	17,500	8,669	0.495	B
21		Greenwood Street to Camino Del Rio West	2 Lane Collector (one-way)	17,500	4,248	0.243	A	2 Lane Collector (one-way)	17,500	4,406	0.252	A	2 Lane Collector (one-way)	17,500	7,239	0.414	A	N	2 Lane Collector (one-way)	17,500	7,230	0.413	A	2 Lane Collector (one-way)	17,500	4,523	0.258	A	2 Lane Collector (one-way)	17,500	8,495	0.485	B	N	2 Lane Collector (one-way)	17,500	8,566	0.489	B
Future Roadway Segments																																							
22	*Frontier Drive (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	10,684	0.712	D	N	2 Lane Collector (with two-way left-turn Lane)	15,000	8,893	0.593	C	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	9,050	0.603	C	N	2 Lane Collector (with two-way left-turn Lane)	15,000	9,160	0.611	C
23	*Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	4,154	0.277	A	N	2 Lane Collector (with two-way left-turn Lane)	15,000	4,367	0.291	A	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	12,563	0.838	D	N	2 Lane Collector (with two-way left-turn Lane)	15,000	12,831	0.855	D

Notes:

[1] Functional Classification based on the Midway Pacific Highway Community Plan.

[2] LOS E Capacity provided by City of San Diego staff. LOS E capacity of Segment 12 under WP Conditions is based on a 2-lane Collector with two-way left-turn lane as the project wouldn't construct the median for a Major Arterial on Rosecrans St because there is not a project effect, and instead proposes a 2-lane Collector with flex lanes.

[3] ADT - Average Daily Traffic.

[4] V/C Ratio - Volume-to-capacity ratio.

[5] LOS - Level of Service.

[6] With Project Classification based on roadway classifications proposed by the Midway Rising Project.

OPENING YEAR (2030) BASE SCENARIO

Opening Year (2030) Base traffic volumes are provided in Chapter 5 of this LMA. The Opening Year (2030) Base lane geometry is the same as shown under the Existing (2023) scenario. Under the Opening Year (2030) Base scenario, all intersections are anticipated to operate at LOS D for all peak hours in all scenarios or better except:

- Intersection #2 – Midway Drive & W Point Loma Boulevard & Sports Arena Boulevard (PM: LOS E; Pre-Event: LOS E; WKND: LOS E)
- Intersection #5 – West Drive / Frontier Drive & Sports Arena Boulevard (Pre-Event: LOS F)
- Intersection #6 – Target Boulevard & Sports Arena Boulevard (PM: LOS E; WKND: LOS F)
- Intersection #16 – Camino del Rio W & Moore Street (WKND: LOS E)
- Intersection #17 – Camino del Rio W & Hancock Street (AM: LOS F)
- Intersection #20 – Rosecrans Street & Midway Drive (AM: LOS E; PM: LOS E; Pre-Event: LOS E; WKND: LOS E)
- Intersection #22 – Rosecrans Street & Lytton Street (AM: LOS E)
- Intersection #26 – Kurtz Street & Pacific Hwy (PM: LOS F; Pre-Event: LOS F)

Under the Opening Year (2030) Base scenario, all roadway segments are expected to operate at LOS D or better on a weekday event day except the following:

- Camino del Rio West north of Greenwood Street (LOS F)
- Camino del Rio West between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Rosecrans Street (LOS E)

OPENING YEAR (2030) PLUS PROJECT PHASE 1 (14,500-SPECTATORS)

The Opening Year (2030) Plus Project Phase 1 traffic volumes will consist of the Opening Year (2030) Base scenario, and proposed project traffic for the project under Phase 1. Under Opening Year (2030) Plus Project Phase 1 scenario (14,500-spectator event), the project would be expected to cause a project effect at the following intersections:

- Intersection #2 – Midway Dr / W Point Loma Blvd & Sports Arena Blvd (PM: LOS F; Pre-Event: LOS E; WKND: LOS E)
- Intersection #5 – West Dr / Frontier Dr & Sports Arena Blvd (PM: LOS F; Pre-Event: LOS F; WKND: LOS F)
- Intersection #14 – Sherman Street & Hancock St (Pre-Event: LOS F)
- Intersection #16 – Camino del Rio W & Moore St (PM: LOS E; Pre-Event: LOS E; WKND: LOS F)
- Intersection #17 – Camino del Rio W & Hancock St (AM: LOS F)
- Intersection #20 – Rosecrans Street & Midway Dr (AM: LOS E; PM: LOS E; Pre-Event: LOS E; WKND: LOS F)
- Intersection #26 – Kurtz Street & Pacific Hwy (PM: LOS F; Pre-Event: LOS F)
- Intersection #27 – Pacific Hwy & Enterprise Street (PM: LOS E; Pre-Event: LOS E)

The following intersections operate at LOS E or F under the Opening Year (2030) Plus Project Phase 1 scenario (14,500-spectator event), but are not identified as a project effect:

- Intersection #6 – Target Driveway & Sports Arena Blvd (WKND: LOS F)

- Intersection #19 – Rosecrans Street & Sports Arena Boulevard & Camino Del Rio W (PM: LOS E; WKND: LOS E)
- Intersection #22 – Rosecrans St & Lytton St (AM: LOS E)

Under the Opening Year (2030) Plus Project Phase 1 scenario (14,500-spectator event), the project would be expected to cause a project effect at the following locations:

- Camino Del Rio W between Hancock Street and Kurtz Street (LOS E)
- Kurtz Street between Kemper Street and Frontier Drive (LOS F)
- Kurtz Street between Frontier Drive and Sherman Street (LOS F)

The following roadway segments would be expected to operate at LOS E or F under the Opening Year (2030) Plus Project Phase 1 scenario, but are not identified as a project effect per the criteria in the TSM:

- Camino Del Rio W North of Greenwood Street (LOS F)
- Camino Del Rio W between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Rosecrans Street (LOS E)

OPENING YEAR (2030) PLUS PROJECT PHASE 1 (20,000-SPECTATORS)

The Opening Year (2030) Plus Project Phase 1 traffic volumes will consist of the Opening Year (2030) Base scenario, and proposed project traffic for the project under Phase 1. Under Opening Year (2030) Plus Project Phase 1 scenario (20,000-spectator event), all intersections are expected to operate at LOS D or better except:

- Intersection #26 – Kurtz Street & Pacific Hwy (Pre-Event: LOS F)
- Intersection #27 – Pacific Hwy & Enterprise Street (Pre-Event: LOS E)

OPENING YEAR (2035) BASE SCENARIO

Opening Year (2035) Base traffic volumes are provided in Chapter 7 of this LMA. The Opening Year (2035) Base lane geometry is the same as shown under the Existing (2023) scenario. Under the Opening Year (2035) Base scenario, all intersections are expected to operate at LOS D or better except:

- Intersection #2 – Sports Arena Boulevard / Midway Dr & W Point Loma Blvd (PM: LOS E; Pre-Event: LOS E; WKND: LOS E)
- Intersection #5 – West Drive / Frontier Drive & Sports Arena Boulevard (Pre-Event: LOS F)
- Intersection #6 – Sports Arena Boulevard & Target Driveway (PM: LOS F; WKND: LOS F)
- Intersection #16 – Camino del Rio W & Moore Street (WKND: LOS F)
- Intersection #17 – Camino del Rio W & Hancock Street (AM: LOS F)
- Intersection #19 – Rosecrans Street & Sports Arena Boulevard & Camino del Rio W (WKND: LOS E)
- Intersection #20 – Rosecrans Street & Midway Drive (AM: LOS E; PM: LOS E; Pre-Event: LOS E; WKND: LOS F)
- Intersection #22 – Rosecrans Street & Lytton Street (AM: LOS F; PM: LOS E)
- Intersection #26 – Kurtz Street & Pacific Highway (PM: LOS F; Pre-Event; LOS F)
- Intersection #28 – Midway Drive & Enterprise Street (PM: LOS E)
- Intersection #29 – Barnett Avenue & Midway Drive (PM: LOS E)

Under the Opening Year (2035) Base scenario, all roadway segments would be expected to operate at LOS D or better on a weekday event day except the following:

- Camino del Rio West north of Greenwood Street (LOS F)
- Camino del Rio West between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Rosecrans Street (LOS E)

OPENING YEAR (2035) PLUS PROJECT PHASE 2 BUILDOUT (14,500-SPECTATORS)

The Opening Year (2035) Plus Project Phase 2 Buildout traffic volumes will consist of the Opening Year (2035) Base scenario, and proposed project traffic for the project under Phase 2. Under Opening Year (2035) Plus Project Phase 2 Buildout scenario (14,500-spectator event), the project would be expected to cause a project effect at the following intersections:

- Intersection #2 – Sports Arena Boulevard / Midway Dr & W Point Loma Blvd (PM: LOS F; Pre-Event: LOS F; WKND: LOS F)
- Intersection #5 – West Drive / Frontier Drive & Sports Arena Blvd (PM: LOS F; Pre-Event: LOS F; WKND: LOS F)
- Intersection #14 – Sherman Street & Hancock Street (Pre-Event: LOS E)
- Intersection #16 – Camino del Rio W & Moore Street (PM: LOS E; Pre-Event: LOS E; WKND: LOS F)
- Intersection #17 – Camino del Rio W & Hancock Street (AM: LOS F)
- Intersection #19 – Rosecrans Street & Sports Arena Boulevard & Camino del Rio W (WKND: LOS F)
- Intersection #20 – Rosecrans Street & Midway Drive (AM: LOS E; PM: LOS E; Pre-Event: LOS E; WKND: LOS F)
- Intersection #22 – Rosecrans Street & Lytton Street (AM: LOS E; PM: LOS E)
- Intersection #27 – Pacific Highway & Enterprise Street (PM: LOS E; Pre-Event: LOS E)
- Intersection #28 – Midway Drive & Enterprise Street (PM: LOS E; Pre-Event: LOS E)
- Intersection #29 – Barnett Avenue & Midway Drive (PM: LOS E)

The following intersections operate at LOS E or F but are not identified as a project effect:

- Intersection #6 – Target Driveway and Sports Arena Boulevard (WKND: LOS E)
- Intersection #26 – Kurtz Street & Pacific Highway (PM: LOS F; Pre-Event: LOS F)

Under Opening Year (2035) Plus Project Phase 2 scenario (14,500-spectator event), the project would be expected to cause a project effect at the following locations:

- Sports Arena Boulevard between I-8 EB On Ramp and W Point Loma Boulevard (LOS E)
- Sports Arena Boulevard between W Point Loma Boulevard and Hancock St (LOS F)
- Camino Del Rio W between Hancock Street and Kurtz Street (LOS E)
- Kurtz Street between Kemper Street and Frontier Drive (LOS F)
- Kurtz Street between Frontier Drive and Sherman Street (LOS F)
- Hancock Street between Sports Arena Boulevard and Channel Way (LOS F)
- Hancock Street between Channel Way and Kurtz Street (LOS F)

The following roadway segments would be expected to operate at LOS E or F under the Opening Year (2035) Plus Project Phase 2 Buildout scenario (14,500-spectator event), but are not identified as a project effect:

- Camino del Rio W North of Greenwood Street (LOS F)
- Camino Del Rio W between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Rosecrans Street (LOS E)

OPENING YEAR (2035) PLUS PROJECT PHASE 2 BUILDOUT (20,000-SPECTATORS)

The Opening Year (2035) Plus Project Phase 2 Buildout traffic volumes will consist of the Opening Year (2035) Base scenario, and proposed project traffic for the project under Phase 2. Under Opening Year (2035) Plus Project Phase 2 Buildout scenario (20,000-spectator event), all intersections are expected to operate at LOS D or better except:

- Intersection #2 – Sports Arena Boulevard / Midway Dr & W Point Loma Blvd (Pre-Event: LOS F)
- Intersection #5 – West Drive / Frontier Drive & Sports Arena Blvd (Pre-Event: LOS F)
- Intersection #14 – Sherman Street & Hancock Street (Pre-Event: LOS E)
- Intersection #16 – Camino del Rio W & Moore Street (Pre-Event: LOS E)
- Intersection #20 – Rosecrans Street & Midway Drive (Pre-Event: LOS E)
- Intersection #26 – Kurtz Street & Pacific Highway (Pre-Event: LOS F)
- Intersection #27 – Pacific Highway & Enterprise Street (Pre-Event: LOS E)
- Intersection #28 – Midway Drive & Enterprise Street (Pre-Event: LOS E)

The following roadway segments would be expected to operate at LOS E or F under the Opening Year (2035) Plus Project Phase 2 Buildout scenario (20,000-spectator event), but are not identified as a project effect:

- Camino del Rio W North of Greenwood Street (LOS F)
- Camino Del Rio W between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Rosecrans Street (LOS E)

PARKING & LOADING AREAS

The proposed project is located within the CC-3-6 zone and Parking Standards Transit Priority Area (PSTPA). The following sections of the Municipal Code were consulted for parking required for each land use:

- Residential: Market Rate Dwelling Units: §142.0528; Affordable Dwelling Units: §142.0528
- Commercial (Retail and Restaurant): §142.0528
- Entertainment Center: §141.0622

Parking requirements influence Mobility Choices Regulations outlined in Chapter 14, Article 3, Division 11 of the San Diego Municipal Code. Mobility Choices Regulations apply to the Commercial and Entertainment land uses, as discussed below. Additionally, San Diego Municipal Code Section 142.0528(c) requires a

multiple dwelling residential development within a PSTPA to provide transportation amenities per *Appendix Q* of the Land Development Manual. Thus, transportation amenities are required for the residential portion of the project.

Per the City of San Diego Municipal Code (§142.0528), the project site is located within a PSTPA, and thus off-street vehicular parking spaces are not required for residential or commercial uses.

RESIDENTIAL LAND USE

Residential Parking Requirements

Per Section 142.0528 of the SDMC (PSTPA Regulations), the minimum residential off-street vehicle parking space requirement is 0. Motorcycle parking and bicycle storage spaces are required per Section 142.0525(a) and Table 142-05C, regardless of whether vehicle parking is required. These parking spaces will be provided throughout the project site at the time when the residential units are constructed.

Transportation Amenities

Midway Rising is located within a Parking Standards Transit Priority Area (PSTPA) as defined in the California Public Resources Code Section 21099. San Diego Municipal Code (SDMC) section 142.0528(c) requires a multiple dwelling residential development within a PSTPA to provide transportation amenities per *Appendix Q* of the Land Development Manual, and thus, transportation amenities are required for the residential portion of the Midway Rising project. Transportation amenities are intended to encourage alternative modes of transportation and facilitate non-vehicular access to everyday activities.

The project's Transportation Amenity requirements are determined by SDMC section 142.0528(c). The following variables were applied to calculate a "score" for the amenity requirements:

- APN: 7602450900
- Total number of apartment units: 4,627
- Total number of bedrooms: 7,170

The Midway Rising project is required to provide at least 2 points of transportation amenities.

The project plans to provide 17 points of transportation amenities, which exceeds the required points as described in **Table ES-6**.

Table ES-6. Proposed Transportation Amenities

#	Amenity	Amenity Description	Project-Specific Notes	Transportation Amenities Points
1	**Transit and Active Transportation Infrastructure as outlined in Community Plan Mobility Elements**	Design and construct one or more of the following transit improvements on a street adjacent to the development: (a) the addition of pedestrian scale lighting (Section 142.0740), (b) sidewalk widening to 6 feet along property frontage and sidewalk widening to 10 feet near corners of intersection to allow for ADA required widths (this improvement shall be in addition to any improvements or measures otherwise required under other regulations or standards), (c) installation of transit shelters and/or benches. Transit shelters and benches shall be designed to MTS and ADA standards and require an approved agreement with MTS	The project proposes: a. Install a minimum of 6 ft wide sidewalks along the project frontage of Sports Arena Boulevard and Kurtz Street with at least 10 feet of space at the corners of intersections. b. Install transit shelters and benches for the three bus stops along Sports Arena Drive per MTS Design Guide. Transit shelters will be designed to MTS and ADA standards. An approved agreement with MTS will be recorded.	**5**
2	**Transit and Rideshare Information**	Install and maintain an on-site kiosk or information center with multi-modal wayfinding information and transit information. The kiosk information center shall be located in a prominent location that can easily be seen by residents entering and exiting the development. The kiosk or information center shall be shown on the project plans.	The project proposes an on-site multi-modal wayfinding kiosk in a location that meets the requirements of this amenity.	**1**
3	**On-Site Bicycle Repair Station**	Install and properly maintain an on-site public bicycle repair station. The bicycle repair station must be located in a well-lit area, near the street frontage and must include, at a minimum, a bike pump, English and metric Allen wrenches, pedal wrench, headset wrench, tire levers, and screwdrivers. The bicycle repair station shall be shown on the project plans.	The project proposes two on-site public bicycle repair stations which will meet the requirements of this amenity.	**4**
4	**Delivery Support**	Provide a secure area for receipt of deliveries that offers at least one of the following: (1) closed lockers, (2) temporary storage for packages, laundry, and other deliveries, or (3) temporary	The project proposes a secure area for receipt of deliveries which will meet the requirements of this amenity.	**1**

#	Amenity	Amenity Description	Project-Specific Notes	Transportation Amenities Points
		refrigeration for groceries. The secure area shall be shown on the project plans.		
5	**Outdoor Fitness Circuit**	Construct and maintain an outdoor fitness circuit within the development premises. The outdoor fitness circuit shall be available to the public at least 12 hours a day, 7 days a week and shall provide a minimum of 4 workout stations. The outdoor fitness circuit shall be shown on the project plans.	The project proposes an on-site outdoor fitness circuit which will meet the requirements of this amenity.	**2**
6	**Co-Working Space**	Provide and maintain a co-working space within the project premises available for resident use. The co-working space shall be at least 500 square feet and shall provide private or semiprivate office work spaces. The co-working space shall be shown on the project plans.	The project proposes two co-working spaces which will meet the requirements of this amenity.	**4**
Total Transportation Amenities Points				**17**

COMMERCIAL LAND USE

Commercial Parking Requirements

The project is located in a PSTPA and there is no minimum vehicular parking requirement for the commercial component of this development provided the VMT Reduction Measure requirements of Section 142.0530 are met.

Short-term and long-term bicycle parking spaces are required for non-residential land use per Section 142.0530(e)(1) and (2) and motorcycle parking is required per Section 142.0530(g) of the SDMC. These parking spaces will be provided throughout the project site at the time when the retail, restaurants, and Entertainment Center & Theater are constructed.

Complete Communities: Mobility Choices

The purpose of the Complete Communities: Mobility Choices Regulations is to assist in determining the greatest VMT reductions that developments can implement to address a development's VMT impacts. The Mobility Choices Regulations apply to all development projects as described in Municipal Code Section 143.1102. The project is required to provide a minimum of 16 points of VMT Reduction Measures for the commercial land uses to meet the Complete Communities: Mobility Choices requirement from Appendix T of the TSM:

- Commercial land use:
  - Retail – 8 points
  - Restaurant – 8 points

The project plans to provide more than the required points for a total of 16.5 points as shown in **Table ES-7**.

ENTERTAINMENT LAND USE

Entertainment Parking Requirements

Per Section 141.0622 (d) of the SDMC (Sports Arenas and Stadiums), off-street parking shall be provided at a level sufficient to serve the facility without impacting adjacent or nearby property.

Complete Communities: Mobility Choices (VMT Reduction Measures)

The project is required to provide a minimum of 5 points of VMT Reduction Measures for the entertainment land uses to meet the Complete Communities: Mobility Choices requirement from Appendix T of the TSM.

The project plans to provide more than the required points for a total of 7.5 points as shown in **Table ES-8**.

Table ES-7. Commercial Land Use – VMT Reduction Measures

Measure	Project-Specific Notes	Points
Pedestrian 1. Pedestrian scale lighting adjacent to public pedestrian walkways along the entire development frontage.	Pedestrian scale lighting will be provided along the project frontage roadways of Sports Arena Boulevard and Kurtz Street	0.5
Pedestrian 2. Installing pop-outs at adjacent intersections or curb extensions at adjacent mid-block crosswalks. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or San Diego Metropolitan Transit System/North County Transit District may be required.	3 locations: • Sports Arena Boulevard & Frontier Drive (half intersection) • Sports Arena Boulevard & Kemper Street (half intersection) • Frontier Drive mid-block crossing (South) (full intersection)	5
Pedestrian 9. Widening sidewalk within the existing public right-of-way to Street Design Manual standards. The reduction of parkway/landscape buffer to less than the width required by the Street Design Manual standards to widen sidewalk width is not permitted. Requires replacement of existing sidewalk.	Multi-use path along Kurtz Street and Rosecrans Street (approximately 2,200 feet)	1.25
Bicycle 12. Providing on-site bicycle repair station.	Located near Class I path along Sherman Street alignment through site.	1.5
Bicycle 13. Installing new bicycle infrastructure (Class I, II, IV) that is part of the City's planned bikeway network that closes or incrementally closes an existing gap between two existing bikeways.	Class I multi-use path proposed for the north side of Sports Arena Boulevard, east side of Frontier Drive, south side of Kurtz Street, and east side of Rosecrans Street that would connect to Class II bike lanes on Pacific Highway and Sports Arena Boulevard (approximately 3,960 feet).	2.25
Transit 19. Providing high cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of shelter, real time bus information monitors.	Provide enhancements to an existing local bus stop (ID 13344) along the project frontage on Sports Arena Boulevard: • Relocate an existing local bus stop approximately 145 feet east of near Hancock Street to just west of the Kemper Street extension. • Provide enhancements to this bus stop. Upgrade and relocate existing bus stop (ID 13345) to a new RAPID bus stop per the MTS Designing for Transit Manual (February 2018) including the following upgrades: • Provide real-time digital display for rapid bus stop (ID 13345) on Sports Arena Boulevard.	2.5

Measure	Project-Specific Notes	Points
Transit 20. Providing low cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of bench, public art, static schedule and route display, trash receptacle.	Provide system map for local bus stop (ID 13344) on Sports Arena Boulevard.	1
Other 25. Installing a traffic calming measure, such as speed feedback signs, median slow points (chokers), and speed table/raised crosswalk. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or MTS/NCTD may be required.	Raised crossing / intersection on Frontier Drive.	2.5
Total VMT Reduction Measure Points (Commercial)		**16.5**

Table ES-8. Entertainment Land Use – VMT Reduction Measures

Measure	Project-Specific Notes	Points
Pedestrian 2. Installing pop-outs at adjacent intersections or curb extensions at adjacent mid-block crosswalks. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or San Diego Metropolitan Transit System/North County Transit District may be required.	2 locations: • Kemper Street mid-block crossing (North) (full intersection) • Kemper Street mid-block crossing (South) (full intersection)	5
Bicycle 12. Providing on-site bicycle repair station.	Located near Blocks D1 and D2.	1.5
Transit 20. Providing low cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of bench, public art, static schedule and route display, trash receptacle.	Provide system map for local bus stop (new stop) on Sports Arena Boulevard on the west side of Kemper Street.	1
Total VMT Reduction Measure Points (Entertainment)		**7.5**

Parking Summary

Table ES-9 summarizes the required and provided vehicle parking for each proposed land use.

Table ES-9. Parking Summary Table

Land Use	Required Vehicle Parking Spaces	Proposed Vehicle Parking Spaces	Required/ Provided Short-Term Bike Parking Spaces	Required/ Provided Long-Term Bike Parking Spaces	Required/ Provided Motorcycle Parking Spaces	Required/ Provided Zero Emissions Vehicle Parking Spaces
Commercial	0	431	22	22	9	204
Entertainment Center	*	2,100	105	105	42	1,050
Residential	0	5,216	0	2,104	464	2,088
Total	*	**7,747**	**127**	**2,231**	**515**	**3,343**

*City of San Diego Municipal Code Section 141.0622 (d) indicates that off-street parking for sports arenas and stadiums shall be provided at a level sufficient to serve the facility without impacting adjacent or nearby property.

Loading Zones

The project proposed to provide off-street loading spaces for each land use as required by Section 142.1010 and Table 142.10B of the SDMC. Per the SDMC, the Midway Rising project requires a minimum of 17 residential loading zones, 5 commercial loading zones, and 2 entertainment center loading zones. The Midway Rising project proposes to provide 19 residential loading zones, five commercial loading zones, and two entertainment center loading zones for a total of 26 loading zones, which complies with this requirement.

PROJECT IMPROVEMENTS

The project site plan and mobility improvements were guided by multi-modal recommendations in the Midway-Pacific Highway Community Plan (CP) (September 2018) and operational improvement needs that would be triggered by the project. As the project proposed improvements to the transportation network that differed from those planned in the CP, a Community Plan Amendment (CPA) and associated transportation analysis were required.

This analysis was developed as a separate document and identifies the following transportation and mobility modifications to the CP:

- **Kurtz Street** (between Hancock Street and Sherman Street): Convert from a 2-lane one-way (southeast-bound) collector to a 2-lane (two-way) collector with one lane in each direction.
- **Rosecrans Street** (between Midway Drive and Pacific Highway): Dedicate one lane in each direction for Business Access and Transit ("BAT") lane. Proposed BAT lane will be accessible for passenger vehicles making a right turn at an intersection or driveway.
- **Sports Arena Boulevard** (between Midway Drive / W Point Loma Boulevard and Rosecrans St): Dedicate one lane in each direction for BAT lane. Proposed BAT lane will be accessible for passenger vehicles making a right turn at an intersection or driveway.

- **Greenwood Street** (between Kurtz Street and Sports Arena Boulevard): The project does not propose to construct this segment as planned in the Community Plan. Note that bicycles and pedestrians will still be able to connect between Kurtz Street and Sports Arena Boulevard as an "extension" of Sherman Street.
- Intersection modifications at:
  - Intersection #2 – Midway Drive and Sports Arena Boulevard / West Point Loma Boulevard
  - Intersection #4 – Kemper Street and Sports Arena Boulevard
  - Intersection #11 – Hancock Street and Kurtz Street
  - Intersection #18 – Kurtz Street and Camino del Rio West
  - Intersection #19 – Camino del Rio West / Rosecrans Street and Sports Arena Boulevard

The project will construct two new roadways running north-south through the site, as planned in the CP:

- Kemper Street (between Sports Arena Boulevard and Kurtz Street)
- Frontier Drive (between Sports Arena Boulevard and Kurtz Street)

The project will also provide the following pedestrian and bicycle facilities that implement the CP recommendations:

Road Name	Midway-Pacific Highway CP Recommendation	Midway Rising Project Recommendation
Sports Arena Boulevard	Class I Path (Bay-to-Bay Urban Path) Class II Bike Lanes	Class I Path (Bay-to-Bay Urban Path) Class IV One-Way (WB) Cycle track; Class II Bike Lane EB
Rosecrans Street	Class I Path (La Playa Urban Path) Class II Bike Lanes	Class I Path (La Playa Urban Path)*
Midway Drive	Class I Path (Midway Urban Path)	No improvement as part of this project
Hancock Street	Class III Route	No improvement as part of this project
Kurtz Street	Class III Route	Class I Path
Greenwood Street	Class II Bike Lanes	Class I Path**
Kemper Street	Class I Path (Bay-to-Bay Urban Path) Class II Bike Lanes	Class IV One-Way Cycle tracks
Frontier Drive	Class II Bike Lanes	Class I Path (Bay-to-Bay Urban Path)

* The proposed facility on Rosecrans Street provides a raised Class IV two-way cycle track with an adjacent sidewalk which meets the intention of the Class I path but provides separation between pedestrians and bicyclists.

** In lieu of a vehicular roadway, the intention of the north-south connection for pedestrians and bicyclists will be provided as a Class I path aligned with Sherman Street rather than Greenwood Street

INTERSECTION IMPROVEMENTS TRIGGERED BY THE PROJECT

The project causes operational effects in Opening Year (2030) Plus Project Phase 1 at 8 intersections, shown in **Table ES-10**. Operations will be improved to an acceptable level of service at 5 of these intersections. Improvements made at 2 more intersections would improve operations but the intersection would still operate at LOS E for the reasons listed. Lastly, at one intersection (#16 Camino del Rio and Moore Street), there are no reasonable improvements that can be made to enhance operations, as described further in **Table ES-10**.

The project causes operational effects in Opening Year (2035) Plus Project Phase 2 Buildout at 11 intersections. Operations could be improved to an acceptable level of service at 9 of these intersections by implementing the improvements described in **Table ES-10** plus the ones in **Table ES-11**. Similar to the (2030) Plus Project Phase 1 Plus Improvements scenario, improvements made at 2 more of the intersections listed below would improve operations but the intersection would still operate at LOS E for the reasons listed below.

ROADWAY IMPROVEMENTS TRIGGERED BY THE PROJECT

The project causes operational effects in Opening Year (2030) Plus Project Phase 1 at three roadway segments. The project does not propose to provide improvements to roadway segments with project effects because there are no reasonable improvements that can be made to enhance operations, as described in **Table ES-12**.

The project causes operational effects in Opening Year (2035) Plus Project Phase 2 Buildout at seven roadway segments. The project proposes improvements to two segments in 2035, but not at the remaining five segments, as described further in **Table ES-13**.

Table ES-10. Opening Year (2030) Plus Project Phase 1 Intersection Improvements Summary

<table>
<tr><th>#</th><th>Location</th><th>2030 Considered Improvement</th><th>2030 Improvement Decision</th></tr>
<tr><td>2</td><td>Midway Dr / W Point Loma Blvd & Sports Arena Blvd</td><td>Improvements (See Appendix U for a high-level feasibility concept of the physical improvements described below):
- Signal timing optimization
- Reduce roadway width in northeast corner to convert westbound channelized right turn lane to an exclusive right turn lane per CP.
- Provide overlap phase for westbound right turn movement. Requires signal modification.
- Remove small, channelized portions of northbound and southbound right turn movements. Right-most lanes will be shared through-right instead.
- Separate southbound shared through/left turn lane into exclusive left turn and exclusive through lane. Southbound approach to include 2 left turn lanes, 1 through lane, and 1 shared through/right turn lane. Requires signal modification.
- Separate northbound shared through/left turn lane into exclusive left turn and exclusive through lane. Northbound approach to include 2 left turn lanes, 1 through lanes, and 1 shared through/right turn lane.
- Widen by 6 feet to construct additional eastbound through lane. Eastbound approach to include 1 left turn lane, 1 shared left/through lane, 1 through lane, and 1 right turn lane.
- Modify northbound and southbound signal timing to protected left turn phasing instead of split phasing.
Results: Maintain LOS E or better for all peaks.</td><td>Midway Rising will improve this intersection to the extent feasible by incorporating the improvements described. The intersection cannot be improved to LOS D or better without diminishing pedestrian and bicycle safety or conflicting with the CP’s visions for multimodal improvements. Removal of the westbound channelized free right turn lane as proposed in the CP prevents this intersection from being able to improve to LOS D or better. Removal of the free right turn would also decrease pedestrian safety. There is not enough right-of-way to further widen the intersection due to the adjacent residential and commercial land uses, the skew of the intersection, and the proposed multimodal improvements on all approaches to the intersection (including bus only lanes).</td></tr>
<tr><td>5</td><td>West Dr / Frontier Dr & Sports Arena Blvd</td><td>Improvement: Signal timing optimization. Increase in the overall signal cycle length to 100 seconds during the AM peak and 150 seconds during the PM and Pre-Event PM peaks. Increase in cycle length and optimized splits helps accommodate the increase in volumes for the eastbound left turn movement, westbound through movement, and southbound movements from the project.
Results: Improved to LOS D or better for all peaks.</td><td>Midway Rising will improve this intersection to an acceptable LOS by optimizing signal timing.</td></tr>
<tr><td>14</td><td>Sherman Street & Hancock St</td><td>Improvements (See Figure 7-1 for an illustration of temporary improvements described below): Implement temporary traffic control during the PM Pre-Event peak period to modify intersection geometry during the PM Pre-Event peak. Implement traffic control flagger (or appropriate traffic control setup) to allow two westbound lanes to turn left from Hancock Street onto southbound Sherman Street, and convert Sherman Street (temporarily) to a one-way two-lane southbound street. Vehicles wishing to travel northbound on Sherman Street from Kurtz Street will be redirected to Greenwood Street. At Sherman Street & Kurtz Street, two southbound lanes would be directed to turn right or go straight into the H1 driveway for Entertainment Center parking.
A separate analysis was performed at this intersection for the Opening Year (2030) Pre-event PM peak accounting for the traffic pattern modifications from temporary traffic control. The results are summarized in the table below:
<table>
<tr><th>Scenario</th><th></th><th>Delay (sec)</th><th>LOS</th></tr>
<tr><td rowspan="2">Opening Year (2030) Plus Project Phase 1 Plus Improvements – Pre-Event PM Peak</td><td>Normal Operations</td><td>50.1</td><td>F</td></tr>
<tr><td>Temporary Event Operations</td><td>23.5</td><td>C</td></tr>
</table>
Results: Improved to LOS C or better for pre-event peak period.</td><td>Midway Rising will improve this intersection to an acceptable LOS by incorporating temporary traffic control (including a traffic control flagger) during the pre-event peak period.</td></tr>
<tr><td>16</td><td>Camino del Rio W & Moore St</td><td>No reasonable improvement found: No reasonable improvements can be made to increase operations.</td><td>Midway Rising will <u>not</u> make improvements to this intersection. The deficient LOS at this intersection is dictated by the eastbound right turn movement from Moore Street, where 10 or fewer vehicles turn right per hour. The project does not add vehicular traffic to this approach. Synchro assumes these vehicles are unable to find a gap in traffic on southbound Camino del Rio W to make a right turn. In reality, these vehicles will likely find a gap from the queue when vehicles keep the intersection clear, or they can use Hancock Street instead at the signalized intersection. Due to low volumes on the side street, and the close proximity to the nearest signalized intersection, it is not recommended to consider signalizing the intersection to improve side street operations.</td></tr>
</table>

#	Location	2030 Considered Improvement	2030 Improvement Decision
17	Camino del Rio W & Hancock St	**Improvement:** Signal timing optimization. Increase in the overall cycle length to 120 seconds during the AM peak, 145 seconds during the PM peak, and 100 seconds during the Pre-Event PM peak. Increase in cycle length and optimized splits helps accommodate the increase in volumes for the northbound and southbound through movements resulting from the project. **Results:** Improved to LOS D or better for all peaks.	**Midway Rising will improve this intersection to an acceptable LOS by optimizing signal timing.**
19	Rosecrans St/Sports Arena Blvd & Camino Del Rio W	**Improvements:** - Convert channelized right turn lane to exclusive right turn lane per CP. - Remove northbound "channelized" right turn and ancillary intersection per CP. - Allow through movement from eastbound Sports Arena Boulevard to Sports Arena Boulevard per CP. - Modify eastbound approach to include 1 left turn lane, 1 shared left/through lane, 1 right turn lane to Sports Arena Boulevard, and 1 right turn lane to Camino del Rio W. Requires traffic signal modification. **Results**: Project effect at this intersection is not realized until 2035, however, implementation of these improvements would improve **Intersection #26 to LOS C or better for all peaks** by allowing vehicles travelling southeast-bound on Sports Arena Boulevard to continue through the intersection towards Pacific Highway. The improvements reduce the number of vehicles with the following travel pattern: left from Sports Arena Boulevard onto Rosecrans Street, right turn onto Kurtz Street (Intersection #26), and another right turn onto Pacific Highway.	**Midway Rising will improve this intersection to an acceptable LOS in Opening Year (2030) Plus Project to address the project effect the project would cause at Intersection #26.**
20	Rosecrans St & Midway Dr	**Improvement:** Signal timing optimization. Increase the overall signal cycle length to 135 seconds during the AM peak, 150 seconds during the PM peak, and 100 seconds during the Pre-Event PM peak. For the AM peak, increase in cycle length, optimized splits, and lagging left turn phases helps accommodate the increase in volumes for the northbound and southbound through movements. For the commuter PM and pre-event PM peak, the decrease in cycle length decreases unnecessary time for the left turn movements and increases overall operations. For the weekend peak, the increase in overall cycle length decreases unnecessary time for the left turn movements and increases time for through movements. **Results:** Improved to LOS D or better for all peaks.	**Midway Rising will improve this intersection to an acceptable LOS by optimizing signal timing.**
26	Kurtz St & Pacific Hwy	**Improvements: I**mprovements at intersection 19 will reduce the number of vehicles turning right from Pacific Highway onto southbound Kurtz Street. No improvements needed at this intersection after implementation of improvements at Intersection #19. **Results:** Improved to LOS C or better for all peaks by improving intersection #19.	**Midway Rising will improve this intersection to an acceptable LOS by implementing improvements at Intersection #19.**
27	Pacific Hwy & Enterprise St	**Improvements:** Modify southbound approach to add 2nd left turn lane. Requires median modification. Modify northbound approach to add 2nd left turn lane. Requires median modification. **Results:** Improved to LOS D or better for all peaks	**Midway Rising will not make improvements to this intersection.** *A majority of the trips assigned to this intersection are from the redevelopment of the NAVWAR facility and are unrelated to the Midway Rising project. Across all 2030 scenarios, Midway Rising assigns a maximum of 56 trips to this intersection during the weekend peak. NAVWAR assigns 493 trips during the weekday PM peak, and during this same weekday PM peak Midway Rising assigns 29 trips. Additionally, across all 2035 scenarios, Midway Rising assigns a negative number of trips to this intersection meaning the project effect at full project buildout is entirely attributed to the NAVWAR facility.*

Table ES-11. Opening Year (2035) Plus Project Phase 2 Buildout Intersection Improvements Summary

Includes improvements from Opening Year (2030) Plus Project Phase 1 with the consideration of the following:

ID	Location	2035 Considered Improvement	2035 Improvement Decision
5	West Dr / Frontier Dr & Sports Arena Blvd	**Improvements:** Signal timing optimization. Increase in the overall signal cycle length to 105 seconds during the AM peak and 150 seconds during the PM and Pre-Event PM peaks. The increase in overall signal cycle length and optimized splits helps accommodate the increase in volumes for the eastbound left turn movement, westbound through movement, and southbound movements. **Results:** Improved to LOS E or better for all peaks. On event days, traffic control personnel would manage signal timing operations at this intersection during the PM peak, and would be able to manually provide green time to the heaviest movements.	**Midway Rising will improve this intersection to the extent feasible by optimizing signal timing and providing traffic control operators beginning at the start of the PM peak on event days.** *Improvements made in light of the CP where the number of eastbound left turn lanes is reduced from 2 to 1 to maintain three through lanes.*
22	Rosecrans Street & Lytton Street	**Improvements:** Restripe eastbound approach of Lytton Street to include 2nd eastbound left turn lane. No curb modifications would be required. **Results:** Improved to LOS D or better for all peaks	**Midway Rising will improve this intersection to an acceptable LOS by incorporating the improvements described.**
28	Midway Dr & Enterprise St	**Improvements:** No reasonable improvements can be made to increase operations. **Results**: Improved to LOS D or better for all peaks	**Midway Rising will <u>not</u> make improvements to this intersection.** *A majority of the trips assigned to this intersection are from the redevelopment of the NAVWAR facility, and are unrelated to the Midway Rising project. Additionally, this improvement does not make sense from a multimodal perspective, which is prioritized in the Midway-Pacific Highway Community Plan. The CP lists pedestrian-related improvements at this intersection, which include bulb-outs and a pedestrian refuge island. Adding any vehicle lanes to this intersection may preclude the addition of the improvements listed in the CP.*
29	Barnett Ave & Midway Dr	**Improvement:** Signal timing optimization. Decrease in overall cycle length to 110 seconds during the AM peak, 150 seconds during the PM peak, 100 seconds during the Pre-Event PM peak, and 90 seconds during the weekend peak helps decrease the amount of time unnecessarily dedicated to the southbound right turn movement, which helps serve all other movements more frequently. **Results:** Improved to LOS D or better for all peaks.	**Midway Rising will improve this intersection to an acceptable LOS by optimizing signal timing.**

Table ES-12. Opening Year (2030) Plus Project Phase 1 Roadway Segment Improvements Summary

ID	Location	2030 Considered Improvement	2030 Improvement Decision
11	Camino Del Rio between West Hancock Street and Kurtz Street	Widening the roadway to an 8-Lane Prime Arterial would improve roadway segment operations	**Midway Rising will <u>not</u> improve this roadway segment.** Widening the roadway is infeasible due to limited right-of-way caused by surrounding land uses. This segment of roadway is built out to its ultimate classification per the Community Plan, and any increase in vehicular capacity above the ultimate classification does not align with City or state climate action goals. *Midway Rising does not recommend vehicle capacity improvements on this segment.*
15	Kurtz Street between Kemper Street and Frontier Drive	Widening the roadway to a 4-Lane Collector with two-way left-turn lane would improve roadway segment operations, but is infeasible due to fronting land uses on both sides of Kurtz Street.	**Midway Rising will <u>not</u> improve this roadway segment.** Midway Rising proposes multimodal improvements along Kurtz Street, including a Class I multi-use path and improved pedestrian facilities, intended to increase pedestrian and bicycle activity along Kurtz Street by providing safe access between the site and high-frequency transit services at Old Town Transit Center, Rosecrans Street, and Sports Arena Boulevard. Although widening the roadway would improve vehicular LOS, this would reduce the multimodal improvements along this segment that connect to high-frequency transit services. Additionally, the project proposes to move the curbline into the street by 5 feet and remove approximately 36 on-street parking spaces to increase the space dedicated to multimodal users along the project frontage. *Thus, the Midway Rising does not recommend vehicle capacity improvements on this segment.*
16	Kurtz Street between Frontier Drive and Sherman Street	Widening the roadway to a 2-Lane Collector with two-way left-turn lane improves roadway segment operations, but is infeasible due to fronting land uses on both sides of Kurtz Street.	**Midway Rising will <u>not</u> improve this roadway segment.** Midway Rising proposes multimodal improvements along Kurtz Street, including a Class I multi-use path and improved pedestrian facilities, intended to increase pedestrian and bicycle activity along Kurtz Street by providing safe access between the site and high-frequency transit services at Old Town Transit Center, Rosecrans Street, and Sports Arena Boulevard. Although widening the roadway would improve vehicular LOS, this would reduce the multimodal improvements along this segment that connect to high-frequency transit services. Additionally, the project proposes to move the curbline into the street by 5 feet and remove approximately 30 on-street parking spaces to increase the amount of space dedicated to multimodal users along the project frontage. *Thus, the Midway Rising does not recommend vehicle capacity improvements on this segment.*

Table ES-13. Opening Year (2035) Plus Project Phase 2 Buildout Roadway Segment Improvements Summary

Includes improvements from Opening Year (2030) Plus Project Phase 1 with the consideration of the following:

ID	Location	2035 Considered Improvement	2035 Improvement Decision
2	Sports Arena Boulevard between I-8 EB On Ramp and W Point Loma Boulevard	Widening the roadway to a 6-Lane Major Arterial would improve roadway segment operations.	**Midway Rising will <u>not</u> improve this roadway segment.** Widening the roadway is infeasible due to limited right-of-way caused by surrounding land uses. Additionally, class II bike lanes were recently added to this segment which involved a reduction in the number of vehicle lanes. Addition of vehicle lanes to this segment would require removal of these recent multimodal improvements. *Thus, the Midway Rising does not recommend vehicle capacity improvements on this segment.*
3	Sports Arena Boulevard between W Point Loma Boulevard and Hancock Street	Widening the roadway to a 6-Lane Major Arterial would improve roadway segment operations.	**Midway Rising will <u>not</u> improve this roadway segment.** Widening the roadway is infeasible due to limited right-of-way caused by surrounding land uses. Midway Rising proposes bus only lanes in both directions of Sports Arena Boulevard to improve transit connectivity to the Pacific Beach and Ocean Beach communities and increase transit ridership for access to and from the site, supporting City and State VMT reduction goals. Increasing the number of general-purpose travel lanes would negate the ability to implement bus only lanes. *Thus, the Midway Rising does not recommend vehicle capacity improvements on this segment.*
18	Hancock Street between Sports Arena Boulevard and Channel Way	Widening the roadway beyond its ultimate classification of a 4-lane collector per the MPH Community Plan to a 4-lane with a two-way left-turn lane would improve roadway segment operations.	**Midway Rising will <u>not</u> improve this roadway segment <u>beyond</u> the ultimate classification planned for in the Community Plan.** The Midway Rising project will increase the capacity of this segment from a 2-lane collector to a 4-lane collector through restriping and converting angle parking to parallel parking (loss of approximately 20 parking spaces), consistent with the ultimate classification of the Community Plan. Widening the roadway beyond this is infeasible due to limited right-of-way due to surrounding existing land uses. Further increase in vehicular capacity beyond the ultimate roadway classification per the CP would not align with City or State climate action goals. *Thus, Midway Rising does not recommend vehicle capacity improvements on this segment beyond the ultimate classification from the Community Plan.*
19	Hancock Street between Channel Way and Kurtz Street	Widening the roadway beyond its ultimate classification of a 4-lane collector per the MPH Community Plan to a 4-lane with a two-way left-turn lane would improve roadway segment operations.	**Midway Rising will <u>not</u> improve this roadway segment <u>beyond</u> the ultimate classification planned for in the Community Plan.** The Midway Rising project will increase the capacity of this segment from a 2-lane collector to a 4-lane collector through restriping and converting angle parking to parallel parking (loss of approximately 16 parking spaces), consistent with the ultimate classification of the Community Plan. Widening the roadway beyond this is infeasible due to limited right-of-way due to surrounding existing land uses. Further increase in vehicular capacity beyond the ultimate classification per the CP would not align with City or State climate action goals. *Thus, Midway Rising does not recommend vehicle capacity improvements on this segment beyond the ultimate classification from the Community Plan.*

MULTI-MODAL IMPROVEMENTS

The project will provide accessible connections to the trolley station as envisioned in the CP to enable and achieve multi-modal reductions.

The following multi-modal improvements are proposed as part of the Phase 1 of the project, expected to occur in 2030:

- Construct a Class I multi-use path along the project frontage (south side) on Kurtz Street from the west edge of Block H1 to Greenwood Street.
- Construct a Class I multi-use path along the east side of Frontier Drive (south of the privately-owned parcels) when this public street is constructed.
- Construct a Class I multi-use path along the project frontage (north side) on Sports Arena Boulevard and a Class IV one-way cycle-track in the westbound direction along the project frontage from Frontier Drive to the east edge of the site.
- Relocate existing local bus stop (ID 13344) to the west side of the Sports Arena Boulevard / East Drive intersection (approximately 200' to the west of the existing stop). Provide a sign, bench, schedule display, route and system map, trash receptacle, concrete bus pad, and shelter.
- Provide event shuttle service between off-site business park lot and the Entertainment Center from 5pm to 1am. Shuttles will be used for events with greater than 10,000 spectators. Event shuttle will run along Sports Arena Boulevard, Frontier Drive, Kurtz Street, and Hancock Street. For all events with greater than 10,000 spectators, shuttle headway will be 5 minutes for pre-event and post-event service.
- Provide event shuttle service between Old Town Transit Center and the Entertainment Center from 5pm to 1am. Shuttles will be used for events with greater than 7,500 spectators. Event shuttle will run along Rosecrans Street, Sports Arena Boulevard, Frontier Drive, and Kurtz Street. For events with between 7,500 and 14,500 spectators, shuttle headway will be 5 minutes for pre-event and post-event service. For events with 20,000 spectators, shuttle headway will be 2 minutes for pre-event and post-event service.
- Provide a retail daily shuttle service between Old Town Transit Center and Frontier Drive for the first 10 years of the project opening Phase 1, anticipated to occur in 2030. The shuttle would operate between 12:00 PM and 10:00 PM using one vehicle at 20- to 30-minute headways.

The following multi-modal improvements are proposed as part of the Phase 2 of the project, expected to occur in 2035:

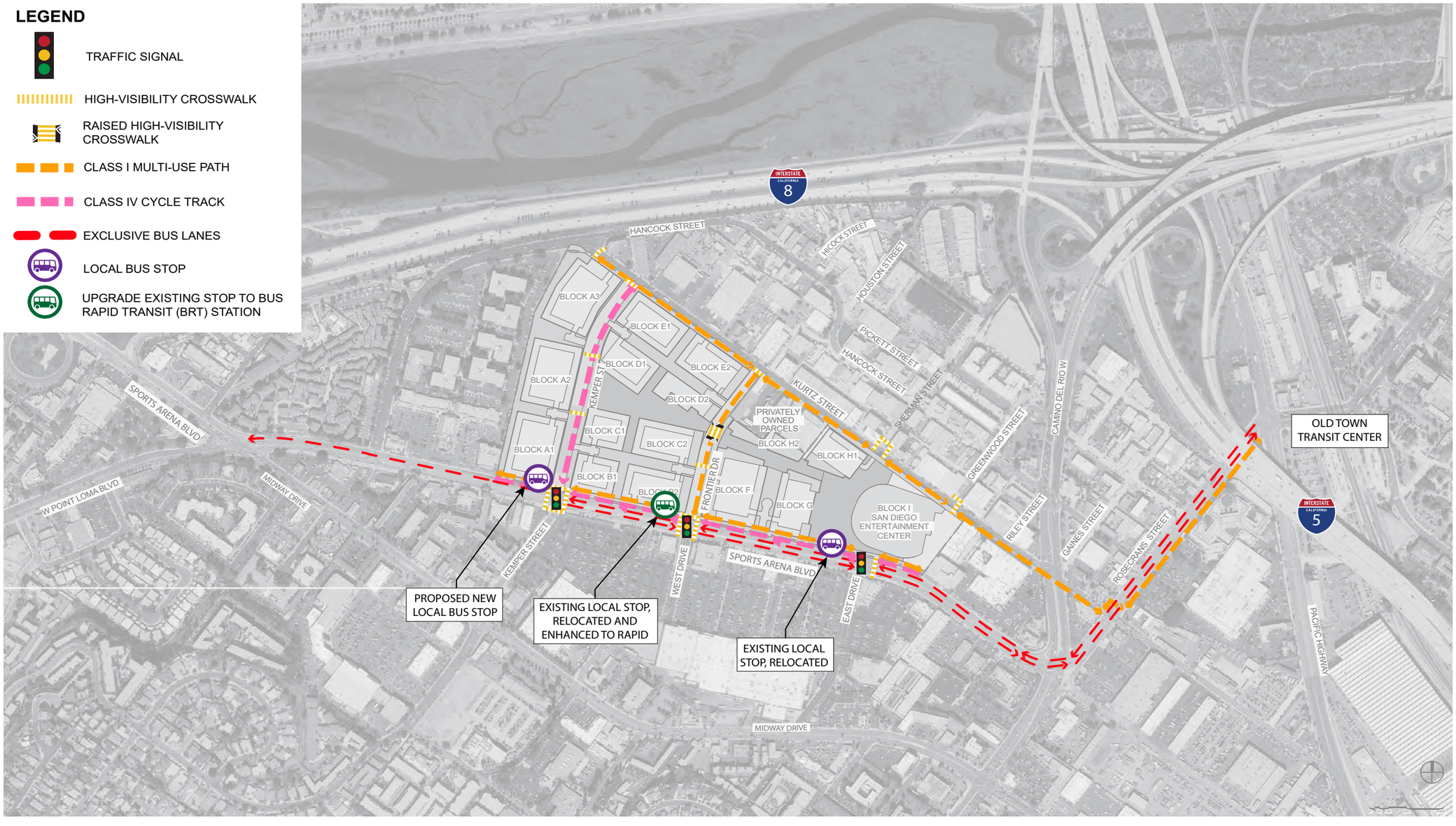
- Construct a Class I multi-use path along the project frontage (south side) on Kurtz Street from Hancock Street to the west edge of Block H1.
- Construct a Class I multi-use path along the south side of Kurtz Street (east of Greenwood Street) and along the southeast side of Rosecrans Street to provide a connection to the Old Town Transit Center via walking and biking. The multi-use path will be developed in coordination with the City and adjacent property owners; however, it is intended to be feasible within existing City right-of-way, and not be located within private property. Conceptual plans for this proposed improvement are included in Appendix A.

- Construct a Class I multi-use path along the project frontage (north side) on Sports Arena Boulevard and a Class IV one-way cycle-track in the westbound direction along the project frontage from the west edge of the site to Frontier Drive.
- Construct Class IV one-way cycle-tracks on both sides of the proposed Kemper Street extension within the site.
- Construct a roundabout at the intersection of Hancock Street and Kurtz Street.
- Stripe exclusive bus / right-turn only lanes on:
    - Sports Arena Boulevard between W Point Loma Boulevard and Kemper Street – westbound direction only
    - Sports Arena Boulevard between Kemper Street and Camino Del Rio West – both directions
    - Rosecrans Street between Sports Arena Boulevard and Kemper Street – both directions

  The project team will coordinate with MTS, the San Diego Association of Governments (SANDAG), and the City regarding the timeline and design details of implementation for these improvements. Developer is responsible for striping only.
- Construct a new local bus stop (ID not identified by MTS) on the west side of the Sports Arena Boulevard / Kemper Street intersection. Provide a sign, bench, schedule display, route and system map, trash receptacle, concrete bus pad, and shelter.
- Relocate existing bus stop (ID 13345) to the west side of the Sports Arena Boulevard / Frontier Drive intersection (approximately 150' to the east of existing stop) and designate stop as a future RAPID bus stop per the MTS Designing for Transit Manual (February 2018). The RAPID service is anticipated to be implemented by 2035. Provide a sign, bench, schedule display, trash receptacle, concrete bus pad, rapid shelter, and a real-time digital display. Developer to coordinate with MTS for improvements.
- Provide event shuttle service between offsite parking at SeaWorld and the Entertainment Center from 5pm to 1am. Shuttles will be used for events with greater than 12,000 spectators. Event shuttle will run along W Mission Bay Drive, Sports Arena Boulevard, Frontier Drive, Kurtz Street and Hancock Street. For events with between 12,000 and 14,500 spectators, shuttle headway will be 5 minutes for pre-event and post-event service. For events with 20,000 spectators, shuttle headway will be 2 minutes for pre-event and post-event service.

The proposed project multimodal features are illustrated in **Figure ES-6**.

Figure ES-6. Proposed Multimodal Improvements



BASEMAP SOURCE: SAFDIE RABINES ARCHITECTS

SYSTEMIC SAFETY REVIEW RECOMMENDATIONS

Per the TSM, hotspots for vehicles, pedestrians, and bicycles were identified using the methodologies provided in the City of San Diego *Systemic Safety The Data-Driven Path to Vision Zero,* dated April 2019.

The following countermeasures will be provided by the project at the respective hotspots:

- **Recommended Vehicle Countermeasure**: Retroreflective Signal Head Backplates
    - Intersection #9 - Midway Drive & East Drive
    - Intersection #20 - Rosecrans Street & Midway Drive
    - Intersection #22 - Rosecrans Street & Lytton Street
    - Intersection #25 - Pacific Highway & Rosecrans Street/Taylor Street
    - Intersection #29 - Midway Drive & Barnett Avenue
    - Intersection #30 - Friars Road & Sea World Drive

- **Recommended Pedestrian Countermeasure**: Lead Pedestrian Interval
    - Intersection #9 - Midway Drive & East Drive
    - Intersection #23 - Rosecrans Street & Kurtz Street

- **Recommended Bicycle Countermeasure**: Public Safety Messaging Campaign
    - Intersection #8 - Midway Drive & Kemper Street (no bike lanes on either street, therefore engineering countermeasure of bike detection is not applicable)
    - Intersection #9 - Midway Drive & East Drive (no bike lanes on either street, therefore engineering countermeasure of bike detection is not applicable)
    - Intersection #23 - Rosecrans Street & Kurtz Street (future multi-use path is not conducive for bike loop detection)
    - Intersection #27 - Pacific Highway & Enterprise Street (bike detection already provided on Pacific Highway on the northbound approach, no bike lanes are present on the southbound approach)
    - Intersection #29 - Midway Drive & Barnett Avenue (bike detection already provided on Barnett Avenue; there are no bike lanes on Midway Drive)
    - Intersection #30 - Friars Road & Sea World Drive (only the southbound approach has bike lane with no conflicting vehicle movements)
    - Intersection #31 - Sea World Drive & E Mission Bay Drive/Pacific Highway (Sea World Drive does not have bike lanes; bike detection not applicable)

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1 INTRODUCTION

The following Local Mobility Analysis (LMA) has been prepared per the City's Transportation Study Manual (TSM), current version dated September 2022, to identify the project's transportation effects in the project study area and recommend project improvements to the transportation network. The proposed Midway Rising development is located at 3220, 3240, 3250, and 3500 Sports Arena Boulevard and 3467, 3487, and 3495 Kurtz Street (privately-owned parcels), in the City of San Diego, CA.

1.1 PROJECT DESCRIPTION

The approximately 47.8-acre (52.07 total including privately-owned parcels) project site is located within the Midway-Pacific Highway community of the City of San Diego, and is bordered by Kurtz Street to the northeast, Sports Arena Boulevard to the southwest, Hancock Street to the northwest, and commercial development to the southeast, as shown in **Figure 1-1**.

1.1.1 LAND USES

The project proposes to demolish the existing 16,000-seat San Diego Sports Arena and all commercial buildings on site, and construct the following uses as presented in **Figure 1-2**:

- Entertainment
  - New 16,000-seat Entertainment Center
  - 3,500-seat theater (to be located within the privately-owned parcels area)
- Residential
  - 4,627 multi-family dwelling units, including
    - 2,627 market-rate units
  - 2,000 affordable units, including
    - 1,538 units ≤ 50% Area Median Income (AMI)
    - 462 units between 50%-80% AMI
- Commercial
  - 140,000 square-feet of commercial, including
    - 60,000 square-feet retail
    - 40,000 square-feet quality restaurant
    - 40,000 square-feet high-turnover sit-down restaurant

1.1.2 ZONING

The project is located at 3220, 3240, 3250, and 3500 Sports Arena Boulevard (in addition to the privately-owned parcels located at 3467, 3487, and 3495 Kurtz Street) in a Parking Standards Transit Priority Area (TPA), Transit Area Overlay Zone, Coastal Height Limitation Overlay Zone, and Mobility Zone 2 in the CC-3-1, CC-3-6, and CC-3-8 zones within the Midway-Pacific Highway Community Planning Area. The project proposes a Specific Plan as part of the development process, as envisioned in the Community Plan (CP). The project will provide over 90 dwelling units (DUs) per acre, which is greater than the allowable limit for the project's planning zone (44 DUs per acre). Therefore, the project also proposes a Community Plan Amendment (CPA) to rezone the site to RMX-2.

Figure 1-1. Regional Vicinity Map

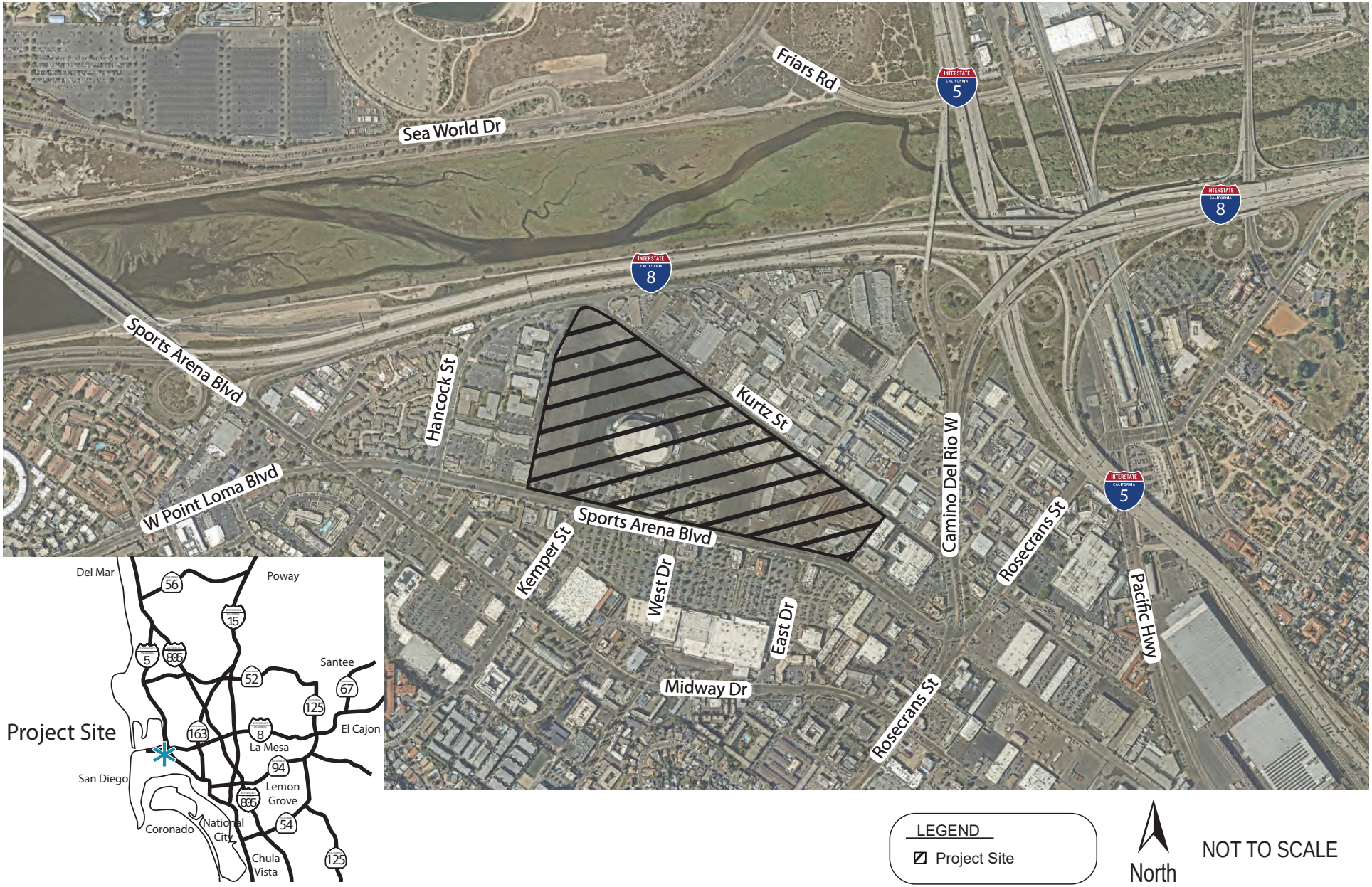


Figure 1-2. Proposed Conceptual Site Plan



BASEMAP SOURCE: SAFDIE RABINES ARCHITECTS

1.1.3 MULTIMODAL PROJECT FEATURES

The proposed project intends to promote and enhance multi-modal travel by utilizing the project's proximity to the Old Town Transit Center, located between 0.7- and 1-mile walking distance from the site, and providing various multi-modal project features on and off-site. Walking routes between the project site and Old Town Transit Center are illustrated in **Figure 1-3.** The project will provide multi-modal urban paths and connections to the Transit Center as envisioned in the CP to enable and achieve vehicle trip reductions through multi-modal services. The development of the project site will include the following multi-modal improvements, shown in **Figure 1-4**:

- Construct a Class I multi-use path along the project frontage (south side) on Kurtz Street (**Appendix A** sheets 12 & 13).
- Construct a Class I multi-use path along the south side of Kurtz Street (east of the project site) and along the southeast side of Rosecrans Street to provide a connection to the Old Town Transit Center via walking and biking. The project proposes to construct this facility within the existing street rights-of-way by narrowing the vehicular travel way, not within private property that is not part of the Midway Rising project. Conceptual plans for this proposed improvement are included in **Appendix A** on Sheet 22.
- Construct a Class I multi-use path (Bay-to-Bay Urban Path) along the east side of planned Frontier Drive (the Midway Rising project proposes to construct the Bay-to-Bay Urban Path along Frontier Drive instead of Kemper Street as planned in the CP, as shown in **Appendix A** Sheets 12 & 13).
- Construct a Class I multi-use path (Bay-to-Bay Urban Path) along the project frontage (north side) on Sports Arena Boulevard and a Class IV one-way cycle-track in the westbound direction along the project frontage (**Appendix A** Sheets 11 & 13).
- Construct Class IV one-way cycle-tracks on both sides of the planned Kemper Street extension within the site (**Appendix A** Sheets 11 & 12).
- Construct a roundabout at the intersection of Hancock Street and Kurtz Street (**Appendix A** Sheets 9 & 12).
- Stripe exclusive bus / right-turn only lanes on:
    - Sports Arena Boulevard between W Point Loma Boulevard and Kemper Street – westbound direction only
    - Sports Arena Boulevard between Kemper Street and Camino Del Rio West – both directions
    - Rosecrans Street between Sports Arena Boulevard and Kemper Street – both directions

  The project team will coordinate with MTS, the San Diego Association of Governments (SANDAG), and the City regarding the timeline and design details of implementation for these improvements. Developer is responsible for striping only (**Appendix A** Sheets 2, 11, 13).
- Implement the following bus stop improvements along the project frontage:
    - Construct a new local bus stop (ID not identified by MTS) on the west side of the Sports Arena Boulevard / Kemper Street intersection. Provide a sign, bench, schedule display, route and system map, trash receptacle, concrete bus pad, and shelter.
    - Relocate existing bus stop (ID 13345) to the west side of the Sports Arena Boulevard / Frontier Drive intersection (approximately 150' to the east of existing stop) and designate stop as a future RAPID bus stop per the MTS Designing for Transit Manual (February 2018). The RAPID service is anticipated to be implemented by 2035. Provide a sign, bench, schedule display, trash receptacle,

concrete bus pad, rapid shelter, and a real-time digital display. Developer to coordinate with MTS for improvements.

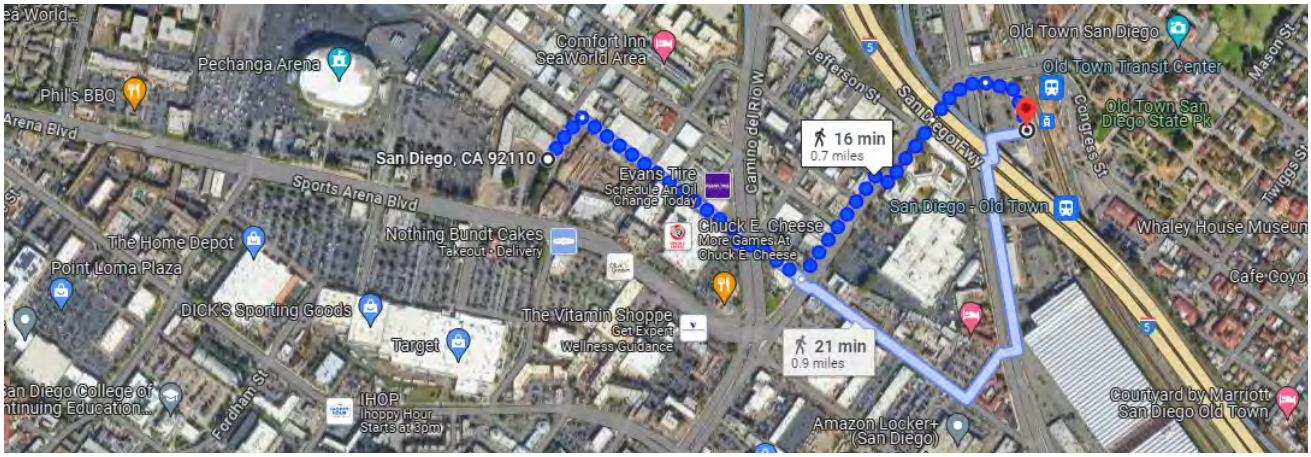
  - Relocate existing local bus stop (ID 13344) to the west side of the Sports Arena Boulevard / East Drive intersection (approximately 200' to the west of the existing stop). Provide a sign, bench, schedule display, route and system map, trash receptacle, concrete bus pad, and shelter.

- Provide a shuttle service to and from the site for the following scenarios:
  - Events > 7,500 spectators – provide event shuttle service to and from Old Town Transit Center
  - Events > 10,000 spectators – provide 2 shuttle services to and from both Old Town Transit Center and off-site business park lot to the west of the project site
  - Events > 12,000 spectators – provide 3 shuttle services to and from Old Town Transit Center, the off-site business park lot, and the off-site Sea World lot.
  - Daily – provide daily retail shuttle service between Old Town Transit Center and Frontier Drive for the first 10 years of the project opening (Phase 1). Shuttle included based on anticipated VMT mitigation.

Cross-sections for the internal site roadways and the project adjacent roadways including the proposed multi-modal improvements discussed above are provided in Section 13.5.

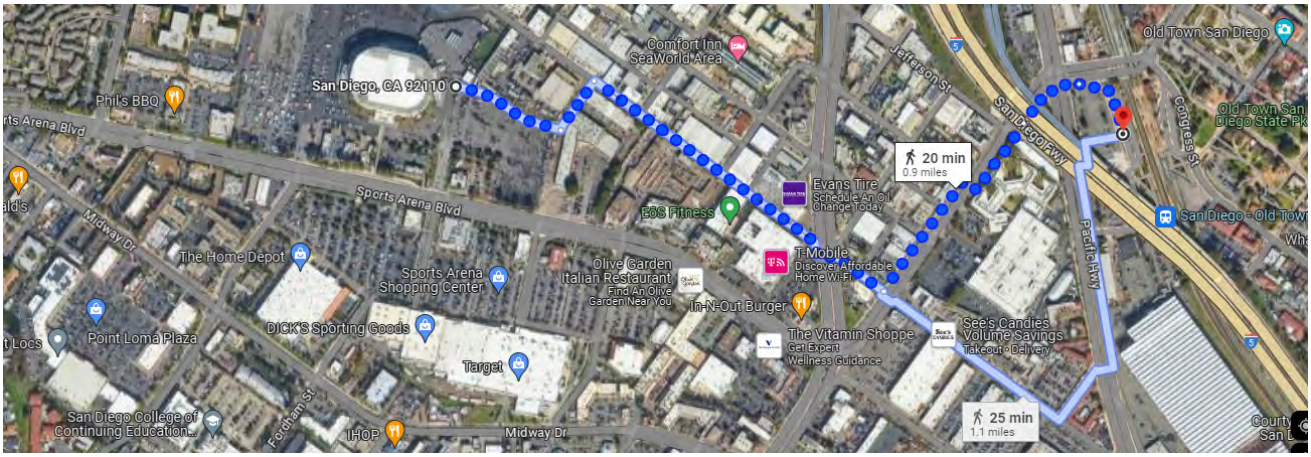
Figure 1-3. Walking Routes to/from Old Town Transit Center

Walking Route from Old Town Transit Center to Proposed Entertainment Center Location



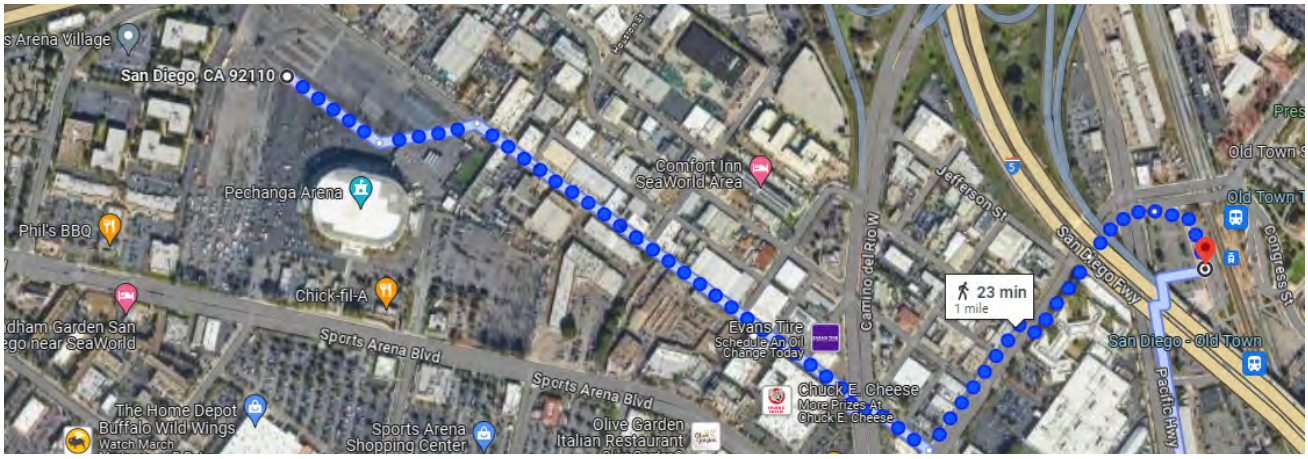
Source: Google Maps

Walking Route from Old Town Transit Center to Proposed Blocks F, G, and H



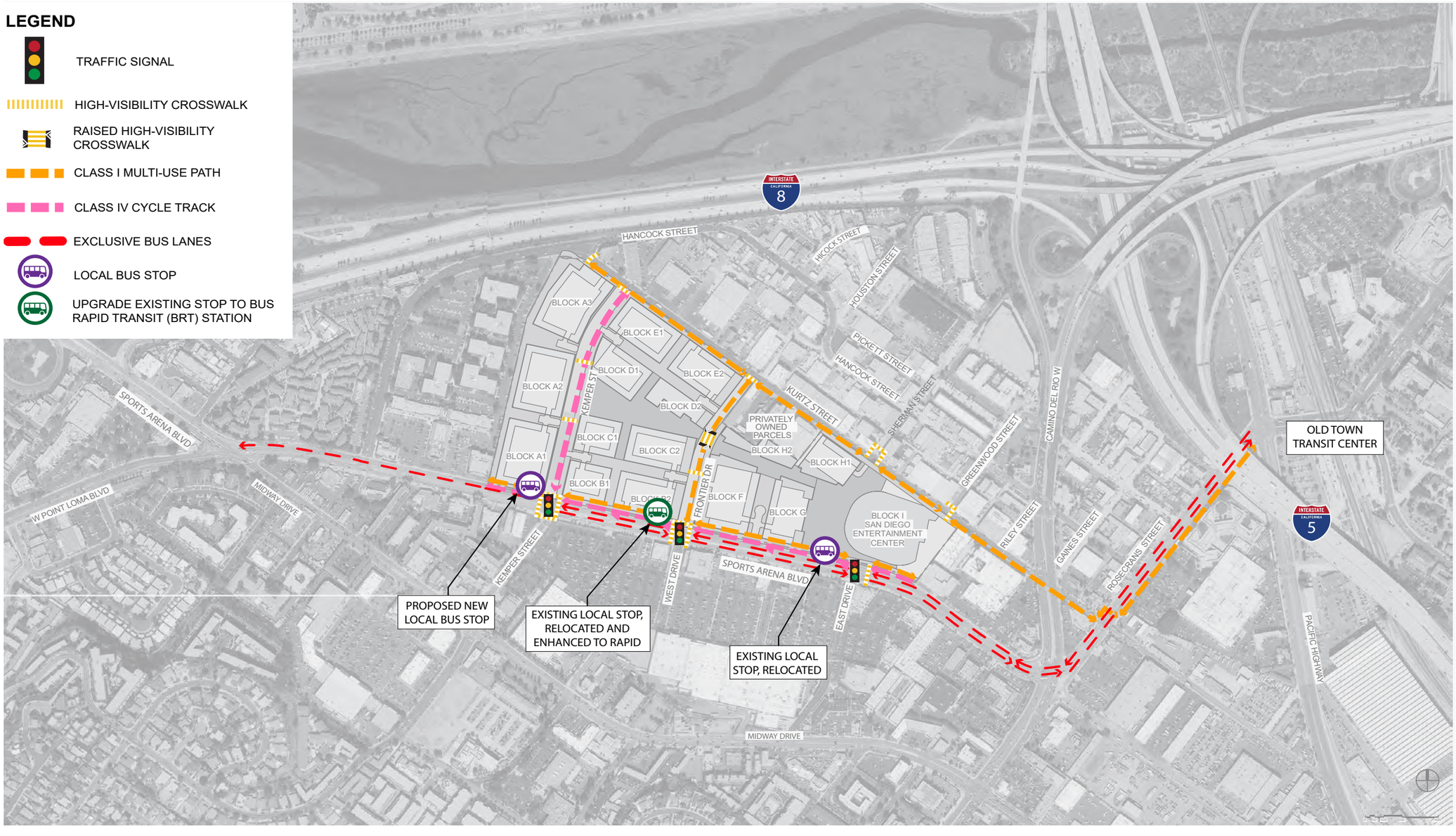
Source: Google Maps

Walking Route from Old Town Transit Center to Proposed Blocks A, B, C, and D



Source: Google Maps

Figure 1-4. Midway Rising Project Proposed Multimodal Improvements



BASEMAP SOURCE: SAFDIE RABINES ARCHITECTS

1.1.1 SITE ACCESS

The proposed project site will provide vehicle access (as illustrated in **Figure 1-2**) via 11 access points: four along Sports Arena Boulevard and seven on Kurtz Street. Four access points will be intersections formed with the proposed Kemper Street and Frontier Drive roadways, and the remaining seven access points will be driveways into parking structures.

Pedestrian and bicycle access will be provided via proposed facilities along the project frontages on Sports Arena Boulevard and Kurtz Street, which will also facilitate access from the existing and proposed transit stops on the north side of Sports Arena Boulevard into the project site.

1.1.2 PARKING

The project proposes to provide approximately 7,747 total parking spaces for the site. EV-ready stalls, accessible spaces, short-term and long-term bicycle parking, and motorcycle parking will be provided per the City of San Diego Municipal Code Parking Requirements, as discussed in the Parking chapter of this report. **Table 1-1** shows details parking proposed by the project per land use.

Table 1-1. Total Vehicle Parking for Proposed Land Uses

Land Use	Required Vehicle Parking Spaces	Proposed Vehicle Parking Spaces
Commercial	0	431
Entertainment Center	*	2,100
Residential	0	5,216
Total		***7,747***

[a] City of San Diego Municipal Code Section 141.0622 (d) indicates that off-street parking for sports arenas and stadiums shall be provided at a level sufficient to serve the facility without impacting adjacent or nearby property.

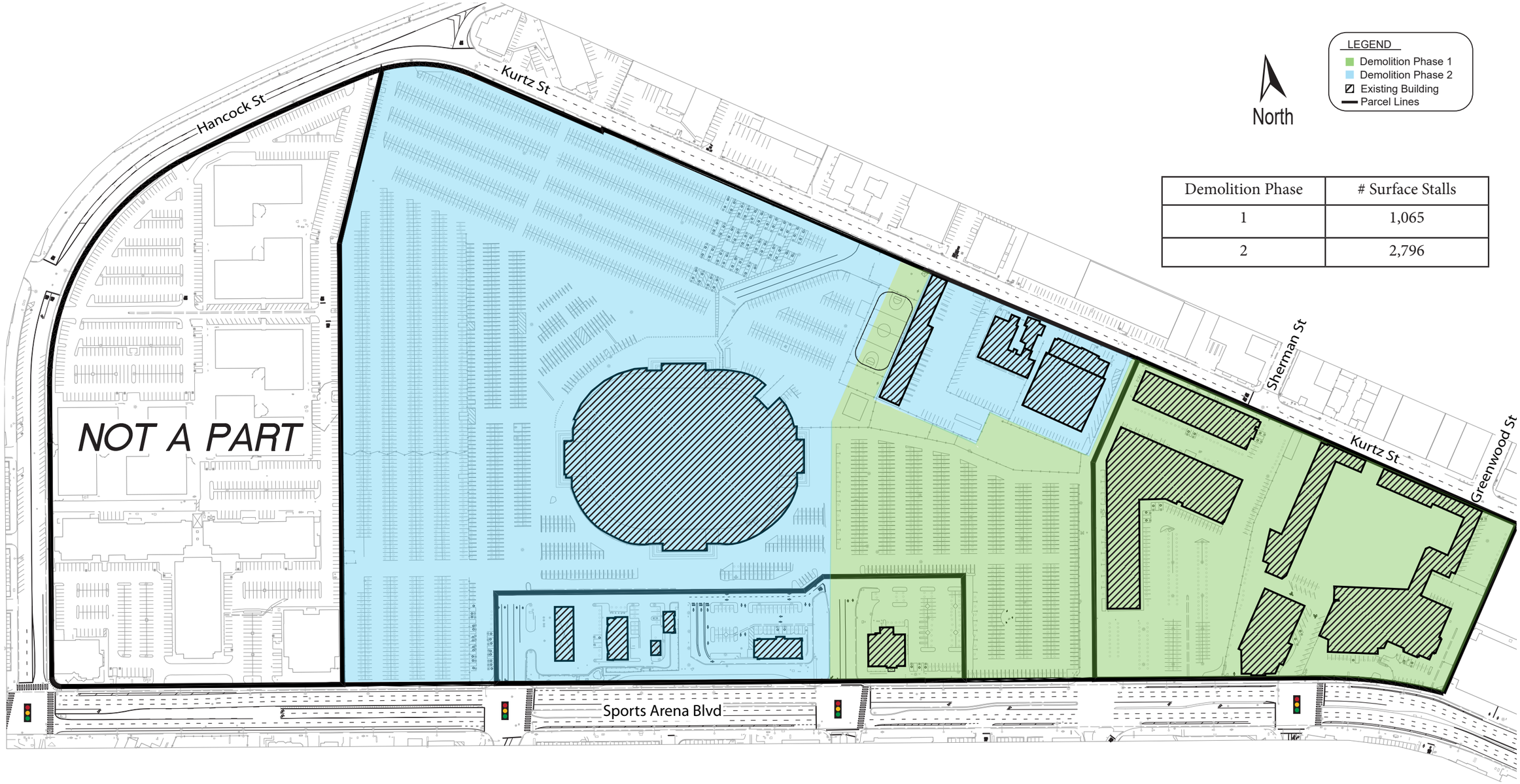
1.1.3 CONSTRUCTION PHASING

The project will be constructed in two phases:

1. Phase 1 (anticipated to be complete in 2030) includes:
    - Demolition of the site east of proposed Frontier Drive
    - Construction of the new Entertainment Center while the existing arena remains operational
    - Construction of the residential and commercial uses east of Frontier Drive
    - Construction of Frontier Drive
2. Phase 2 Buildout (anticipated to be complete in 2035) includes:
    - Demolition of the existing arena (once the new Entertainment Center is operational)
    - Demolition of the existing land uses west of Frontier Drive
    - Construction of commercial and residential uses west of Frontier Drive

Figure 1-5 shows the proposed demolition phasing of the existing site. **Figure 1-6** shows the proposed construction phasing of the project.

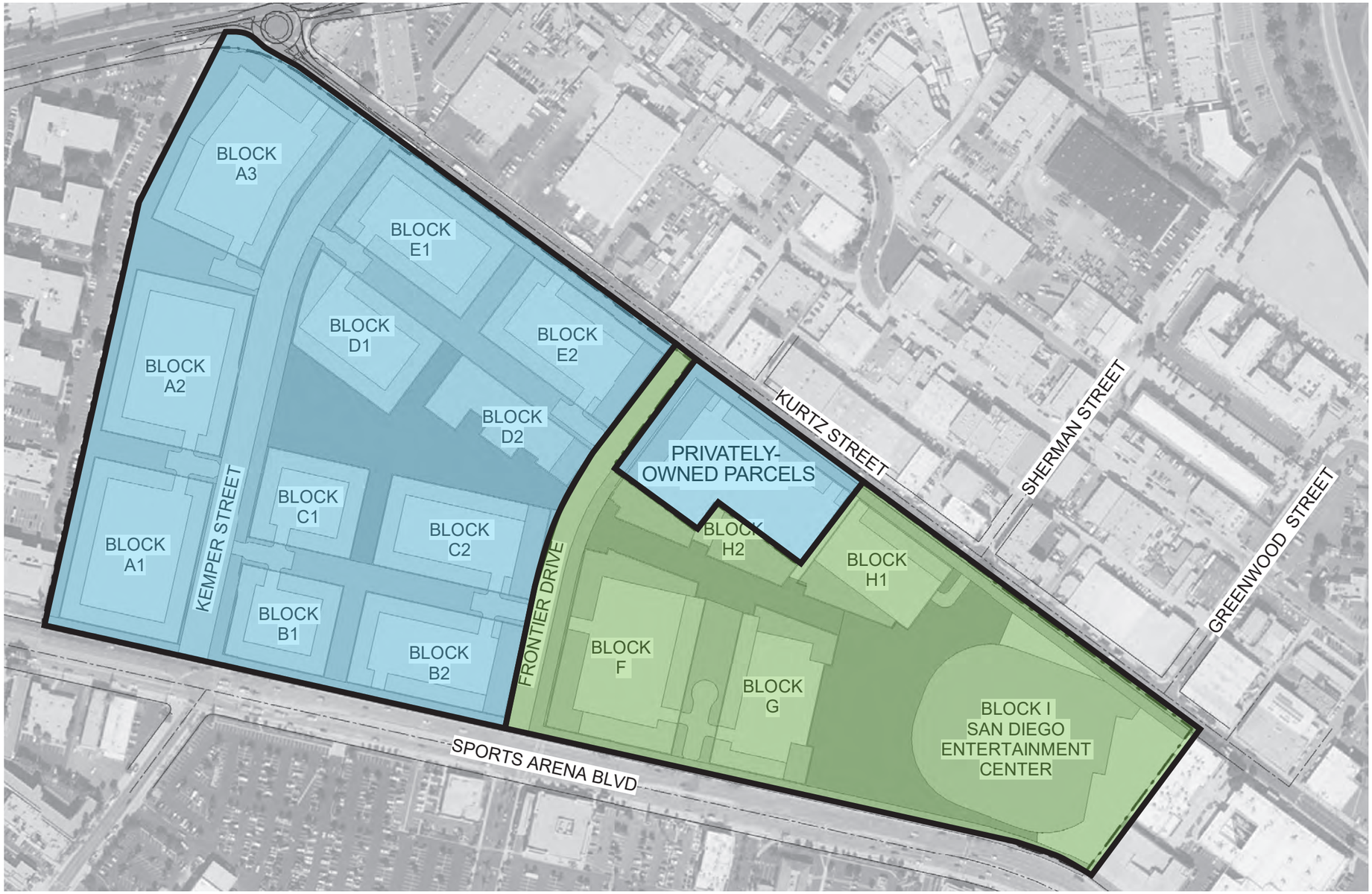
Figure 1-5. Project Demolition Phasing



Demolition Phase	# Surface Stalls
1	1,065
2	2,796

BASEMAP SOURCE: PROJECT DESIGN CONSULTANTS A BOWMAN COMPANY

Figure 1-6. Project Construction Phasing



BASEMAP SOURCE: PROJECT DESIGN CONSULTANTS A BOWMAN COMPANY

Table 1-2 summarizes the intensity/quantity of the different land uses per phase. The Entertainment Center will be completed in Opening Year (2030) Phase 1, thus the number of spectators remains the same in both phases. A site plan change decreased the number of dwelling units and commercial square footage anticipated to be completed in Phase 1. **Table 1-2** reflects the actual anticipated land uses for Phase 1, while the analysis performed in this LMA for Opening Year (2030) Project Phase 1 is based on higher land use values from before the site plan change occurred. The analysis for Opening Year (2030) Project Phase 1 is therefore conservative, as it accounts for more trip generation from a higher number of dwelling units and square footage of retail.

Table 1-2. Proposed Land Uses Per Phase

Land Use		Opening Year (2030) Project Phase 1	Phase 1 to Phase 2 Net Increase	Opening Year (2035) Project Phase 2 Buildout
Entertainment (Spectators)	Entertainment Center	16,000	+0	16,000
	Theater	0	+3,500	3,500
	TOTAL	**16,000**	**+3,500**	**19,500**
Residential (Dwelling Units)	Affordable	479	+1,521	2,000
	Market Rate	386	+2,241	2,627
	TOTAL	**875**	**+3,752**	**4,627**
Commercial (Square Feet)	Retail	38,952	+21,048	60,000
	Restaurant	51,936	+28,064	80,000
	TOTAL	**90,888**	**+49,112**	**140,000**
Parking	Residential	1,535	+3,681	5,216
	Retail	280	+151	431
	Entertainment	781	+1,319	2,100
	TOTAL	**2,596**	**+5,151**	**7,747**

1.2 ANALYSIS SCENARIOS

The LMA analyzes the following scenarios based on scoping with the City and guidance in the TSM:

- ***Existing (2023):*** Represents the traffic conditions of the existing street network, lane geometry, signal timing, and traffic volumes observed on a weekday, event day in 2023. See Chapter 3.
- ***Opening Year (2030) Base:*** Represents the traffic conditions on the existing street network anticipated to be in place in year 2030. The Opening Year (2030) Base traffic conditions were developed by applying a 0.55% annual growth rate to the existing (2023) traffic volumes and adding the NAVWAR Near-Term with Year 2030 Alternative 2 project trips to study intersections contained within the NAVWAR study area. See Chapter 5.
- ***Opening Year (2030) Plus Project Phase 1:*** Represents the Opening Year (2030) Base scenario with the addition of the proposed project Phase 1 trips and roadway network (see Chapter 4). Comparison of this scenario to the Opening Year (2030) Base scenario determines direct effects associated with the project. See Chapter 6.
- ***Opening Year (2035) Base:*** Represents the traffic conditions on the existing street network anticipated to be in place in year 2035. The Opening Year (2035) Base traffic volumes were

developed by applying a 0.55% annual growth rate to the existing (2023) traffic volumes and adding NAVWAR project trips for the future year 2035. The NAVWAR Near-Term with Year 2030 Alternative 2 project trips were linearly interpolated between NAVWAR Near-Term with Year 2030 Alternative 2 and Year 2050 with Alternative 2 scenario trips to develop cumulative project trips for 2035. Resulting trips were added to the project study intersections contained within the NAVWAR study area. See Chapter 8.

- ***Opening Year (2035)*** Plus ***Project Phase 2 Buildout:*** Represents the Opening Year (2035) Base scenario with the addition of the proposed project Phase 2 trips and roadway network (see Chapter 4). Comparison of this scenario to the Opening Year (2035) Base scenario determines direct effects associated with the project, Phase 2. See Chapter 9.

1.3 STUDY PERIODS

The LMA analyzes the following study periods based on coordination with City of San Diego staff and guidance in the TSM:

- Weekday Commuter AM Peak: represents the morning peak commute hours (7:00 AM to 10:00 AM) on a typical weekday in the study area.
- Weekday Commuter PM Peak: represents the evening peak commute hours (4:00 PM to 6:00 PM) on a typical weekday in the study area.
- Weekday Pre-Event Peak: represents the peak arrival hour (6:00 PM to 7:00 PM) on a weekday event day for the Entertainment Center. Within the Weekday Pre-Event Peak analysis, two event size scenarios were analyzed within this study (details on event sizes are provided in Chapter 4):
  - 14,500-spectator scenario
  - 20,000-spectator scenario

1.4 MIDWAY-PACIFIC HIGHWAY COMMUNITY PLAN UPDATE

The project site plan and mobility improvements were guided by the Midway-Pacific Highway Community Plan (CP), September 2018. The proposed project is consistent with the CP vision and the General Plan's City of Villages strategy. Where this plan differs from the CP, a Community Plan Amendment (CPA) transportation analysis was reviewed as a separate document to analyze the effects of the transportation and mobility CP modifications (see Section 1.4.4). **Appendix B** contains the Midway Rising CPA, which is subject to change upon further review by the City.

1.4.1 PROJECT SITE

The Midway-Pacific Highway CP calls for the development of the project site into a "Sports Arena Community Village" with a land use designation of Community Commercial, allowing a maximum of 44 dwelling units per acre and a mix of entertainment, office, retail, residential, public, and park uses. The project is proposing a rezone to residential mixed- use (RMX) to increase the allowable residential density on the site while still allowing the proposed land uses. The CP envisions the Sports Arena Community Village as a vibrant, pedestrian- and transit-oriented entertainment area that is a landmark attraction for Midway-Pacific Highway and surrounding communities.

1.4.2 CP RECOMMENDATIONS

The CP proposes a network of planned pedestrian facilities, urban paths, and bicycle facilities. Included in the proposed CP street network are three new roadways running north-south through the site between Sports Arena Boulevard and Kurtz Street:

- Kemper Street (extended)
- Frontier Drive
- Greenwood Street (extended)

The CP also provides intersection improvement concepts for the following four intersections located within the study area:

- Hancock Street and Sports Arena Boulevard (CP Figure 3-8)
- Kemper Street and Sports Arena Boulevard (CP Figure 3-8)
- Midway Drive and Sports Arena Boulevard / West Point Loma Boulevard (CP Figure 3-14)
- Camino del Rio West / Rosecrans Street and Sports Arena Boulevard (CP Figure 3-15).

Excerpts from the CP referenced above are provided in **Appendix C**.

1.4.3 PROJECT IMPROVEMENTS

Table 1-3 summarizes the CP recommended street classification modifications versus the project proposed modifications.

Table 1-4 summarizes the CP recommended pedestrian and bicycle improvements versus the project's proposed pedestrian and bicycle improvements along the study area roadways.

1.4.4 COMMUNITY PLAN AMENDMENT (CPA)

The following modifications to the CP will be analyzed as part of the Midway Rising project's proposed Community Plan Amendment (CPA):

- **Kurtz Street** (between Hancock Street and Sherman Street): Convert from a 2-lane one-way (southeast-bound) collector to a 2-lane (two-way) collector with one lane in each direction.
- **Rosecrans Street** (between Midway Drive and Pacific Highway): Dedicate one lane in each direction for Business Access and Transit ("BAT") lane. Proposed BAT lane will be accessible for passenger vehicles making a right turn at an intersection or driveway.
- **Sports Arena Boulevard** (between Midway Drive / W Point Loma Boulevard and Rosecrans St): Dedicate one lane in each direction for BAT lane. Proposed BAT lane will be accessible for passenger vehicles making a right turn at an intersection or driveway.
- **Greenwood Street** (between Kurtz Street and Sports Arena Boulevard): The project does not propose to construct this segment as planned in the Community Plan. Note that bicycles and pedestrians will still be able to connect between Kurtz Street and Sports Arena Boulevard as an "extension" of Sherman Street.
- Intersection modifications at:
  - Intersection #2 – Midway Drive and Sports Arena Boulevard / West Point Loma Boulevard
  - Intersection #4 – Kemper Street / Sports Arena Boulevard
  - Intersection #11 – Hancock Street / Kurtz Street
  - Intersection #18 – Kurtz Street / Camino del Rio West
  - Intersection #19 – Camino del Rio West / Rosecrans Street / Sports Arena Boulevard

See **Appendix B** for more information regarding project recommendations for the CPA.

Table 1-3. Existing and Planned Vehicular System

Road Name	Extents	Existing Street Classification[1]	Community Plan Ultimate Street Classification[2]	Community Plan Amendment Ultimate Street Classification	Midway Rising Project Recommendation
Sports Arena Boulevard	I-8 WB Off-Ramp to I-8 EB On Ramp	6-lane prime arterial	6-lane prime arterial	No change from CP	6-lane prime arterial
	I-8 EB On Ramp to Midway Drive	5-lane major arterial	6-lane major arterial	No change from CP	No change from Existing Classification Project does not trigger improvements
	Midway Drive to Hancock Street	5-lane collector with a center left turn lane	6-lane major arterial	4-lane major arterial (with two bus only lanes)	No change from Existing Classification Project does not trigger improvements; project does not intend to implement CPA classification change
	Hancock Street to Kemper Street	5-lane collector with a center left turn lane	6-lane major arterial	4-lane major arterial (with two bus only lanes)	4-lane major arterial (with two bus only lanes)
	Kemper Street to West Drive	5-lane major arterial	6-lane major arterial	4-lane major arterial (with two bus only lanes)	4-lane major arterial (with two bus only lanes)
	West Drive to Rosecrans Street	6-lane major arterial	6-lane major arterial	4-lane major arterial (with two bus only lanes)	4-lane major arterial (with two bus only lanes)
	Rosecrans Street to Pacific Highway	2-lane collector	2-lane collector with a center left turn lane	No change from CP	No change from Existing Classification Project does not trigger improvements
Rosecrans Street	Camino Del Rio/Sports Arena Boulevard to Pacific Highway	4-lane collector with a center left turn lane	4-lane major arterial	2-lane major arterial (with two bus only lanes)	2-lane collector (with two bus only lanes) Project does not trigger improvements; project does not intend to implement CPA classification change
	Sports Arena Boulevard to Midway Drive	6-lane major arterial	6-lane prime arterial	No change from CP recommendation	No change from Existing Classification Project does not trigger improvements
Midway Drive	Kemper Street to Rosecrans Street	4-lane collector with a center left turn lane	4-lane collector with a center left turn lane	No change from CP recommendation	4-lane collector with a center left turn lane
Hancock Street	Sports Arena Boulevard to Channel Way	2-lane collector	4-lane collector	No change from CP recommendation	4-lane collector
	Channel Way to Kurtz Street	2-lane collector with a center left turn lane	4-lane collector	No change from CP recommendation	4-lane collector
	Kurtz Street to Greenwood Street	2-lane collector (one-way north-westbound)	3-lane major arterial (one-way)	No change from CP recommendation	No change from Existing Classification Project does not trigger improvements
	Greenwood Street to Camino del Rio West	2-lane collector (one-way north-westbound)	3-lane major arterial (one-way)	No change from CP recommendation	2-lane collector (one-way north-westbound) Project does not trigger improvements
Kurtz Street	Hancock Street to Frontier Drive	2-lane collector (one-way south-eastbound)	2-lane collector (one-way southeast-bound)	2-lane collector	2-lane collector
	Frontier Drive to Sherman Street	2-lane collector (one-way south-eastbound)	2-lane collector (one-way southeast-bound)	2-lane collector	2-lane collector
	Sherman Street to Camino del Rio West	2-lane collector (one-way south-eastbound)	2-lane collector (one-way south-eastbound)	No change from CP recommendation	2-lane collector (one-way south-eastbound)
Camino Del Rio W	Greenwood Street to Kurtz Street	6-lane prime arterial	6-lane prime arterial	No change from CP recommendation	6-lane prime arterial
Greenwood Street	Kurtz Street to Sports Arena Boulevard	Does not exist	2-lane collector	Segment of Greenwood Street would not be constructed	*(No new roadway)*
Kemper Street	Sports Arena Boulevard to Kurtz Street	Does not exist	2-lane collector with a center left turn lane	No change from CP recommendation	2-lane collector with a center left turn lane
Frontier Drive	Sports Arena Boulevard to Kurtz Street	Does not exist	2-lane collector with a center left turn lane	No change from CP recommendation	2-lane collector with a center left turn lane

Notes:
[1]Based on Figure 3-5 Existing (2017) Street Classifications in the Midway Pacific Highway Community Plan, except at the following location:
- Hancock St b/w Sports Arena Blvd & Channel Wy – Lane geometry changes since adoption of Community Plan

[2]Based on Figure 3-6 Planned Street Classifications in the Midway Pacific Highway Community Plan.

Table 1-4. Existing and Planned Pedestrian and Bicycle System

Road Name	Midway-Pacific Highway CP Recommendation	Midway Rising Project Recommendation
Sports Arena Boulevard	Class I Path (Bay-to-Bay Urban Path) Class II Bike Lanes	Class I Path (Bay-to-Bay Urban Path) Class IV One-Way (WB) Cycle track; Class II Bike Lane EB
Rosecrans Street	Class I Path (La Playa Urban Path) Class II Bike Lanes	Class I Path (La Playa Urban Path)*
Midway Drive	Class I Path (Midway Urban Path)	No improvement as part of this project
Hancock Street	Class III Route	No improvement as part of this project
Kurtz Street	Class III Route	Class I Path
Greenwood Street	Class II Bike Lanes	Class I Path**
Kemper Street	Class I Path (Bay-to-Bay Urban Path) Class II Bike Lanes	Class IV One-Way Cycle tracks
Frontier Drive	Class II Bike Lanes	Class I Path (Bay-to-Bay Urban Path)

* The proposed facility on Rosecrans Street provides a raised Class IV two-way cycle track with an adjacent sidewalk which meets the intention of the Class I path but provides separation between pedestrians and bicyclists.
** In lieu of a vehicular roadway, the intention of the north-south connection for pedestrians and bicyclists will be provided as a Class I path aligned with Sherman Street rather than Greenwood Street

1.5 OTHER REGIONAL PLANNING DOCUMENTS

Appendix C of the SANDAG Central Mobility Hub Comprehensive Multimodal Corridor Plan (CMH CMCP) and the SANDAG Regional Plan identify future Rapid Route 10, planned for implementation in the Year 2035, as an enhancement to the existing MTS Route 10. The route will connect the communities between La Mesa and Ocean Beach utilizing segments of Pacific Highway, Rosecrans Street, and Sports Arena Boulevard within the project study area. To increase travel time reliability for the Rapid Route 10, the CMH CMCP recommends bus-only lanes along Rosecrans Street and Sports Arena Boulevard within the project study area.

2 METHODOLOGY

The following section describes the methodology used to identify the study area, analyze study area conditions, and determine project effects.

2.1 STUDY AREA

The study area is defined by including signalized and unsignalized intersections that meet the following criteria from the TSM for projects that generate more than 2,400 daily final driveway trips:

- All signalized intersections and signalized project driveways where the project will add 50 or more peak hour final primary (cumulative) trips to any turning movement at the intersection.
- All unsignalized intersections (side street stop-controlled, all-way stop-controlled, and roundabout) and unsignalized project driveways where the project will add 50 or more peak hour final primary (cumulative) trips on any approach.
- All freeway ramp terminal intersections where a project adds 50 or more peak hour final primary (cumulative) (AM or PM) net new trips on any approach must be analyzed regardless of their distance from the project site.
- For roadway segments, the study area should include roadway segments where the project would add 1,000 or more daily final primary trips (cumulative trips) if consistent with the Community Plan, or 500 or more daily final primary trips (cumulative trips) if inconsistent with the Community Plan AND:
    - Have improvements identified in the community plan; OR
    - Not built to the community plan ultimate classification (including planned new circulation element roadways).

The study area was determined by distributing the project trips through the surrounding roadway network, based on the distribution patterns outlined in this document. The proposed study area consists of

- 40 intersections
    - 24 signalized
    - 10 unsignalized
    - 6 unsignalized project driveways
- 23 roadway segments.

Of the 24 signalized intersections, three are at freeway ramps at I-8 Westbound Off-Ramp / W. Mission Bay Drive (Intersection #1), Camino del Rio W/I-5 Southbound Off-Ramp/I-8 Westbound Off-Ramp (Intersection #17)/ Hancock Street and I-5 Southbound Ramps /Sea World Drive (Intersection #32).

The intersections identified for evaluation are summarized in **Table 2-1**. The roadway segments identified for evaluation are summarized in **Table 2-2**.

Figure 2-1 shows the project study area intersections and the existing traffic control.

Table 2-1. Study Intersections

#	Location	Existing Control	Jurisdiction
1	West Mission Bay Drive / Sports Arena Blvd & I-8 Westbound Off-Ramp	Signal	Caltrans
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	Signal	City of San Diego
3	Sports Arena Boulevard & Hancock Street / Commercial Dwy 1	Signal	City of San Diego
4	Sports Arena Boulevard & Kemper Street	Signal	City of San Diego
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	Signal	City of San Diego
6	Sports Arena Boulevard & Target Driveway	One-Way Stop	City of San Diego
7	Sports Arena Boulevard & East Drive	Signal	City of San Diego
8	Midway Drive & Kemper Street	Signal	City of San Diego
9	Midway Drive & East Drive / Commercial Dwy 2	Signal	City of San Diego
10	Hancock Street & Channel Way	All-Way Stop	City of San Diego
11	Kurtz Street & Hancock Street	One-Way Stop	City of San Diego
12	Kurtz Street & Sherman Street (& Future H1 Driveway 2)	All-Way Stop	City of San Diego
13	Kurtz Street & Greenwood Street	One-Way Stop	City of San Diego
14	Hancock Street & Sherman Street	All-Way Stop	City of San Diego
15	Hancock Street & Greenwood Street	Two-Way Stop	City of San Diego
16	Camino Del Rio West & Greenwood Street	Two-Way Stop	City of San Diego
17	Camino Del Rio West & Hancock Street	Signal	City of San Diego
18	Camino Del Rio West & Kurtz Street	Signal	City of San Diego
19	Camino Del Rio West & Sports Arena Boulevard / Rosecrans Street	Signal	City of San Diego
20	Rosecrans Street & Midway Drive	Signal	City of San Diego
21	Rosecrans Street & North Evergreen Street	Signal	City of San Diego
22	Rosecrans Street & Lytton Street	Signal	City of San Diego
23	Rosecrans Street & Kurtz Street	Signal	City of San Diego
24	Rosecrans Street & Hancock Street	Uncontrolled	City of San Diego
25	Pacific Highway & Rosecrans Street / Taylor Street	Signal	City of San Diego
26	Pacific Highway & Kurtz Street	One-way Stop	City of San Diego
27	Pacific Highway & Enterprise Street	Signal	City of San Diego
28	Midway Drive & Enterprise Street	One-Way Stop	City of San Diego
29	Midway Drive & Barnett Ave	Signal	City of San Diego
30	Sea World Drive & Friars Rd	Signal	City of San Diego
31	Sea World Drive & Pacific Highway & E Mission Bay Dr	Signal	City of San Diego
32	Sea World Drive & I-5 Southbound Ramps	Signal	Caltrans
33	Kurtz Street & Kemper Street (Proposed Project Intersection)	DNE	City of San Diego
34	Kurtz Street & Frontier Drive (Proposed Project Intersection)	DNE	City of San Diego
35	Kurtz Street & Driveway H1 (Project Driveway)	DNE	City of San Diego
36	Kurtz Street & Driveway E2 (Project Driveway)	DNE	City of San Diego
37	Sports Arena Boulevard & Driveway B2 (Project Driveway)	DNE	City of San Diego

#	Location	Existing Control	Jurisdiction
38	Sports Arena Boulevard & Driveway F/G (Project Driveway)	DNE	City of San Diego
39	Kurtz Street & Driveway A3 (Project Driveway)	DNE	City of San Diego
40	Kurtz Street & Driveway X (Project Driveway)	DNE	City of San Diego

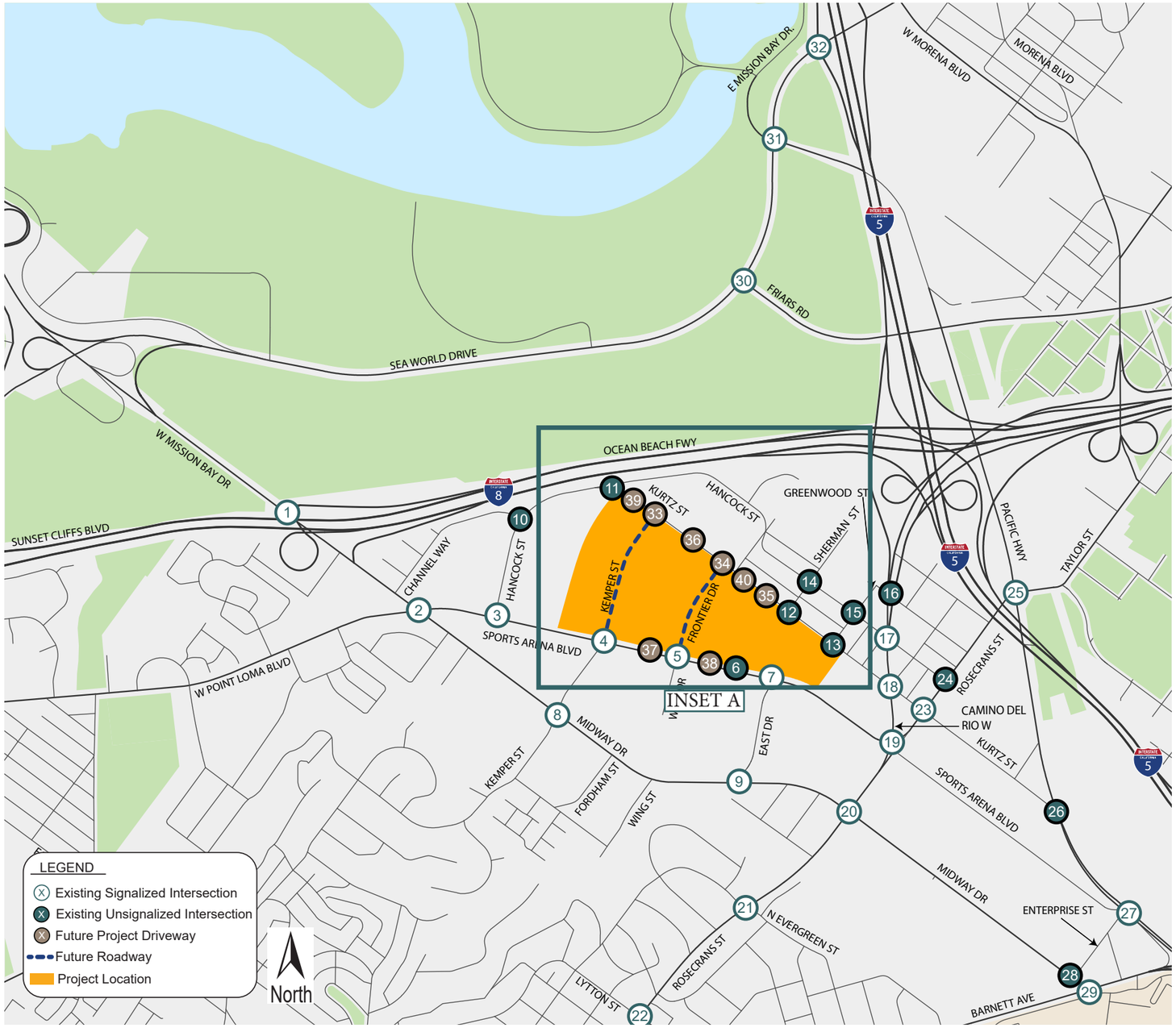
DNE = Does Not Exist

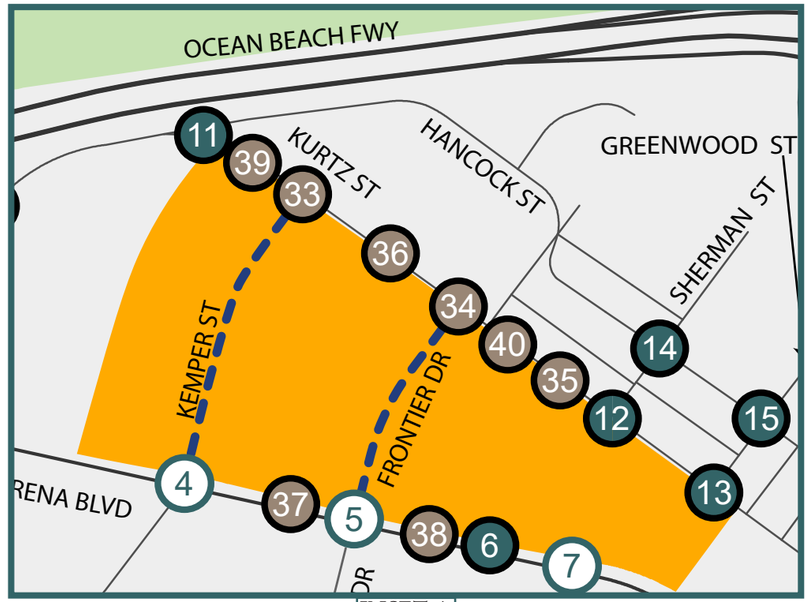
Table 2-2. Study Roadway Segments

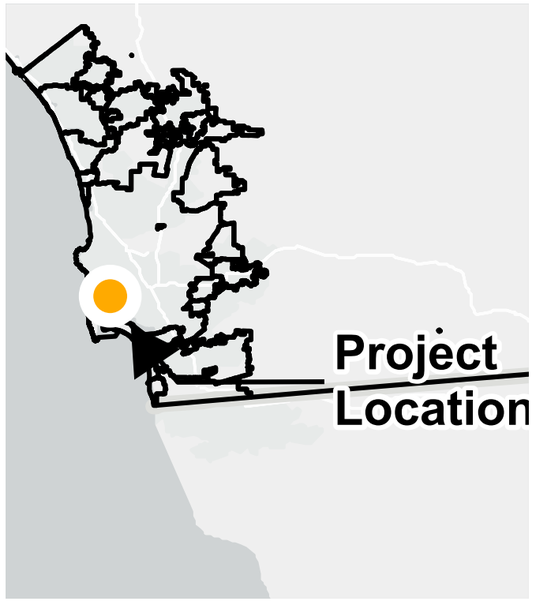
ID	Roadway	Extents
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp
2		I-8 EB On Ramp to W Point Loma Boulevard
3		W Point Loma Boulevard to Hancock Street
4		Hancock Street to Kemper Street
5		Kemper Street to Frontier Drive
6		Frontier Drive to East Drive
7		East Drive to Camino Del Rio West
8		Rosecrans Street to Pacific Highway
9	Camino Del Rio West	North of Greenwood Street
10		Greenwood Street to Hancock Street
11		Hancock Street to Kurtz Street
12	Rosecrans Street	Camino del Rio/Sports Arena Boulevard to Pacific Highway
13		Sports Arena Boulevard to Midway Drive
14	Midway Drive	Kemper Street to Rosecrans Street
15	Kurtz Street	Kemper Street to Frontier Drive
16		Frontier Drive to Greenwood Street
17		Greenwood Street to Camino del Rio West
18	Hancock Street	Sports Arena Boulevard to Channel Way
19		Channel Way to Kurtz St
20		Kurtz Street to Greenwood Street
21		Greenwood Street to Camino Del Rio West
22	*Frontier Drive (Plus Project scenarios Only)	Sports Arena Boulevard to Kurtz Street
23	*Kemper Street (Plus Project scenarios Only)	Sports Arena Boulevard to Kurtz Street

*Project will construct these roadways as shown in the Midway-Pacific Highway Community Plan

Figure 2-1. Study Area Map







2.2 ANALYSIS PROCESS

The TSM provides guidelines for preparing an LMA. The analysis process includes determining the vehicular operations at the study intersections for the peak periods as well as documenting pedestrian, bicycle, and transit facilities within the study area. Intersection operations were evaluated using Synchro 11 software. Analysis results were compared to the City's standards to determine project effects.

The Highway Capacity Manual (HCM), published by the Transportation Research Board, establishes procedures to evaluate facilities and rate their ability to process traffic volumes. The terminology "level of service" is used to provide a qualitative evaluation based on certain quantitative calculations, which are related to average delays.

2.2.1 PEDESTRIANS

The TSM states that pedestrian analysis should focus primarily on pedestrian connectivity, walkshed analysis, and adequacy of facilities, with additional analysis requirements possible in dense, urban environments. Pedestrian facilities evaluated include sidewalks, crosswalks, curb ramps, and pedestrian signal heads.

2.2.2 BICYCLES

Bicycle projects or improvements identified in the City's Bicycle Master Plan or the Midway-Pacific Highway Community Plan (CP) and located within the project study area will be documented. Bicycle facilities within the project study area were evaluated for connectivity gaps and deficiencies, per the TSM. Bicycle facilities include physical roadway features, as well as signing and striping of bicycle travel lanes.

2.2.3 TRANSIT

Planned and/or proposed transit improvements identified in the SANDAG 2021 Regional Plan and in the Central Mobility Hub Comprehensive Multimodal Corridor Plan (CMCP) (June 2023) that are located within the project study area will be documented. The transit system within the study area should be evaluated for the following project effects, per the TSM:

- Anticipated increase in travel time for buses due to intersection or corridor delay
- Conflicts between existing/planned transit facilities and project driveways

2.2.4 VEHICULAR LEVEL OF SERVICE ANALYSIS

Level of Service for Intersections

Level of service (LOS) for intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and loss of travel time. The LOS reported for signalized intersections is the average control delay per vehicle for the peak 15-minute period within the hour analyzed. The average control delay includes initial deceleration delay, queue move-up time, and final acceleration time in addition to the stop delay. LOS for unsignalized intersections is determined by the computed or measured control delay and is defined for each movement. At all-way stop-controlled intersections, the delay reported is the average control delay of all movements at the intersection. At one-way or two-way stop-controlled intersections, the delay reported represents the worst movement which is typically the left-turn from the minor street approach. **Table 2-3** describes the criteria for the various levels of service designations for signalized and unsignalized intersections.

Table 2-3. LOS Criteria for Intersections

LOS	Control Delay (sec/veh)		Description
	Signalized Intersections (a)	*Unsignalized Intersections (b)	
A	≤10.0	≤10.0	Operations with very low delay and most vehicles do not stop.
B	>10.0 and ≤20.0	>10.0 and ≤15.0	Operations with good progression but with some restricted movement.
C	>20.0 and ≤35.0	>15.0 and ≤25.0	Operations where a significant number of vehicles are stopping with some backup and light congestion.
D	>35.0 and ≤55.0	>25.0 and ≤35.0	Operations where congestion is noticeable, longer delays occur, and many vehicles stop. The proportion of vehicles not stopping declines
E	>55.0 and ≤80.0	>35.0 and ≤50.0	Operations where there is significant delay, extensive queuing, and poor progression.
F	>80.0	>50.0	Operations that is unacceptable to most drivers, when the arrival rates exceed the capacity of the intersection.

Source:
(a) 6th Edition Highway Capacity Manual, Chapter 19, Page 16, Exhibit 19-8; 2000 Edition Highway Capacity Manual, Chapter 16, Page 2
(b) 6th Edition Highway Capacity Manual, Chapter 20, Page 6, Exhibit 20-2; 2000 Edition Highway Capacity Manual, Chapter 17, Page 2 & 32
*The LOS criteria for roundabouts would be the same as unsignalized intersections.

Synchro 11 software was used to analyze the intersection level of service operations for both signalized and unsignalized intersections. The intersection analysis uses the methodologies outlined in HCM 6th Edition except where limitations to HCM 6th edition methodology was present such as a fifth leg, clustered intersections, custom phasing, or exclusive pedestrian phasing. For these intersections, HCM 2000 methodology was used.

The following list contains the assumptions used for intersection analysis:

- **Peak-hour factor (PHF)** – PHFs collected in field were assigned per approach under existing conditions, and default value of 0.92 PHF assigned at all approaches under future conditions per the TSM.
- **Saturation flow rate** – Typical saturation flow rate of 1,900 vehicles per hour per lane
- **Signal timing** - Existing signal timings were modeled for the signalized intersection under existing and future base scenarios, except the intersections near the NAVWAR site which were optimized under future base scenarios to facilitate the large increase in traffic volumes from the future NAVWAR projects. Signal timings were also optimized under plus project scenarios. Signal timing sheets for the signalized study intersections are provided in **Appendix D**.

Thresholds for Project Effects at Intersections

Intersections were considered to exhibit project effects if the following changes to LOS were calculated in Plus Project scenarios when compared to LOS results in Base scenarios. **Table 2-4** defines transportation effects for City of San Diego intersections for when project improvements should be provided.

Table 2-4. Project Effect Criteria for Intersections

Intersection Control	Within ½ mile path of travel of a Major Transit Stop	Outside ½ mile path of travel of a Major Transit Stop
Signalized/All-Way Stop/Roundabout	Project causes intersection to degrade to LOS F, OR Project adds traffic to intersection already at LOS F	Project causes intersection to degrade to LOS E or F, OR Project adds traffic to intersection already at LOS E or F
Side-Street Stop	Project causes the worst movement to degrade to LOS F, OR Project adds traffic to the worst movement already at LOS F	Project causes the worst movement to degrade to LOS E or F, OR Project adds traffic to the worst movement already at LOS E or F

Source: City of San Diego Transportation Study Manual (2022)

Level of Service for Roundabouts (SIDRA)

Roundabout level of service (LOS) results were determined using methods defined in the *Highway Capacity Manual (HCM), 6th Edition* and SIDRA (Version 9.1) traffic analysis software. SIDRA software combines geometry and gap-acceptance parameters which consider the effect that the traffic volumes would have on driver behavior, through gap-availability and gap-acceptance modeling. This software is compatible with the Highway Capacity Manual for roundabout evaluation. The HCM roundabout intersection procedures define LOS as a function of average control delay for the intersection as a whole.

Level of Service for Roadway Segments

The plus project roadway level of service will determine if the project needs to implement roadway improvements identified in the Community Plan. **Table 2-5** summarizes the TSM's roadway level of service criteria based on classification and average daily traffic (ADT).

Thresholds for Project Effects for Roadway Segments

Roadway segments were considered to exhibit project effects if the following LOS changes were observed in Plus Project scenarios when compared to results in Base scenarios. **Table 2-6** defines the criteria for project effects for roadway segments per the TSM and whether the project should implement the improvement or contribute a fair share towards the improvement.

Table 2-5. Level of Service Thresholds for City of San Diego Roadway Segments

Street Classification	Lanes	Level of Service				
		A	B	C	D	E
Expressway	8 lanes	40,000	56,000	80,000	93,500	107,000
Expressway	7 lanes	35,000	49,000	70,000	82,000	93,500
Expressway	6 lanes	30,000	42,000	60,000	70,000	80,000
Prime Arterial	8 lanes	35,000	50,000	70,000	75,000	80,000
Prime Arterial	7 lanes	30,000	42,500	60,000	65,000	70,000
Prime Arterial	6 lanes	25,000	35,000	50,000	55,000	60,000
Prime Arterial	5 lanes	20,000	28,000	40,000	45,000	50,000
Prime Arterial	4 lanes	17,500	24,500	35,000	40,000	45,000
Major Arterial	7 lanes	22,500	31,500	45,000	50,000	55,000
Major Arterial	6 lanes	20,000	28,000	40,000	45,000	50,000
Major Arterial[3]	5 lanes	17,500	24,500	35,000	40,000	45,000
Major Arterial	4 lanes	15,000	21,000	30,000	35,000	40,000
Major Arterial** ***(with flex lanes)	4 lanes	15,000	21,000	30,000	35,000	40,000
Major Arterial	3 lanes	11,250	15,750	22,500	26,250	30,000
Major Arterial	2 lanes	7,500	10,500	15,000	17,500	20,000
Major Arterial** ***(with flex lanes)	2 lanes	7,500	10,500	15,000	17,500	20,000
Major Arterial ***(one-way)***	3 lanes	12,500	16,500	22,500	25,000	27,500
Major Arterial ***(one-way)***	2 lanes	10,000	13,000	17,500	20,000	22,500
Collector ***(with two-way left turn lane)***	5 lanes	12,500	17,500	25,000	30,750	37,500
Collector ***(with two-way left turn lane)***	4 lanes	10,000	14,000	20,000	25,000	30,000
Collector ***(with two-way left turn lane)***	3 lanes	7,500	10,500	15,000	18,750	22,500
Collector ***(with two-way left turn lane)***	2 lanes	5,000	7,000	10,000	13,000	15,000
***Collector (with flex lanes)**	2 lanes	5,000	7,000	10,000	13,000	15,000
Collector ***(without two-way left turn lane)***	4 lanes	5,000	7,000	10,000	13,000	15,000
Collector ***(without two-way left turn lane)***	3 lanes	4,000	5,000	7,500	10,000	11,000
Collector ***(without two-way left turn lane)***	2 lanes	2,500	3,500	5,000	6,500	8,000
Collector ***(with no fronting property)***	2 lanes	4,000	5,500	7,500	9,000	10,000
Collector ***(one-way)***	3 lanes	11,000	14,000	19,000	22,500	26,000
Collector ***(one-way)***	2 lanes	7,500	9,500	12,500	15,000	17,500
Collector ***(one-way)***	1 lane	2,500	3,500	5,000	6,500	7,500
Sub-Collector ***(Single-family)***	2 lanes	--	--	2,200	--	--

Source: City of San Diego Transportation Study Manual (2022)
*LOS Criteria provide by City of San Diego staff.

Table 2-6. Project Effect Criteria for Roadway Segments

Roadway Type	Complete implementation of Improvement per the Community Plan	Fair Share of Improvement per the Community Plan
Roadways with improvements identified in the community plan	Project adds >50% of total daily vehicle trips on segment	Project adds ≤50% of total daily vehicle trips on segment
Planned new circulation element roadways	Project adds >50% of total daily vehicle trips on segment	Project adds ≤50% of total daily vehicle trips on segment

Source: City of San Diego Transportation Study Manual (2022)

2.2.5 QUEUE ANALYSIS

SimTraffic software included in Synchro 11 was used to analyze the 95th percentile queues at the turn pockets for signalized intersections. The 95th percentile queue is the queue length expected to be exceeded only 5% of the time. The 95th percentile queue lengths reported represent an average of five SimTraffic runs.

2.2.6 FREEWAY OFF-RAMP ANALYSIS

Per the TSM, freeway interchange analysis should show changes in off-ramp maximum queues with the addition of project traffic. This analysis was performed at the three freeway off-ramp intersections within the study area.

2.2.7 SIGNAL WARRANT ANALYSIS

The *2014 California Manual on Uniform Traffic Control Devices (CA MUTCD), Chapter 4, Revision 8* provides nine warrants which provide criteria a project must meet for signal installation. While traffic signals may be justified when one or more signal warrants are satisfied, satisfaction of one or more warrants do not themselves require installation of a traffic signal. The signal warrants used in this analysis are described in detail below.

Warrant 1: Eight Hour Vehicular Volume

The criteria for Warrant 1, Eight-Hour Vehicular Volume, are contained in Table 4C-1 of the CA MUTCD. Warrant 1 is satisfied when one of two conditions is met during any 8 hours of an average day: The Minimum Vehicular Volume, Condition A, and the Interruption of Continuous Traffic, Condition B. Condition A may be satisfied due to a significant volume on the minor street approach, while Condition B may be satisfied due to a significant volume of traffic on the major street. The details of Condition A and Condition B are listed below:

A. The vehicles per hour given in both 100 percent columns of **Table 2-7** exist on the major-street and the higher-volume minor street approaches, respectively, to the intersection; or

B. The vehicles per hour given in both 100 percent columns of Condition B in **Table 2-7** exist on the major-street and the higher-volumes minor-street approaches, respectively, to the intersection.

Table 2-7. CA MUTCD Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume

[b] Used for combination of Conditions A and B after adequate trial of other remedial measures

[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Warrant 2: Four-Hour Vehicular Volume

The criteria for Warrant 2, Four-Hour Vehicular Volume, are contained in Figure 4C-1 and Figure 4C-2 of the CA MUTCD and are shown on **Figure 2-2** of this report. The Four-Hour Vehicular Volume Warrant is met when, for each of any four hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach (one direction only) fall above the applicable curve.

If the posted speed limit on the major street exceeds 40 miles per hour, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, then **Figure 2-3** may be used instead.

Figure 2-2. CA MUTCD Warrant 2, Four-Hour Vehicular Volume

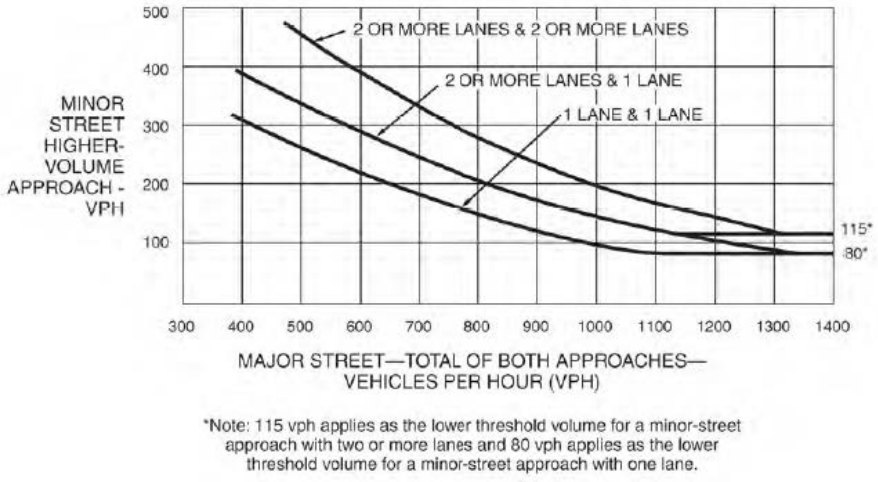
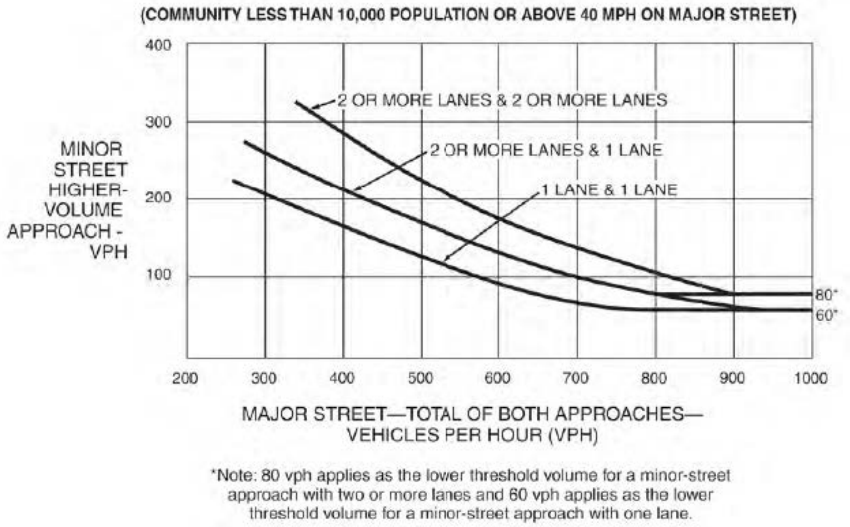


Figure 2-3. CA MUTCD Warrant 2, Four-Hour Vehicular Volume (70% Factor)



Warrant 3: Peak Hour

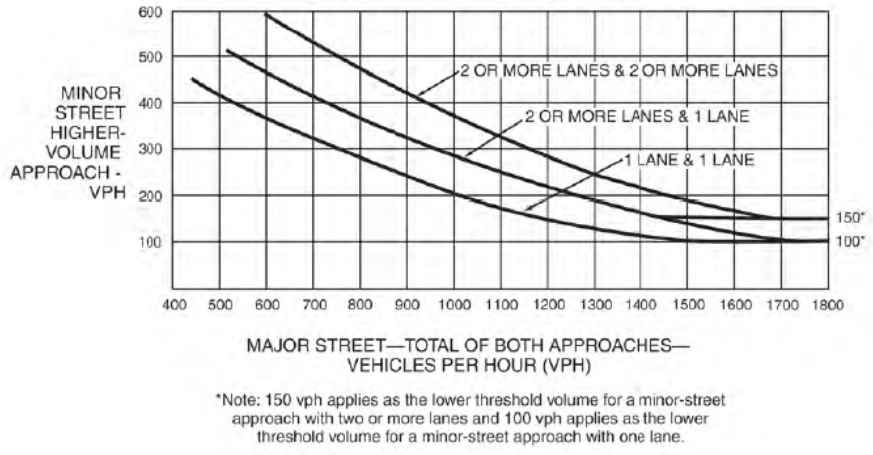
The criteria for Warrant 3, Peak Hour Vehicular Volume, are contained in Figure 4C-3 and Figure 4C-4 of the CA MUTCD and are shown in **Figure 2-4** and **Figure 2-5** of this report. The Peak Hour Warrant is met when either of the following two parts is met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
    1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and
    2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
    3. The total entering volume serviced during the hour equals or exceeds 800 vehicles per hour for intersections with four or more approaches.

B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 2-4** for the applicable combination of approach lanes.
    If the posted speed on the major street exceeds 40 miles per hour, or if the intersection lies within the built-up area of an isolated community having a population less than 10,000, **Figure 2-5** may be used in place of **Figure 2-4**

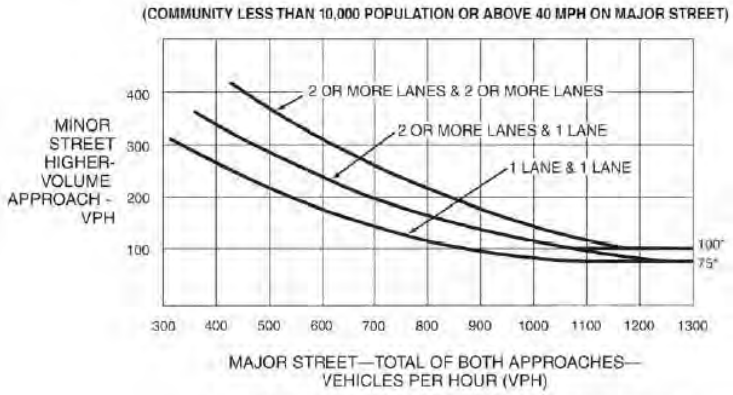
This warrant applies to unusual cases, such as office complex, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. This warrant applies as the Entertainment Center will attract and discharge large numbers of vehicles over a short time.

Figure 2-4. CA MUTCD Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 2-5. CA MUTCD Warrant 2, Peak Hour (70% Factor)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

2.3 PUBLIC IMPROVEMENTS

The TSM provides guidance for improvements for vehicular traffic and alternative transportation (walking, biking, and transit) needs, as summarized in **Table 2-8**.

Table 2-8. Public Improvement Recommendations

Facility	Measurement of Effectiveness (MOE)	Improvement Recommendations
Pedestrian	Connectivity, walkshed, ADA-compliance	• Close sidewalk gaps and/or remove obstructions • Construct curb ramps to meet accessibility standards • Accommodate increased pedestrian demand with traffic calming and/or pedestrian related signal timing changes
Bicycle	Connectivity, bikeshed	• Construct bicycle facilities identified in the Community Plan or City Bicycle Master Plan. • Accommodate increased bicycle demand with upgrades to existing facilities.
Transit	Travel time, on-time performance, conflict identification	• Implement transit priority treatments and/or improvements identified in the Community Plan or at movements that experience LOS E or worse • Accommodate transit demand with additional stops and abiding by the Community Plan, RTIP, SANDAG, MTS, and/or the North County Transit District
Signalized Intersection	Seconds of delay, queue lengths, Project traffic volumes	• Add or lengthen a turn lane • Improve/modify signal timing • Provide Intelligent Transportation System (ITS) improvements • Add right-turn overlap phasing
Unsignalized Intersection	Seconds of delay, queue lengths, Project traffic volumes	• Evaluate alternative traffic control such as a signal or roundabout
Roadway Segment	ADT, v/c ratio	• Improve or upgrade facilities identified in the Community Plan
Freeway	Off-Ramp Queues (ft)	• Coordinate with City/Caltrans to improve off-ramp spillbacks onto freeway mainline.

Source: City of San Diego Transportation Study Manual (2022)

3 EXISTING (2023) SCENARIO

This section summarizes the existing roadway circulation network, daily and peak-hour traffic volumes, and operations at the study intersections and roadway segments.

3.1 ROADWAY NETWORK

The roadways along the project frontages include Sports Arena Boulevard to the south and Kurtz Street to the north. Surrounding roadways nearby the project site include Sports Arena Boulevard, Kurtz Street, Hancock Street, Kemper Street, Camino Del Rio West, Rosecrans Street, W Point Loma Boulevard, and Midway Drive. The project proposes two new roadways— Kemper Street and Frontier Drive running north-south through the site between Kurtz Street and Sports Arena Boulevard, consistent with the Midway-Pacific Highway Community Plan (2018).

Table 3-1 provides a description of existing roadway network as of December 2023, of the study area. The planned roadway classifications are provided in the Midway-Pacific Highway Community Plan (2018). **Figure 3-1** shows the existing roadway classifications, and **Figure 3-2** shows the planned roadway classifications based on the Midway-Pacific Highway Community Plan (2018).

Figure 3-3 illustrates the existing study intersection geometries under the existing (2023) scenario.

Table 3-1. Existing Roadway Network

Roadway	From	To	No. Lanes	Median Type	Sidewalks	Bike Facilities	Transit Route	Posted Speed Limit	Existing Roadway Class.[1]	Planned Roadway Class.[2]
Sports Arena Blvd	I-8 WB Off-Ramp	Rosecrans St	5-6 Lanes	Painted / Raised	B/S (non-contiguous) 6 ft wide	Class II/ Class II Buffered	8 & 9	35 MPH	5-Lane Major Arterial	6-Lane Major Arterial
	Rosecrans St	Barnett Ave	2 Lanes	None	B/S (non-contiguous) 6 ft wide	None	None	25 MPH	2-Lane Collector	2-Lane Collector with CLTL
Kurtz Street	Hancock St	Camino Del Rio W.	2 Lanes (EB only)	None	B/S (non-contiguous) 5 ft wide	None	None	30 MPH	2-Lane Collector (one-way)	2-Lane Collector (one-way)
Hancock Street	Sports Arena Blvd	Kurtz St	2 Lanes	CLTL	B/S (non-contiguous) 5-6 ft wide	None	None	25-30 MPH	2-Lane Collector with CLTL	4-Lane Collector
	Kurtz St	Camino Del Rio W.	2 Lanes (WB only)	None	B/S (non-contiguous) 4-10 ft wide	None	None	25 MPH	2-Lane Collector (one-way)	3-Lane Major Arterial (one-way)
Kemper Street	Sports Arena Blvd	Leland St	2-4 Lanes	CLTL	B/S (both contiguous & non-contiguous) 4-10 ft wide	Class III	None	25 MPH	2-Lane Collector with CLTL	4-Lane Collector
Camino Del Rio West	I-8 WB/I-5 SB Off-Ramps	Sports Arena Blvd	3-4 SB/ 3 NB	Raised	B/S (non-contiguous) 4.5-6 ft wide	None	None	35 MPH	6-Lane Prime Arterial	6-Lane Prime Arterial
Rosecrans Street	Pacific Hwy	Sports Arena Blvd	2 SB/ 2-3 NB	Raised / CLTL	B/S (both contiguous & non-contiguous) 5-9 ft wide	None	8, 9, 28, & 35	30 MPH	4-Lane Collector with CLTL	6-Lane Prime Arterial
	Sports Arena Blvd	Lytton St	3 SB/ 3 NB	Raised	B/S (non-contiguous) 5-15 ft wide	Class II (SB Buffered) / Class III SB	28 & 35	40 MPH	6-Lane Major Arterial	6-Lane Prime Arterial
W Point Loma Blvd	South of Sports Arena Blvd	-	1-2 EB/ 1-2 WB	Raised	B/S	Class II Buffered	8 & 9	25 MPH	-	-
Midway Drive	Barnett Ave	Rosecrans St	2 EB/ 2 WB	Raised / CLTL	B/S	None	35	35 MPH	4-Lane Collector with CLTL	4-Lane Major Arterial

Notes:

[1]Existing roadway classifications based on Figure 3-5 in the Midway Pacific Highway Community Plan.

[2]Planned roadway classifications based on Figure 3-6 in the Midway Pacific Highway Community Plan.

CLTLL – Center Left-Turn Lane median. / W/O – West of / B/S – both sides

Figure 3-1. Existing Roadway Classifications

Midway - Pacific Highway

FIGURE 3-5: EXISTING (2017) STREET CLASSIFICATIONS

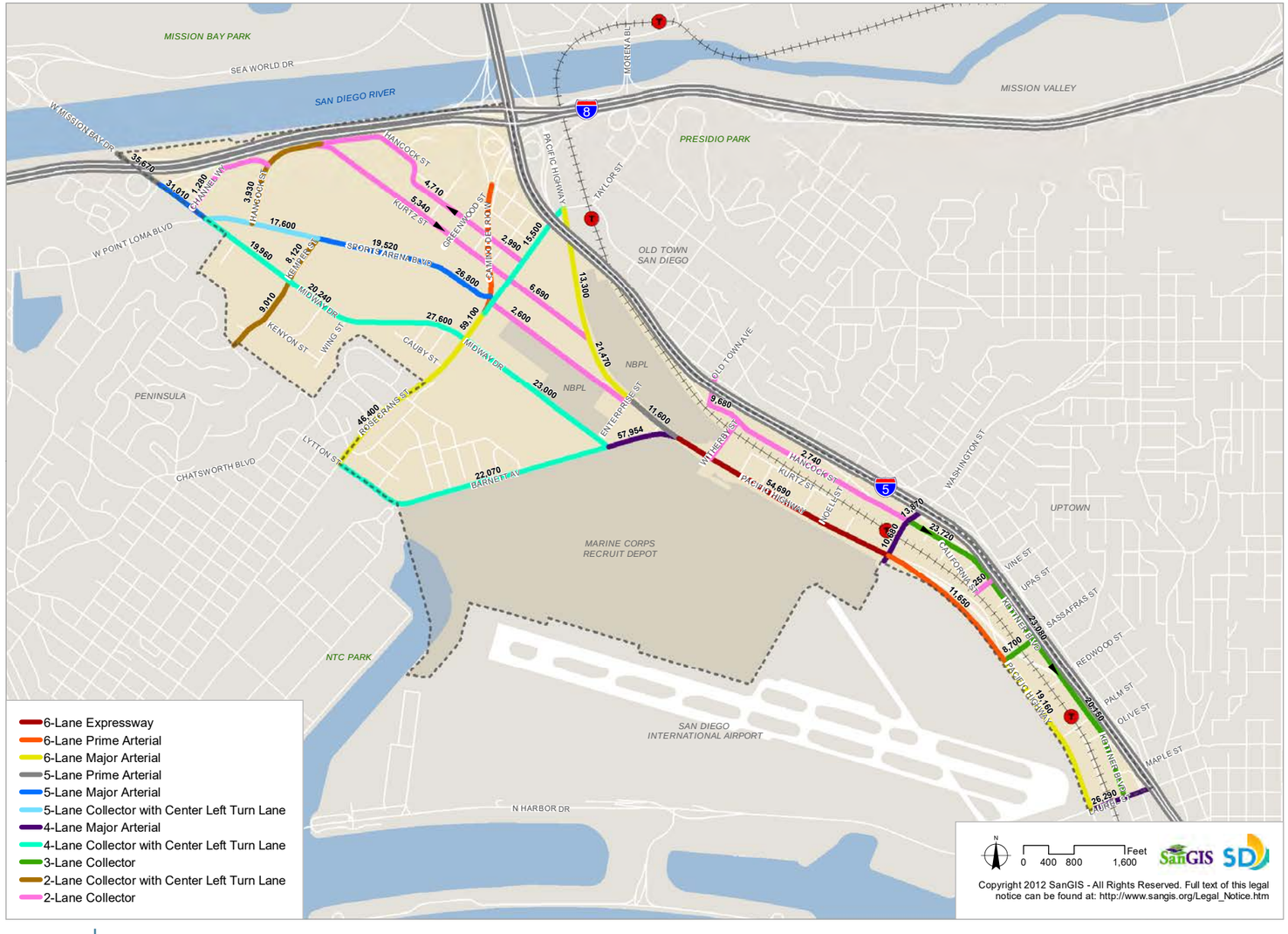
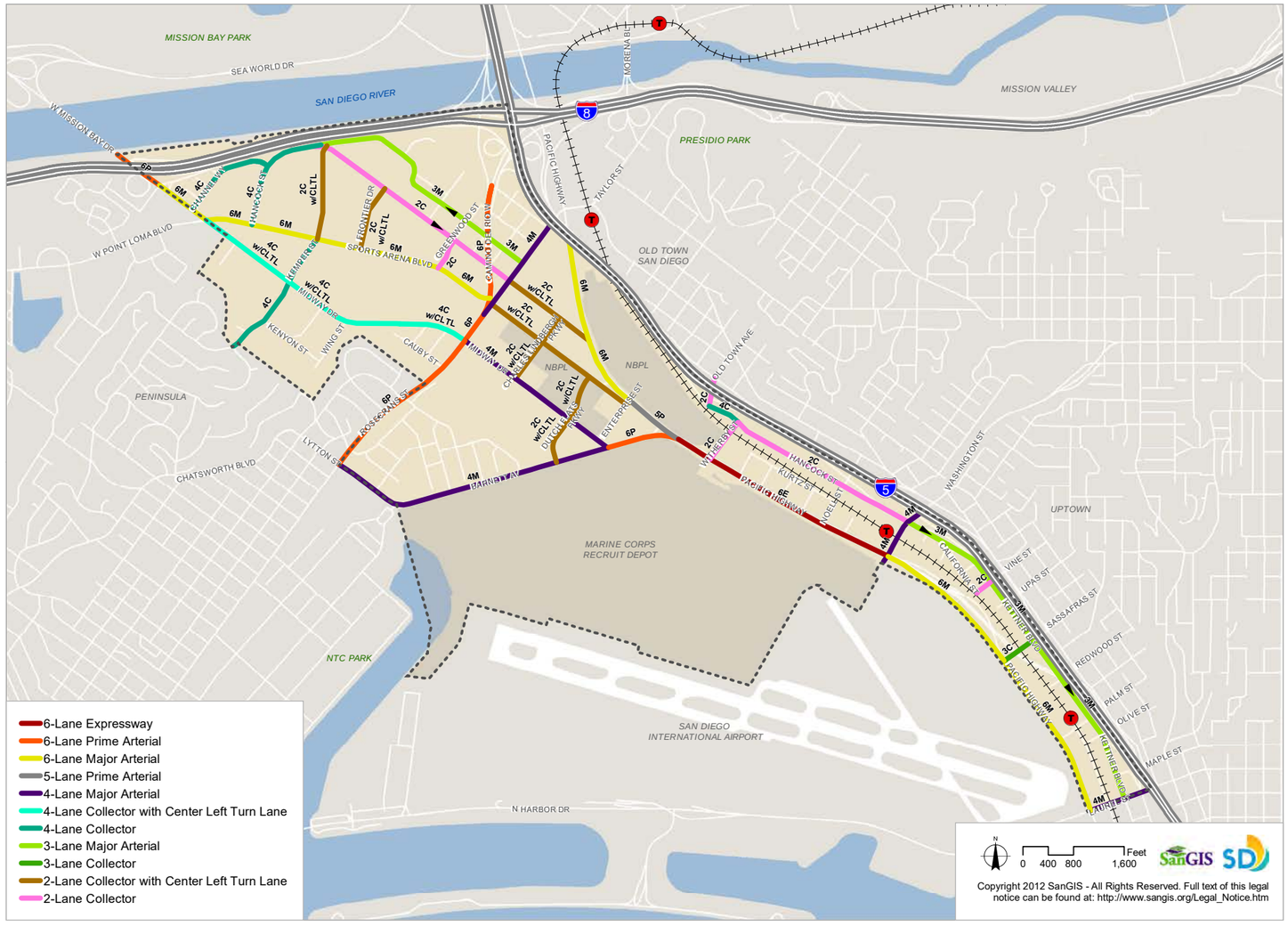


Figure 3-2. Community Plan Planned Roadway Classifications

FIGURE 3-6: PLANNED STREET CLASSIFICATIONS

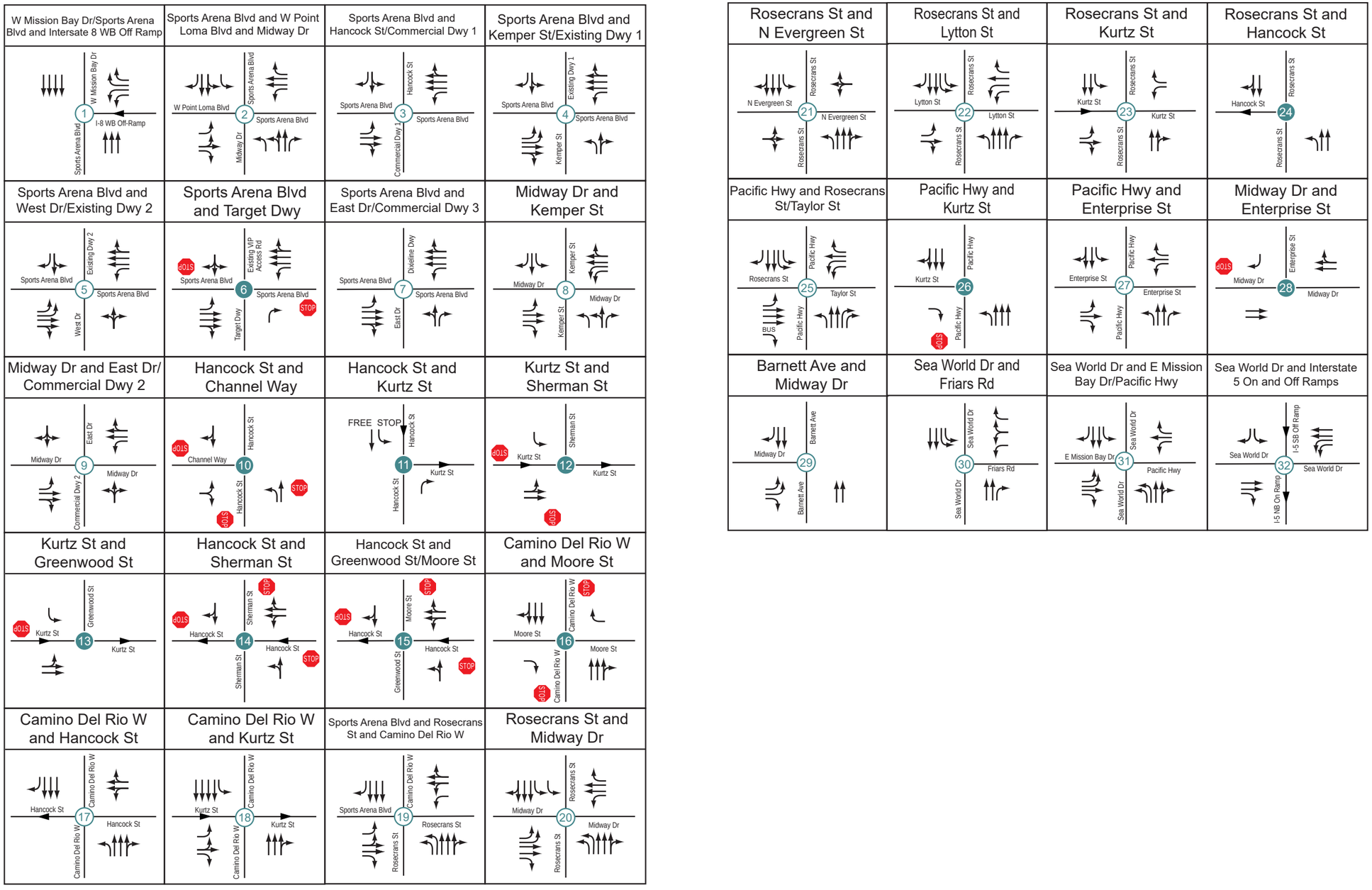


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Figure 3-3. Existing Intersection Geometries (Page 1 of 2)



Figure 3-3. Existing Intersection Geometries (Page 2 of 2)



3.2 TRAFFIC VOLUMES

Peak-hour intersection turning movement counts and roadway segment average daily traffic counts were collected by National Data and Surveying Services (NDS) at the study intersections and study segments on Thursday, September 21, 2023, and Tuesday, October 24, 2023. Data was collected on two typical, non-holiday, event-day weekdays when schools were in session. Intersection vehicle, pedestrian, and bicycle traffic counts were collected from 7:00 AM to 10:00 AM and from 3:00 PM to 7:00 PM. Bi-directional, 24-hour roadway segment counts were collected from 3:00 AM to 3:00 AM to avoid splitting up event traffic between two separate count days. All existing traffic count data is included in **Appendix E**.

Typical event-day attendance was estimated from the September 21, 2023 counts on the day of a Luis Miguel concert. The following data represents actual event-day attendance at typical and full-capacity events observed at the existing Sports Arena in 2023.

a. Jan 7th: San Diego Seals vs Vancouver Warriors – 4,115
b. Jan 8th: San Diego Sockers vs. Dallas Sidekicks – 1,558
c. Jan 11th: San Diego Gulls vs San Jose Barracuda – 3,085
d. Jan 13th: San Diego Gulls vs. Ontario Reign – 6,285
e. Jan 14th: Subtronics Concert – 4,579
f. Sept 21st: Luis Miguel Concert – 10,450

3.3 EXISTING SPORTS ARENA OPERATIONS

The project team completed multiple field visits on weekday event days to observe traffic operations such as approach queues, lane utilization, and peak hour traffic flow. This information was used to calibrate the existing SimTraffic model by checking that the model results provided queues and traffic congestion that generally aligns with those observed in the field. Information on the existing arena event operations and access were extracted from field visits and through correspondence with Sports Arena and ACE parking staff.

3.3.1 ON-SITE EMPLOYEES

The existing arena is operated and managed by ASM Global and various subcontractors. Event employees consist of venue management, and event staff. During events, it is reported that there are anywhere between 80 and 160 ASM Global employees on-site depending on the size of the event, and 34 ASM Global employees on-site when no event is taking place.

Subcontractors provide event employees for traffic-control, parking, ticketing, security, and other arena operations. These employees arrive to the arena six to eight hours prior to an event start time. ASM Global offers full-time employees the option to sign up for a mass transit account, which they are allowed to pay into with pre-tax dollars to be used for transit passes. However, very few part-time employees and no full-time staff take advantage of this option, most likely due to the lack of convenient transit to and from the site. Otherwise, all full- and part-time ASM Global employees are provided free parking passes for on-site parking.

3.3.2 EXISTING ARENA ACCESS

Arena parking and drop-off/ pick-up are currently accessible via five driveways, of which four are inbound/outbound and one is outbound-only. Three driveways are located on Sports Arena Boulevard and two are located on Kurtz Street. **Figure 3-4** illustrates the existing driveways and operations for the project site. The operations of each driveway are as follows:

- **Driveway 2** (Sports Arena Boulevard/Kemper Street) – Provides inbound/outbound access to Sports Arena parking (Driveway 1). Also provides inbound access to Summit Gasoline and Chick-fil-A. Vehicles traveling outbound from Summit Gasoline and Chick-fil-A during the pre-event period must use Driveway 4 to exit.
- **Driveway 4** (Sports Arena Boulevard/West Drive) – Main driveway providing inbound/outbound access to Sports Arena parking (Driveway 3) and Transportation Network Company (TNC) vehicles. Also provides inbound/outbound access to Summit Gasoline, Chick-fil-A, and Chili's.
- **Driveway 20** (driveway located approximately 290 feet east of the Kurtz Street/Hancock Street intersection) – Operates as an outbound-only driveway for all events.
- **Driveway 19** (driveway located approximately 695 feet east of Driveway 20) – Operates as a right in/right out only, inbound/outbound driveway for all events. All inbound trips on Kurtz Street enter the site via Driveway 19. The number of entrance/exit lanes depends on the event size.
- **Driveway 5** (driveway along Sports Arena Boulevard located approximately 485 feet east of Driveway 2) – Operates as an inbound/outbound access driveway for major events only (sometimes designated for VIP parking).

3.3.3 RIDESHARE ACCESS

As shown in **Figure 3-4**, the Sports Arena directs rideshare vehicles to utilize Driveway 4 for drop-off operations. Rideshare vehicles are directed to enter through Driveway 4 then make a left at Driveway 3 (avoiding the arena parking lot entrance) to drop off patrons. After drop-off, rideshare vehicles must exit back through Driveway 4. Rideshare vehicles may not exit through Driveway 2 during drop-off operations due to a physical blockade.

Pick-up operations follow a similar pattern to drop-off operations; vehicles are directed to enter through Driveway 4 then make a left at Driveway 3 to pick up riders. Once riders are in the vehicles, however, rideshare vehicles are directed to make a left turn through Driveway 1 to exit through Driveway 2.

3.3.4 EXISTING SITE AND ARENA DRIVEWAY VOLUMES

Kimley-Horn collected driveway counts for a full concert event at the existing Sports Arena to develop existing volumes for the project site. Driveway counts were collected at 20 driveways along the existing site border. Counts were collected from 3:00 a.m. prior to the event to 3:00 a.m. after the event on Thursday, September 21, 2023, during the Luis Miguel concert, and were used to directly calculate the Commuter AM peak hour, Commuter PM peak hour, Pre-Event PM peak hour, and ADT volumes for the existing site volumes. **Table 3-2** summarizes the driveway volumes for the arena access driveways.

Table 3-3 summarizes the driveway volumes for the total site. Driveway 1 and Driveway 3 are internal-access driveways for the arena accessible via Driveways 2 and 4, and thus are not included in the Total Site volumes. Volumes at Driveways 1 and 3 represent arena spectator trips only.

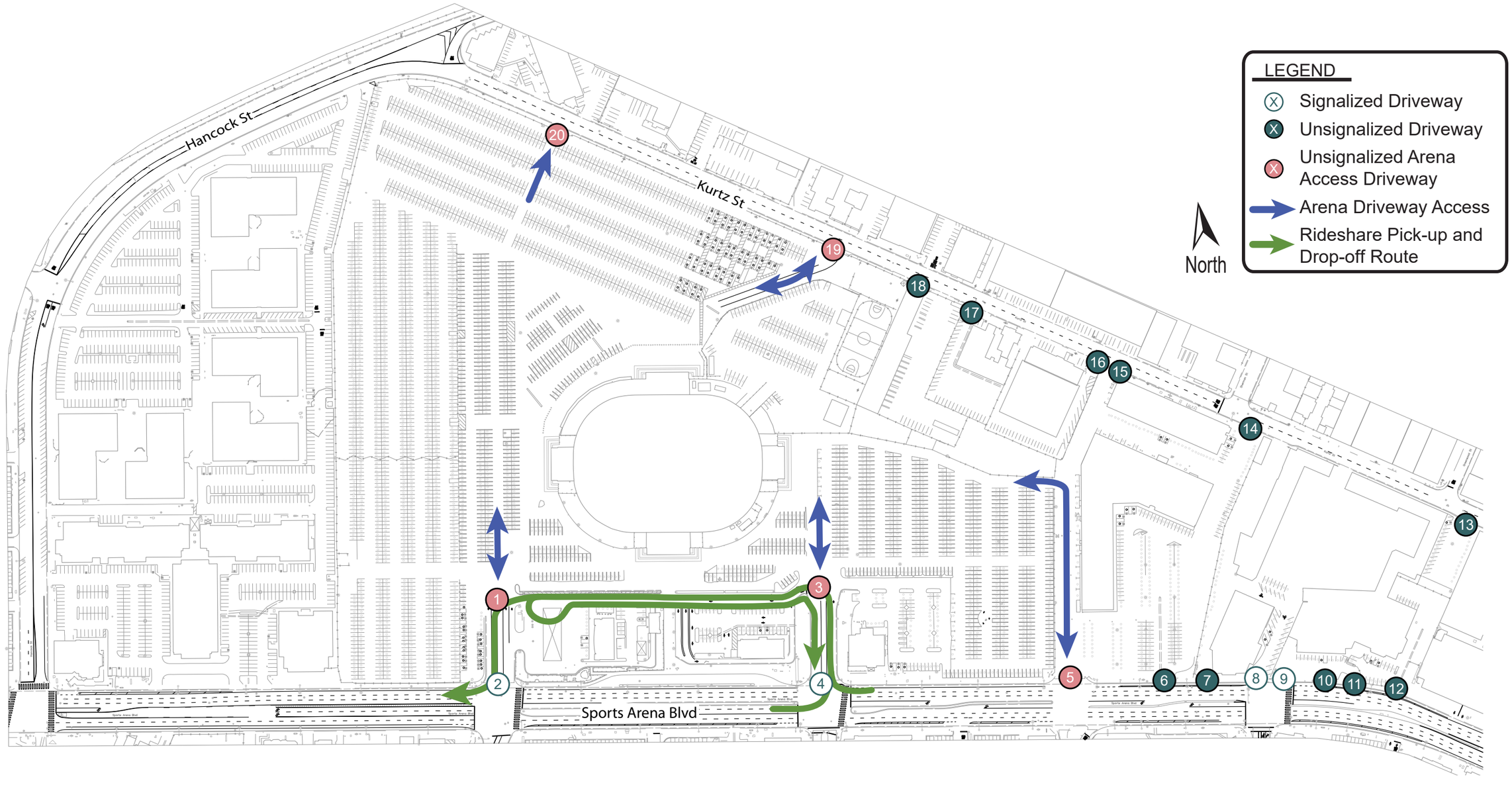
Table 3-2. Existing Driveway Volumes – Arena Only

#	Driveway Name	ADT		Peak hour AM Commuter		Peak hour PM Commuter		PM Pre-Event	
		IN	OUT	IN	OUT	IN	OUT	IN	OUT
1	Kemper St/Summit Gasoline Dwy & Summit Gasoline Dwy W	1212	1330	8	4	87	14	292	9
3	West Dr/Summit Gasoline Dwy & Summit Gasoline Dwy E	743	856	42	2	79	43	30	8
5	Sports Arena Blvd & Sports Arena Dwy 1	659	637	27	7	60	29	101	37
19	Sports Arena East Pkg Dwy & Kurtz St	599	536	0	0	51	15	141	18
20	Sports Arena West Pkg Dwy & Kurtz St	4	300	0	0	0	0	0	0
	Arena Total	**3217**	**3659**	**77**	**13**	**277**	**101**	**564**	**72**

Table 3-3. Existing Driveway Volumes – Total Site

#	Driveway Name	ADT		Peak hour AM Commuter		Peak hour PM Commuter		PM Pre-Event	
		IN	OUT	IN	OUT	IN	OUT	IN	OUT
2	Kemper St & Sports Arena Blvd	3,534	2,763	138	118	246	17	425	12
4	West Dr & Sports Arena Blvd	3,422	3,576	103	83	322	314	524	271
5	Sports Arena Blvd & Sports Arena Dwy 1	659	637	27	7	60	29	101	37
6	Sports Arena Blvd & Sports Arena Dwy 2	633	570	22	14	97	40	88	35
7	Sports Arena Blvd & Sports Arena Dwy 3	0	289	0	33	0	12	0	2
8	Sports Arena Blvd & Sports Arena Dwy 4	423	24	53	0	19	3	3	3
9	Sports Arena Blvd & Sports Arena Dwy 5	118	125	11	5	14	10	4	8
10	Sports Arena Blvd & Sports Arena Dwy 6	45	175	4	13	2	16	0	4
11	Sports Arena Blvd & Sports Arena Dwy 7	240	78	28	4	19	7	6	3
12	Sports Arena Blvd & Sports Arena Dwy 8	36	36	1	5	0	0	2	3
13	Kurtz St & Kurtz Dwy 1	50	42	5	1	4	8	2	0
14	Kurtz St & Kurtz Dwy 2	835	799	32	15	54	45	125	83
15	Kurtz St & Kurtz Dwy 3	60	96	10	11	1	12	3	1
16	Kurtz St & Kurtz Dwy 4	53	6	10	0	3	0	1	0
17	Kurtz St & Kurtz Dwy 5	161	14	41	0	6	0	4	0
18	Kurtz St & Kurtz Dwy 6	61	58	4	3	6	4	4	3
19	Sports Arena East Pkg Dwy & Kurtz St	599	536	0	0	51	15	141	18
20	Sports Arena West Pkg Dwy & Kurtz St	4	300	0	0	0	0	0	0
Site Total		**10,933**	**10,124**	**489**	**312**	**904**	**532**	**1,433**	**483**
		21,057		**801**		**1,436**		**1,916**	

Figure 3-4. Existing Driveways and Site Operations



BASEMAP SOURCE: PROJECT DESIGN CONSULTANTS A BOWMAN COMPANY

3.3.5 EXISTING ARENA EVENTS

The existing arena currently has a 16,000-seat capacity for sporting events and 10,500-seat capacity for concerts due to the u-shaped seating layout. **Table 3-4.** summarizes the events and their typical average attendance for the existing arena.

Table 3-4. Existing Arena Events and Attendance

	Average Events/Year	Event Days *		Average Turnstile Attendance	
		Weekends	Weekdays	Per Event	Annual
San Diego Gulls	35	23	12	4,800	168,275
San Diego Seals	10	10	0	2,930	29,300
San Diego Strike Force	7	6	1	955	6,682
San Diego Sockers	15	14	1	1,760	26,450
Concert - Large	18	10	8	9,026	162,468
Concert - Small	12	9	3	4,770	57,242
Family Shows	13	6	3	3,142	40,850
Ice Shows	14	6	2	3,342	46,792
Motorsports	3	2	0	7,087	21,261
Boxing	1	1	0	5,372	5,372
Other Sports	1	1	0	7,009	7,009
Other	1	1	0	2,618	2,618
Total	**130**	**89**	**30**		

Notes:
*Weekend events are events on Friday, Saturday, or Sunday.

3.4 EXISTING SITE PARKING

Currently 3,861 parking stalls are provided via surface lot space for the Sports Arena and surrounding commercial uses as shown in **Figure 1-5**. Additionally, surrounding on-street parking and adjacent commercial lots were observed to be used by spectators to avoid parking costs (typically $35 per vehicle) on-site for events. Existing parking lots are accessible via three intersections on Sports Arena Boulevard and two driveways on Kurtz Street, listed in Section 3.3.4 of this report.

3.5 INTERSECTION LEVEL OF SERVICE ANALYSIS

The existing (2023) scenario intersection analysis was performed based on existing lane geometries and traffic controls observed, and data collected during the Commuter AM, Commuter PM, and Pre-Event PM peak hours on weekday event-day. **Figure 3-5** illustrates the existing traffic volumes at the study intersections.

Table 3-5. displays the LOS analysis results for the study intersections under the existing scenario.

Under the existing scenario, all intersections currently operate at LOS D or better during all peak hours except:

- Intersection #2 – Midway Drive & W Point Loma Boulevard & Sports Arena Boulevard (PM: LOS

E; Pre-Event: LOS E)

- Intersection #5 – West Drive / Frontier Drive & Sports Arena Boulevard (Pre-Event: LOS F)
- Intersection #6 – Target Driveway & Sports Arena Boulevard (PM: LOS E; WKND: LOS F)
- Intersection #16 – Camino del Rio W & Moore Street (WKND: LOS E)
- Intersection #17 – Camino del Rio W & Hancock Street (AM: LOS F; PM: LOS F; Pre-Event: LOS F)
- Intersection #20 – Rosecrans Street & Midway Drive (AM: LOS E; PM: LOS E; Pre-Event: LOS E; WKND: LOS E)
- Intersection #27 – Pacific Highway & Enterprise Street (PM: LOS F; WKND: LOS F)
- Intersection #29 – Barnett Avenue & Midway Drive (PM: LOF F)

Appendix F contains the intersection LOS calculation worksheets for the existing scenario.

3.6 QUEUEING ANALYSIS

The 95th percentile queue lengths reported represent an average of five SimTraffic runs. **Table 3-6** summarizes the 95th percentile queues under the existing scenario. **Appendix G** contains the 95th percentile queue worksheets for the existing scenario. Under the existing scenario, queues exceed the existing available storage length at:

- 7 intersections in the Commuter AM peak,
- 17 intersections in the Commuter PM peak, and
- 12 intersections in the pre-event PM peak.

3.7 ROADWAY SEGMENT ANALYSIS

The existing (2023) scenario roadway segment analysis was performed based on existing roadway geometries and 24-hour roadway segment counts collected on a weekday event day (Wednesday, January 11th, 2023). **Table 3-7** summarizes the roadway segment LOS analysis at the study segments under the existing scenario.

Under the existing (2023) scenario, all roadway segments operate at LOS D or better on a weekday event day except the following:

- Camino del Rio West north of Greenwood Street (LOS F)
- Camino del Rio West between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)

Figure 3-5. Existing (2023) Traffic Volumes (Page 1 of 3)

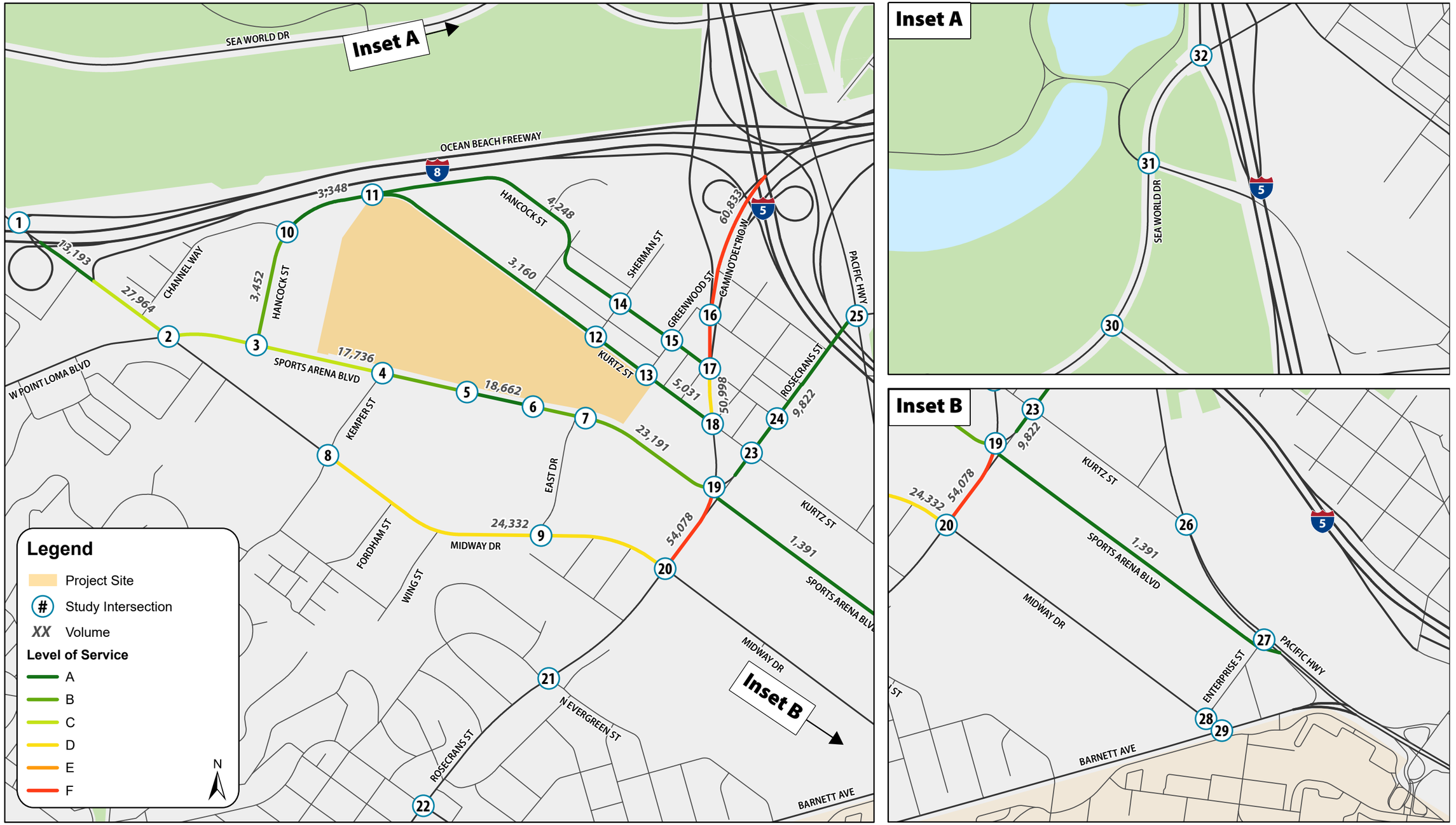
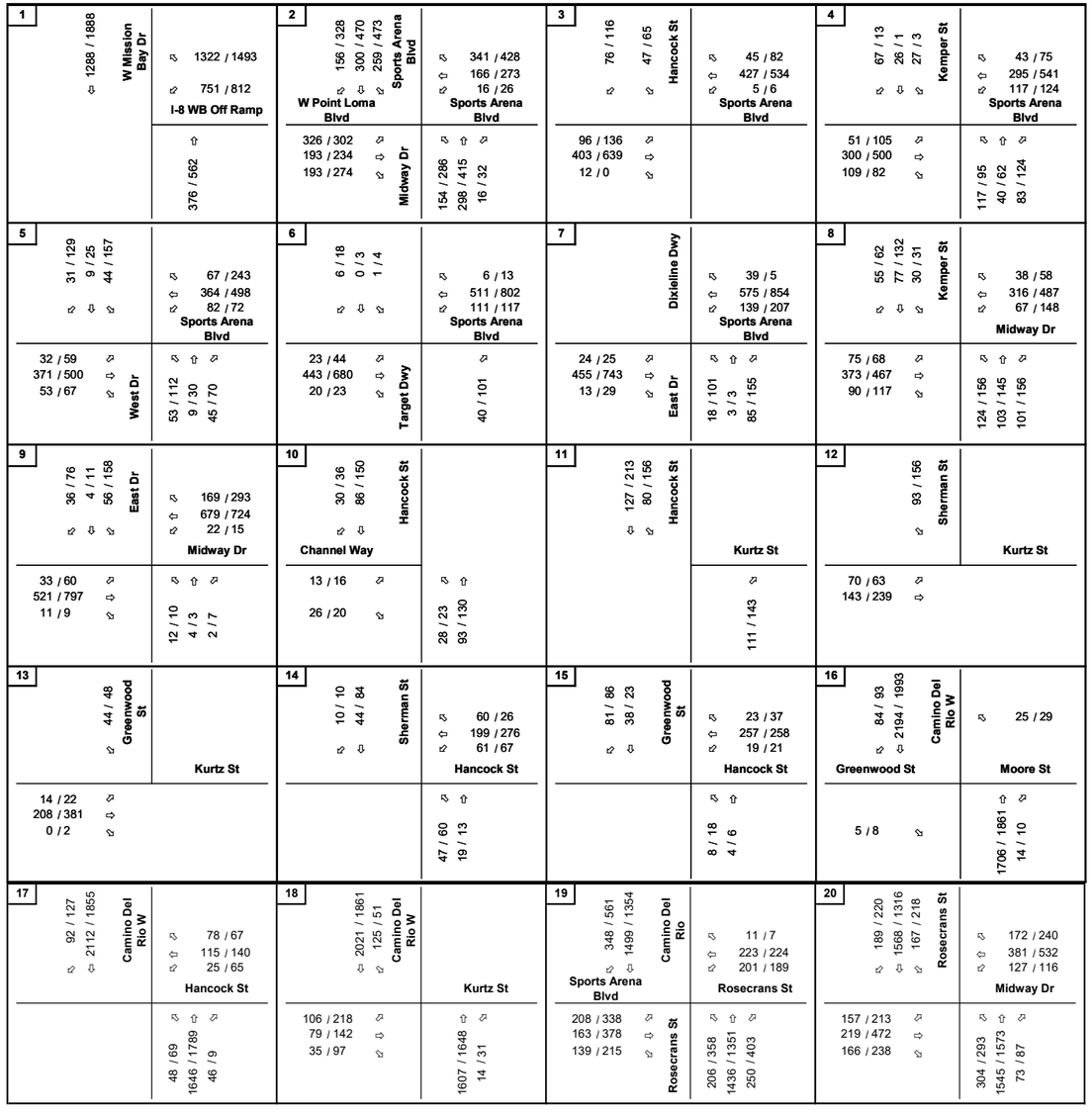
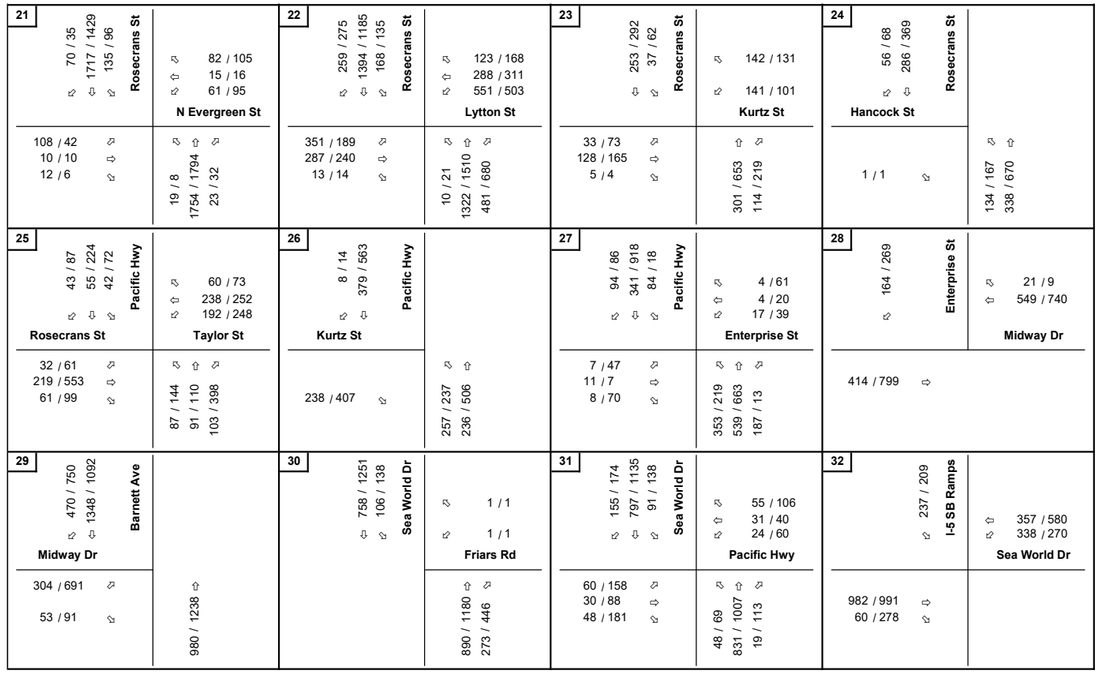


Figure 3-5. Existing (2023) Traffic Volumes (Page 2 of 3)



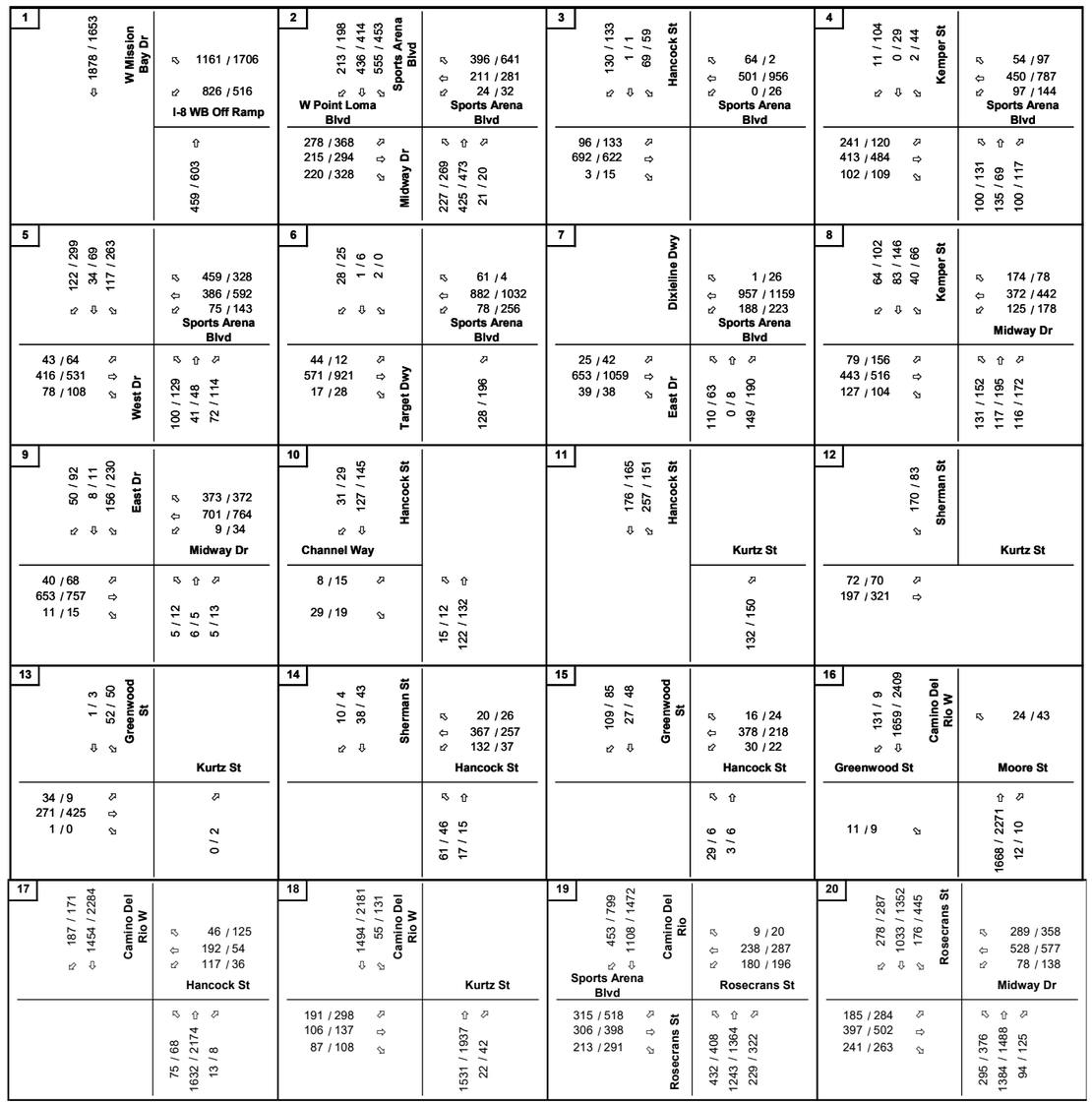


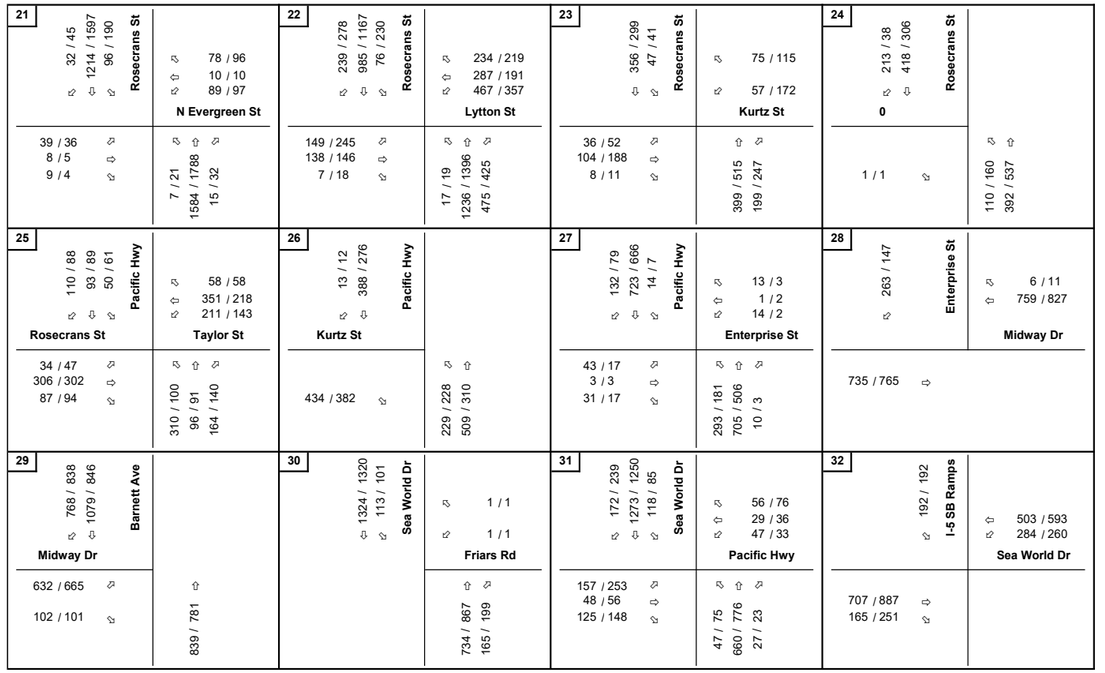
Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Figure 3-5. Existing (2023) Traffic Volumes (Page 3 of 3)





Legend

X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

North

Table 3-5. Existing Conditions Intersection LOS Summary

#	INTERSECTION	TRAFFIC CONTROL	HCM EDITION	PEAK HOUR	Existing	
					DELAY (a)	LOS (b)
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	Signal	**HCM 2000**	1. Weekday AM	18.3	B
				2. Weekday Commuter PM	23.7	C
				3. Weekday Pre Event PM	19.0	B
				4. Weekend Midday	25.6	C
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	29.4	C
				2. Weekday Commuter PM	61.2	**E**
				3. Weekday Pre Event PM	59.2	**E**
				4. Weekend Midday	53.4	D
3	Commercial Dwy 1/Hancock St & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	8.6	A
				2. Weekday Commuter PM	16.7	B
				3. Weekday Pre Event PM	15.4	B
				4. Weekend Midday	10.9	B
4	Kemper St/Existing Dwy 1 & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	13.3	B
				2. Weekday Commuter PM	20.0	C
				3. Weekday Pre Event PM	25.1	C
				4. Weekend Midday	19.3	B
5	West Dr/Existing Dwy 2 & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	13.8	B
				2. Weekday Commuter PM	28.4	C
				3. Weekday Pre Event PM	89.2	**F**
				4. Weekend Midday	35.9	D
6	Target Dwy/Existing VIP Access Rd & Sports Arena Blvd	One-Way Stop	HCM 6th	1. Weekday AM	13.3	B
				Worst Mvmt	SB	
				2. Weekday Commuter PM	45.3	**E**
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	26.2	D
				Worst Mvmt	SB	
				4. Weekend Midday	ECL	**F**
				Worst Mvmt	SB	
7	East Dr/Commercial Dwy 3 & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	9.3	A
				2. Weekday Commuter PM	21.0	C
				3. Weekday Pre Event PM	21.3	C
				4. Weekend Midday	17.3	B
8	Kemper St & Midway Dr	Signal	HCM 6th	1. Weekday AM	19.6	B
				2. Weekday Commuter PM	37.4	D
				3. Weekday Pre Event PM	34.2	C
				4. Weekend Midday	25.9	C
9	Commercial Dwy 2/East Dr & Midway Dr	Signal	HCM 6th	1. Weekday AM	9.7	A
				2. Weekday Commuter PM	14.2	B
				3. Weekday Pre Event PM	13.3	B
				4. Weekend Midday	18.2	B
10	Hancock St & Channel Way	All-Way Stop	HCM 6th	1. Weekday AM	8.0	A
				2. Weekday Commuter PM	8.7	A
				3. Weekday Pre Event PM	8.4	A
				4. Weekend Midday	8.6	A
11	Kurtz St & Hancock St	One-Way Stop	HCM 6th	1. Weekday AM	9.9	A
				Worst Mvmt	SB	
				2. Weekday Commuter PM	11.1	B
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	15.3	C
				Worst Mvmt	SB	
				4. Weekend Midday	10.8	B
				Worst Mvmt	SB	
12	Kurtz St & Sherman St	All-Way Stop	HCM 6th	1. Weekday AM	8.8	A
				2. Weekday Commuter PM	9.8	A
				3. Weekday Pre Event PM	10.1	B
				4. Weekend Midday	9.5	A
13	Kurtz St & Greenwood St	Two-Way Stop	HCM 6th	1. Weekday AM	9.7	A
				Worst Mvmt	SB	
				2. Weekday Commuter PM	10.8	B
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	10.3	B
				Worst Mvmt	SB	
				4. Weekend Midday	10.4	B
				Worst Mvmt	SB	
14	Sherman St & Hancock St	All-Way Stop	HCM 6th	1. Weekday AM	8.9	A
				2. Weekday Commuter PM	9.9	A
				3. Weekday Pre Event PM	18.8	C
				4. Weekend Midday	9.2	A
15	Greenwood St & Hancock St	All-Way Stop	HCM 6th	1. Weekday AM	8.8	A
				2. Weekday Commuter PM	8.7	A
				3. Weekday Pre Event PM	13.0	B
				4. Weekend Midday	8.9	A
16	Camino Del Rio W & Moore St	Two-Way Stop	HCM 6th	1. Weekday AM	28.5	D
				Worst Mvmt	EB	
				2. Weekday Commuter PM	30.5	D
				Worst Mvmt	EB	
				3. Weekday Pre Event PM	23.8	C
				Worst Mvmt	EB	
				4. Weekend Midday	38.2	**E**
				Worst Mvmt	WB	
17	Camino Del Rio W & Hancock St	Signal	HCM 6th	1. Weekday AM	149.7	**F**
				2. Weekday Commuter PM	ECL	**F**
				3. Weekday Pre Event PM	ECL	**F**
				4. Weekend Midday	25.2	C
18	Camino Del Rio W & Kurtz St	Signal	HCM 6th	1. Weekday AM	5.4	A
				2. Weekday Commuter PM	8.8	A
				3. Weekday Pre Event PM	8.6	A
				4. Weekend Midday	8.2	A
19	Rosecrans St & Sports Arena Blvd & Camino Del Rio W	Signal	**HCM 2000**	1. Weekday AM	32.6	C
				2. Weekday Commuter PM	43.1	D
				3. Weekday Pre Event PM	44.2	D
				4. Weekend Midday	45.0	D
20	Rosecrans St & Midway Dr	Signal	HCM 6th	1. Weekday AM	63.6	**E**
				2. Weekday Commuter PM	60.4	**E**
				3. Weekday Pre Event PM	67.6	**E**
				4. Weekend Midday	73.6	**E**

Notes:
Bold values indicate intersections operating at LOS E or F.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition* or the *Highway Capacity Manual 2000* and performed using Synchro 11.0

Table 3-5. Existing Conditions Intersection LOS Summary

#	INTERSECTION	TRAFFIC CONTROL	HCM EDITION	PEAK HOUR	Existing	
					DELAY (a)	LOS (b)
21	Rosecrans St & N Evergreen St	Signal	HCM 6th	1. Weekday AM	20.5	C
				2. Weekday Commuter PM	21.9	C
				3. Weekday Pre Event PM	21.4	C
				4. Weekend Midday	21.3	C
22	Rosecrans St & Lytton St	Signal	HCM 6th	1. Weekday AM	50.4	D
				2. Weekday Commuter PM	44.6	D
				3. Weekday Pre Event PM	37.0	D
				4. Weekend Midday	36.3	D
23	Rosecrans St & Kurtz St	Signal	**HCM 2000**	1. Weekday AM	18.0	B
				2. Weekday Commuter PM	21.4	C
				3. Weekday Pre Event PM	16.8	B
				4. Weekend Midday	30.8	C
24	Rosecrans St & Hancock St	One-Way Stop	HCM 6th	1. Weekday AM	9.5	A
				Worst Mvmt	SE	
				2. Weekday Commuter PM	10.1	B
				Worst Mvmt	SE	
				3. Weekday Pre Event PM	10.6	B
				Worst Mvmt	SE	
				4. Weekend Midday	9.7	A
				Worst Mvmt	SE	
25	Pacific Hwy & Rosecrans St/Taylor St	Signal	HCM 6th	1. Weekday AM	22.0	C
				2. Weekday Commuter PM	28.2	C
				3. Weekday Pre Event PM	32.3	C
				4. Weekend Midday	22.8	C
26	Kurtz St & Pacific Hwy	One-Way Stop	HCM 6th	1. Weekday AM	13.8	B
				Worst Mvmt	EB	
				2. Weekday Commuter PM	28.4	D
				Worst Mvmt	EB	
				3. Weekday Pre Event PM	21.0	C
				Worst Mvmt	EB	
				4. Weekend Midday	18.3	C
				Worst Mvmt	EB	
27	Pacific Hwy & Enterprise St	Signal	HCM 6th	1. Weekday AM	31.1	C
				2. Weekday Commuter PM	ECL	**F**
				3. Weekday Pre Event PM	ECL	**F**
				4. Weekend Midday	18.9	B
28	Midway Dr & Enterprise St	One-Way Stop	HCM 6th	1. Weekday AM	12.9	B
				Worst Mvmt	SB	
				2. Weekday Commuter PM	18.8	C
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	20.5	C
				Worst Mvmt	SB	
				4. Weekend Midday	15.0	C
				Worst Mvmt	SB	
29	Barnett Ave & Midway Dr	Signal	**HCM 2000**	1. Weekday AM	19.9	B
				2. Weekday Commuter PM	ECL	**F**
				3. Weekday Pre Event PM	27.7	C
				4. Weekend Midday	25.7	C
30	Sea World Dr & Friars Rd	Signal	HCM 6th	1. Weekday AM	5.6	A
				2. Weekday Commuter PM	5.7	A
				3. Weekday Pre Event PM	4.8	A
				4. Weekend Midday	4.7	A
31	Sea World Dr & E Mission Bay Dr/Pacific Highway	Signal	HCM 6th	1. Weekday AM	13.2	B
				2. Weekday Commuter PM	23.2	C
				3. Weekday Pre Event PM	19.5	B
				4. Weekend Midday	20.3	C
32	I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr	Signal	**HCM 2000**	1. Weekday AM	25.2	C
				2. Weekday Commuter PM	21.4	C
				3. Weekday Pre Event PM	22.1	C
				4. Weekend Midday	18.9	B

Notes:
Bold values indicate intersections operating at LOS E or F.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition or the Highway Capacity Manual 2000 and performed using Synchro 11.0

Table 3-6. Existing Conditions Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	4,200	Weekday AM	276	No
				Weekday PM	2,835	No
				Weekday Pre-Event	1,682	No
				Weekend Midday	447	No
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360	Weekday AM	185	No
				Weekday PM	528	**Yes**
				Weekday Pre-Event	527	**Yes**
				Weekend Midday	525	**Yes**
		WBL	150	Weekday AM	<25	No
				Weekday PM	43	No
				Weekday Pre-Event	25	No
				Weekend Midday	<25	No
		NBL	230	Weekday AM	80	No
				Weekday PM	102	No
				Weekday Pre-Event	139	No
				Weekend Midday	212	No
3	Sports Arena Boulevard & Hancock Street	EBL	160	Weekday AM	68	No
				Weekday PM	153	No
				Weekday Pre-Event	152	No
				Weekend Midday	95	No
		WBL	100	Weekday AM	<25	No
				Weekday PM	<25	No
				Weekday Pre-Event	<25	No
				Weekend Midday	45	No
4	Sports Arena Boulevard & Kemper Street	EBL	440	Weekday AM	57	No
				Weekday PM	83	No
				Weekday Pre-Event	162	No
				Weekend Midday	76	No
		WBL	175	Weekday AM	90	No
				Weekday PM	145	No
				Weekday Pre-Event	134	No
				Weekend Midday	137	No
		NBL	100	Weekday AM	89	No
				Weekday PM	120	**Yes**
				Weekday Pre-Event	164	**Yes**
				Weekend Midday	105	**Yes**
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330	Weekday AM	30	No
				Weekday PM	56	No
				Weekday Pre-Event	40	No
				Weekend Midday	59	No
		WBL	175	Weekday AM	85	No
				Weekday PM	117	No
				Weekday Pre-Event	114	No
				Weekend Midday	163	No
6	Sports Arena Boulevard & Target Driveway	EBL	150	Weekday AM	29	No
				Weekday PM	46	No
				Weekday Pre-Event	90	No
				Weekend Midday	27	No
		WBL	125	Weekday AM	57	No
				Weekday PM	76	No
				Weekday Pre-Event	52	No
				Weekend Midday	147	**Yes**
7	Sports Arena Boulevard & East Driveway	EBL	125	Weekday AM	42	No
				Weekday PM	67	No
				Weekday Pre-Event	84	No
				Weekend Midday	90	No
		WBL	125	Weekday AM	110	No
				Weekday PM	210	**Yes**
				Weekday Pre-Event	230	**Yes**
				Weekend Midday	180	**Yes**
		NBR	100	Weekday AM	56	No
				Weekday PM	131	**Yes**
				Weekday Pre-Event	169	**Yes**
				Weekend Midday	101	**Yes**

Table 3-6. Existing Conditions Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
8	Midway Drive & Kemper Street	EBL	320	Weekday AM	85	No
				Weekday PM	102	No
				Weekday Pre-Event	123	No
				Weekend Midday	174	No
		EBR	150	Weekday AM	52	No
				Weekday PM	66	No
				Weekday Pre-Event	85	No
				Weekend Midday	134	No
		WBL	250	Weekday AM	77	No
				Weekday PM	169	No
				Weekday Pre-Event	156	No
				Weekend Midday	<25	No
		NBL	90	Weekday AM	85	No
				Weekday PM	191	**Yes**
				Weekday Pre-Event	176	**Yes**
				Weekend Midday	173	**Yes**
		SBL	100	Weekday AM	46	No
				Weekday PM	87	No
				Weekday Pre-Event	76	No
				Weekend Midday	98	No
		SBR	115	Weekday AM	50	No
				Weekday PM	96	No
				Weekday Pre-Event	69	No
				Weekend Midday	86	No
9	Midway Drive & East Drive	EBL	90	Weekday AM	<25	No
				Weekday PM	72	No
				Weekday Pre-Event	66	No
				Weekend Midday	98	**Yes**
		WBL	100	Weekday AM	37	No
				Weekday PM	55	No
				Weekday Pre-Event	<25	No
				Weekend Midday	72	No
10	Hancock Street & Channel Way	NBL	60	Weekday AM	45	No
				Weekday PM	42	No
				Weekday Pre-Event	38	No
				Weekend Midday	30	No
17	Camino Del Rio West & Hancock Street	NBL	100	Weekday AM	65	No
				Weekday PM	153	**Yes**
				Weekday Pre-Event	182	**Yes**
				Weekend Midday	141	**Yes**
		I-5 SB Off-Ramp	3,500	Weekday AM	486	No
				Weekday PM	459	No
				Weekday Pre-Event	423	No
				Weekend Midday	1,001	No
		I-8 WB Off-Ramp	3,700	Weekday AM	732	No
				Weekday PM	619	No
				Weekday Pre-Event	465	No
				Weekend Midday	2,927	No
		SBR	130	Weekday AM	246	**Yes**
				Weekday PM	130	No
				Weekday Pre-Event	144	**Yes**
				Weekend Midday	246	**Yes**
18	Camino Del Rio West & Kurtz Street	EBR	200	Weekday AM	39	No
				Weekday PM	320	**Yes**
				Weekday Pre-Event	249	**Yes**
				Weekend Midday	334	**Yes**
		SBL	100	Weekday AM	206	**Yes**
				Weekday PM	190	**Yes**
				Weekday Pre-Event	175	**Yes**
				Weekend Midday	206	**Yes**

Table 3-6. Existing Conditions Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
19	Camino Del Rio West & Sports Arena Boulevard	EBR	300	Weekday AM	144	No
				Weekday PM	228	No
				Weekday Pre-Event	187	No
				Weekend Midday	315	**Yes**
		WBL	180	Weekday AM	175	No
				Weekday PM	163	No
				Weekday Pre-Event	162	No
				Weekend Midday	171	No
		NBL	260	Weekday AM	186	No
				Weekday PM	253	No
				Weekday Pre-Event	310	**Yes**
				Weekend Midday	309	**Yes**
20	Rosecrans Street & Midway Drive	EBL	100	Weekday AM	121	**Yes**
				Weekday PM	202	**Yes**
				Weekday Pre-Event	194	**Yes**
				Weekend Midday	210	**Yes**
		EBR	240	Weekday AM	128	No
				Weekday PM	203	No
				Weekday Pre-Event	177	No
				Weekend Midday	201	No
		WBL	250	Weekday AM	231	No
				Weekday PM	274	**Yes**
				Weekday Pre-Event	175	No
				Weekend Midday	266	**Yes**
		WBR	180	Weekday AM	162	No
				Weekday PM	315	**Yes**
				Weekday Pre-Event	306	**Yes**
				Weekend Midday	316	**Yes**
		NBL	280	Weekday AM	233	No
				Weekday PM	248	No
				Weekday Pre-Event	276	No
				Weekend Midday	386	**Yes**
		SBL	320	Weekday AM	225	No
				Weekday PM	219	No
				Weekday Pre-Event	202	No
				Weekend Midday	283	No
21	Rosecrans Street & North Evergreen Street	NBL	180	Weekday AM	46	No
				Weekday PM	31	No
				Weekday Pre-Event	<25	No
				Weekend Midday	49	No
		SBL	310	Weekday AM	267	No
				Weekday PM	131	No
				Weekday Pre-Event	162	No
				Weekend Midday	276	No
22	Rosecrans Street & Lytton Street	WBL	245	Weekday AM	359	**Yes**
				Weekday PM	374	**Yes**
				Weekday Pre-Event	375	**Yes**
				Weekend Midday	218	No
		NBL	100	Weekday AM	95	No
				Weekday PM	86	No
				Weekday Pre-Event	68	No
				Weekend Midday	103	**Yes**
		NBR	490	Weekday AM	217	No
				Weekday PM	390	No
				Weekday Pre-Event	152	No
				Weekend Midday	158	No
		SBL	470	Weekday AM	417	No
				Weekday PM	118	No
				Weekday Pre-Event	86	No
				Weekend Midday	161	No

Table 3-6. Existing Conditions Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
23	Rosecrans Street & Kurtz Street	WBR	70	Weekday AM	116	**Yes**
				Weekday PM	131	**Yes**
				Weekday Pre-Event	74	**Yes**
				Weekend Midday	180	**Yes**
		SBL	100	Weekday AM	50	No
				Weekday PM	63	No
				Weekday Pre-Event	49	No
				Weekend Midday	62	No
24	Rosecrans Street & Hancock Street	NBL	120	Weekday AM	55	No
				Weekday PM	117	No
				Weekday Pre-Event	107	No
				Weekend Midday	64	No
25	Pacific Highway & Rosecrans Street	EBL	120	Weekday AM	32	No
				Weekday PM	78	No
				Weekday Pre-Event	41	No
				Weekend Midday	61	No
		EBR	100	Weekday AM	47	No
				Weekday PM	102	**Yes**
				Weekday Pre-Event	80	No
				Weekend Midday	59	No
		WBL	150	Weekday AM	111	No
				Weekday PM	180	**Yes**
				Weekday Pre-Event	131	No
				Weekend Midday	103	No
		NBL	150	Weekday AM	96	No
				Weekday PM	171	**Yes**
				Weekday Pre-Event	255	**Yes**
				Weekend Midday	122	No
		NBR	320	Weekday AM	28	No
				Weekday PM	125	No
				Weekday Pre-Event	47	No
				Weekend Midday	44	No
		SBL	230	Weekday AM	44	No
				Weekday PM	68	No
				Weekday Pre-Event	69	No
				Weekend Midday	71	No
26	Pacific Highway & Kurtz Street	NBL	200	Weekday AM	120	No
				Weekday PM	156	No
				Weekday Pre-Event	110	No
				Weekend Midday	96	No
27	Pacific Highway & Enterprise Street	EBL	200	Weekday AM	26	No
				Weekday PM	117	No
				Weekday Pre-Event	116	No
				Weekend Midday	40	No
		EBR	200	Weekday AM	<25	No
				Weekday PM	107	No
				Weekday Pre-Event	53	No
				Weekend Midday	32	No
		NBL	280	Weekday AM	304	**Yes**
				Weekday PM	233	No
				Weekday Pre-Event	256	No
				Weekend Midday	186	No
		NBR	300	Weekday AM	<25	No
				Weekday PM	<25	No
				Weekday Pre-Event	<25	No
				Weekend Midday	<25	No
		SBL	200	Weekday AM	106	No
				Weekday PM	168	No
				Weekday Pre-Event	189	No
				Weekend Midday	<25	No

Table 3-6. Existing Conditions Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
30	Sea World Drive & Friars Rd	WBR	300	Weekday AM	<25	No
				Weekday PM	<25	No
				Weekday Pre-Event	<25	No
				Weekend Midday	<25	No
		NBR	185	Weekday AM	62	No
				Weekday PM	261	**Yes**
				Weekday Pre-Event	57	No
				Weekend Midday	47	No
		SBL	300	Weekday AM	57	No
				Weekday PM	72	No
				Weekday Pre-Event	57	No
				Weekend Midday	61	No
31	Sea World Drive & Pacific Highway	EBL	250	Weekday AM	41	No
				Weekday PM	99	No
				Weekday Pre-Event	81	No
				Weekend Midday	132	No
		EBR	200	Weekday AM	<25	No
				Weekday PM	74	No
				Weekday Pre-Event	49	No
				Weekend Midday	78	No
		WBL	125	Weekday AM	28	No
				Weekday PM	58	No
				Weekday Pre-Event	50	No
				Weekend Midday	41	No
		WBR	200	Weekday AM	<25	No
				Weekday PM	48	No
				Weekday Pre-Event	<25	No
				Weekend Midday	42	No
		NBL	325	Weekday AM	39	No
				Weekday PM	126	No
				Weekday Pre-Event	44	No
				Weekend Midday	64	No
		NBR	100	Weekday AM	27	No
				Weekday PM	224	**Yes**
				Weekday Pre-Event	48	No
				Weekend Midday	56	No
		SBL	215	Weekday AM	66	No
				Weekday PM	145	No
				Weekday Pre-Event	189	No
				Weekend Midday	269	**Yes**
32	Sea World Drive & I-5 Southbound Ramps	EBR	400	Weekday AM	44	No
				Weekday PM	96	No
				Weekday Pre-Event	71	No
				Weekend Midday	78	No
		WBL	120	Weekday AM	217	**Yes**
				Weekday PM	204	**Yes**
				Weekday Pre-Event	211	**Yes**
				Weekend Midday	209	**Yes**
		I-5 SB Off-Ramp	3,700	Weekday AM	155	No
				Weekday PM	150	No
				Weekday Pre-Event	149	No
				Weekend Midday	153	No

Table 3-7. Existing Conditions Roadway Segment Analysis Summary

ID	Roadway Segment	Extents	Existing Conditions Volumes				
			Functional Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp	6 Lane Prime Arterial	60,000	13,193	0.220	A
2		I-8 EB On Ramp to W Point Loma Boulevard	5 Lane Major Arterial	45,000	27,964	0.621	C
3		W Point Loma Boulevard to Hancock Street	5 Lane Collector (with two-way left-turn Lane)	37,500	17,736	0.473	C
4		Hancock Street to Kemper Street	5 Lane Collector (with two-way left-turn Lane)	37,500	17,736	0.473	C
5		Kemper Street to Frontier Drive	5 Lane Major Arterial	45,000	17,736	0.394	B
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	18,662	0.373	A
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	23,191	0.464	B
8		Rosecrans Street to Pacific Highway	2 Lane Collector (without two-way left-turn lane)	8,000	1,391	0.174	A
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	60,833	1.014	**F**
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	60,833	1.014	**F**
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	50,998	0.850	D
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Collector (with two-way left-turn Lane)	30,000	9,822	0.327	A
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	54,078	1.082	**F**
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	24,332	0.811	D
15	Kurtz Street	Kemper Street to Frontier Drive	2 Lane Collector (one-way)	17,500	3,160	0.181	A
16		Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	3,160	0.181	A
17		Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	5,031	0.287	A
18	Hancock Street	Sports Arena Boulevard to Channel Way	2 Lane Collector (without two-way left-turn lane)	8,000	3,452	0.432	B
19		Channel Way to Kurtz St	2 Lane Collector (with two-way left-turn Lane)	15,000	3,348	0.223	A
20		Kurtz Street to Greenwood Street	2 Lane Collector (one-way)	17,500	4,248	0.243	A
21		Greenwood Street to Camino Del Rio West	2 Lane Collector (one-way)	17,500	4,248	0.243	A
Future Roadway Segments							
22	*Frontier Drive (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-
23	*Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-

Notes:

[1]Functional Classification based on the Midway Pacific Highway Community Plan.

[2]LOS E Capacity provided by City of San Diego staff.

[3]ADT - Average Daily Traffic.

[4]V/C Ratio - Volume-to-capacity ratio.

[5]LOS - Level of Service.

4 PROJECT TRANSPORTATION DEMAND

The following section describes the trip generation, distribution and assignment related to the proposed project.

4.1 ENTERTAINMENT OPERATIONS

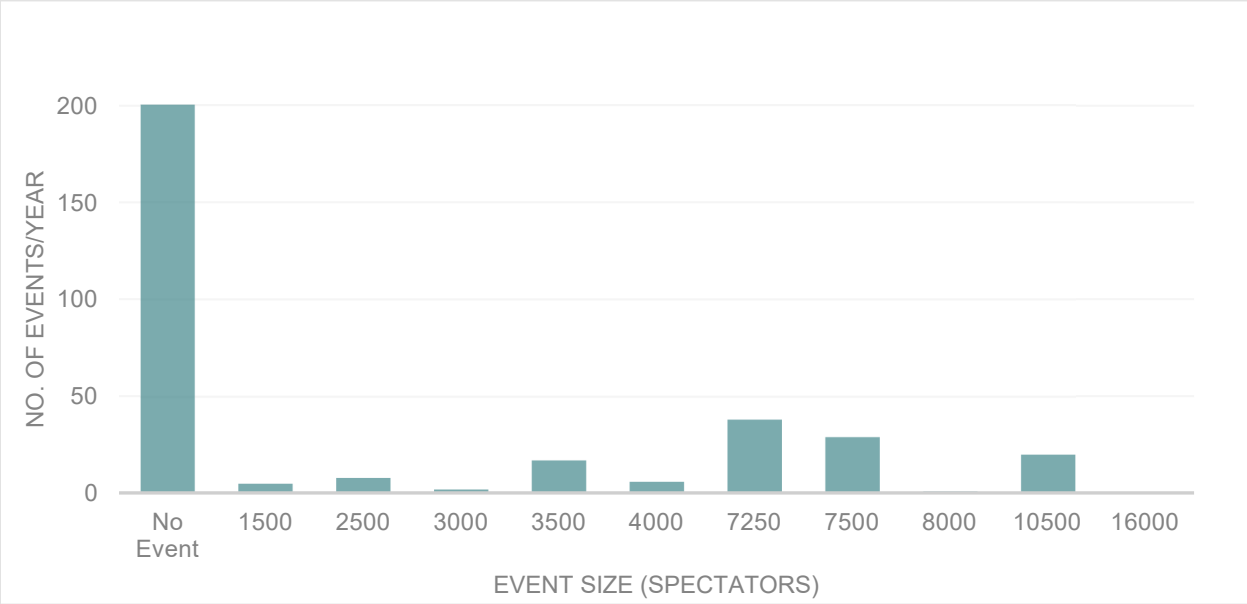
4.1.1 ENTERTAINMENT CENTER CAPACITY

The existing arena currently has a 16,000-seat capacity for sporting events and 10,500-seat capacity for concerts. The Entertainment Center will maintain a 16,000-seat capacity for sporting events and increase the concert capacity to 14,500 seats. The Entertainment Center is anticipated to continue to host similar types and sizes of events as the existing arena, but plan to program more events per year. The planned program of events (type, size, and frequency) for the future Entertainment Center is summarized in **Table 4-1** and **Figure 4-1**. While an event is expected to be held at the Entertainment Center for 166 days of the year, almost 200 days of the year are expected to have no event.

Table 4-1. Planned Events for Proposed Entertainment Center

Event	No. of Events/Year	Average Spectators
San Diego Gulls	38	8,500
San Diego Seals	9	6,500
San Diego Strike Force	8	3,000
Concert – Full	25	14,500
Concert – Half	25	7,500
Family Shows	8	3,500
Ice Shows	6	3,000
Motorsports	1	4,000
Boxing	1	8,000
Wrestling	2	4,000
Rodeos	1	3,000
High School Sports	5	1,500
Other Sports	2	4,000
Graduations & Trade Shows	10	2,000
Private/Catered Events	25	300
Total	**166**	

Figure 4-1. Event Size vs. Number of Events Planned per Year



4.1.2 THEATER CAPACITY

A theater will also be located on the project site with a planned capacity of up to 3,500 spectators. The theater will either be located within the privately-owned parcels on Kurtz Street or would be an allowable outdoor space within the open space adjacent to the Entertainment Center.

4.1.3 COMBINED CAPACITY ANALYSIS SCENARIOS

Two sets of trip generation calculations were performed for the entertainment land use on the project site based on event size:

1. Typical Event: 14,500 spectators
2. Full Capacity Event: 20,000 spectators (combined maximum capacity of Entertainment Center and Theater [3,500])

Although the transportation analysis was performed for the two event sizes, project effect determination is based on the 14,500-spectator event for the proposed scenario as the “typical” maximum event. The 20,000-spectator scenario is a maximum capacity event for the Entertainment Center and the theater combined, which is expected to occur up to 2 times per year. Operational results of the maximum capacity event will be used to develop traffic management strategies including temporary traffic control, additional signage, and traffic signal modifications that would be used for these larger spectator events.

4.1.4 ENTERTAINMENT EMPLOYEES

Based on data from similar-sized venues managed by the applicant, 885 employees would be present for a typical event at the Entertainment Center and 1,080 employees would be present for a combined full capacity event at both venues. The increased number of employees compared to existing operations is a result of the modernization of the venue and the increases focus on the customer experience. A large portion of the increased number of employees is due to the food and beverage commissary operations that will be on-site for the future venue which is not provided at the current arena.

4.1.5 PROPOSED EVENT SHUTTLE

It is anticipated that overflow parking may be necessary for large event sizes. Specifically, events under 10,000 spectators will be provided with on-site parking (2,100 spaces), utilizing the trip generation methodology discussed in Section 4.2 of this report. For events with more than 10,000 spectators, two off-site parking facilities will be utilized. One will be just west of the project site in the business park with approximately 500 spaces, and the other will be the Sea World parking lot on Sea World Drive which will provide an additional 7,000 spaces. Shuttle routes to the Sea World parking lot and the business park lot are shown in **Figure 4-2**. Event spectators will be provided an assigned parking area (on-site or in an overflow lot) at the point of ticket sale so they can plan accordingly ahead of the event.

Event shuttles will be provided for access to Old Town Transit Center and the off-site parking lots as follows:

- Provide event shuttle service between offsite parking at SeaWorld and the Entertainment Center from 5pm to 1am. Shuttles will be used for events with greater than 12,000 spectators. Event shuttle will run along W Mission Bay Drive, Sports Arena Boulevard, Frontier Drive, Kurtz Street and Hancock Street. For events with more than 12,000 spectators, shuttle headway would be approximately 5 minutes for pre-event and post-event service.
- Provide event shuttle service between off-site business park lot and the Entertainment Center from 5pm to 1am. Shuttles will be used for events with greater than 10,000 spectators. Event shuttle will run along Sports Arena Boulevard, Frontier Drive, Kurtz Street, and Hancock Street. For all events with greater than 10,000 spectators, shuttle headway would be approximately 5 minutes for pre-event and post-event service.
- Provide event shuttle service between Old Town Transit Center and the Entertainment Center from 5pm to 1am. Shuttles will be used for events with greater than 7,500 spectators. Event shuttle will run along Rosecrans Street, Sports Arena Boulevard, Frontier Drive, and Kurtz Street. For events with more than 7,500 spectators, shuttle headway would be approximately 5 minutes for pre-event and post-event service.

4.1.6 RIDESHARE ACCESS

Rideshare access will be provided along Kemper Street between Sports Arena Blvd and Kurtz St for both pick-up and drop-off operations. Kemper Street provides enough curb space on both the east and west sides of the street (approximately 79 stalls) to process many vehicles at once. Parking would be restricted with signage on both sides of the street during event evenings. Proposed rideshare operations are shown in **Figure 4-3**.

4.1.7 TARGET ROUTES

Entertainment Center spectators that choose to drive and purchase parking passes on an event day will receive location-specific information prior to the event, with specific routing and wayfinding information to an assigned parking garage, including arrival routes per origin and parking structure destination. The recommended arrival routes will inform spectators to avoid the Camino del Rio and Sports Arena Boulevard intersection, where possible, as it is currently heavily congested.

Figure 4-2. Entertainment Center Off SIte Overflow Parking

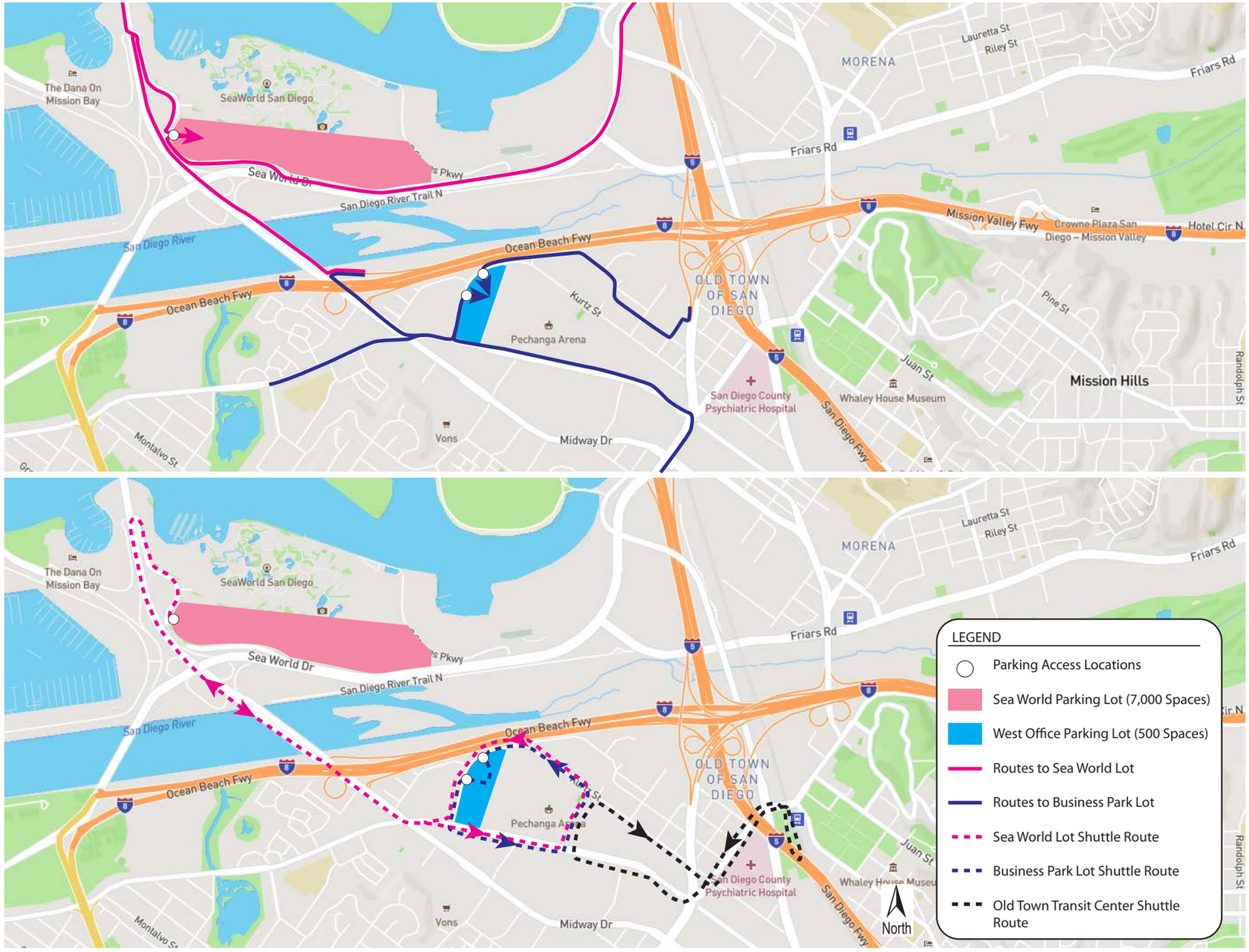


Figure 4-3. Proposed TNC Ingress and Egress



4.2 TRIP GENERATION

Daily and peak hour trip generation rates for the proposed residential and commercial land uses were developed using various sources, including existing driveway counts and the San Diego Municipal Code Land Development Code Trip Generation Manual (May 2003). Kimley-Horn developed trip generation rates for the proposed Entertainment Center utilizing market research on similar event spaces and trends present in the existing driveway counts on an event day. **Table 4-2** outlines the trip generation sources used for each land use.

Table 4-2. Trip Generation Sources

Land Use	Trip Generation Source
Commercial	San Diego Municipal Code Trip Generation Manual
Residential	San Diego Municipal Code Trip Generation Manual
Entertainment Center	Market research*

* Entertainment Center market research assumptions and calculations are discussed later in this report

A detailed discussion of trip generation methodology is provided in the sections below.

4.2.1 RESIDENTIAL AND COMMERCIAL TRIP GENERATION METHODOLOGY

Trip generation rates from the City of San Diego Trip Generation Manual were used to estimate the trip generation for the proposed residential and commercial land uses. Rates for Multiple Dwelling Unit (Over 20 dwelling units/acre) were used to estimate the trip generation for the proposed residential land use, and Restaurant (Quality), Restaurant (High-Turnover/sit-down), and Shopping Center (Community) were used to estimate the trip generation for the commercial land uses.

Two different trip generation calculations were performed for the commercial land uses:

1. Trip generation based on cumulative trip rates
2. Trip generation based on driveway trip rates

The driveway trip rates were used to calculate commercial trips at all project driveways, while cumulative trip rates were used to calculate commercial trips at the remaining study intersections.

Multimodal Reductions

The TSM provides a 10% daily/14% AM peak hour /14% PM peak hour multimodal reduction for residential land uses. The multimodal reduction was applied to the residential trip generation due to the project's proximity to Old Town Transit Center and the proposed improvements to pedestrian, bicycle, and transit facilities, which will promote alternative modes of transportation for internal mobility and travel to and from the project site. These proposed pedestrian, bicycle and transit improvements are illustrated and discussed in Chapter 13 of this report.

Multimodal reductions were not applied to the commercial land uses.

Internal Capture (Mixed-Use Reduction)

The TSM recommends use of the *NCHRP 8-51 Internal Trip Capture Estimation Tool* for determining trip generation reductions allowable for a mixed-use project. Based on the conceptual site plan (see **Figure 1-2**) the commercial (retail and restaurant) land uses are located on the ground floor along Frontier Drive

with residential and parking uses located on the remaining floors, and the furthest residential land uses being located on Kemper Street, which is approximately 635 feet west of the future Frontier Drive. Based on the NCHRP estimation tool, proximities less than 770 feet use unconstrained internal capture values.

Based on *Table 106 from the NCHRP Tool* a 2% Daily/2% AM peak hour /20% PM peak hour mixed-use reduction factor was applied to the residential land use, and a 1% Daily/17% AM/10% PM mixed-use reduction factor was applied to the commercial land uses. It should be noted that although *Table 106 of the NCHRP Tool* recommended a 46% PM reduction factor for retail to residential land uses, a maximum of 20% reduction was anticipated for this analysis.

Excerpts from NCHRP 8-51 are included in **Appendix H**.

Rate Modifications

Trip generation for commercial land uses will be influenced by the proposed Entertainment Center event traffic. On event days, a portion of retail- and restaurant-goers will likely avoid the site during the Entertainment Center peak period and the commuter PM peak period will be reduced compared to a typical non-event day ("avoidance factor").

The residential and retail trip generation rates for the Pre-Event PM peak hour are based on vehicle time of day distributions ("bell curve factor") provided in the ITE Trip Generation Manual, 11th Edition for Multifamily Mid-Rise (ITE Code 221) and Shopping Center (ITE Code 820). Both land uses were observed to generate a lower portion of ADT in the 6-7 PM hour compared to the 5-6 PM hour.

These assumptions for the "avoidance factor" and "bell curve factor" are portrayed in **Table 4-3.**

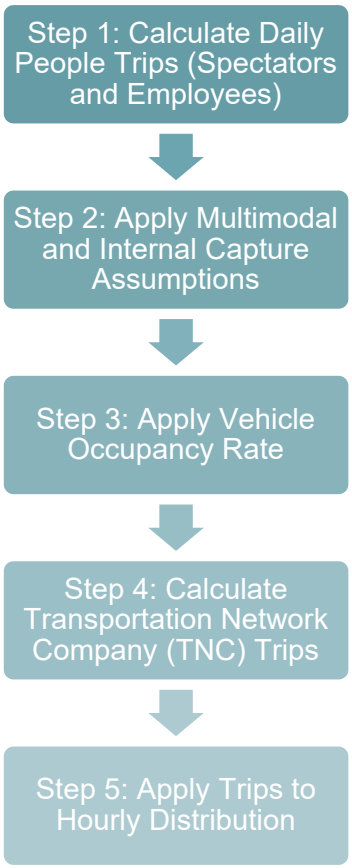
Table 4-3. Peak Hour Trip Generation Rate Percentages

Peak Hour (Bell Curve Factor)	Residential	Commercial	
	Non-Event and Event	Non-Event	Event (Avoidance Factor)
Commuter PM Peak (5-6 PM)	100%	100%	70%
Pre-Event PM Peak (6-7 PM)	87%	88%	10%

4.2.2 ENTERTAINMENT TRIP GENERATION METHODOLOGY

Applicable trip generation rates for the proposed San Diego Entertainment Center are not available in the San Diego, ITE, or SANDAG trip generation manuals. ITE provides trip generation rates for a professional baseball arena, SANDAG provides trip generation rates for outdoor stadium and indoor arena, and the City of San Diego has trip generation rates for auditorium and indoor sport facility. However, the description of the applicable land uses in these manuals are not reflective of the anticipated operations for the proposed Entertainment Center, which will continue to host regularly scheduled minor-league sporting events and live performances. Consequently, trip rates for the proposed Entertainment Center were manually developed based on previous arena studies, existing driveway counts, anticipated mode shift, and parking availability. **Figure 4-4** illustrates the steps taken to develop the Entertainment Center land use trip generation.

Figure 4-4. Site Specific Entertainment Center Trip Generation Calculation Flow Chart



Step 1: Daily People Trips (Spectators and Employees)

Both employee and spectator trips were included in the trip generation calculations for the 14,500- and 20,000-spectator scenario with employees and spectators arriving at and departing from the Entertainment Center within the same day. Therefore, a rate of 2 daily trips per spectator and per employee was used.

Step 1: Calculate a rate of 2 daily trips per spectator and employee. Generate trips for 14,500-spectator and 20,000-spectator events.

Step 2: Multimodal and Internal Capture

Although mixed-use reductions from the City's TSM do not include recreational land uses, some residents, although a minimal amount, are expected to attend the Entertainment Center events. Therefore, an internal capture of 1% was applied to the proposed Entertainment Center trip generation to account for trips between the Entertainment Center and residential uses on the site.

As discussed in *Managing Travel for Planned Special Events* (FHWA, 2003), "travel time, travel convenience, parking accessibility and cost" weigh significantly on an event patron's decision to drive or utilize an alternate mode of travel. Trip reductions for multimodal trips were applied due to the project's proximity to Old Town Transit Center, the number of parking spaces provided, and the proposed

improvements to pedestrian, bicycle, and transit facilities, which will encourage alternative modes of transportation for travel to and from the Entertainment Center. The proposed pedestrian, bicycle and transit improvements are discussed in Chapter 13 of this report. Additionally, the right-sized parking (2,100 spaces) for proposed entertainment land uses along with parking prices will induce a shift in mode choice.

Regarding transit trips, **Table 4-4** displays the vehicle-to-transit conversion potential for the entertainment land use on-site, based on StreetLight data collected for the existing Sports Arena. Based on an average of 10 weekday and weekend event days in 2019, approximately 26% of spectator trips are within a 15-minute trolley or bus ride, and it is expected that a portion of these trips can be converted into transit trips. The planned BRT along Sports Arena Boulevard, in conjunction with the improved transit stations and bus-only lanes would improve travel time and convenience for transit trips to and from the site. The SANDAG 2021 Regional Plan projects that the Rapid Service will be provided by Opening Year (2035).

Table 4-4. Entertainment Center Event Day Vehicle-to-Transit Trip Potential

Transit Route	% of Destination Trips
Green Line	9%
Blue Line	5%
BRT 35: Ocean Beach	4%
BRT 28: Kearny Mesa	2%
BRT 28: Point Loma	4%
MTS 8 and 9	3%
Total Trips in a 15-Minute Access Area	**26%**

A multimodal trip reduction of 25% was applied to the trip generation calculations for the proposed entertainment uses for Opening Year 2035 Phase 2 Buildout. This trip reduction is within the range of transit splits reported in *Table 5-12 in Managing Travel for Planned Special Events* (FHWA, 2003).

Opening Year 2030 Phase 1 will not include the full extent of multimodal improvements proposed for the planned BRT route along Sports Arena Boulevard, which is not anticipated to be completed by 2030. Therefore, a 15% trip reduction was applied for Opening Year 2030.

Step 2: Apply 1% internal capture, 25% multimodal capture for Opening Year 2035 Phase 2 Buildout, 15% multimodal capture for Opening Year 2030 Phase 1.

Step 3: Vehicle Occupancy

Kimley-Horn referenced available arena/stadium traffic studies including the Honda Center in Anaheim, Petco Park, Snapdragon Stadium, Truist Park in Atlanta and the Georgia Dome in Atlanta, as well as informational reports by ITE and the FHWA. The studies reference average vehicle occupancies ranging between 2.5 and 3.5 persons per automobile, consistent with the range recommended in *Managing Travel for Planned Special Events* (FHWA, 2003) and *Traffic Considerations for Special Events* (ITE, 1976). It was noted that larger stadiums and venues with higher-generating events, like weekend sporting events and high-selling concerts, used vehicle occupancy factors closer to 3.0. According to the ITE document, events

appealing to captive riders (i.e., teenagers and seniors), family entertainment events, and venues with limited parking spaces yield higher vehicle occupancy rates. Per the FHWA, average vehicle occupancy observed at San Diego Padres games are 2.5 persons per automobile for weeknight baseball games and 3.0-3.1 persons per automobile for weekend night-time baseball games. The San Diego Padres baseball games take place at Petco Park where spectators can park in multiple dedicated parking lots. There is additionally streetside parking and many small lots near and around Petco Park. Midway Rising provides 2,100 parking spaces for the Entertainment Center and fewer opportunities to park near and around the site. Thus, Midway Rising would be expected to yield slightly higher levels of carpooling.

An average vehicle occupancy rate of 3.0 was utilized for spectators. An average vehicle occupancy rate of 1.0 was utilized for employees.

Step 3: Apply 3.0 average vehicle occupancy rate for spectators, and 1.0 for employees.

Step 4: Transportation Network Company (TNC) Trips

Both spectators and employees are expected to utilize rideshare, or Transportation Network Companies (TNCs), on event days. It is difficult to accurately collect data for the number of TNC trips at the existing arena since the TNC driveway is currently shared with the Chick-fil-A patrons, and because there are inevitably drop offs that occur outside of the assigned TNC drop-off area. For reference, based on existing driveway trips, it is estimated that approximately 10% of total arena trips are made by TNCs. The existing arena provides more parking than will be provided in the future (3,800 existing stalls versus 2,100 future stalls). Therefore, the number of TNC trips is anticipated to increase. A factor of 15% was used to account for rideshare trips. These trips were applied twice to account for an arrival and departure within the same hour.

Step 4: Calculate a second departure trip for 15% of the total trips to account for TNC operations

Step 5: Arrival Hourly Distribution

Step 4 provides the total number of vehicle trips estimated for the Entertainment Center. The last step involved distributing the vehicle trips among the hours leading up to the event.

The start time for events at the existing arena and proposed Entertainment Center depends on the size of the event. Based on data collected at the existing arena, sporting events typically start at 7:00 PM, and full-capacity events at the Entertainment Center start between 7:30 and 8:00 PM.

The existing site driveway counts for the Luis Miguel concert on Thursday, September 21, 2023, were observed for arrival spread patterns. Event day volumes for all existing site driveways are included in **Appendix E**. The event started at 8:00 PM, two hours after the commuter PM peak period. The driveway north of Sports Arena Boulevard and Kemper Street (Driveway 3 in Section 3.3.4) was used to identify arrival patterns since a majority of spectators utilized this driveway. Based on existing Sports Arena data, the spectator arrival period generally occurs between 5:00 and 8:30 PM, with the following distribution:

- 8% of trips arrive during the commuter PM peak hour (5:00-6:00 PM)
- 28% of trips arrive during the Pre-Event PM peak hour (6:00-7:00 PM)
- Remaining trips arrive from 7:00-8:30 PM

To provide a more conservative analysis of the PM peak hour and the Pre-Event PM peak hour, and account for earlier arrivals incentivized by adjacent attractions/land uses on the site, the above arrival patterns were increased from 8% and 28% to 20% and 40%, respectively. The remaining 40% of spectators would arrive after the start of event and are not studied in this analysis.

Employees typically arrive early on event days. Approximately 25% of employees will arrive during the commuter PM peak as a conservative analysis; the remainder will arrive before the PM peak hour (5:00 PM). No employees are expected to arrive during the PM Pre-Event peak hour.

Step 5: Distribute the arrival trips among the commuter peak hour (20%) and the Pre-Event PM peak hour (40%). Assume only 25% of employees arrive to the site during the commuter PM peak hour; the remainder arrive before the PM peak hour (5:00 PM).

4.2.3 PROPOSED TRIP GENERATION RESULTS

Trip generation for the project site was estimated for the event-day weekday Commuter AM (7-10 am), Commuter PM (4-6 pm), Pre-Event PM (6-7 pm), and Weekend Midday (11am-1pm) peak hours. **Table 4-5** summarizes the proposed cumulative trip rates used for the proposed site. **Table 4-6** summarizes the proposed driveway trip rates for the proposed site, which were applied at the proposed project driveways. Two trip generation estimates were produced for the Pre-Event PM peak:

- Typical-capacity events – 14,500 spectators
- Full-capacity events – 20,000 spectators

The existing site trip generation were subtracted from the proposed trip generation to calculate the net new trips generated by the proposed project. The net new trips generated by the proposed project are reported below.

4.2.3.1 Trip Generation Results with Typical Event

Table 4-7 and **Table 4-8** summarize the trip generation for the proposed project and a typical event with 14,500-spectators under Opening Year (2030) Plus Project Phase 1 with cumulative rates and driveway rates, respectively. A site plan change decreased the number of dwelling units and commercial square footage anticipated to be completed in Phase 1. The results from the analysis described in this chapter reflec higher land use values and trip generation values than the actual land uses projected to be constructed in Opening Year (2030) Plus Project Phase 1 as described in **Table 1-2**. The analysis for Opening Year (2030) Project Phase 1 is therefore conservative, as it accounts for more trip generation from a higher number of dwelling units and square footage of retail.

In **Table 4-7** the Opening Year (2030) Plus Project Phase 1 is expected to generate approximately 3,614 net new daily cumulative trips with 14,500 spectators at the Entertainment Center, and the portion of residential and commercial land uses proposed for east of Frontier Drive.

The proposed project net new peak hour trips are presented below:

- 5 AM Commuter Peak Hour Trips (-228 inbound / 234 outbound)
- 841 PM Commuter Peak Hour Trips (873 inbound / -33 outbound)
- 432 Pre-Event PM Peak Hour Trips (523 inbound / -92 outbound)
- -590 Weekend Midday Peak Hour Trips (-309 inbound / -280 outbound)

In **Table 4-8**, the Opening Year (2030) Plus Project Phase 1 is expected to generate approximately 5,586 net new daily commercial driveway trips for the portion of commercial land uses proposed east of Frontier Drive. The proposed project net new commercial, peak hour driveway trips are presented below:

- 62 AM Commuter Peak Hour Trips (-16 inbound / 78 outbound)
- 201 PM Commuter Peak Hour Trips (120 inbound / 82 outbound)
- -304 Pre-Event PM Peak Hour Trips (193 inbound / -112 outbound)
- 732 Weekend Midday Peak Hour Trips (426 inbound / 306 outbound)

As seen in the trip generation results above, the project is expected to result in net new trips. Net new trips represent the trips generated by the proposed project minus the existing site trips. Thus, compared to the existing site, and based on cumulative rates, the project will generate 228 fewer inbound trips during the AM commuter peak hour, 33 fewer outbound trips during the PM commuter peak hour, 92 fewer outbound trips during the Pre-Event PM peak hour, and 309 fewer outbound trips in the Weekend Midday peak hour in Opening Year (2030) Plus Project Phase 1. Additionally, compared to the existing commercial trips, and based on driveway rates, the commercial portion of the project will generate 16 fewer inbound trips during the AM commuter peak hour and 112 fewer outbound trips during the Pre-Even PM peak hour in Opening Year (2030) Plus Project Phase 1.

Table 4-9 and **Table 4-10** summarize trip generation for the proposed project and a typical event with 14,500-spectators under Opening Year (2035) Plus Project Phase 2 Buildout with cumulative and driveway rates, respectively.

In **Table 4-9,** the Opening Year (2035) Plus Project Phase 2 Buildout scenario is expected to generate approximately 22,514 net new daily cumulative trips with 14,500 spectators at the Entertainment Center, and full buildout of residential and commercial land uses. The proposed project net new peak hour trips are presented below:

- 1,450 AM Commuter Peak Hour Trips (86 inbound / 1,363 outbound)
- 2,055 PM Commuter Peak Hour Trips (1,684 inbound / 371 outbound)
- 1,321 Pre-Event PM Peak Hour Trips (1,106 inbound / 215 outbound)
- 885 Weekend Midday Peak Hour Trips (911 inbound / -27 outbound)

In **Table 4-10,** the Opening Year (2035) Plus Project Phase 2 Buildout scenario is expected to generate approximately -915 net new daily commercial driveway trips for full buildout of commercial land uses. The proposed project net new commercial, peak hour driveway trips are presented below:

- -228 AM Commuter Peak Hour Trips (-156 inbound / -72 outbound)
- -329 PM Commuter Peak Hour Trips (-196 inbound / -134 outbound)

- -1,175 Pre-Event PM Peak Hour Trips (-807 inbound / -368 outbound)
- -617 Weekend Midday Peak Hour Trips (-170 inbound / -447 outbound)

1.1.3.1 Trip Generation Results with Full Capacity Event

Table 4-11 and **Table 4-12** summarize the trip generation for the proposed project and a full-capacity event with 20,000-spectators under Opening Year (2030) Project Phase 1 Buildout with cumulative and driveway rates, respectively. **Table 4-13** and **Table 4-14** summarize the trip generation for the proposed project and a full-capacity event with 20,000-spectators under Opening Year (2035) Project Phase 2 Buildout with cumulative and driveway rates, respectively. Under this scenario, peak hour trips were developed for the Pre-Event PM peak hour only, as it is assumed to be the worst-case scenario.

In **Table 4-11**, the Opening Year (2030) Plus Project Phase 1 is expected to generate approximately 7,027 net new daily cumulative trips, with 1,145 (1,143 inbound / 1 outbound) weekday, Pre-Event PM peak hour cumulative trips with 20,000 spectators, and the portion of residential and commercial land uses proposed for east of Frontier Drive.

In **Table 4-12**, the Opening Year (2030) Plus Project Phase 1 is expected to generate approximately -3,588 net new daily commercial driveway trips, with -1,198 (-820 inbound / -378 outbound) weekday Pre-Event PM peak hour trips for the portion of commercial land uses proposed for east of Frontier Drive.

In **Table 4-13**, the Opening Year (2035) Plus Project Phase 2 Buildout scenario is expected to generate approximately 32,401 net new daily cumulative trips with 2,586 (2,218 inbound / 369 outbound) weekday Pre-Event PM peak hour trips with 20,000 spectators, and full buildout of residential and commercial land uses.

In **Table 4-14**, the Opening Year (2035) Plus Project Phase 2 Buildout scenario is expected to generate approximately 5,586 net new daily commercial driveway trips with -304 (-193 inbound / -112 outbound) weekday Pre-Event PM peak hour trips with full buildout of commercial land uses.

Table 4-5. Trip Generation Rates for Proposed Project (Cumulative Trip Rates)

Land Use[1]		Daily Rates-Cumulative	Weekday Event-Day									Weekend Non-Event Day		
			AM Commuter Peak Hour[2]			PM Commuter Peak Hour[3]			Pre-Event PM Peak Hour[4]			Midday Peak Hour[5]		
			Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Proposed Raw Rates														
*	Entertainment Center Event - Spectators	2.0	0	0	0	0.20	0.20	0	0.40	0.40	0	0	0	0
*	Entertainment Center - Employees	2.0	0	0	0	0.25	0.25	0	0.00	0.00	0	0	0	0
SD	Multiple Dwelling Unit - Over 20 dwelling units/acre	6.0	8%	2	8	9%	7	3	9%	7	3	9%	7	3
SD	Restaurant - Quality	90	1%	6	4	8%	7	3	8%	7	3	8%	7	3
SD	Restaurant - High Turnover (sit-down)	104	8%	5	5	8%	6	4	8%	6	4	8%	6	6
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	49	3%	6	4	10%	5	5	10%	5	5	10%	5	5

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]AM Commuter Peak Hour = Morning Peak Hour (8-9 AM)

[3]PM Commuter Peak Hour = Evening Commute Peak Hour (5-6 PM)

[4]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[5]Weekend Midday Peak = Midday peak hour (11 AM-12 PM) during a non-event day

*Entertainment Center trip generation is based on number of maximum number of seats and employees expected for that peak period. Proposed Raw Trips is not based on a rate but rather using assumptions listed below:

Spectator Arrival - 20% during Commute PM Peak Hour; 40% during Pre-Event PM Peak Hour

Employee Arrival - 25% during PM Peak Hour; 0% during Pre-Event PM Peak Hour

Table 4-6. Trip Generation Rates for Proposed Project (Driveway Trip Rates)

Land Use[1]		Daily Rates-Driveway	Weekday Event-Day									Weekend Non-Event Day		
			AM Commuter Peak Hour[2]			PM Commuter Peak Hour[3]			Pre-Event PM Peak Hour[4]			Midday Peak Hour[5]		
			Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Proposed Raw Rates														
SD	Restaurant - Quality	100	1%	6	4	8%	7	3	8%	7	3	8%	7	3
SD	Restaurant - High Turnover (sit-down)	130	8%	5	5	8%	6	4	8%	6	4	8%	6	4
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	70	3%	6	4	10%	5	5	10%	5	5	10%	5	5

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]AM Commuter Peak Hour = Morning Peak Hour (8-9 AM)

[3]PM Commuter Peak Hour = Evening Commute Peak Hour (5-6 PM)

[4]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[5]Weekend Midday Peak= Midday peak hour (11 AM-12 PM) during a non-event day

Table 4-7. Proposed Trip Generation (Cumulative Rates) - Opening Year (2030) Plus Project Phase 1 (Typical Event)

Land Use[1]		Units	Daily Trips	Weekday Event-Day									Weekend Non-Event Day		
				AM Commuter Peak Hour[2]			PM Commuter Peak Hour[3]			Pre-Event PM Peak Hour[4]			Midday Peak Hour[5]		
				Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Proposed Raw Trips															
*	Entertainment Center Event - Spectators	14,500 spectators	29,000	-	-	-	2,871	2,871	0	5,829	5,829	0	-	-	-
*	Entertainment Center - Employees	885 employees	1,770	-	-	-	443	443	0	0	0	0	-	-	-
SD	Multiple Dwelling Unit - Over 20 dwelling units/acre	1,242 d.u.	7,452	596	119	477	671	470	201	584	409	175	596	119	477
SD	Restaurant - Quality	32 ksf	2,880	29	17	12	161	113	48	23	16	7	230	161	69
SD	Restaurant - High Turnover (sit-down)	32 ksf	3,328	266	133	133	186	112	74	27	16	11	266	160	106
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	48 ksf	2,352	71	43	28	165	82	83	24	12	12	235	118	117
	Total Raw Trips		**46,782**	**962**	**312**	**650**	**4,497**	**4,091**	**406**	**6,486**	**6,282**	**204**	**1,327**	**558**	**769**
Proposed Reductions															
	Entertainment Center Trips (Spectators)	***Adjustments***	29,000	0	0	0	2,871	2,871	0	5,829	5,829	0	0	0	0
	Internal Capture	***1%***	***-290***	***0***	***0***	***0***	***-29***	***-29***	***0***	***-58***	***-58***	***0***	***0***	***0***	***0***
	Entertainment Center Trips w/ Internal Capture		**28,710**	**0**	**0**	**0**	**2,842**	**2,842**	**0**	**5,770**	**5,770**	**0**	**0**	**0**	**0**
	Multimodal Reductions	***15%***	***-4,306***	***0***	***0***	***0***	***-426***	***-426***	***0***	***-866***	***-866***	***0***	***0***	***0***	***0***
	Entertainment Center Trips (People in Vehicles) w/ Internal Capture & Multimodal Reductions		**24,404**	**0**	**0**	**0**	**2,416**	**2,416**	**0**	**4,904**	**4,904**	**0**	**0**	**0**	**0**
	Entertainment Center Vehicle Trips w/o Second TNC Trip[1]	***3 Avg Occupancy per Veh***[6]	***8,135***	***0***	***0***	***0***	***805***	***805***	***0***	***1,635***	***1,635***	***0***	***0***	***0***	***0***
	Second TNC Vehicle Trips	*15%*							*121*			*245*			
	Total Entertainment Center Vehicle Trips		**8,135**	**0**	**0**	**0**	**926**	**805**	**121**	**1,880**	**1,635**	**245**	**0**	**0**	**0**
	Entertainment Center Trips (Employees)	***Adjustments***	1,770	0	0	0	443	443	0	0	0	0	0	0	0
	Internal Capture	***1%***	**-18**	**0**	**0**	**0**	**-4**	**-4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Entertainment Center Trips w/ Internal Capture		**1,752**	**0**	**0**	**0**	**439**	**439**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Multimodal Reductions	***15%***	***-263***	***0***	***0***	***0***	***-66***	***-66***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
	Entertainment Center Trips (People in Vehicles) w/ Internal Capture & Multimodal Reductions		**1,489**	**0**	**0**	**0**	**373**	**373**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Entertainment Center Vehicle Trips w/o Second TNC Trip	***1.0 Avg Occupancy per Veh***[6]	***1,489***	***0***	***0***	***0***	***373***	***373***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
	Second TNC Vehicle Trips	*15%*							*56*						
	Total Entertainment Center Vehicle Trips (Employees)		**1,489**	**0**	**0**	**0**	**428**	**373**	**56**	**0**	**0**	**0**	**0**	**0**	**0**
	Total Adjusted Entertainment Center Trips (Seats & Employees)		**9,624**	**0**	**0**	**0**	**1,355**	**1,178**	**177**	**1,880**	**1,635**	**245**	**0**	**0**	**0**
	Residential Trips		7,452	596	119	477	671	470	201	584	409	175	596	119	477
	Internal Capture[7]		*-149*	*-12*	*-2*	*-10*	*-134*	*-94*	*-40*	*-117*	*-82*	*-35*	*-119*	*-24*	*-95*
			7,303	584	117	467	537	376	161	467	327	140	477	95	382
	Multimodal Reductions		*-730*	*-82*	*-16*	*-65*	*-75*	*-53*	*-23*	*-65*	*-46*	*-20*	*-67*	*-13*	*-53*
	Total Adjusted Residential Trips		**6,573**	**502**	**101**	**402**	**462**	**323**	**138**	**402**	**281**	**120**	**410**	**82**	**329**
	Retail Trips		8,560	366	193	173	512	307	205	73	44	29	731	439	292
	Internal Capture[7]		*-86*	*-62*	*-33*	*-29*	*-51*	*-31*	*-20*	*-7*	*-4*	*-3*	*-73*	*-44*	*-29*
	Total Adjusted Retail Trips		**8,474**	**304**	**160**	**144**	**461**	**276**	**185**	**66**	**40**	**26**	**658**	**395**	**263**
	Total Existing Commercial Trips		*-5,027*	*-325*	*-221*	*-104*	*-382*	*-225*	*-157*	*-387*	*-242*	*-145*	*-100*	*-66*	*-34*
	Total Net New Retail Trips		**3,447**	**-21**	**-61**	**40**	**79**	**51**	**28**	**-321**	**-202**	**-119**	**558**	**329**	**229**
Existing Site Driveway Trips															
	Total Existing Trips		***-21,057***	***-801***	***-489***	***-312***	***-1,436***	***-904***	***-532***	***-1,916***	***-1,433***	***-483***	***-1,658***	***-786***	***-872***
	Net New Trips		**3,614**	**5**	**-228**	**234**	**841**	**873**	**-33**	**432**	**523**	**-92**	**-590**	**-309**	**-280**

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]AM Commuter Peak Hour = Morning Peak Hour (8-9 AM)

[3]PM Commuter Peak Hour = Evening Commute Peak Hour (5-6 PM)

[4]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[5]Weekend Midday Peak = Midday peak hour during a non-event day

*Entertainment Center trip generation is based on number of maximum number of seats and employees expected for that peak period. Proposed Raw Trips is not based on a rate but rather using assumptions listed below:

Spectator Arrival - 20% during Commute PM Peak Hour; 40% during Pre-Event PM Peak Hour

Employee Arrival - 25% during PM Peak Hour; 0% during Pre-Event PM Peak Hour

Table 4-8. Proposed Trip Generation (Driveway Rates) - Opening Year (2030) Plus Project Phase 1 (Typical Event)

Land Use[1]		Units	Daily Trips	Weekday Event-Day Pre-Event PM Peak Hour[2]		
				Total	In	Out
Proposed Raw Trips						
SD	Restaurant - Quality	32 ksf	3200	26	18	8
SD	Restaurant - High Turnover (sit-down)	32 ksf	4160	33	20	13
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	48 ksf	3360	34	17	17
	Total Raw Trips		**60,332**	**9,076**	**8,864**	**212**
Proposed Reductions						
	Retail Trips		10,720	93	55	38
	Internal Capture[3]		*-107*	*-9*	*-6*	*-4*
	Total Adjusted Retail Trips		**10,613**	**84**	**49**	**34**
	Total Existing Commercial Trips		*-5,027*	*-387*	*-242*	*-145*
	Total Net New Retail Trips		**5,586**	**-304**	**-193**	**-112**

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[3]Daily = 10% Internal Capture; AM Peak = 17% Internal Capture; PM Peak = 10% Internal Capture.

Table 4-9. Proposed Trip Generation (Cumulative Rates) - Opening Year (2035) Plus Project Phase 2 Buildout (Typical Event)

Land Use[1]		Units	Daily Trips	Weekday Event-Day									Weekend Non-Event Day		
				AM Commuter Peak Hour[2]			PM Commuter Peak Hour[3]			Pre-Event PM Peak Hour[4]			Midday Peak Hour[5]		
				Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Proposed Raw Trips															
*	Entertainment Center Event - Spectators	14,500 spectators	29,000	-	-	-	2,871	2,871	0	5,829	5,829	0	-	-	-
*	Entertainment Center - Employees	885 employees	1,770	-	-	-	443	443	0	0	0	0	-	-	-
SD	Multiple Dwelling Unit - Over 20 dwelling units/acre	4,627 d.u.	27,762	2,221	444	1,777	2,499	1,749	750	2,174	1,522	652	2,499	1,749	750
SD	Restaurant - Quality	40 ksf	3600	36	22	14	202	141	61	29	20	9	288	202	86
SD	Restaurant - High Turnover (sit-down)	40 ksf	4160	333	167	166	233	140	93	33	20	13	333	200	133
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	60 ksf	2940	88	53	35	206	103	103	29	15	14	294	147	147
	Total Raw Trips		**69,232**	**2,678**	**686**	**1,992**	**6,454**	**5,447**	**1,007**	**8,095**	**7,406**	**689**	**3,414**	**2,298**	**1,116**
Proposed Reductions															
	Entertainment Center Trips (Spectators)	***Adjustments***	29,000	0	0	0	2,871	2,871	0	5,829	5,829	0	0	0	0
	Internal Capture	***1%***	***-290***	***0***	***0***	***0***	***-29***	***-29***	***0***	***-58***	***-58***	***0***	***0***	***0***	***0***
	Entertainment Center Trips w/ Internal Capture		**28,710**	**0**	**0**	**0**	**2,842**	**2,842**	**0**	**5,770**	**5,770**	**0**	**0**	**0**	**0**
	Multimodal Reductions	***25%***	***-7,177***	***0***	***0***	***0***	***-710***	***-710***	***0***	***-1,443***	***-1,443***	***0***	***0***	***0***	***0***
	Entertainment Center Trips (People in Vehicles) w/ Internal Capture & Multimodal Reductions		**21,533**	**0**	**0**	**0**	**2,132**	**2,132**	**0**	**4,327**	**4,327**	**0**	**0**	**0**	**0**
	Entertainment Center Vehicle Trips w/o Second TNC Trip [1]	***3.0 Avg Occupancy per Veh*** [6]	***7,178***	***0***	***0***	***0***	***711***	***711***	***0***	***1,442***	***1,442***	***0***	***0***	***0***	***0***
	Second TNC Vehicle Trips	*15%*							*107*			*216*			*0*
	Total Entertainment Center Vehicle Trips		**7,178**	**0**	**0**	**0**	**817**	**711**	**107**	**1,658**	**1,442**	**216**	**0**	**0**	**0**
	Entertainment Center Trips (Employees)	***Adjustments***	1,770	0	0	0	443	443	0	0	0	0	0	0	0
	Internal Capture	***1%***	**-18**	**0**	**0**	**0**	**-4**	**-4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Entertainment Center Trips w/ Internal Capture		**1,752**	**0**	**0**	**0**	**439**	**439**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Multimodal Reductions	***25%***	***-438***	***0***	***0***	***0***	***-110***	***-110***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
	Entertainment Center Trips (People in Vehicles) w/ Internal Capture & Multimodal Reductions		**1,314**	**0**	**0**	**0**	**329**	**329**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Entertainment Center Vehicle Trips w/o Second TNC Trip	***1.0 Avg Occupancy per Veh*** [6]	***1,314***	***0***	***0***	***0***	***329***	***329***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
	Second TNC Vehicle Trips	*15%*							*49*			*0*			*0*
	Total Entertainment Center Vehicle Trips (Employees)		**1,314**	**0**	**0**	**0**	**378**	**329**	**49**	**0**	**0**	**0**	**0**	**0**	**0**
	Total Adjusted Entertainment Center Trips (Seats & Employees)		**8,492**	**0**	**0**	**0**	**1,195**	**1,039**	**156**	**1,658**	**1,442**	**216**	**0**	**0**	**0**
	Residential Trips		27,762	2,221	444	1,777	2,499	1,749	750	2,174	1,522	652	2,499	1,749	750
	Internal Capture[7]		*-555*	*-44*	*-9*	*-36*	*-500*	*-350*	*-150*	*-435*	*-304*	*-130*	*-500*	*-350*	*-150*
			27,207	2,177	435	1,741	1,999	1,399	600	1,739	1,218	522	1,999	1,399	600
	Multimodal Reductions		*-2,721*	*-305*	*-61*	*-244*	*-280*	*-196*	*-84*	*-243*	*-171*	*-73*	*-280*	*-196*	*-84*
	Total Adjusted Residential Trips		**24,486**	**1,872**	**374**	**1,497**	**1,719**	**1,203**	**516**	**1,496**	**1,047**	**449**	**1,719**	**1,203**	**516**
	Retail Trips		10,700	457	242	215	641	384	257	92	55	37	915	549	366
	Internal Capture[7]		*-107*	*-78*	*-41*	*-37*	*-64*	*-38*	*-26*	*-9*	*-5*	*-4*	*-91*	*-55*	*-37*
	Total Adjusted Retail Trips		**10,593**	**379**	**201**	**178**	**577**	**346**	**231**	**83**	**50**	**33**	**824**	**494**	**329**
	Total Existing Commercial Trips		*-14,181*	*-711*	*-412*	*-299*	*-1,058*	*-627*	*-431*	*-1,280*	*-869*	*-411*	*-1,658*	*-786*	*-872*
	Total Net New Retail Trips		**-3,588**	**-332**	**-211**	**-121**	**-481**	**-281**	**-200**	**-1,197**	**-819**	**-378**	**-834**	**-292**	**-543**
Existing Land Use Trips (Applied to retail)															
	Total Existing Trips		***-21,057***	***-801***	***-489***	***-312***	***-1,436***	***-904***	***-532***	***-1,916***	***-1,433***	***-483***	***-1,658***	***-786***	***-872***
	Net New Trips		**22,514**	**1,450**	**86**	**1,363**	**2,055**	**1,684**	**371**	**1,321**	**1,106**	**215**	**885**	**911**	**-27**

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]AM Commuter Peak Hour = Morning Peak Hour (8-9 AM)

[3]PM Commuter Peak Hour = Evening Commute Peak Hour (5-6 PM)

[4]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[5]Weekend Midday Peak= Midday peak hour during a non-event day

[6]Average Vehicle Occupancy (AVO) based on FHWA and ITE support material.

[7]Internal Capture: Residential = 2% Daily/2% AM/20% PM; Commercial = 10% Daily/17% am/10% PM.

*Entertainment Center trip generation is based on maximum number of seats and number of employees expected for that peak period. Proposed Raw Trips is not based on a rate but rather using assumptions listed below:

Spectator Arrival - 20% during Commute PM Peak Hour; 40% during Pre-Event PM Peak Hour

Employee Arrival - 25% during PM Peak Hour; 0% during Pre-Event PM Peak Hour

Table 4-10. Proposed Trip Generation (Driveway Rates) - Opening Year (2035) Plus Project Phase 2 Buildout (Typical Event)

Land Use[1]		Units	Daily Trips	Weekday Event-Day									Weekend Non-Event Day		
				AM Commuter Peak Hour[2]			PM Commuter Peak Hour[3]			Pre-Event PM Peak Hour[4]			Midday Peak Hour[5]		
				Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Proposed Raw Trips															
SD	Restaurant - Quality	40.00 ksf	4000	40	24	16	224	157	67	32	22	10	320	224	96
SD	Restaurant - High Turnover (sit-down)	40.00 ksf	5200	416	208	208	291	175	116	42	25	17	416	250	166
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	60.00 ksf	4200	126	76	50	294	147	147	42	21	21	420	210	210
	Total Raw Trips		**71,932**	**2,803**	**752**	**2,051**	**6,622**	**5,542**	**1,080**	**8,119**	**7,419**	**700**	**3,655**	**2,433**	**1,222**
Proposed Reductions															
	Retail Trips		13,400	582	308	274	809	479	330	116	68	48	1,156	684	472
	Internal Capture [6]		*-134*	*-99*	*-52*	*-47*	*-81*	*-48*	*-33*	*-12*	*-6*	*-5*	*-115*	*-68*	*-47*
		17% AM													
		10% PM													
		1% Daily													
	Total Adjusted Retail Trips		**13,266**	**483**	**256**	**227**	**729**	**431**	**297**	**105**	**62**	**43**	**1,041**	**616**	**425**
	Total Existing Commercial Trips		*-14,181*	*-711*	*-412*	*-299*	*-1,058*	*-627*	*-431*	*-1,280*	*-869*	*-411*	*-1,658*	*-786*	*-872*
	Total Net New Retail Trips		**-915**	**-228**	**-156**	**-72**	**-329**	**-196**	**-134**	**-1,175**	**-807**	**-368**	**-617**	**-170**	**-447**

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]AM Commuter Peak Hour = Morning Peak Hour (8-9 AM)

[3]PM Commuter Peak Hour = Evening Commute Peak Hour (5-6 PM)

[4]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[5]Average Vehicle Occupancy (AVO) based on FHWA and ITE support material. See **Attachment A**.

[6]Daily = 10% Internal Capture; AM Peak = 17% Internal Capture; PM Peak = 10% Internal Capture.

Table 4-11. Proposed Trip Generation (Cumulative Rates) - Opening Year (2030) Plus Project Phase 1 (Full Capacity Event)

Land Use[1]		Units		Daily Trips	Weekday Event-Day Pre-Event PM Peak Hour[2]		
					Total	In	Out
Proposed Raw Trips							
*	Entertainment Center Event - Spectators	20,000	spectators	40,000	8,040	8,040	0
*	Entertainment Center - Employees	1,080	employees	2,160	0	0	0
SD	Multiple Dwelling Unit - Over 20 dwelling units/acre	1,242	d.u.	7,452	584	409	175
SD	Restaurant - Quality	32	ksf	2880	23	16	7
SD	Restaurant - High Turnover (sit-down)	32	ksf	3328	27	16	11
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	48	ksf	2352	24	12	12
	Total Raw Trips			**58,172**	**8,697**	**8,493**	**204**
Proposed Reductions							
	Entertainment Center Trips (Spectators)	***Adjustments***		40,000	8,040	8,040	0
	Internal Capture	***1%***		***-400***	***-80***	***-80***	***0***
	Entertainment Center Trips w/ Internal Capture			**39,600**	**7,959**	**7,959**	**0**
	Multimodal Reductions	***15%***		***-5,940***	***-1,194***	***-1,194***	***0***
	Entertainment Center Trips (People in Vehicles) w/ Internal Capture & Multimodal Reductions			**33,660**	**6,765**	**6,765**	**0**
	Entertainment Center Vehicle Trips w/o Second TNC Trip [1]	***3***	***Avg Occupancy per Veh*** [3]	***11,220***	***2,255***	***2,255***	***0***
	Second TNC Vehicle Trips	*15%*					*338*
	Total Entertainment Center Vehicle Trips			**11,220**	**2,593**	**2,255**	**338**
	Entertainment Center Trips (Employees)	***Adjustments***		2,160	0	0	0
	Internal Capture	***1%***		**-22**	**0**	**0**	**0**
	Entertainment Center Trips w/ Internal Capture			**2,138**	**0**	**0**	**0**
	Multimodal Reductions	***15%***		***-321***	***0***	***0***	***0***
	Entertainment Center Trips (People in Vehicles) w/ Internal Capture & Multimodal Reductions			**1,817**	**0**	**0**	**0**
	Entertainment Center Vehicle Trips w/o Second TNC Trip	***1.0***	***Avg Occupancy per Veh*** [3]	***1,817***	***0***	***0***	***0***
	Second TNC Vehicle Trips	*15%*					
	Total Entertainment Center Vehicle Trips (Employees)			**1,817**	**0**	**0**	**0**
	Total Adjusted Entertainment Center Trips (Seats & Employees)			**13,037**	**2,593**	**2,255**	**338**
	Residential Trips			7,452	584	409	175
	Internal Capture [4]			*-149*	*-117*	*-82*	*-35*
	Multimodal Reductions			*-730*	*-65*	*-46*	*-20*
	Total Adjusted Residential Trips			**6,573**	**402**	**281**	**120**
	Retail Trips			8,560	73	44	29
	Internal Capture [4]			*-86*	*-7*	*-4*	*-3*
	Total Adjusted Retail Trips			**8,474**	**66**	**40**	**26**
	Total Existing Commercial Trips			*-5,027*	*-387*	*-242*	*-145*
	Total Net New Retail Trips			**3,447**	**-321**	**-202**	**-119**
Existing Land Use Trips (Excluding Arena)							
	Total Existing Trips			***-21,057***	***-1,916***	***-1,433***	***-483***
	Net New Trips			**7,027**	**1,145**	**1,143**	**1**

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[3]Average Vehicle Occupancy (AVO) based on FHWA and ITE support material.

[4]Internal Capture: Residential = 2% Daily/2% AM/20% PM; Commercial = 10% Daily/17% am/10% PM.

*Entertainment Center trip generation is based on number of maximum number of seats and employees expected for that peak period. Proposed Raw Trips is not based on a rate but rather using assumptions listed below:

Spectator Arrival - 20% during Commute PM Peak Hour; 40% during Pre-Event PM Peak Hour

Employee Arrival - 25% during PM Peak Hour; 0% during Pre-Event PM Peak Hour

Table 4-12. Proposed Trip Generation (Driveway Rates) - Opening Year (2030) Plus Project Phase 1 (Full Capacity Event)

Land Use[1]		Units	Daily Trips	Weekday Event-Day Pre-Event PM Peak Hour[2]		
				Total	In	Out
Proposed Raw Trips						
SD	Restaurant - Quality	32 ksf	3200	26	18	8
SD	Restaurant - High Turnover (sit-down)	32 ksf	4160	33	20	13
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	48 ksf	3360	34	17	17
	Total Raw Trips		**60,332**	**9,076**	**8,864**	**212**
Proposed Reductions						
	Retail Trips		10,720	93	55	38
	Internal Capture[3]		*-107*	*-9*	*-6*	*-4*
	Total Adjusted Retail Trips		**10,613**	**84**	**49**	**34**
	Total Existing Commercial Trips		*-5,027*	*-387*	*-242*	*-145*
	Total Net New Retail Trips		**5,586**	**-304**	**-193**	**-112**

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[3]Daily = 10% Internal Capture; AM Peak = 17% Internal Capture; PM Peak = 10% Internal Capture.

Table 4-13. Proposed Trip Generation (Cumulative Rates) - Opening Year (2035) Plus Project Phase 2 Buildout (Full Capacity Event)

Land Use[1]	Units	Daily Trips	Weekday Event-Day Pre-Event PM Peak Hour[2]		
			Total	In	Out
Proposed Raw Trips					
* Entertainment Center Event - Spectators	20,000 spectators	40,000	8,040	8,040	0
* Entertainment Center - Employees	1,080 employees	2,160	0	0	0
SD Multiple Dwelling Unit - Over 20 dwelling units/acre	4,627 d.u.	27,762	2,174	1,522	652
SD Restaurant - Quality	40 ksf	3600	29	20	9
SD Restaurant - High Turnover (sit-down)	40 ksf	4160	33	20	13
SD Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	60 ksf	2940	29	15	14
Total Raw Trips		**80,622**	**10,306**	**9,617**	**689**
Proposed Reductions					
Entertainment Center Trips (Spectators)	***Adjustments***	40,000	8,040	8,040	0
Internal Capture	***1%***	***-400***	***-80***	***-80***	***0***
Entertainment Center Trips w/ Internal Capture		**39,600**	**7,959**	**7,959**	**0**
Multimodal Reductions	***25%***	***-9,900***	***-1,990***	***-1,990***	***0***
Entertainment Center Trips (People in Vehicles) w/ Internal Capture & Multimodal Reductions		**29,700**	**5,969**	**5,969**	**0**
Entertainment Center Vehicle Trips w/o Second TNC Trip[1]	***3.0 Avg Occupancy per Veh***[5]	***9,900***	***1,990***	***1,990***	***0***
Second TNC Vehicle Trips	*15%*				*298*
Total Entertainment Center Vehicle Trips		**9,900**	**2,288**	**1,990**	**298**
Entertainment Center Trips (Employees)	***Adjustments***	2,160	0	0	0
Internal Capture	***1%***	**-22**	**0**	**0**	**0**
Entertainment Center Trips w/ Internal Capture		**2,138**	**0**	**0**	**0**
Multimodal Reductions	***25%***	***-535***	***0***	***0***	***0***
Entertainment Center Trips (People in Vehicles) w/ Internal Capture & Multimodal Reductions		**1,603**	**0**	**0**	**0**
Entertainment Center Vehicle Trips w/o Second TNC Trip	***1.0 Avg Occupancy per Veh***[5]	***1,603***	***0***	***0***	***0***
Second TNC Vehicle Trips	*15%*				*0*
Total Entertainment Center Vehicle Trips (Employees)		**1,603**	**0**	**0**	**0**
Total Adjusted Entertainment Center Trips (Seats & Employees)		**11,503**	**2,288**	**1,990**	**298**
Residential Trips		27,762	2,174	1,522	652
Internal Capture[6]		*-555*	*-435*	*-304*	*-130*
Multimodal Reductions		*-2,721*	*-243*	*-171*	*-73*
Total Adjusted Residential Trips		**24,486**	**1,496**	**1,047**	**449**
Retail Trips		10,700	92	55	37
Internal Capture[4]		*-107*	*-9*	*-6*	*-4*
Total Adjusted Retail Trips		**10,593**	**82**	**50**	**33**
Total Existing Commercial Trips		*-14,181*	*-1,280*	*-869*	*-411*
Total Net New Retail Trips		**-3,588**	**-1,198**	**-820**	**-378**
Existing Land Use Trips (Applied to retail)					
Total Existing Trips		***-21,057***	***-1,916***	***-1,433***	***-483***
Net New Trips		**25,525**	**1,950**	**1,654**	**297**

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[3]Average Vehicle Occupancy (AVO) based on FHWA and ITE support material. See **Attachment A**.

[4]Internal Capture: Residential = 2% Daily/2% AM/20% PM; Commercial = 10% Daily/17% am/10% PM.

*Entertainment Center trip generation is based on number of maximum number of seats and employees expected for that peak period. Proposed Raw Trips is not based on a rate but rather using assumptions listed below:

Spectator Arrival - 20% during Commute PM Peak Hour; 40% during Pre-Event PM Peak Hour

Employee Arrival - 25% during PM Peak Hour; 0% during Pre-Event PM Peak Hour

Table 4-14. Proposed Trip Generation (Driveway Rates) - Opening Year (2035) Plus Project Phase 2 Buildout (Full Capacity Event)

Land Use[1]		Units	Daily Trips	Weekday Event Day Pre-Event PM Peak Hour[2]		
				Total	In	Out
Proposed Raw Trips						
SD	Restaurant - Quality	40.00 ksf	4000	32	22	10
SD	Restaurant - High Turnover (sit-down)	40.00 ksf	5200	42	25	17
SD	Shopping Center - Community (100,000 sq. ft. or more GLA on 10 or more acres)	60.00 ksf	4200	42	21	21
	Total Raw Trips		**83,322**	**10,330**	**9,630**	**700**
Proposed Reductions						
	Retail Trips		13,400	116	68	48
	Internal Capture[3]		*-134*	*-12*	*-7*	*-5*
	Total Adjusted Retail Trips		**13,266**	**104**	**61**	**43**
	Total Existing Commercial Trips		*-14,181*	*-1,280*	*-869*	*-411*
	Total Net New Retail Trips		**-915**	**-1,176**	**-808**	**-368**

Notes:

[1]Land Uses based on: SD – City of San Diego Trip Generation Manual

[2]Pre-Event PM Peak Hour = Arrival Peak Hour prior to event (6-7 PM)

[3]Daily = 10% Internal Capture; AM Peak = 17% Internal Capture; PM Peak = 10% Internal Capture.

4.3 TRIP DISTRIBUTION

The Streetlight Insight tool, which provides location-based service data, was used to estimate regional trip distribution for the project site and identify community circulation and site access routes. Streetlight allows users to analyze anonymous travel patterns to and from geographic areas (i.e., zones), and view groups of trips that pass-through or have origins and destinations in these zones. For this study, two types of demand analyses were utilized to gain context and draw conclusions regarding the project's expected travel patterns.

- **Origin-destination analysis** analyzes the proportion of trips that move to and from the selected zone and census blocks within the City. This analysis was used to identify trends in regional ingress and egress for the project study area.
- **"Top routes" analysis** details how traffic flows to and from a zone along roadways. This analysis illustrates which roads are taken most frequently to and from a zone and identifies which roadways are heavily used as ingress and egress options.

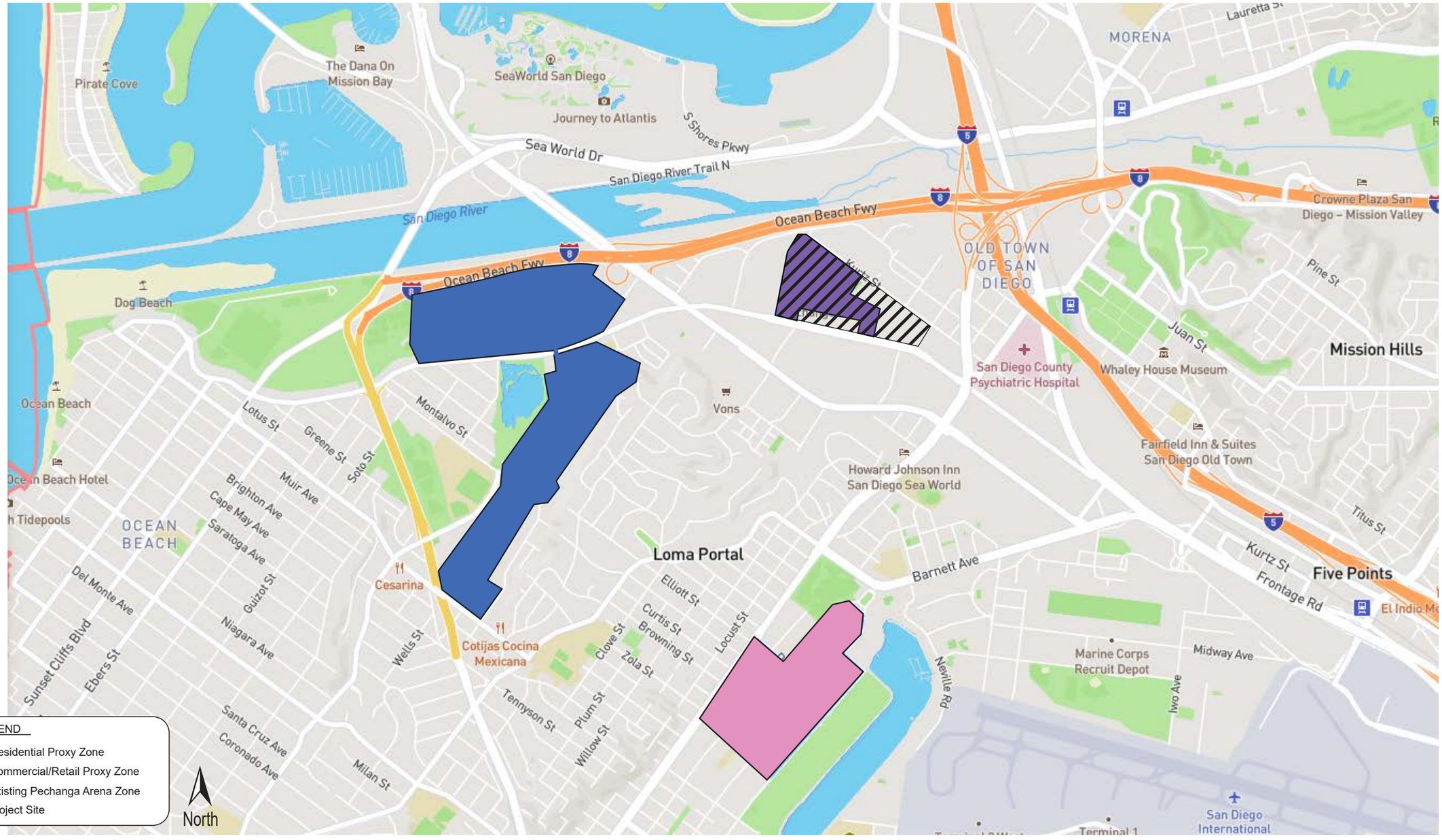
Three geographic areas (or proxy sites), shown in **Figure 4-5**, were identified to represent comparable travel patterns for each land use in the proposed project, based on their location and similarity in characteristics to the proposed land uses. The project traffic distribution was estimated based on multiple factors including existing count data surrounding the existing arena, travel patterns for proxy sites using Streetlight Insight platform, and local knowledge of the project area and roadway network. The three zones identified are as follows:

- Sports Arena was chosen for the proposed Entertainment Center as the project proposes to redevelop the existing Sports Arena.
- Residential neighborhoods located north and south of West Point Loma Boulevard were chosen for the proposed Residential land use to reflect the mid- to high-density nature of the project.
- Liberty Station was chosen for the proposed commercial land uses as it leases to boutique-retail and restaurant and beverage, similar to the project.

Travel patterns on a typical weekday (Tuesday-Thursday) during typical commuter peaks (7:00 AM to 9:00 AM in the morning and 4:00 PM to 6:00 PM in the evening) were evaluated for these sites. Data was from January 1, 2019 to December 31, 2019, prior to the COVID-19 pandemic, and averaged over the course of that year. Additional years of data were not used due to travel pattern changes as a result of the COVID pandemic and recovery period.

While the distribution to/from the Streetlight zones was directly applied to the project site distribution patterns, trips were routed to the proposed project site and proposed parking structure locations based on the "top routes" analysis. The residential, commercial, and entertainment center distribution maps are included in **Appendix I**. **Appendix J** shows the distributions for each land use by study intersection.

Figure 4-5. Proposed Streetlight Zones



4.3.1 RESIDENTIAL DEMAND ANALYSIS

The proxy zone chosen to represent the proposed residential land use element of the project combines two medium- to high-density residential areas just west of the project site, which are expected to have similar travel patterns as the residential portion of the proposed project.

Table 4-15 summarizes the distribution of destinations from the proxy residential zone during the AM peak period, based on the Streetlight top routes summary, included in **Appendix K**. The study looked at the top routes exiting the residential proxy site during the AM peak to capture AM and PM commuter traffic patterns.

Table 4-15. Residential AM Peak Top Routes Summary

Roadway	% Destination Trips
I-8	23%
I-5 North of Site	7%
I-5 South of Site	12%
Mission Bay Drive	3%
W Point Loma Blvd	6%
Catalina Blvd	15%
Rosecrans Street	13%
Kemper Street	9%
Pacific Highway	6%
Taylor Street / Rosecrans Street	3%
Sea World Drive	3%
Total	**100%**

Appendix J shows the trip distribution for the residential trips generated by the proposed project.

4.3.2 COMMERCIAL DEMAND ANALYSIS

The project intends to primarily lease community-serving retail and food and beverage space, similar to Liberty Station. The commercial space for the project would be distributed among approximately 11 different building blocks along Frontier Drive and the greenway between Frontier Drive and the Entertainment Center. Liberty Station was chosen as the commercial proxy site, as it is located nearby the project site, generates traffic from the nearby community, and is the most similar type of retail and restaurant land uses intended to be leased on the project site. Additionally, Liberty Station has a concert hall and boutique businesses with similar interaction between those uses as expected at the project site. **Table 4-16** summarizes the distribution of origins to the proxy commercial zone using the top routes summary. The Streetlight top routes results for trips to the proxy commercial site indicated most trips to and from Liberty Station use Rosecrans Street, I-8 and I-5, included in **Appendix L**.

Table 4-16. Liberty Station Top Routes Summary

Roadway	% Origin Trips
I-8 East of Site	19%
I-5 North of Site	9%
I-5 South of Site	18%
Pacific Highway South of Site	7%
Rosecrans Street South of Site	31%
Rosecrans Street North of Site (Old Town)	2%
Point Loma Boulevard West of Site	5%
Mission Bay Drive West of Site	3%
Sports Arena Boulevard West of Site	1%
Camino Del Rio North of Site	1%
Midway Drive West of Site	4%
Total	**100%**

Appendix J shows the trip distribution for the commercial trips generated by the proposed project.

4.3.3 ENTERTAINMENT DEMAND ANALYSIS

Information from Streetlight on the existing Sports Arena site was used to assess trips traveling to the proposed Entertainment Center on event days. Data was averaged from 10 event days in 2019 between 6:00 PM and 10:00 PM to understand typical travel patterns to the site. The event days consisted of both weekdays and weekends, with data taken during two San Diego Seals games, four San Diego Gulls games, and four concerts with approximate attendance of 10,450 attendees.

Table 4-17 summarizes the distribution patterns for the Entertainment Zone results based on the top routes summary. **Appendix M** shows the Streetlight top routes results for trips to the existing arena. **Appendix J** shows the trip distribution for the entertainment center trips generated by the proposed project.

Table 4-17. Sports Arena Event Day Origin Summary

Roadway	% Origin Trips
I-8	50%
I-5 North of Site	10%
I-5 South of Site	20%
Mission Bay Dr	5%
Taylor Street	5%
Point Loma Boulevard	5%
Rosecrans Street	5%
Total	**100%**

The existing arena travel patterns were used to distribute proposed arena trips based on the proposed location of the proposed Entertainment Center parking structures and assumptions for rideshare/

transportation network company (TNC) pick-up and drop-off patterns. Parking structures H1, E2, and B2 provide parking for the arena, and are labeled on the site plan previously referenced.

Sports Arena distribution patterns are only provided for the arrival operations since the departure operations occur during off-peak hours and not part of this study. For event days, vehicles arriving to parking structures during the arrival period are not expected to leave the Entertainment Center within the same hour. Therefore, only inbound distributions to the parking structures (Blocks B2, E2, and H) are provided. As previously discussed, overflow parking will be provided for events hosting more than 10,500 spectators. Inbound overflow distributions are also provided for these sites.

Each event trip taken using TNC includes two trips for the TNC vehicle: one to drop off and a second to depart the site. Both trips would occur within the same peak hour. Therefore, inbound and outbound distributions are provided for TNC trips.

Regional origins are anticipated to remain the same between the existing arena demand and the proposed Entertainment Center demand. Arrival routes to the Entertainment Center along local roadways were modified to reflect the targeted routing information to each new parking structure as discussed in Section 4.1.7. The modifications to reflect the targeted routing information include:

- Block E2, B2, and overflow lot vehicles originating from the southeast were routed from I-5 northbound to I-8 westbound where they would exit at Mission Bay Drive and proceed to the site via Sports Arena Boulevard and Hancock Street.
- Block E2, B2, and overflow vehicles traveling to Blocks E and B from I-5 North of Site were routed to Sea World Drive, where they would take Mission Bay Drive and proceed to the site via Sports Arena Boulevard and Hancock Street.
- TNC vehicle distributions utilized regional percentages obtained from Streetlight and were anticipated to drop off along Kemper Street in a designated TNC area.

Table 4-18 summarizes the distribution patterns for the existing arena and proposed Entertainment Center land use.

Table 4-18. Event Day Entertainment Center Top Routes Summary

Origin	Site Access Roadway	Existing Arena	Proposed Entertainment Center (Block H)	Proposed Entertainment Center (Block E2, B2)	Proposed Entertainment Center (TNC)	Proposed Entertainment Center (Overflow)	Proposed Entertainment Center (SeaWorld)
I-5 North of Site & I-8 East of Project Site	Via Camino Del Rio West	55%	60%	5%	55%	30%	0%
I-5 South of Site & I-8 East of Project Site	Via Sports Arena Boulevard	5%	0%	70%	10%	20%	50%
I-5 North of Site	Via Sea World Drive	0%	0%	5%	0%	10%	10%
Southeast	Via Pacific Highway	7%	2%	0%	0%	15%	20% (use I-5)
Southeast	Via Midway Drive	13%	18%	0%	20%	5%	
Mission Beach	Via West Mission Bay Drive	5%	5%	5%	0%	5%	5%
Point Loma	Via Rosecrans Street	5%	5%	5%	5%	5%	5%
Ocean Beach	Via West Point Loma Blvd	5%	5%	5%	5%	5%	5%
Old Town	Via Taylor Street	5%	5%	5%	5%	5%	5%

4.4 TRIP ASSIGNMENT

To estimate the number of inbound and outbound trips, the site's trip generation was applied to the study intersections and roadway segments using the trip distribution patterns for their respective peaks. The trip generation was applied as follows:

- The driveway trip rates were used to calculate net commercial trips at all project driveways, while cumulative trip rates were used to calculate net commercial trips at the remaining study intersections.
- Total residential project trips were directly applied to the residential trip distribution to attain project volumes.
- Total entertainment center project trips were applied to distributions as follows:
  - **Opening Year (2030) Plus Project Phase 1 (14,500 spectators)**: Block H will be constructed by 2030, while Blocks E2/B2 will not be constructed. On the west side of the site, 2,683 spaces will

remain in place for use during Phase 1 operations (refer to **Table 4-20)**. Block H distribution was applied for the total number of available parking spaces in Block H, and the Block E2/B2 distribution was applied to the remaining trip, reflective of vehicles parking in the remaining surface lot spaces.

- **Opening Year (2030) Plus Project Phase 1 (20,000 spectators)**: For the full capacity event, overflow parking lots will need to be used to accommodate the number of people parking. In addition to the distributions described for the 14,500-spectator event, vehicles were also assigned to the overflow parking lot west of the site, and the Sea World Drive parking lot.
- **Opening Year (2035) Plus Project Phase 2 Buildout (14,500 spectators)**: For the full buildout scenario, 2,100 event spaces will be provided on site. Block B2, E2, and H distributions were applied to these trips. The additional vehicles were assigned to park in the overflow parking lot west of the site, and Sea World Drive. **Table 4-19** summarizes the proposed parking stalls by block for the entertainment center land use.
- **Opening Year (2035) Plus Project Phase 2 Buildout (20,000 spectators)**: The same distribution patterns were applied for the full capacity event as the 14,500-spectator event for the Opening Year (2035) Plus Project Phase 2 Buildout scenario. **Table 4-19** summarizes the proposed parking stalls by block for the entertainment center land use.
- The existing arena trip generation was applied to the Sports Arena distribution to determine Sports Arena trip assignment. These existing trips were subtracted from the network in all plus project scenarios.

Table 4-19. Proposed Event Parking Spaces by Block

Block	Available Event Parking Spaces (Phase 1)	Available Event Parking Spaces (Phase 2)
Block B2	0	565
Block E2	0	754
Block H1	781	781
Surface Parking	2,683	0
Total	**3,464**	**2,100**

Appendix N includes the trip assignment of the proposed development trip generation under each analysis peak hour. for Opening Year (2030) Phase 1 and Opening Year (2035) Plus Project Phase 2 Buildout under each analysis peak hour. **Appendix N** also includes the trip assignment for the proposed project by land use.

5 OPENING YEAR (2030) BASE SCENARIO

This section summarizes the Opening Year (2030) Base Scenario. This scenario establishes a baseline to compare against the Opening Year (2030) Plus Project Phase 1 scenario to determine Phase 1 project effects. Year 2030 was selected as the anticipated opening year of Phase 1 of the project per information provided by the Applicant.

5.1 ROADWAY NETWORK CHANGES

The existing roadway network, reflective of conditions in December 2023 (discussed in Section 3.1), was used for the Opening Year (2030) Base analysis.

5.2 TRAFFIC VOLUMES

Based on coordination with the City during the scoping phase, Opening Year (2030) Base intersection and roadway traffic volumes were forecasted by applying an ambient growth rate of 0.55% per year over 7 years and adding the NAVWAR Near-Term with Year 2030 Alternative 2 project traffic to determine baseline volumes. The growth rate was calculated using the SANDAG ABM2+ 2021 Regional Plan model volumes for 2016 and 2035 at various locations within the study area. The average growth for the study area was 0.55%.

Sports Arena event traffic is not expected to increase in the Opening Year (2030) Base Scenario, so event traffic was subtracted from peak hour traffic before the growth rate was applied and then was added back afterward. The NAVWAR Near-Term with Year 2030 Alternative 2 project traffic (from the draft EIS / EIR dated May 2021) assumes 25% buildout of the NAVWAR project by the year 2030 and was chosen because it represents the worst-case highest intensity development to occur in a 10-year timeframe and the project is accounted for in the SANDAG regional model. The NAVWAR project trips were only included at intersections and roadway segments within the NAVWAR project study area that overlap with this study. **Figure 5-1.** illustrates the NAVWAR Near-Term with Year 2030 Alternative 2 project traffic added to the study intersections and roadway segments.

Figure 5-2 illustrates the resulting Opening Year (2030) Base Scenario traffic volumes.

5.3 INTERSECTION ANALYSIS

Table 5-1 displays the LOS analysis results for the study intersections under Opening Year (2030) Base Scenario.

Due to the large size of the NAVWAR project, it will be responsible for a large portion of the baseline trips in the area, specifically near the main access point on Pacific Highway at Enterprise Street. It is assumed the City would retime the signalized intersections closest to the project access points in order to accommodate the increase in traffic volumes and changes in travel patterns for the NAVWAR project. Therefore, signal timings were optimized at three intersections where the NAVWAR project is responsible for the majority of baseline traffic volumes increase. Without optimizing the following three intersections, the SimTraffic model was unable to properly run without the system clogging. As a result, these intersections show improved LOS and queue values compared to the existing conditions:

- Intersection #17 – Camino del Rio W & Hancock Street
- Intersection #27 – Pacific Highway & Enterprise Street

- Intersection #29 – Barnett Avenue & Midway Drive

Under Opening Year (2030) Base scenario, all intersections expected to operate at LOS D or better during all peak hours except:

- Intersection #2 – Midway Drive & W Point Loma Boulevard & Sports Arena Boulevard (PM: LOS E; Pre-Event: LOS E; WKND: LOS E)
- Intersection #5 – West Drive / Frontier Drive & Sports Arena Boulevard (Pre-Event: LOS F)
- Intersection #6 – Target Driveway & Sports Arena Boulevard (PM: LOS E; WKND: LOS F)
- Intersection #16 – Camino del Rio W & Moore Street (WKND: LOS E)
- Intersection #17 – Camino del Rio W & Hancock Street (AM: LOS F)
- Intersection #20 – Rosecrans Street & Midway Drive (AM: LOS E; PM: LOS E; Pre-Event: LOS E; WKND: LOS E)
- Intersection #22 – Rosecrans Street & Lytton Street (AM: LOS E)
- Intersection #26 – Kurtz Street & Pacific Hwy (PM: LOS F; Pre-Event: LOS F)

Appendix O contains the intersection LOS calculation worksheets for Opening Year (2030) Base.

5.4 QUEUEING ANALYSIS

Table 5-2 displays the 95th percentile queues under Opening Year (2030) Base scenario. The 95th percentile queue lengths reported represent an average of five SimTraffic runs. **Appendix P** contains the 95th percentile queue worksheets for Opening Year (2030) Base scenario. Under Opening Year (2030) Base scenario, queues are expected to exceed the existing available storage length at:

- 8 intersections in the Commuter AM peak,
- 14 intersections in the Commuter PM peak,
- 14 intersections in the Pre-Event PM peak,
- 14 intersections in the Weekend Mid-Day peak.

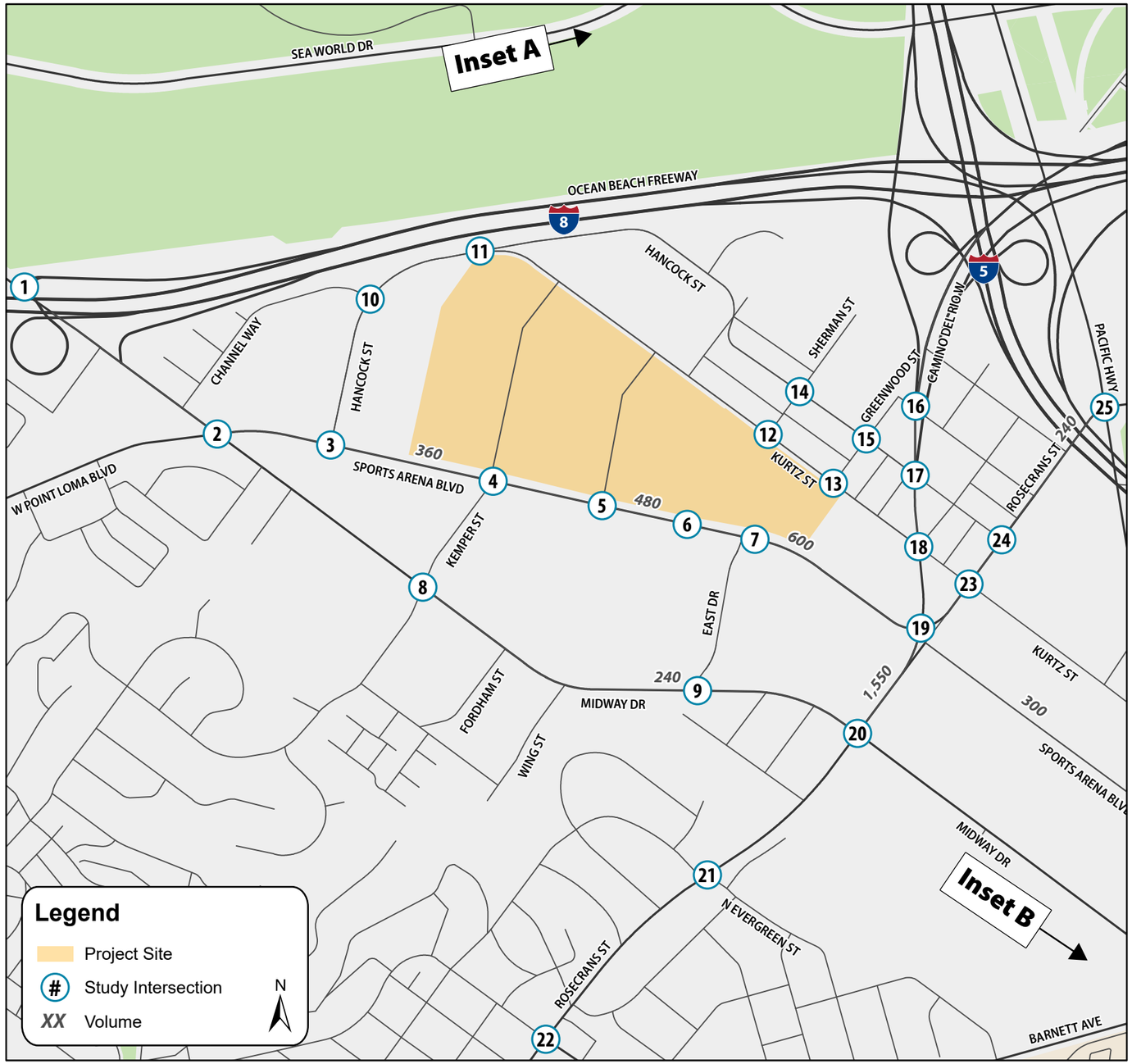
5.5 ROADWAY SEGMENT ANALYSIS

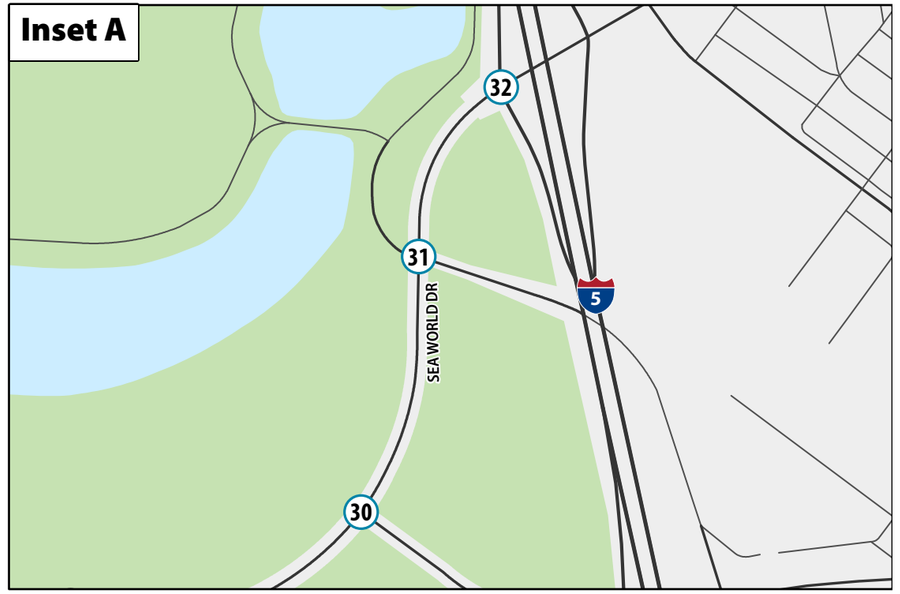
The Opening Year (2030) Base scenario roadway segment analysis was performed based on existing roadway geometries and existing 24-hour roadway segment counts. The existing counts were extrapolated to Year 2030 on a weekday event day and traffic from the NAVWAR Near Term (Year 2030) Alternative 2 scenario was added (See Section 5.2). **Table 5-3** summarizes the roadway segment LOS analysis at the study segments under Opening Year (2030) Base scenario for a weekday event day.

Under Opening Year (2030) Base scenario, all roadway segments are expected to operate at LOS D or better on a weekday event day except the following:

- Camino del Rio West north of Greenwood Street (LOS F)
- Camino del Rio West between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Rosecrans Street (LOS E)

Figure 5-1. Opening Year (2030) NAVWAR Assignment (Page 1 of 2)





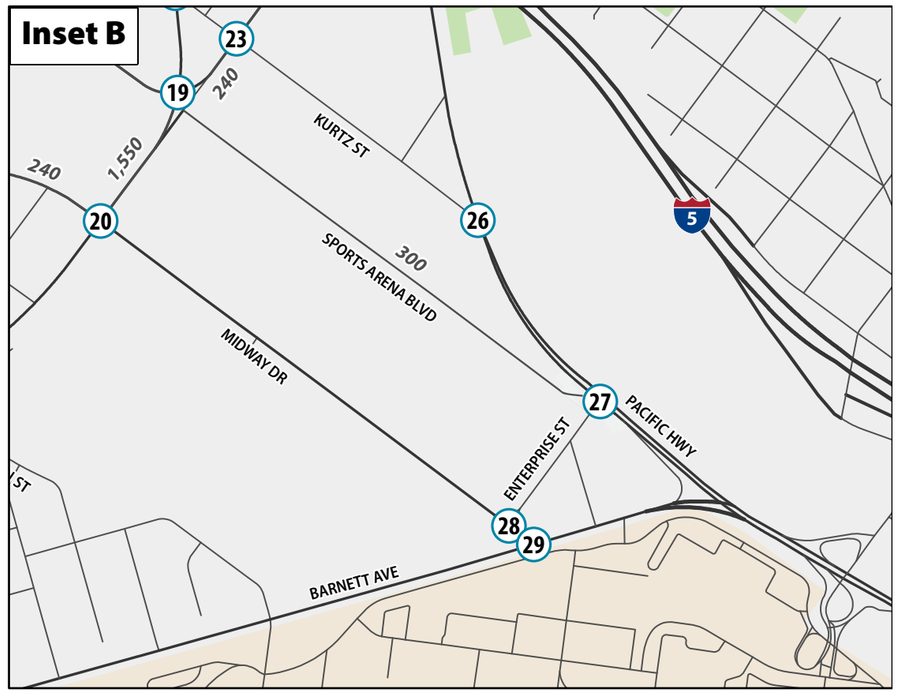
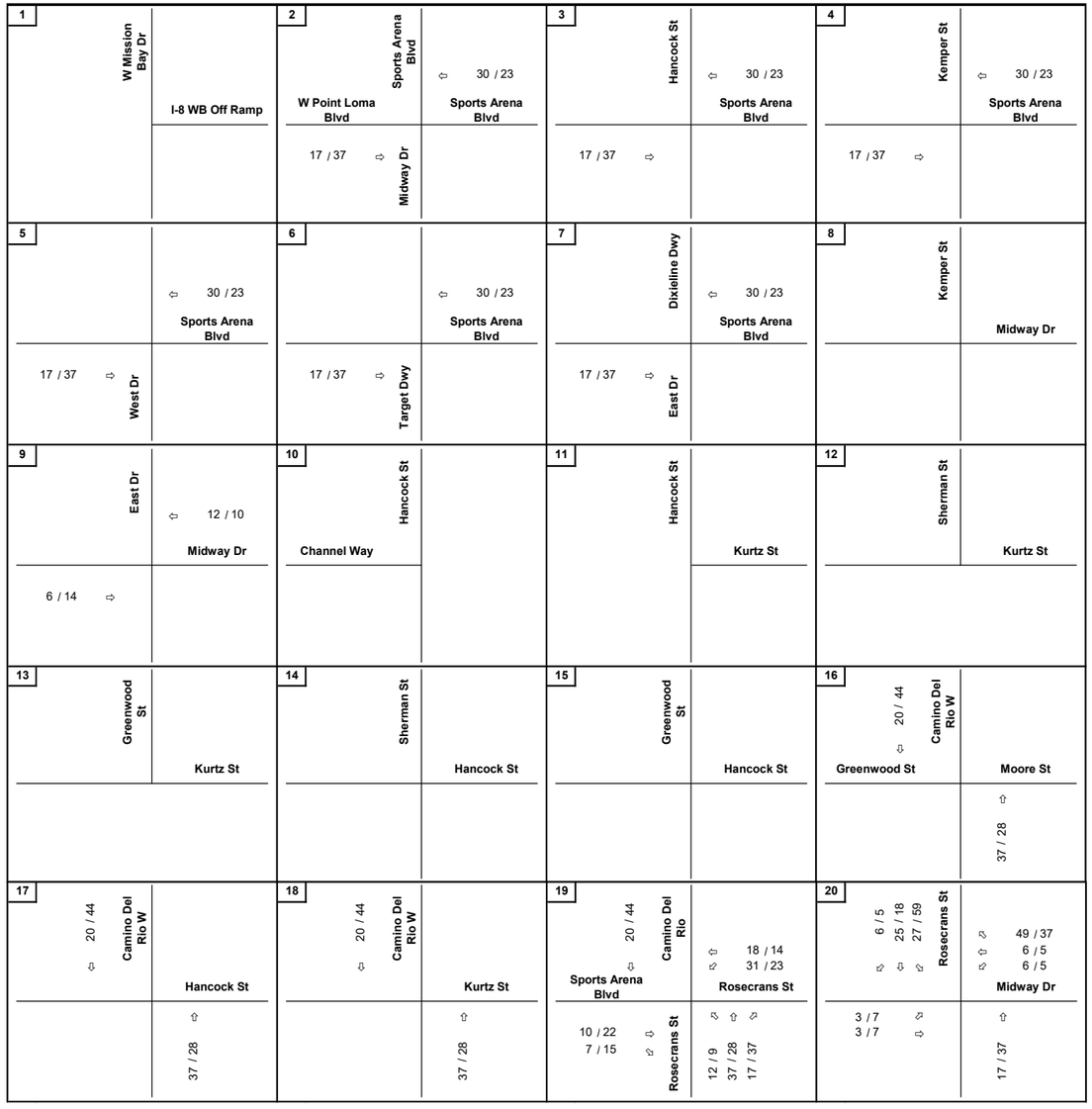


Figure 5-1. Opening Year (2030) NAVWAR Assignment (Page 2 of 2)



Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Figure 5-2. Opening Year (2030) Base Traffic Volumes (Page 1 of 3)

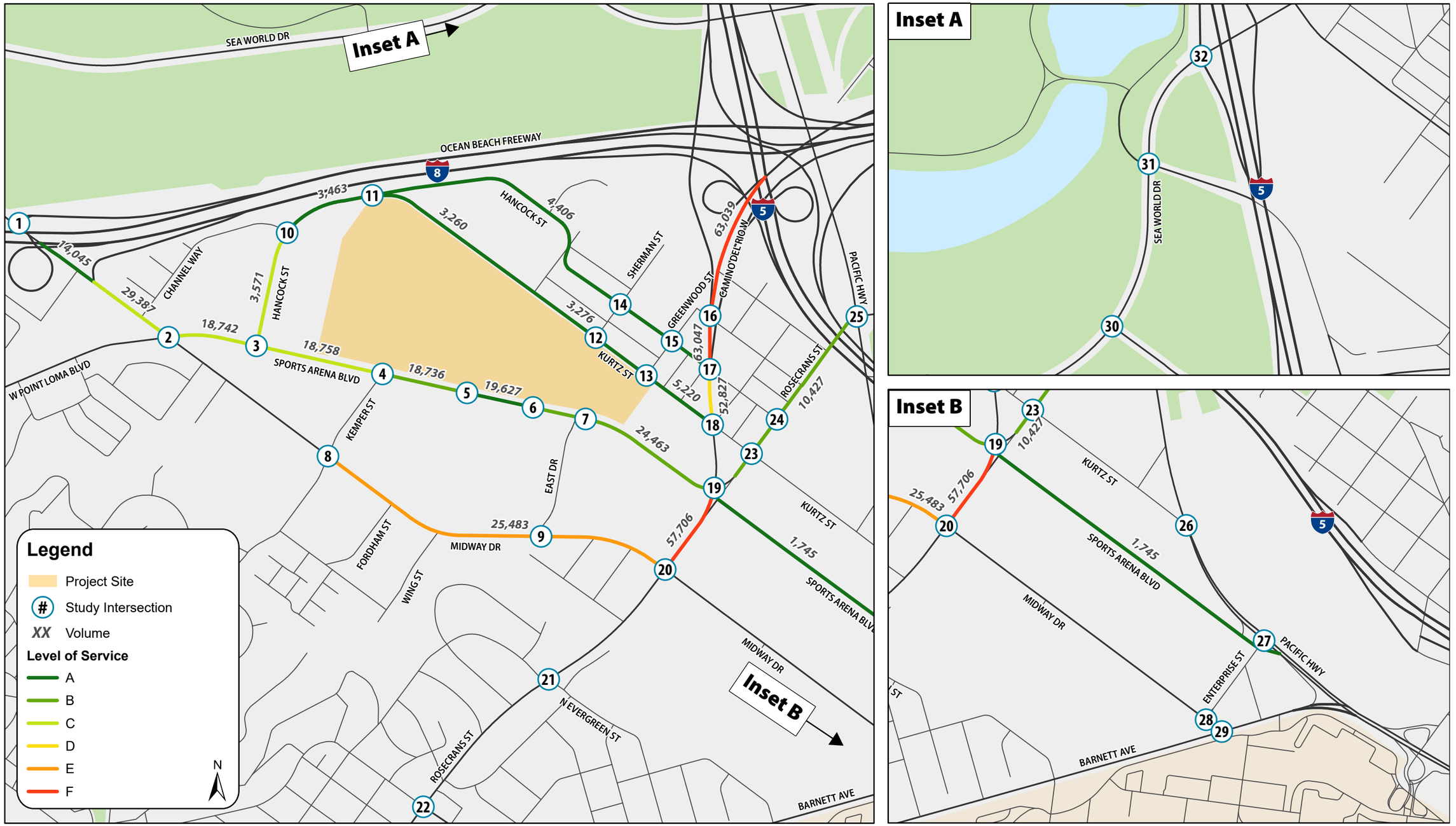
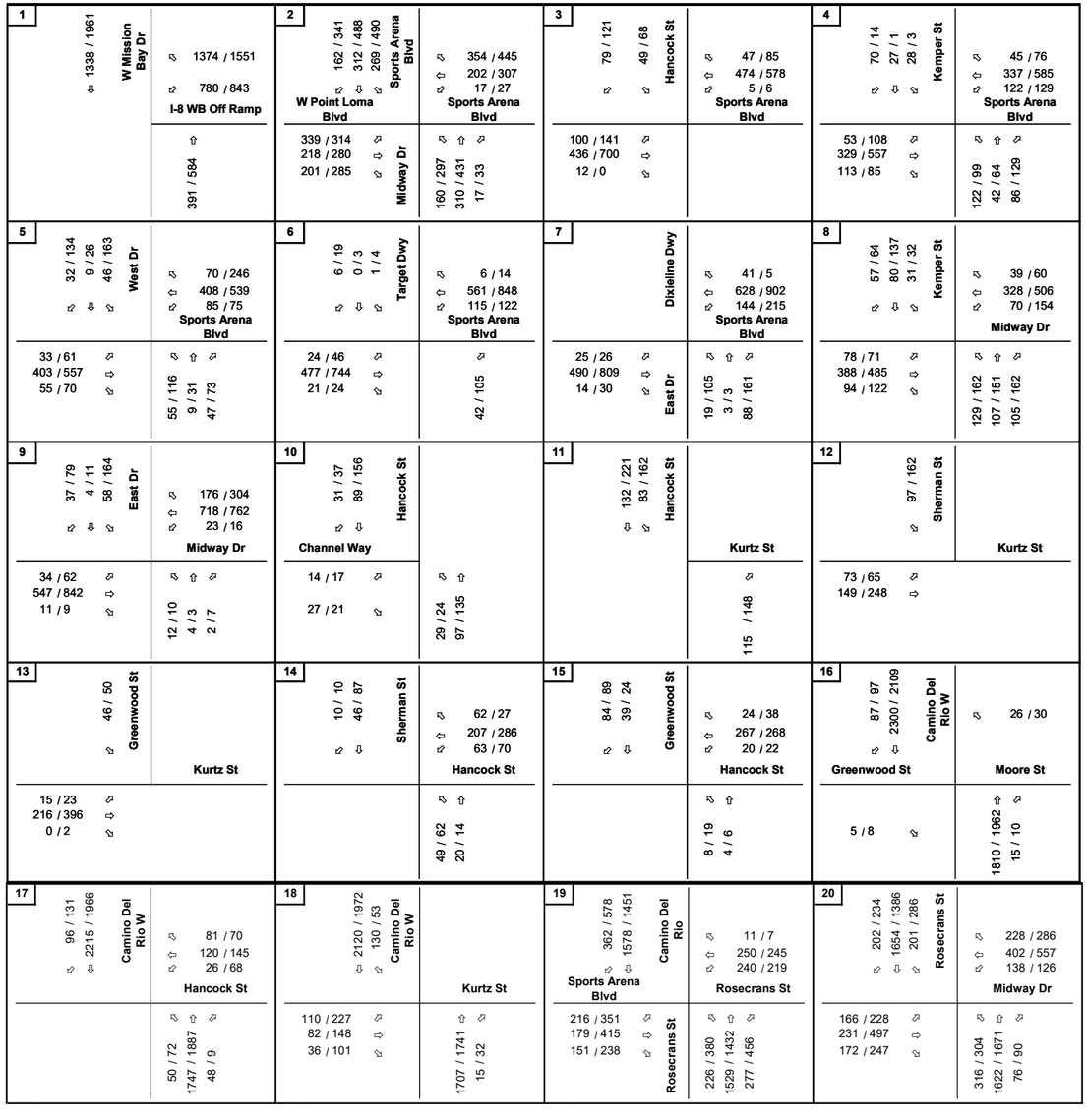


Figure 5-2. Opening Year (2030) Base Traffic Volumes (Page 2 of 3)

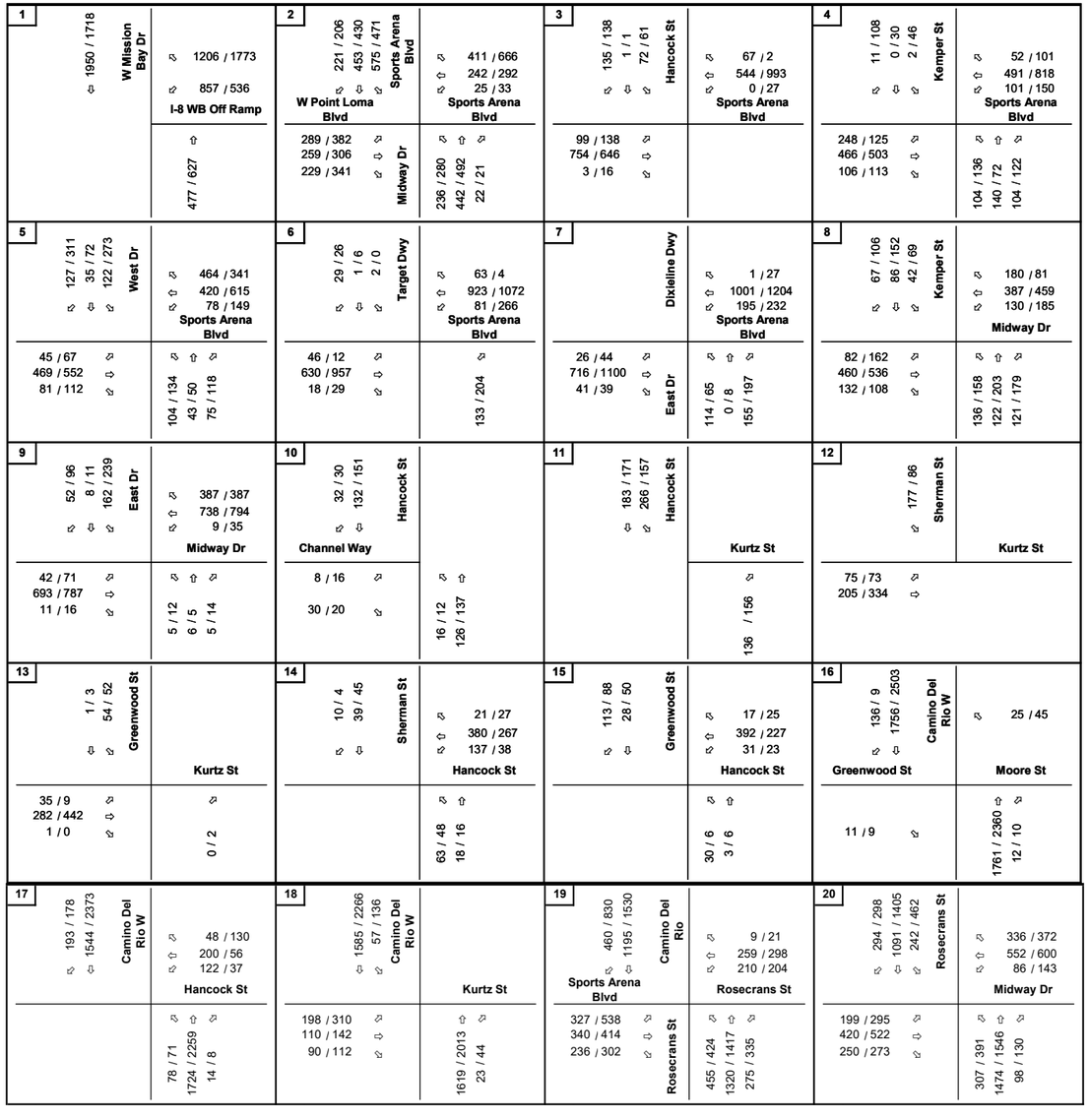


Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Figure 5-2. Opening Year (2030) Base Traffic Volumes (Page 3 of 3)



Legend

X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

North

Table 5-1. Opening Year (2030) Base Intersection LOS Summary

#	INTERSECTION	TRAFFIC CONTROL	HCM EDITION	PEAK HOUR	2030 Base	
					DELAY (a)	LOS (b)
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	Signal	**HCM 2000**	1. Weekday AM	19.1	B
				2. Weekday Commuter PM	25.6	C
				3. Weekday Pre Event PM	21.0	C
				4. Weekend Midday	27.8	C
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	31.4	C
				2. Weekday Commuter PM	62.1	**E**
				3. Weekday Pre Event PM	61.3	**E**
				4. Weekend Midday	57.2	**E**
3	Commercial Dwy 1/Hancock St & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	8.6	A
				2. Weekday Commuter PM	16.4	B
				3. Weekday Pre Event PM	15.8	B
				4. Weekend Midday	11.2	B
4	Kemper St/Existing Dwy 1 & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	13.5	B
				2. Weekday Commuter PM	19.4	B
				3. Weekday Pre Event PM	23.3	C
				4. Weekend Midday	20.2	C
5	West Dr/Existing Dwy 2 & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	13.8	B
				2. Weekday Commuter PM	30.4	C
				3. Weekday Pre Event PM	86.5	**F**
				4. Weekend Midday	39.8	D
6	Target Dwy/Existing VIP Access Rd & Sports Arena Blvd	One-Way Stop	HCM 6th	1. Weekday AM	13.8	B
				Worst Mvmt	SB	
				2. Weekday Commuter PM	48.2	**E**
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	26.0	D
				Worst Mvmt	SB	
				4. Weekend Midday	ECL	**F**
				Worst Mvmt	SB	
7	East Dr/Commercial Dwy 3 & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	9.1	A
				2. Weekday Commuter PM	21.0	C
				3. Weekday Pre Event PM	20.9	C
				4. Weekend Midday	18.1	B
8	Kemper St & Midway Dr	Signal	HCM 6th	1. Weekday AM	19.5	B
				2. Weekday Commuter PM	36.9	D
				3. Weekday Pre Event PM	34.4	C
				4. Weekend Midday	27.1	C
9	Commercial Dwy 2/East Dr & Midway Dr	Signal	HCM 6th	1. Weekday AM	9.2	A
				2. Weekday Commuter PM	12.7	B
				3. Weekday Pre Event PM	13.8	B
				4. Weekend Midday	19.9	B
10	Hancock St & Channel Way	All-Way Stop	HCM 6th	1. Weekday AM	7.9	A
				2. Weekday Commuter PM	8.4	A
				3. Weekday Pre Event PM	8.2	A
				4. Weekend Midday	8.7	A
11	Kurtz St & Hancock St	One-Way Stop	HCM 6th	1. Weekday AM	9.9	A
				Worst Mvmt	SB	
				2. Weekday Commuter PM	10.8	B
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	12.0	B
				Worst Mvmt	SB	
				4. Weekend Midday	10.9	B
				Worst Mvmt	SB	
12	Kurtz St & Sherman St	All-Way Stop	HCM 6th	1. Weekday AM	8.6	A
				2. Weekday Commuter PM	9.4	A
				3. Weekday Pre Event PM	9.5	A
				4. Weekend Midday	9.6	A
13	Kurtz St & Greenwood St	Two-Way Stop	HCM 6th	1. Weekday AM	9.6	A
				Worst Mvmt	SB	
				2. Weekday Commuter PM	10.6	B
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	10.3	B
				Worst Mvmt	SB	
				4. Weekend Midday	10.5	B
				Worst Mvmt	SB	
14	Sherman St & Hancock St	All-Way Stop	HCM 6th	1. Weekday AM	8.9	A
				2. Weekday Commuter PM	9.6	A
				3. Weekday Pre Event PM	11.2	B
				4. Weekend Midday	9.3	A
15	Greenwood St & Hancock St	All-Way Stop	HCM 6th	1. Weekday AM	8.7	A
				2. Weekday Commuter PM	8.8	A
				3. Weekday Pre Event PM	9.8	A
				4. Weekend Midday	9.0	A
16	Camino Del Rio W & Moore St	Two-Way Stop	HCM 6th	1. Weekday AM	32.4	D
				Worst Mvmt	EB	
				2. Weekday Commuter PM	30.5	D
				Worst Mvmt	EB	
				3. Weekday Pre Event PM	24.6	C
				Worst Mvmt	EB	
				4. Weekend Midday	42.8	**E**
				Worst Mvmt	WB	
17	Camino Del Rio W & Hancock St	Signal	HCM 6th	1. Weekday AM	ECL	**F**
				2. Weekday Commuter PM	11.9	B
				3. Weekday Pre Event PM	13.7	B
				4. Weekend Midday	29.0	C
18	Camino Del Rio W & Kurtz St	Signal	HCM 6th	1. Weekday AM	4.9	A
				2. Weekday Commuter PM	8.1	A
				3. Weekday Pre Event PM	8.9	A
				4. Weekend Midday	8.3	A
19	Rosecrans St & Sports Arena Blvd & Camino Del Rio W	Signal	**HCM 2000**	1. Weekday AM	34.0	C
				2. Weekday Commuter PM	40.2	D
				3. Weekday Pre Event PM	41.6	D
				4. Weekend Midday	48.9	D
20	Rosecrans St & Midway Dr	Signal	HCM 6th	1. Weekday AM	62.0	**E**
				2. Weekday Commuter PM	66.2	**E**
				3. Weekday Pre Event PM	75.1	**E**
				4. Weekend Midday	79.3	**E**

Notes:
Bold values indicate intersections operating at LOS E or F.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition* or the *Highway Capacity Manual 2000* and performed using Synchro 11.0

Table 5-1. Opening Year (2030) Base Intersection LOS Summary

#	INTERSECTION	TRAFFIC CONTROL	HCM EDITION	PEAK HOUR	2030 Base	
					DELAY (a)	LOS (b)
21	Rosecrans St & N Evergreen St	Signal	HCM 6th	1. Weekday AM	16.9	B
				2. Weekday Commuter PM	20.2	C
				3. Weekday Pre Event PM	17.7	B
				4. Weekend Midday	22.3	C
22	Rosecrans St & Lytton St	Signal	HCM 6th	1. Weekday AM	70.0	**E**
				2. Weekday Commuter PM	49.9	D
				3. Weekday Pre Event PM	38.4	D
				4. Weekend Midday	38.2	D
23	Rosecrans St & Kurtz St	Signal	**HCM 2000**	1. Weekday AM	17.8	B
				2. Weekday Commuter PM	25.3	C
				3. Weekday Pre Event PM	16.6	B
				4. Weekend Midday	31.1	C
24	Rosecrans St & Hancock St	One-Way Stop	HCM 6th	1. Weekday AM	9.6	A
				Worst Mvmt	SE	
				2. Weekday Commuter PM	10.1	B
				Worst Mvmt	SE	
				3. Weekday Pre Event PM	10.8	B
				Worst Mvmt	SE	
				4. Weekend Midday	9.8	A
				Worst Mvmt	SE	
25	Pacific Hwy & Rosecrans St/Taylor St	Signal	HCM 6th	1. Weekday AM	23.0	C
				2. Weekday Commuter PM	29.9	C
				3. Weekday Pre Event PM	33.3	C
				4. Weekend Midday	23.1	C
26	Kurtz St & Pacific Hwy	One-Way Stop	HCM 6th	1. Weekday AM	16.0	C
				Worst Mvmt	NBL	
				2. Weekday Commuter PM	80.2	**F**
				Worst Mvmt	EB	
				3. Weekday Pre Event PM	51.6	**F**
				Worst Mvmt	EB	
				4. Weekend Midday	19.5	C
				Worst Mvmt	EB	
27	Pacific Hwy & Enterprise St	Signal	HCM 6th	1. Weekday AM	33.4	C
				2. Weekday Commuter PM	30.0	C
				3. Weekday Pre Event PM	24.6	C
				4. Weekend Midday	19.1	B
28	Midway Dr & Enterprise St	One-Way Stop	HCM 6th	1. Weekday AM	13.0	B
				Worst Mvmt	SB	
				2. Weekday Commuter PM	23.8	C
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	23.4	C
				Worst Mvmt	SB	
				4. Weekend Midday	15.6	C
				Worst Mvmt	SB	
29	Barnett Ave & Midway Dr	Signal	**HCM 2000**	1. Weekday AM	23.5	C
				2. Weekday Commuter PM	40.3	D
				3. Weekday Pre Event PM	33.8	C
				4. Weekend Midday	27.6	C
30	Sea World Dr & Friars Rd	Signal	HCM 6th	1. Weekday AM	5.5	A
				2. Weekday Commuter PM	5.6	A
				3. Weekday Pre Event PM	4.7	A
				4. Weekend Midday	4.7	A
31	Sea World Dr & E Mission Bay Dr/Pacific Highway	Signal	HCM 6th	1. Weekday AM	14.9	B
				2. Weekday Commuter PM	26.6	C
				3. Weekday Pre Event PM	21.4	C
				4. Weekend Midday	21.2	C
32	I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr	Signal	**HCM 2000**	1. Weekday AM	30.9	C
				2. Weekday Commuter PM	22.2	C
				3. Weekday Pre Event PM	23.2	C
				4. Weekend Midday	19.4	B

Notes:
Bold values indicate intersections operating at LOS E or F.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition or the Highway Capacity Manual 2000 and performed using Synchro 11.0

Table 5-2. Opening Year (2030) Base Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	4,200	Weekday AM	283	No
				Weekday PM	2,332	No
				Weekday Pre-Event	401	No
				Weekend Midday	486	No
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360	Weekday AM	228	No
				Weekday PM	518	**Yes**
				Weekday Pre-Event	521	**Yes**
				Weekend Midday	497	**Yes**
		WBL	150	Weekday AM	<25	No
				Weekday PM	66	No
				Weekday Pre-Event	46	No
				Weekend Midday	<25	No
		NBL	230	Weekday AM	90	No
				Weekday PM	113	No
				Weekday Pre-Event	126	No
				Weekend Midday	220	No
3	Sports Arena Boulevard & Hancock Street	EBL	160	Weekday AM	70	No
				Weekday PM	149	No
				Weekday Pre-Event	123	No
				Weekend Midday	106	No
		WBL	100	Weekday AM	<25	No
				Weekday PM	<25	No
				Weekday Pre-Event	<25	No
				Weekend Midday	42	No
4	Sports Arena Boulevard & Kemper Street	EBL	440	Weekday AM	57	No
				Weekday PM	85	No
				Weekday Pre-Event	133	No
				Weekend Midday	82	No
		WBL	175	Weekday AM	108	No
				Weekday PM	155	No
				Weekday Pre-Event	132	No
				Weekend Midday	133	No
		NBL	100	Weekday AM	97	No
				Weekday PM	137	**Yes**
				Weekday Pre-Event	148	**Yes**
				Weekend Midday	112	**Yes**
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330	Weekday AM	34	No
				Weekday PM	54	No
				Weekday Pre-Event	40	No
				Weekend Midday	55	No
		WBL	175	Weekday AM	93	No
				Weekday PM	109	No
				Weekday Pre-Event	129	No
				Weekend Midday	157	No
6	Sports Arena Boulevard & Target Driveway	EBL	150	Weekday AM	37	No
				Weekday PM	47	No
				Weekday Pre-Event	96	No
				Weekend Midday	<25	No
		WBL	125	Weekday AM	57	No
				Weekday PM	73	No
				Weekday Pre-Event	54	No
				Weekend Midday	149	**Yes**
7	Sports Arena Boulevard & East Driveway	EBL	125	Weekday AM	40	No
				Weekday PM	60	No
				Weekday Pre-Event	67	No
				Weekend Midday	61	No
		WBL	125	Weekday AM	119	No
				Weekday PM	232	**Yes**
				Weekday Pre-Event	240	**Yes**
				Weekend Midday	170	**Yes**
		NBR	100	Weekday AM	53	No
				Weekday PM	129	**Yes**
				Weekday Pre-Event	168	**Yes**
				Weekend Midday	94	No

Table 5-2. Opening Year (2030) Base Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
8	Midway Drive & Kemper Street	EBL	320	Weekday AM	94	No
				Weekday PM	92	No
				Weekday Pre-Event	128	No
				Weekend Midday	180	No
		EBR	150	Weekday AM	59	No
				Weekday PM	45	No
				Weekday Pre-Event	46	No
				Weekend Midday	144	No
		WBL	250	Weekday AM	76	No
				Weekday PM	172	No
				Weekday Pre-Event	154	No
				Weekend Midday	151	No
		NBL	90	Weekday AM	103	**Yes**
				Weekday PM	199	**Yes**
				Weekday Pre-Event	176	**Yes**
				Weekend Midday	164	**Yes**
		SBL	100	Weekday AM	46	No
				Weekday PM	87	No
				Weekday Pre-Event	85	No
				Weekend Midday	106	**Yes**
		SBR	115	Weekday AM	56	No
				Weekday PM	81	No
				Weekday Pre-Event	75	No
				Weekend Midday	90	No
9	Midway Drive & East Drive	EBL	90	Weekday AM	41	No
				Weekday PM	73	No
				Weekday Pre-Event	48	No
				Weekend Midday	109	**Yes**
		WBL	100	Weekday AM	36	No
				Weekday PM	54	No
				Weekday Pre-Event	48	No
				Weekend Midday	100	No
10	Hancock Street & Channel Way	NBL	60	Weekday AM	46	No
				Weekday PM	39	No
				Weekday Pre-Event	36	No
				Weekend Midday	40	No
17	Camino Del Rio West & Hancock Street	NBL	100	Weekday AM	70	No
				Weekday PM	154	**Yes**
				Weekday Pre-Event	177	**Yes**
				Weekend Midday	143	**Yes**
		I-5 SB Off-Ramp	3,500	Weekday AM	745	No
				Weekday PM	442	No
				Weekday Pre-Event	447	No
				Weekend Midday	1,384	No
		I-8 WB Off-Ramp	3,700	Weekday AM	1,840	No
				Weekday PM	548	No
				Weekday Pre-Event	570	No
				Weekend Midday	4,564	**Yes**
		SBR	130	Weekday AM	258	**Yes**
				Weekday PM	176	**Yes**
				Weekday Pre-Event	199	**Yes**
				Weekend Midday	221	**Yes**
18	Camino Del Rio West & Kurtz Street	EBR	200	Weekday AM	37	No
				Weekday PM	141	No
				Weekday Pre-Event	272	**Yes**
				Weekend Midday	354	**Yes**
		SBL	100	Weekday AM	211	**Yes**
				Weekday PM	84	No
				Weekday Pre-Event	179	**Yes**
				Weekend Midday	183	**Yes**

Table 5-2. Opening Year (2030) Base Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
19	Camino Del Rio West & Sports Arena Boulevard	EBR	300	Weekday AM	169	No
				Weekday PM	218	No
				Weekday Pre-Event	196	No
				Weekend Midday	313	**Yes**
		WBL	180	Weekday AM	202	**Yes**
				Weekday PM	168	No
				Weekday Pre-Event	168	No
				Weekend Midday	192	**Yes**
		NBL	260	Weekday AM	308	**Yes**
				Weekday PM	265	**Yes**
				Weekday Pre-Event	304	**Yes**
				Weekend Midday	337	**Yes**
20	Rosecrans Street & Midway Drive	EBL	100	Weekday AM	134	**Yes**
				Weekday PM	209	**Yes**
				Weekday Pre-Event	200	**Yes**
				Weekend Midday	212	**Yes**
		EBR	240	Weekday AM	119	No
				Weekday PM	220	No
				Weekday Pre-Event	158	No
				Weekend Midday	243	**Yes**
		WBL	250	Weekday AM	224	No
				Weekday PM	269	**Yes**
				Weekday Pre-Event	196	No
				Weekend Midday	294	**Yes**
		WBR	180	Weekday AM	209	**Yes**
				Weekday PM	307	**Yes**
				Weekday Pre-Event	313	**Yes**
				Weekend Midday	308	**Yes**
		NBL	280	Weekday AM	238	No
				Weekday PM	276	No
				Weekday Pre-Event	335	**Yes**
				Weekend Midday	423	**Yes**
		SBL	320	Weekday AM	276	No
				Weekday PM	253	No
				Weekday Pre-Event	197	No
				Weekend Midday	235	No
21	Rosecrans Street & North Evergreen Street	NBL	180	Weekday AM	50	No
				Weekday PM	30	No
				Weekday Pre-Event	<25	No
				Weekend Midday	81	No
		SBL	310	Weekday AM	289	No
				Weekday PM	175	No
				Weekday Pre-Event	135	No
				Weekend Midday	274	No
22	Rosecrans Street & Lytton Street	WBL	245	Weekday AM	359	**Yes**
				Weekday PM	385	**Yes**
				Weekday Pre-Event	364	**Yes**
				Weekend Midday	232	No
		NBL	100	Weekday AM	99	No
				Weekday PM	94	No
				Weekday Pre-Event	95	No
				Weekend Midday	128	**Yes**
		NBR	490	Weekday AM	240	No
				Weekday PM	436	No
				Weekday Pre-Event	173	No
				Weekend Midday	166	No
		SBL	470	Weekday AM	584	**Yes**
				Weekday PM	125	No
				Weekday Pre-Event	83	No
				Weekend Midday	156	No

Table 5-2. Opening Year (2030) Base Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
23	Rosecrans Street & Kurtz Street	WBR	70	Weekday AM	165	**Yes**
				Weekday PM	141	**Yes**
				Weekday Pre-Event	99	**Yes**
				Weekend Midday	176	**Yes**
		SBL	100	Weekday AM	63	No
				Weekday PM	65	No
				Weekday Pre-Event	61	No
				Weekend Midday	65	No
24	Rosecrans Street & Hancock Street	NBL	120	Weekday AM	68	No
				Weekday PM	73	No
				Weekday Pre-Event	156	**Yes**
				Weekend Midday	106	No
25	Pacific Highway & Rosecrans Street	EBL	120	Weekday AM	62	No
				Weekday PM	103	No
				Weekday Pre-Event	75	No
				Weekend Midday	68	No
		EBR	100	Weekday AM	45	No
				Weekday PM	91	No
				Weekday Pre-Event	59	No
				Weekend Midday	56	No
		WBL	150	Weekday AM	116	No
				Weekday PM	127	No
				Weekday Pre-Event	130	No
				Weekend Midday	112	No
		NBL	150	Weekday AM	107	No
				Weekday PM	173	**Yes**
				Weekday Pre-Event	257	**Yes**
				Weekend Midday	127	No
		NBR	320	Weekday AM	43	No
				Weekday PM	123	No
				Weekday Pre-Event	65	No
				Weekend Midday	40	No
		SBL	230	Weekday AM	49	No
				Weekday PM	86	No
				Weekday Pre-Event	60	No
				Weekend Midday	70	No
26	Pacific Highway & Kurtz Street	NBL	200	Weekday AM	183	No
				Weekday PM	168	No
				Weekday Pre-Event	135	No
				Weekend Midday	120	No
27	Pacific Highway & Enterprise Street	EBL	200	Weekday AM	41	No
				Weekday PM	98	No
				Weekday Pre-Event	99	No
				Weekend Midday	50	No
		EBR	200	Weekday AM	<25	No
				Weekday PM	69	No
				Weekday Pre-Event	50	No
				Weekend Midday	35	No
		NBL	280	Weekday AM	334	**Yes**
				Weekday PM	289	**Yes**
				Weekday Pre-Event	305	**Yes**
				Weekend Midday	170	No
		NBR	300	Weekday AM	37	No
				Weekday PM	<25	No
				Weekday Pre-Event	<25	No
				Weekend Midday	<25	No
		SBL	200	Weekday AM	162	No
				Weekday PM	133	No
				Weekday Pre-Event	133	No
				Weekend Midday	49	No

Table 5-2. Opening Year (2030) Base Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
30	Sea World Drive & Friars Rd	WBR	300	Weekday AM	<25	No
				Weekday PM	<25	No
				Weekday Pre-Event	<25	No
				Weekend Midday	<25	No
		NBR	185	Weekday AM	62	No
				Weekday PM	278	**Yes**
				Weekday Pre-Event	56	No
				Weekend Midday	60	No
		SBL	300	Weekday AM	60	No
				Weekday PM	102	No
				Weekday Pre-Event	62	No
				Weekend Midday	59	No
31	Sea World Drive & Pacific Highway	EBL	250	Weekday AM	51	No
				Weekday PM	116	No
				Weekday Pre-Event	94	No
				Weekend Midday	137	No
		EBR	200	Weekday AM	<25	No
				Weekday PM	92	No
				Weekday Pre-Event	62	No
				Weekend Midday	79	No
		WBL	125	Weekday AM	46	No
				Weekday PM	75	No
				Weekday Pre-Event	62	No
				Weekend Midday	47	No
		WBR	200	Weekday AM	31	No
				Weekday PM	70	No
				Weekday Pre-Event	36	No
				Weekend Midday	39	No
		NBL	325	Weekday AM	44	No
				Weekday PM	221	No
				Weekday Pre-Event	52	No
				Weekend Midday	71	No
		NBR	100	Weekday AM	55	No
				Weekday PM	239	**Yes**
				Weekday Pre-Event	87	No
				Weekend Midday	56	No
		SBL	215	Weekday AM	78	No
				Weekday PM	225	**Yes**
				Weekday Pre-Event	292	**Yes**
				Weekend Midday	310	**Yes**
32	Sea World Drive & I-5 Southbound Ramps	EBR	400	Weekday AM	39	No
				Weekday PM	100	No
				Weekday Pre-Event	83	No
				Weekend Midday	80	No
		WBL	120	Weekday AM	218	**Yes**
				Weekday PM	204	**Yes**
				Weekday Pre-Event	204	**Yes**
				Weekend Midday	202	**Yes**
		I-5 SB Off-Ramp	3,700	Weekday AM	153	No
				Weekday PM	152	No
				Weekday Pre-Event	153	No
				Weekend Midday	152	No

Table 5-3. Opening Year (2030) Base Roadway Segment LOS Summary

ID	Roadway Segment	Extents	2030 Base Weekday Event-Day				
			Functional Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp	6 Lane Prime Arterial	60,000	14,045	0.234	A
2		I-8 EB On Ramp to W Point Loma Boulevard	5 Lane Major Arterial	45,000	29,387	0.653	C
3		W Point Loma Boulevard to Hancock Street	5 Lane Collector (with two-way left-turn Lane)	37,500	18,742	0.500	C
4		Hancock Street to Kemper Street	5 Lane Collector (with two-way left-turn Lane)	37,500	18,758	0.500	C
5		Kemper Street to Frontier Drive	5 Lane Major Arterial	45,000	18,736	0.416	B
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	19,627	0.393	A
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	24,463	0.489	B
8		Rosecrans Street to Pacific Highway	2 Lane Collector (without two-way left-turn lane)	8,000	1,745	0.218	A
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	63,039	1.051	**F**
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	63,047	1.051	**F**
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	52,827	0.880	D
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Collector (with two-way left-turn Lane)	30,000	10,427	0.348	B
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	57,706	1.154	**F**
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	25,483	0.849	**E**
15	Kurtz Street	Kemper Street to Frontier Drive	2 Lane Collector (one-way)	17,500	3,260	0.186	A
16		Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	3,276	0.187	A
17		Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	5,220	0.298	A
18	Hancock Street	Sports Arena Boulevard to Channel Way	2 Lane Collector (without two-way left-turn lane)	8,000	3,571	0.446	C
19		Channel Way to Kurtz St	2 Lane Collector (with two-way left-turn Lane)	15,000	3,463	0.231	A
20		Kurtz Street to Greenwood Street	2 Lane Collector (one-way)	17,500	4,406	0.252	A
21		Greenwood Street to Camino Del Rio West	2 Lane Collector (one-way)	17,500	4,406	0.252	A
Future Roadway Segments							
22	*Frontier Drive (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-
23	*Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-

Notes:

[1]Functional Classification based on the Midway Pacific Highway Community Plan.

[2]LOS E Capacity provided by City of San Diego staff.

[3]ADT - Average Daily Traffic.

[4]V/C Ratio - Volume-to-capacity ratio.

[5]LOS - Level of Service.

6 OPENING YEAR (2030) PLUS PROJECT PHASE 1

This section summarizes the Opening Year (2030) Project Phase 1 scenario. Phase 1 of the project includes demolition of the site east of Frontier Drive (new roadway) with the exception of the privately-owned parcels, construction of the new Entertainment Center, construction of residential and commercial land uses east of Frontier Drive, and construction of Frontier Drive.

This scenario is analyzed for a typical event (14,500 spectators) and full capacity event (20,000 spectators). It should be noted that the full capacity event will occur approximately 2 times per year, and thus was not analyzed for project effects triggering improvements. The full capacity event is included for informational purposes.

6.1 ROADWAY NETWORK CHANGES

The roadway network under Opening Year (2030) Phase 1 of the project includes the construction by the project of:

- Frontier Drive between Sports Arena Boulevard and Kurtz Street, with the exception of the multi-use path on the east side along the privately-owned parcels frontage. Until the privately-owned parcels are redeveloped to be incorporated into the site, pedestrians and bicyclists will be encouraged to travel through the open space area of the site through posted signage and pathways, as indicated in **Figure 6-1.**
- Intersection #5: Frontier Drive/Sports Arena Boulevard (southbound approach) and Intersection #34: Frontier Drive/Kurtz Street.
- Block F and G driveways on Sports Arena Boulevard.
- Block F driveway on Frontier Drive.
- Block H driveways on Kurtz Street.
- Entertainment Center access driveways on Kurtz Street and Sports Arena Boulevard.

The roadway network will not change between typical-capacity and full-capacity events. **Figure 6-2** illustrates the lane geometries at the study intersections for the Opening Year (2030) Plus Project Phase 1 scenario.

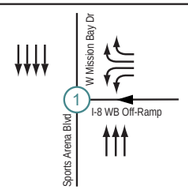
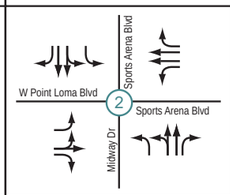
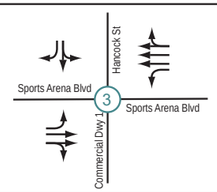
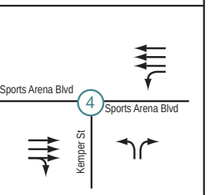
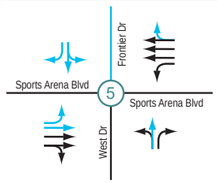
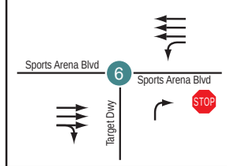
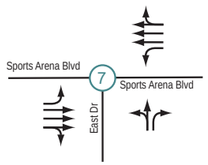
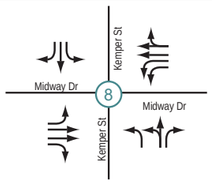
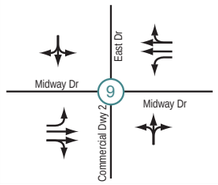
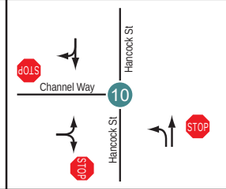
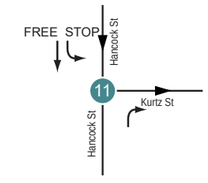
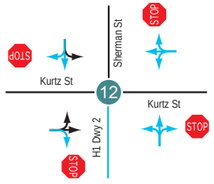
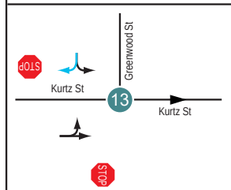
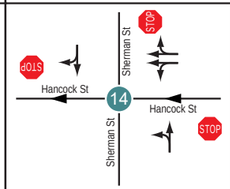
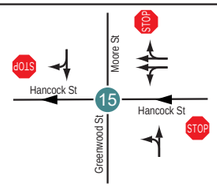
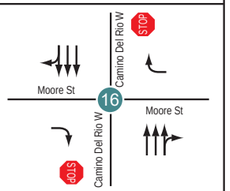
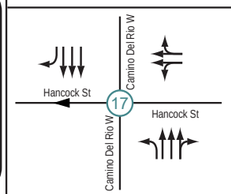
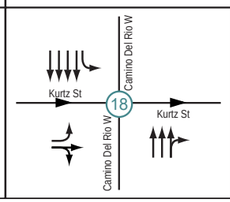
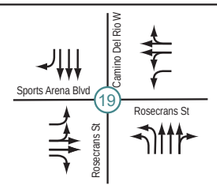
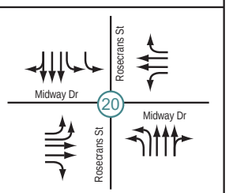
Figure 6-1. Opening Year (2030) Plus Project - Bicycle and Pedestrian Circulation Map

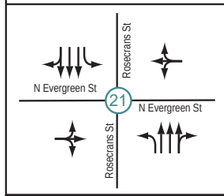
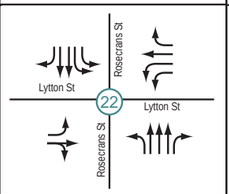
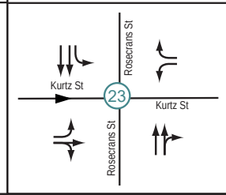
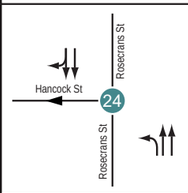
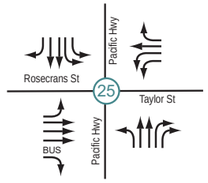
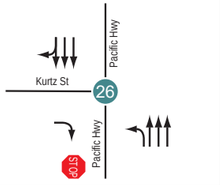
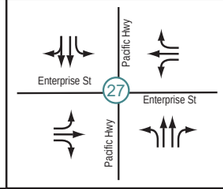
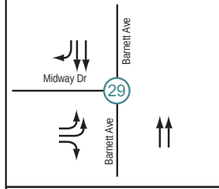
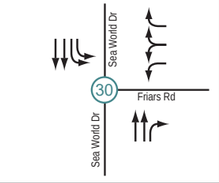
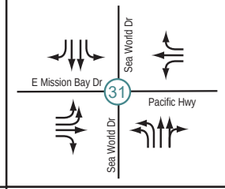
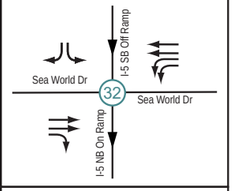
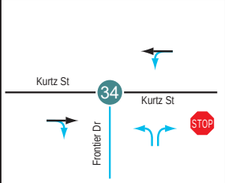
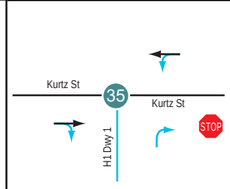
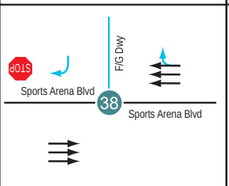
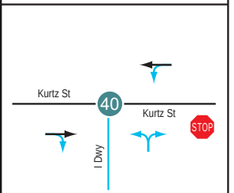


Figure 6-2. Opening Year (2030) Plus Project Phase 1 Intersection Geometries (Page 1 of 2)



Figure 6-2. Opening Year (2030) Plus Project Phase 1 Buildout Intersection Geometries (Page 2 of 2)

W Mission Bay Dr/Sports Arena Blvd and Interstate 8 WB Off Ramp	Sports Arena Blvd and W Point Loma Blvd and Midway Dr	Sports Arena Blvd and Hancock St/Commercial Dwy 1	Sports Arena Blvd and Kemper St
			
Sports Arena Blvd and Frontier Dr/West Dr	Sports Arena Blvd and Target Dwy	Sports Arena Blvd and East Dr	Midway Dr and Kemper St
			
Midway Dr and East Dr/ Commercial Dwy 2	Hancock St and Channel Way	Hancock St and Kurtz St	Kurtz St and Sherman St/H1 Dwy 2
			
Kurtz St and Greenwood St	Hancock St and Sherman St	Hancock St and Greenwood St/Moore St	Camino Del Rio W and Moore St
			
Camino Del Rio W and Hancock St	Camino Del Rio W and Kurtz St	Sports Arena Blvd and Rosecrans St and Camino Del Rio W	Rosecrans St and Midway Dr
			

Rosecrans St and N Evergreen St	Rosecrans St and Lytton St	Rosecrans St and Kurtz St	Rosecrans St and Hancock St
			
Pacific Hwy and Rosecrans St and Taylor St	Kurtz St and Pacific Hwy	Pacific Hwy and Enterprise St	Midway Dr and Enterprise St
			
Barnett Ave and Midway Dr	Sea World Dr and Friars Rd	Sea World Dr and E Mission Bay Dr and Pacific Hwy	I-5 Southbound On/Off-Ramps and Sea World Dr
			
Kurtz St and Kemper St	Kurtz St and Frontier Dr	Kurtz St and Driveway H1 Dwy 1	Kurtz St and E2 Dwy
Intersection #33 to be completed in Opening Year 2035 Plus Project Phase 2 Buildout			Intersection #36 to be completed in Opening Year 2035 Plus Project Phase 2 Buildout
Sports Arena Blvd B2 Dwy	Sports Arena Blvd and F/G Dwy	Kurtz St and A3 Dwy	Kurtz St and Privately-Owned Parcel Dwy
Intersection #37to be completed in Opening Year 2035 Plus Project Phase 2 Buildout		Intersection #39 to be completed in Opening Year 2035 Plus Project Phase 2 Buildout	

LEGEND

- Opening Year (2030) Plus Project Modification
- Existing Movement
- (X) Signalized Intersection
- X Unsignalized Intersection

6.2 TYPICAL EVENT ANALYSIS (14,500 SPECTATORS)

A typical event day with 14,500 spectators in Opening Year (2030) Plus Project Phase 1 is expected to generate approximately 12,204 average daily vehicle trips with 380 AM Commuter Peak Hour Trips (96 inbound / 284 outbound), 1,657 PM Commuter Peak Hour Trips (1,316 inbound / 341 outbound), and 1,936 Pre-Event PM Peak Hour Trips (1,583 inbound / 352 outbound). The typical event scenario was analyzed for all peak periods.

6.2.1 TRAFFIC VOLUMES

The Opening Year (2030) Plus Project Phase 1 traffic volumes will consist of the Opening Year (2030) Base scenario, and proposed project traffic for the project under Phase 1 with a 14,500-spectator event. **Figure 6-3** shows the Opening Year (2030) Plus Project Phase 1 traffic volumes during all peak hours for a 14,500-spectator event.

6.2.2 INTERSECTION ANALYSIS

Table 6-1 displays the LOS analysis results for the study intersections under Opening Year (2030) Plus Project Phase 1 scenario with 14,500-spectators.

Under the Opening Year (2030) Plus Project Phase 1 scenario, the project would be expected to cause a project effect at the following intersections:

- Intersection #2 – Midway Dr & W Point Loma Blvd & Sports Arena Blvd (PM: LOS F; Pre-Event: LOS E; WKND: LOS E)
- Intersection #5 – West Dr / Frontier Dr & Sports Arena Blvd (PM: LOS F; Pre-Event: LOS F; WKND: LOS F)
- Intersection #14 – Sherman Street & Hancock St (Pre-Event: LOS F)
- Intersection #16 – Camino del Rio W & Moore St (PM: LOS E; Pre-Event: LOS E; WKND: LOS F)
- Intersection #17 – Camino del Rio W & Hancock St (AM: LOS F)
- Intersection #20 – Rosecrans Street & Midway Dr (AM: LOS E; PM: LOS E; Pre-Event: LOS E; WKND: LOS F)
- Intersection #26 – Kurtz Street & Pacific Hwy (PM: LOS F; Pre-Event: LOS F)
- Intersection #27 – Pacific Hwy & Enterprise Street (PM: LOS E; Pre-Event: LOS E)

The following intersections would be expected to operate at LOS E or F under the Opening Year (2030) Plus Project Phase 1 scenario, but are not identified as a project effect per the criteria in the TSM:

- Intersection #6 – Target Driveway & Sports Arena Blvd (WKND: LOS F)
- Intersection #19 – Rosecrans Street & Sports Arena Boulevard & Camino Del Rio W (PM: LOS E; WKND: LOS E)
- Intersection #22 – Rosecrans St & Lytton St (AM: LOS E)

Appendix Q contains the intersection LOS calculation worksheets for the Opening Year (2030) Plus Project Phase 1.

6.2.3 QUEUEING ANALYSIS

Table 6-2 displays the expected 95th percentile queues under Opening Year (2030) Plus Project Phase 1 scenario with 14,500-spectators. The 95th percentile queue lengths reported represent an average of five SimTraffic runs. **Appendix R** contains the 95th percentile queue worksheets for the Opening Year (2030) Plus Project Phase 1 scenario. Under Opening Year (2030) Plus Project Phase 1 scenario, queues exceed the existing available storage length at:

- 13 intersections in the Commuter AM peak,
- 34 intersections in the Commuter PM peak,
- 28 intersections in the Pre-Event PM peak with 14,500-spectator event, and
- 16 intersections in the Weekend peak.

6.2.4 ROADWAY SEGMENT ANALYSIS

The Opening Year (2030) Plus Project Phase 1 scenario roadway segment analysis was performed based on proposed roadway geometries and 2030 expected daily roadway segment volumes on a weekday, 14,500-spectator event day. **Table 6-3** summarizes the roadway segment LOS analysis at the study segments under Opening Year (2030) Plus Project Phase 1 scenario for a weekday event day.

Under Opening Year (2030) Plus Project Phase 1 scenario (14,500-spectator event), the project would be expected to cause a project effect at the following locations:

- Camino Del Rio W between Hancock Street and Kurtz Street (LOS E)
- Kurtz Street between Kemper Street and Frontier Drive (LOS F)
- Kurtz Street between Frontier Drive and Sherman Street (LOS F)

The following roadway segments would be expected to operate at LOS E or F under the Opening Year (2030) Plus Project Phase 1 scenario, but are not identified as a project effect per the criteria in the TSM:

- Camino Del Rio W North of Greenwood Street (LOS F)
- Camino Del Rio W between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Rosecrans Street (LOS E)

Figure 6-3. Opening Year (2030) Plus Project Phase 1 Traffic Volumes (14,500 spectators) (Page 1 of 3)

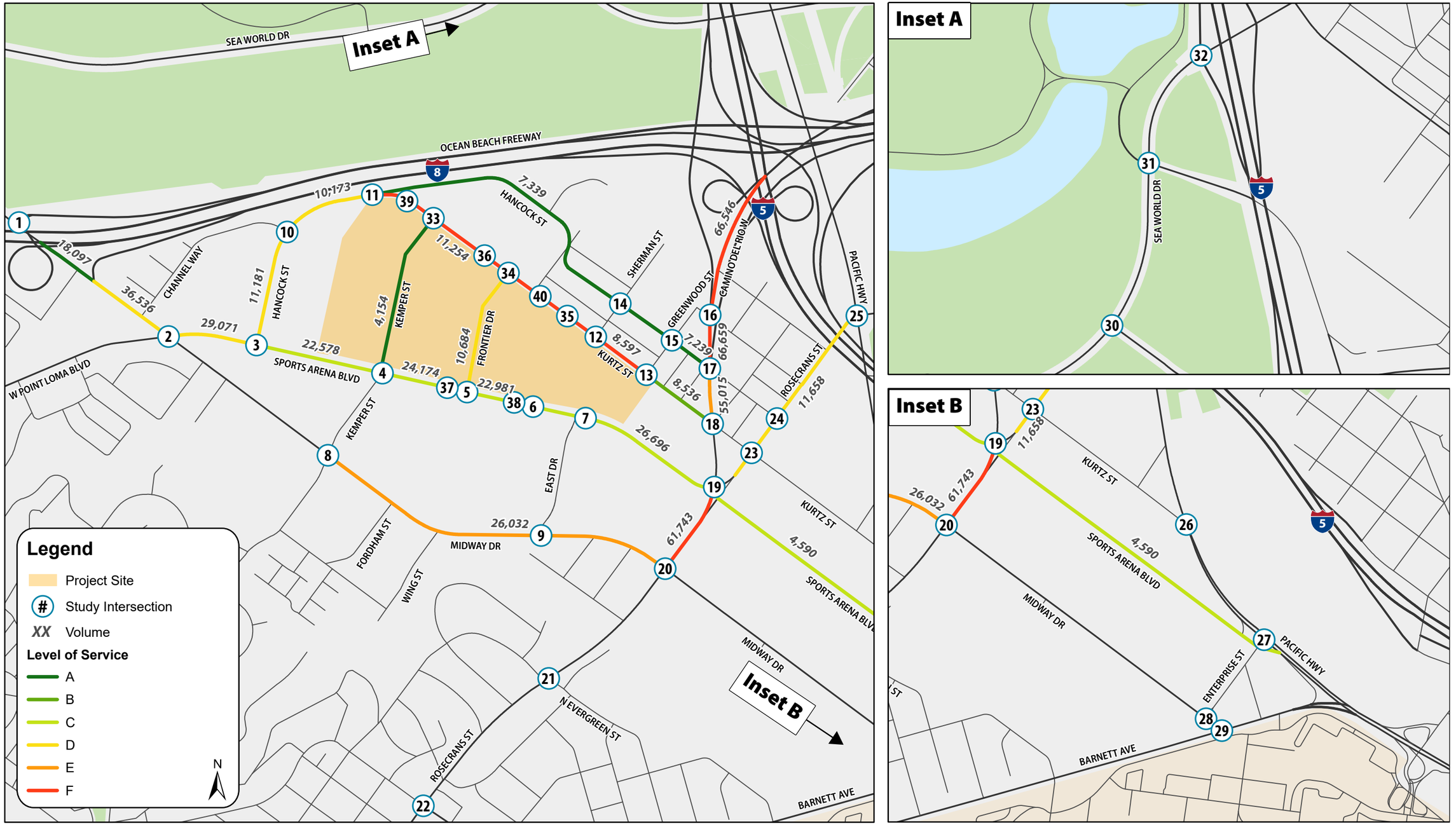
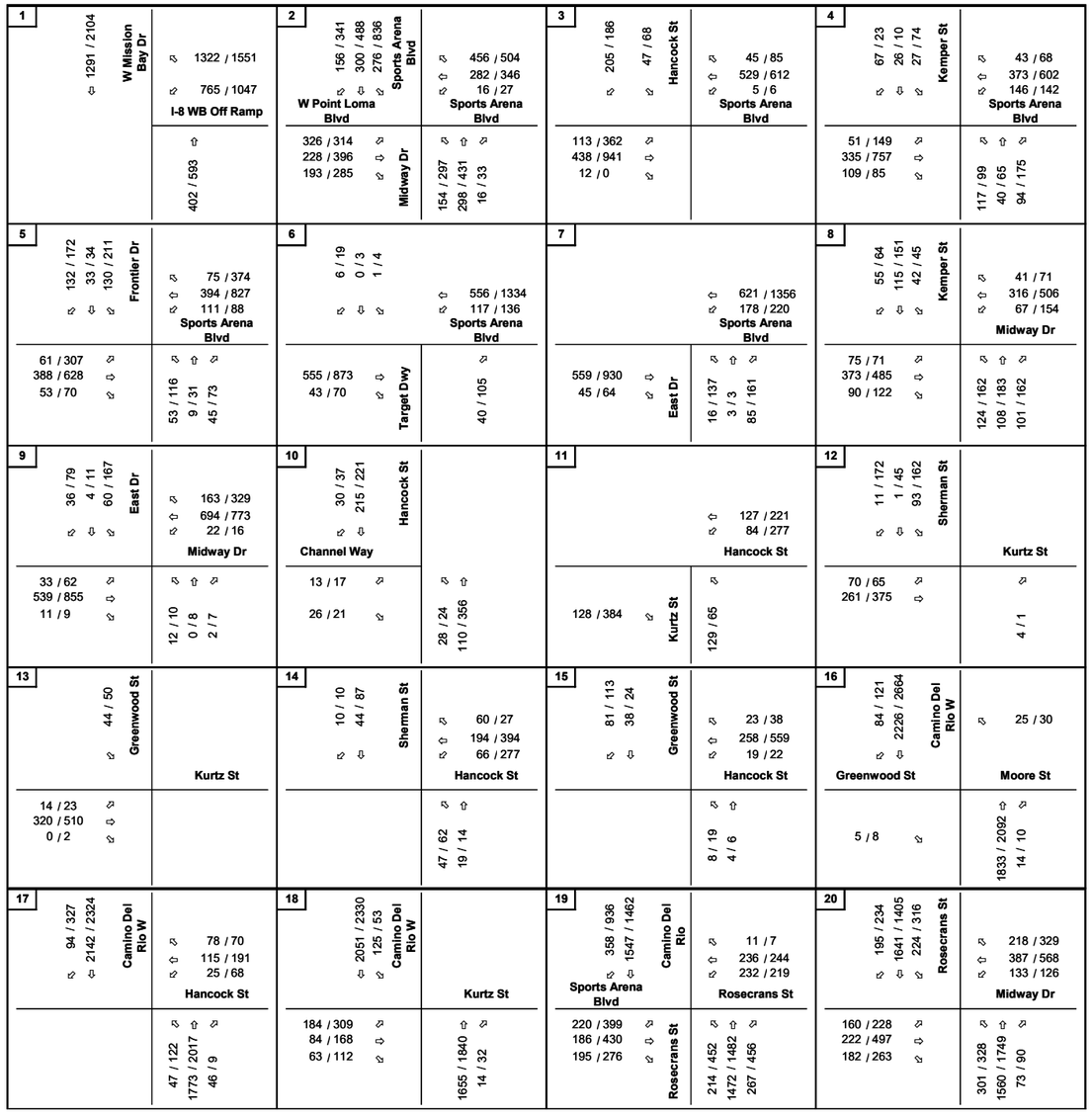
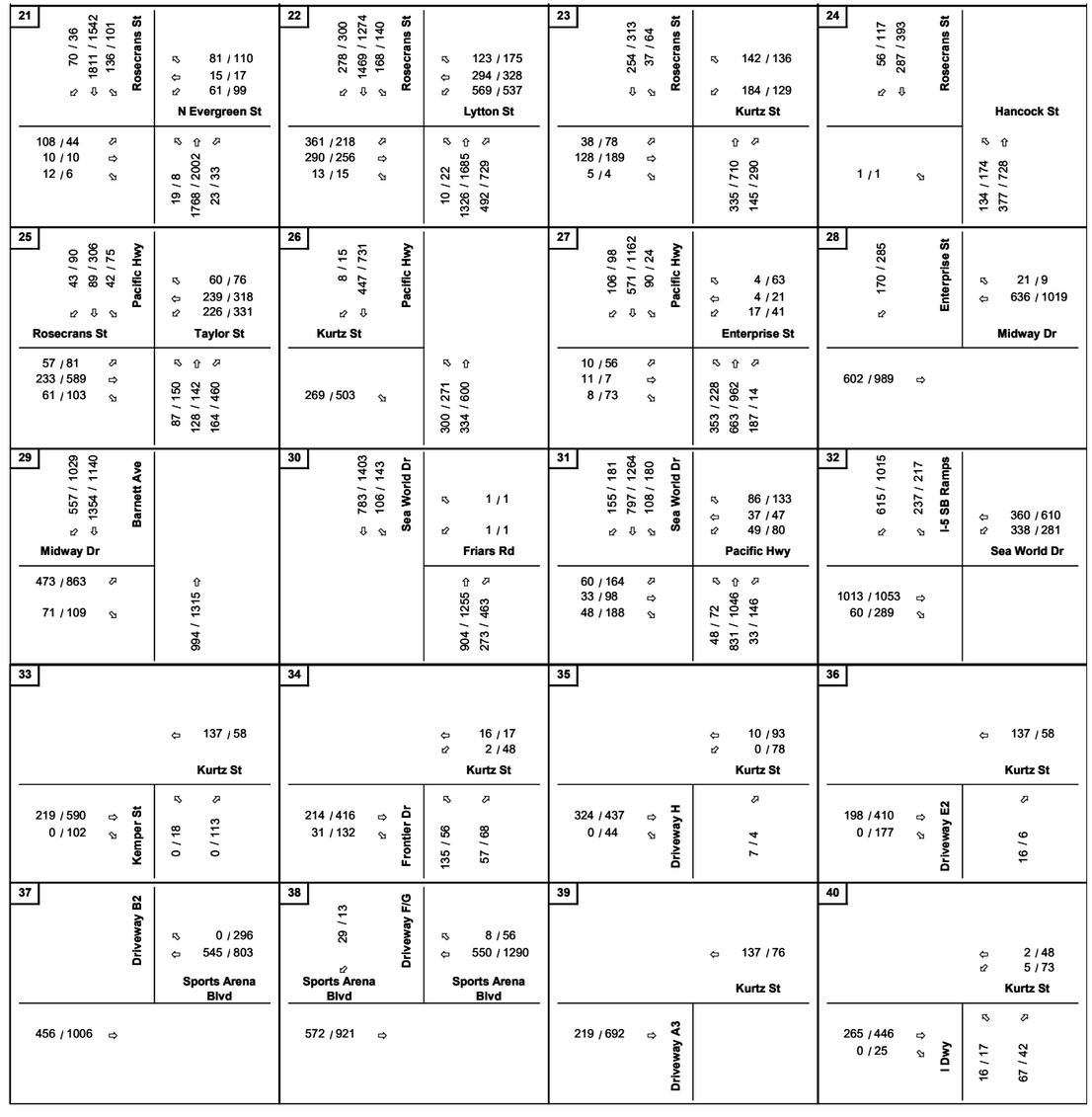


Figure 6-3. Opening Year (2030) Plus Project Phase 1 Traffic Volumes (14,500 spectators) (Page 2 of 3)



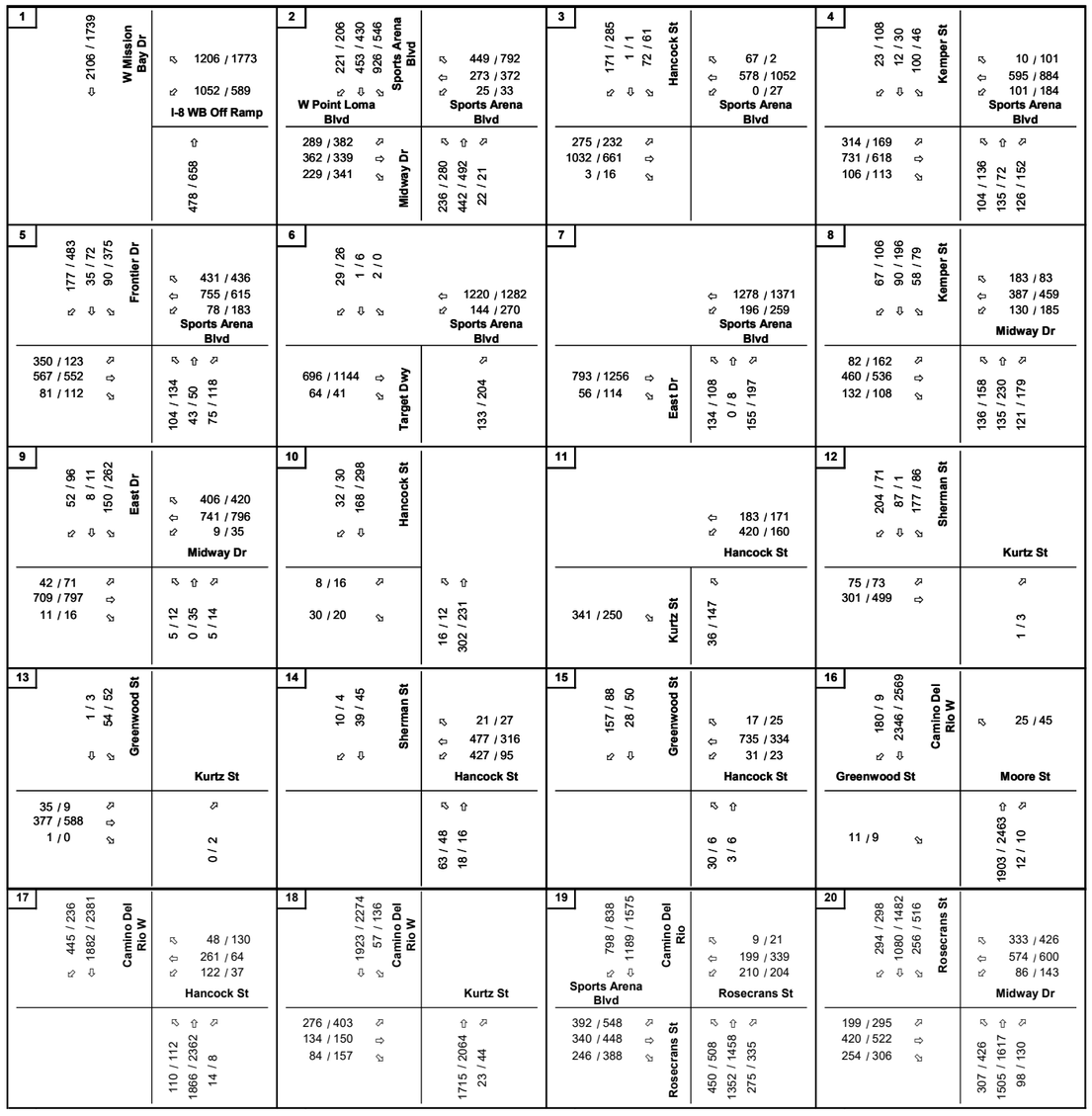


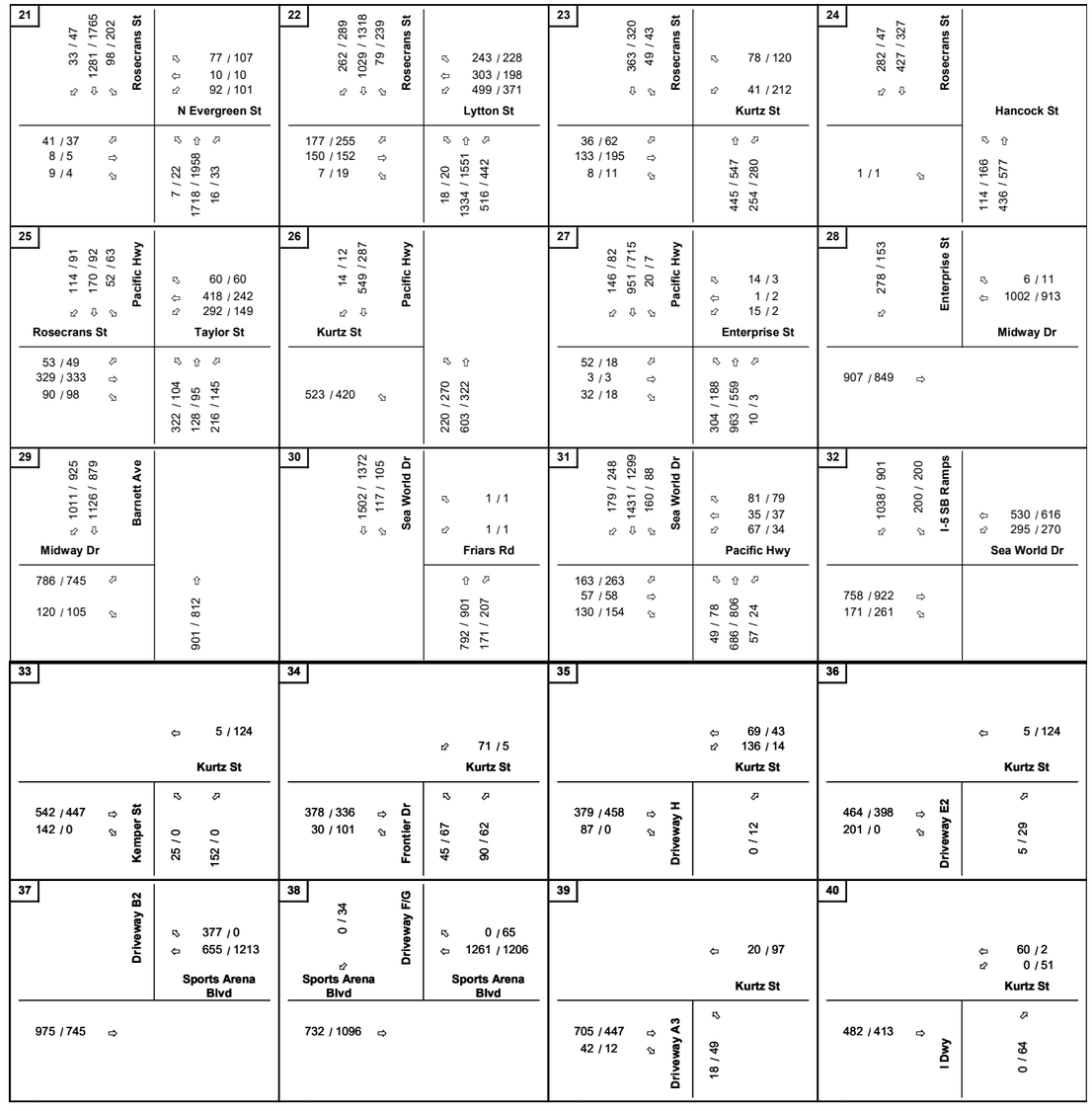
Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Figure 6-3. Opening Year (2030) Plus Project Phase 1 Traffic Volumes (14,500 spectators) (Page 3 of 3)





Legend

X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

North

Table 6-1. Opening Year (2030) Plus Project Phase 1 Intersection LOS Summary

#	INTERSECTION	PEAK HOUR	2030 Baseline		Opening Year (2030) Plus Project Phase 1		Project Effect?
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	1. Weekday AM	19.1	B	18.8	B	N
		2. Weekday Commuter PM	25.6	C	28.6	C	
		3. Weekday Pre-Event PM (14.5k)	21.0	C	24.3	C	
		4. Weekday Pre-Event PM (20k)	-	-	27.6	C	
		5. Weekend Midday	27.8	C	31.8	C	
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	1. Weekday AM	31.4	C	33.2	C	Y
		2. Weekday Commuter PM	62.1	**E**	80.8	**F**	
		3. Weekday Pre-Event PM (14.5k)	61.3	**E**	76.8	**E**	
		4. Weekday Pre-Event PM (20k)	-	-	93.1	**F**	
		5. Weekend Midday	57.2	**E**	66.3	**E**	
3	Commercial Dwy 1/Hancock St & Sports Arena Blvd	1. Weekday AM	8.6	A	11.0	B	N
		2. Weekday Commuter PM	16.4	B	23.8	C	
		3. Weekday Pre-Event PM (14.5k)	15.8	B	21.6	C	
		4. Weekday Pre-Event PM (20k)	-	-	23.9	C	
		5. Weekend Midday	11.2	B	18.0	B	
4	Kemper St & Sports Arena Blvd	1. Weekday AM	13.5	B	13.0	B	N
		2. Weekday Commuter PM	19.4	B	24.5	C	
		3. Weekday Pre-Event PM (14.5k)	23.3	C	37.0	D	
		4. Weekday Pre-Event PM (20k)	-	-	45.2	D	
		5. Weekend Midday	20.2	C	22.3	C	
5	West Dr/Frontier Dr & Sports Arena Blvd	1. Weekday AM	13.8	B	18.9	B	Y
		2. Weekday Commuter PM	30.4	C	155.8	**F**	
		3. Weekday Pre-Event PM (14.5k)	86.5	**F**	ECL	**F**	
		4. Weekday Pre-Event PM (20k)	-	-	ECL	**F**	
		5. Weekend Midday	39.8	D	115.7	**F**	
6	Target Dwy & Sports Arena Blvd	1. Weekday AM	13.8	B	13.1	B	N
		Worst Mvmt	SB		WBL		
		2. Weekday Commuter PM	48.2	**E**	21.7	C	
		Worst Mvmt	SB		WBL		
		3. Weekday Pre-Event PM (14.5k)	26.0	D	17.1	C	
		Worst Mvmt	SB		WBL		
		4. Weekday Pre-Event PM (20k)	-	-	17.5	C	
		Worst Mvmt	-	-	WBL		
		5. Weekend Midday	ECL	**F**	113.9	**F**	
		Worst Mvmt	SB		WBL		
7	East Dr & Sports Arena Blvd	1. Weekday AM	9.1	A	7.6	A	N
		2. Weekday Commuter PM	21.0	C	14.5	B	
		3. Weekday Pre-Event PM (14.5k)	20.9	C	14.1	B	
		4. Weekday Pre-Event PM (20k)	-	-	13.7	B	
		5. Weekend Midday	18.1	B	15.3	B	
8	Kemper St & Midway Dr	1. Weekday AM	19.5	B	19.5	B	N
		2. Weekday Commuter PM	36.9	D	37.7	D	
		3. Weekday Pre-Event PM (14.5k)	34.4	C	34.8	C	
		4. Weekday Pre-Event PM (20k)	-	-	35.3	D	
		5. Weekend Midday	27.1	C	29.9	C	
9	Commercial Dwy 2/East Dr & Midway Dr	1. Weekday AM	9.2	A	9.1	A	N
		2. Weekday Commuter PM	12.7	B	14.4	B	
		3. Weekday Pre-Event PM (14.5k)	13.8	B	15.7	B	
		4. Weekday Pre-Event PM (20k)	-	-	16.2	B	
		5. Weekend Midday	19.9	B	20.5	C	
10	Hancock St & Channel Way	1. Weekday AM	7.9	A	8.8	A	N
		2. Weekday Commuter PM	8.4	A	11.3	B	
		3. Weekday Pre-Event PM (14.5k)	8.2	A	10.0	B	
		4. Weekday Pre-Event PM (20k)	-	-	10.2	B	
		5. Weekend Midday	8.7	A	10.3	B	
11	Kurtz St & Hancock St*	1. Weekday AM	9.9	A	3.8	A	N
		Worst Mvmt	SB				
		2. Weekday Commuter PM	10.8	B	6.4	A	
		Worst Mvmt	SB				
		3. Weekday Pre-Event PM (14.5k)	12.0	B	7.0	A	
		Worst Mvmt	SB				
		4. Weekday Pre-Event PM (20k)	-	-	7.9	A	
		Worst Mvmt	-	-			
		5. Weekend Midday	10.9	B	4.8	A	
		Worst Mvmt	SB				
12	H1 Dwy 2/Sherman St & Kurtz St	1. Weekday AM	8.6	A	10.1	B	N
		2. Weekday Commuter PM	9.4	A	16.1	C	
		3. Weekday Pre-Event PM (14.5k)	9.5	A	17.4	C	
		4. Weekday Pre-Event PM (20k)	-	-	19.1	C	
		5. Weekend Midday	9.6	A	18.0	C	
13	Kurtz St & Greenwood St	1. Weekday AM	9.6	A	8.9	A	N
		Worst Mvmt	SB				
		2. Weekday Commuter PM	10.6	B	10.5	B	
		Worst Mvmt	SB				
		3. Weekday Pre-Event PM (14.5k)	10.3	B	9.4	A	
		Worst Mvmt	SB				
		4. Weekday Pre-Event PM (20k)	-	-	9.7	A	
		Worst Mvmt	-	-			
		5. Weekend Midday	10.5	B	11.5	B	
14	Sherman St & Hancock St	1. Weekday AM	8.9	A	8.9	A	Y
		2. Weekday Commuter PM	9.6	A	17.3	C	
		3. Weekday Pre-Event PM (14.5k)	11.2	B	50.1	**F**	
		4. Weekday Pre-Event PM (20k)	-	-	59.7	**F**	
		5. Weekend Midday	9.3	A	9.9	A	
15	Greenwood St & Hancock St	1. Weekday AM	8.7	A	8.7	A	N
		2. Weekday Commuter PM	8.8	A	11.3	B	
		3. Weekday Pre-Event PM (14.5k)	9.8	A	14.5	B	
		4. Weekday Pre-Event PM (20k)	-	-	15.9	C	
		5. Weekend Midday	9.0	A	9.2	A	
16	Camino Del Rio W & Moore St	1. Weekday AM	32.4	D	30.6	D	Y
		Worst Mvmt	EB		EB		
		2. Weekday Commuter PM	30.5	D	48.7	**E**	
		Worst Mvmt	EB		EB		
		3. Weekday Pre-Event PM (14.5k)	24.6	C	39.9	**E**	
		Worst Mvmt	EB		EB		
		4. Weekday Pre-Event PM (20k)	-	-	43.6	**E**	
		Worst Mvmt	-	-	EB		
		5. Weekend Midday	42.8	**E**	54.3	**F**	
		Worst Mvmt	WB		WB		
17	Camino Del Rio W & Hancock St	1. Weekday AM	ECL	**F**	ECL	**F**	Y
		2. Weekday Commuter PM	11.9	B	14.7	B	
		3. Weekday Pre-Event PM (14.5k)	13.7	B	16.7	B	
		4. Weekday Pre-Event PM (20k)	-	-	17.1	B	
		5. Weekend Midday	29.0	C	29.2	C	
18	Camino Del Rio W & Kurtz St	1. Weekday AM	4.9	A	6.3	A	N
		2. Weekday Commuter PM	8.1	A	12.9	B	
		3. Weekday Pre-Event PM (14.5k)	8.9	A	10.8	B	
		4. Weekday Pre-Event PM (20k)	-	-	11.9	B	
		5. Weekend Midday	8.3	A	11.7	B	
19	Rosecrans St & Sports Arena Blvd & Camino Del Rio W	1. Weekday AM	34.0	C	24.7	C	N
		2. Weekday Commuter PM	40.2	D	66.3	**E**	
		3. Weekday Pre-Event PM (14.5k)	41.6	D	44.6	D	
		4. Weekday Pre-Event PM (20k)	-	-	53.0	D	
		5. Weekend Midday	48.9	D	68.9	**E**	
20	Rosecrans St & Midway Dr	1. Weekday AM	62.0	**E**	57.4	**E**	Y
		2. Weekday Commuter PM	66.2	**E**	73.3	**E**	
		3. Weekday Pre-Event PM (14.5k)	75.1	**E**	76.6	**E**	
		4. Weekday Pre-Event PM (20k)	-	-	82.3	**F**	
		5. Weekend Midday	79.3	**E**	91.3	**F**	

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition and Highway Capacity Manual 2000 Edition* and performed using Synchro 11
*Intersection is analyzed as a roundabout using SIDRA software (HCM 6th Edition) in Opening Year (2030) Plus Project Phase 1

Table 6-1. Opening Year (2030) Plus Project Phase 1 Intersection LOS Summary

#	INTERSECTION	PEAK HOUR	2030 Baseline		Opening Year (2030) Plus Project Phase 1		Project Effect?
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
21	Rosecrans St & N Evergreen St	1. Weekday AM	16.9	B	16.3	B	N
		2. Weekday Commuter PM	20.2	C	20.5	C	
		3. Weekday Pre-Event PM (14.5k)	17.7	B	17.3	B	
		4. Weekday Pre-Event PM (20k)	-	-	17.3	B	
		5. Weekend Midday	22.3	C	21.5	C	
22	Rosecrans St & Lytton St	1. Weekday AM	70.0	**E**	63.0	**E**	N
		2. Weekday Commuter PM	49.9	D	49.8	D	
		3. Weekday Pre-Event PM (14.5k)	38.4	D	38.3	D	
		4. Weekday Pre-Event PM (20k)	-	-	38.3	D	
		5. Weekend Midday	38.2	D	38.2	D	
23	Rosecrans St & Kurtz St	1. Weekday AM	17.8	B	28.2	C	N
		2. Weekday Commuter PM	25.3	C	25.3	C	
		3. Weekday Pre-Event PM (14.5k)	16.6	B	16.4	B	
		4. Weekday Pre-Event PM (20k)	-	-	16.7	B	
		5. Weekend Midday	31.1	C	31.2	C	
24	Rosecrans St & Hancock St	1. Weekday AM	9.6	A	9.6	A	N
		Worst Mvmt	SE		SE		
		2. Weekday Commuter PM	10.1	B	9.6	A	
		Worst Mvmt	SE		NBL		
		3. Weekday Pre-Event PM (14.5k)	10.8	B	10.2	B	
		Worst Mvmt	SE		NBL		
		4. Weekday Pre-Event PM (20k)	-	-	10.2	B	
		Worst Mvmt			NBL		
		5. Weekend Midday	9.8	A	8.8	A	
		Worst Mvmt	SE		NBL		
25	Pacific Hwy & Rosecrans St/Taylor St	1. Weekday AM	23.0	C	22.8	C	N
		2. Weekday Commuter PM	29.9	C	25.7	C	
		3. Weekday Pre-Event PM (14.5k)	33.3	C	33.4	C	
		4. Weekday Pre-Event PM (20k)	-	-	33.5	C	
		5. Weekend Midday	23.1	C	22.8	C	
26	Kurtz St & Pacific Hwy	1. Weekday AM	16.0	C	15.3	C	Y
		Worst Mvmt	NBL		EB		
		2. Weekday Commuter PM	80.2	**F**	94.0	**F**	
		Worst Mvmt	EB		EB		
		3. Weekday Pre-Event PM (14.5k)	51.6	**F**	56.6	**F**	
		Worst Mvmt	EB		EB		
		4. Weekday Pre-Event PM (20k)	-	-	60.5	**F**	
		Worst Mvmt	-		EB		
		5. Weekend Midday	19.5	C	18.3	C	
		Worst Mvmt	EB		EB		
27	Pacific Hwy & Enterprise St	1. Weekday AM	33.4	C	47.0	D	Y
		2. Weekday Commuter PM	30.0	C	59.6	**E**	
		3. Weekday Pre-Event PM (14.5k)	24.6	C	62.5	**E**	
		4. Weekday Pre-Event PM (20k)	-	-	63.5	**E**	
		5. Weekend Midday	19.1	B	18.8	B	
28	Midway Dr & Enterprise St	1. Weekday AM	13.0	B	12.7	B	N
		Worst Mvmt	SB		SB		
		2. Weekday Commuter PM	23.8	C	25.9	D	
		Worst Mvmt	SB		SB		
		3. Weekday Pre-Event PM (14.5k)	23.4	C	24.2	C	
		Worst Mvmt	SB		SB		
		4. Weekday Pre-Event PM (20k)	-	-	26.6	D	
		Worst Mvmt	-		SB		
		5. Weekend Midday	15.6	C	15.3	C	
		Worst Mvmt	SB		SB		
29	Barnett Ave & Midway Dr	1. Weekday AM	23.5	C	19.0	B	N
		2. Weekday Commuter PM	40.3	D	27.5	C	
		3. Weekday Pre-Event PM (14.5k)	33.8	C	29.6	C	
		4. Weekday Pre-Event PM (20k)	-	-	31.8	C	
		5. Weekend Midday	27.6	C	28.7	C	
30	Sea World Dr & Friars Rd	1. Weekday AM	5.5	A	5.5	A	N
		2. Weekday Commuter PM	5.6	A	5.6	A	
		3. Weekday Pre-Event PM (14.5k)	4.7	A	4.7	A	
		4. Weekday Pre-Event PM (20k)	-	-	4.7	A	
		5. Weekend Midday	4.7	A	4.8	A	
31	Sea World Dr & E Mission Bay Dr/Pacific Highway	1. Weekday AM	14.9	B	14.5	B	N
		2. Weekday Commuter PM	26.6	C	26.6	C	
		3. Weekday Pre-Event PM (14.5k)	21.4	C	22.1	C	
		4. Weekday Pre-Event PM (20k)	-	-	23.2	C	
		5. Weekend Midday	21.2	C	21.3	C	
32	I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr	1. Weekday AM	30.9	C	36.3	D	N
		2. Weekday Commuter PM	22.2	C	22.9	C	
		3. Weekday Pre-Event PM (14.5k)	23.2	C	23.1	C	
		4. Weekday Pre-Event PM (20k)	-	-	23.7	C	
		5. Weekend Midday	19.4	B	17.3	B	
33	Kemper St & Kurtz St	1. Weekday AM	-	-	-	-	N
		2. Weekday Commuter PM	-	-	-	-	
		3. Weekday Pre-Event PM (14.5k)	-	-	-	-	
		4. Weekday Pre-Event PM (20k)	-	-	-	-	
		5. Weekend Midday	-	-	-	-	
34	Frontier Dr & Kurtz St	1. Weekday AM	-	-	11.3	B	N
		2. Weekday Commuter PM	-	-	15.2	C	
		3. Weekday Pre-Event PM (14.5k)	-	-	14.2	B	
		4. Weekday Pre-Event PM (20k)	-	-	15.6	C	
		5. Weekend Midday	-	-	12.1	B	
35	H1 Dwy 1 & Kurtz St	1. Weekday AM	-	-	10.3	B	N
		2. Weekday Commuter PM	-	-	11.3	B	
		3. Weekday Pre-Event PM (14.5k)	-	-	9.0	A	
		4. Weekday Pre-Event PM (20k)	-	-	9.1	A	
		5. Weekend Midday	-	-	11.4	B	
36	E2 Dwy & Kurtz St	1. Weekday AM	-	-	-	-	N
		2. Weekday Commuter PM	-	-	-	-	
		3. Weekday Pre-Event PM (14.5k)	-	-	-	-	
		4. Weekday Pre-Event PM (20k)	-	-	-	-	
		5. Weekend Midday	-	-	-	-	
37	Sports Arena Blvd & B2 Dwy	1. Weekday AM	-	-	-	-	N
		2. Weekday Commuter PM	-	-	-	-	
		3. Weekday Pre-Event PM (14.5k)	-	-	-	-	
		4. Weekday Pre-Event PM (20k)	-	-	-	-	
		5. Weekend Midday	-	-	-	-	
38	Sports Arena Blvd & F/G Dwy	1. Weekday AM	-	-	11.4	B	N
		2. Weekday Commuter PM	-	-	17.1	C	
		3. Weekday Pre-Event PM (14.5k)	-	-	0.0	A	
		4. Weekday Pre-Event PM (20k)	-	-	0.0	A	
		5. Weekend Midday	-	-	17.2	C	
39	A3 Dwy & Kurtz St	1. Weekday AM	-	-	-	-	N
		2. Weekday Commuter PM	-	-	-	-	
		3. Weekday Pre-Event PM (14.5k)	-	-	-	-	
		4. Weekday Pre-Event PM (20k)	-	-	-	-	
		5. Weekend Midday	-	-	-	-	
40	X Dwy & Kurtz St	1. Weekday AM	-	-	10.6	B	N
		2. Weekday Commuter PM	-	-	13.4	B	
		3. Weekday Pre-Event PM (14.5k)	-	-	0.0	A	
		4. Weekday Pre-Event PM (20k)	-	-	0.0	A	
		5. Weekend Midday	-	-	11.7	B	

Notes:
Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition and Highway Capacity Manual 2000 Edition* and performed using Synchro 11

Table 6-2. Opening Year (2030) Plus Project Phase 1 Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2030 Base		2030 With Project		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	4200	Weekday AM	283	No	1364	No	N
				Weekday PM	2332	No	3163	No	
				Weekday Pre-Event (14.5k)	401	No	3388	No	
				Weekday Pre-Event (20k)	-	-	3367	No	
				Weekend Midday	486	No	697	No	
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360	Weekday AM	228	No	559	**Yes**	Y
				Weekday PM	518	**Yes**	574	**Yes**	
				Weekday Pre-Event (14.5k)	521	**Yes**	562	**Yes**	
				Weekday Pre-Event (20k)	-	-	547	**Yes**	
				Weekend Midday	497	**Yes**	519	**Yes**	
		WBL	150	Weekday AM	<25	No	<25	No	
				Weekday PM	66	No	41	No	
				Weekday Pre-Event (14.5k)	46	No	<25	No	
				Weekday Pre-Event (20k)	-	-	<25	No	
				Weekend Midday	<25	No	39	No	
		NBL	230	Weekday AM	90	No	100	No	
				Weekday PM	113	No	181	No	
				Weekday Pre-Event (14.5k)	126	No	137	No	
				Weekday Pre-Event (20k)	-	-	125	No	
				Weekend Midday	220	No	120	No	
3	Sports Arena Boulevard & Hancock Street	EBL	160	Weekday AM	70	No	82	No	Y
				Weekday PM	149	No	308	**Yes**	
				Weekday Pre-Event (14.5k)	123	No	302	**Yes**	
				Weekday Pre-Event (20k)	-	-	310	**Yes**	
				Weekend Midday	106	No	145	No	
		WBL	100	Weekday AM	<25	No	<25	No	
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	-	-	<25	No	
				Weekend Midday	42	No	25	No	
4	Sports Arena Boulevard & Kemper Street	EBL	440	Weekday AM	57	No	68	No	Y
				Weekday PM	85	No	656	**Yes**	
				Weekday Pre-Event (14.5k)	133	No	694	**Yes**	
				Weekday Pre-Event (20k)	-	-	698	**Yes**	
				Weekend Midday	82	No	169	No	
		WBL	175	Weekday AM	108	No	121	No	
				Weekday PM	155	No	286	**Yes**	
				Weekday Pre-Event (14.5k)	132	No	168	No	
				Weekday Pre-Event (20k)	-	-	172	No	
				Weekend Midday	133	No	127	No	
		NBL	100	Weekday AM	97	No	95	No	
				Weekday PM	137	**Yes**	216	**Yes**	
				Weekday Pre-Event (14.5k)	148	**Yes**	223	**Yes**	
				Weekday Pre-Event (20k)	-	-	226	**Yes**	
				Weekend Midday	112	**Yes**	98	No	
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330	Weekday AM	34	No	88	No	N
				Weekday PM	54	No	315	No	
				Weekday Pre-Event (14.5k)	40	No	315	No	
				Weekday Pre-Event (20k)	-	-	315	No	
				Weekend Midday	55	No	223	No	
		WBL	175	Weekday AM	93	No	115	No	
				Weekday PM	109	No	124	No	
				Weekday Pre-Event (14.5k)	129	No	98	No	
				Weekday Pre-Event (20k)	-	-	97	No	
				Weekend Midday	157	No	109	No	
6	Sports Arena Boulevard & Target Driveway	EBL	150	Weekday AM	37	No	-	-	Y
				Weekday PM	47	No	-	-	
				Weekday Pre-Event (14.5k)	96	No	-	-	
				Weekday Pre-Event (20k)	-	-	-	-	
				Weekend Midday	<25	No	-	-	
		WBL	125	Weekday AM	57	No	75	No	
				Weekday PM	73	No	100	No	
				Weekday Pre-Event (14.5k)	54	No	93	No	
				Weekday Pre-Event (20k)	-	-	67	No	
				Weekend Midday	149	**Yes**	250	**Yes**	
7	Sports Arena Boulevard & East Driveway	EBL	125	Weekday AM	40	No	-	-	Y
				Weekday PM	60	No	-	-	
				Weekday Pre-Event (14.5k)	67	No	-	-	
				Weekday Pre-Event (20k)	-	-	-	-	
				Weekend Midday	61	No	-	-	
		WBL	125	Weekday AM	119	No	136	**Yes**	
				Weekday PM	232	**Yes**	270	**Yes**	
				Weekday Pre-Event (14.5k)	240	**Yes**	247	**Yes**	
				Weekday Pre-Event (20k)	-	-	243	**Yes**	
				Weekend Midday	170	**Yes**	143	**Yes**	
		NBR	100	Weekday AM	53	No	58	No	
				Weekday PM	129	**Yes**	210	**Yes**	
				Weekday Pre-Event (14.5k)	168	**Yes**	205	**Yes**	
				Weekday Pre-Event (20k)	-	-	204	**Yes**	
				Weekend Midday	94	No	145	**Yes**	

Table 6-2. Opening Year (2030) Plus Project Phase 1 Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2030 Base		2030 With Project		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
8	Midway Drive & Kemper Street	EBL	320	Weekday AM	94	No	97	No	Y
				Weekday PM	92	No	283	No	
				Weekday Pre-Event (14.5k)	128	No	176	No	
				Weekday Pre-Event (20k)	-	-	329	**Yes**	
				Weekend Midday	180	No	309	No	
		EBR	150	Weekday AM	59	No	72	No	
				Weekday PM	45	No	51	No	
				Weekday Pre-Event (14.5k)	46	No	37	No	
				Weekday Pre-Event (20k)	-	-	42	No	
				Weekend Midday	144	No	102	No	
		WBL	250	Weekday AM	76	No	80	No	
				Weekday PM	172	No	225	No	
				Weekday Pre-Event (14.5k)	154	No	147	No	
				Weekday Pre-Event (20k)	-	-	206	No	
				Weekend Midday	151	No	102	No	
		NBL	90	Weekday AM	103	**Yes**	86	No	
				Weekday PM	199	**Yes**	202	**Yes**	
				Weekday Pre-Event (14.5k)	176	**Yes**	200	**Yes**	
				Weekday Pre-Event (20k)	-	-	201	**Yes**	
				Weekend Midday	164	**Yes**	179	**Yes**	
		SBL	100	Weekday AM	46	No	58	No	
				Weekday PM	87	No	82	No	
				Weekday Pre-Event (14.5k)	85	No	69	No	
				Weekday Pre-Event (20k)	-	-	76	No	
				Weekend Midday	106	**Yes**	138	**Yes**	
		SBR	115	Weekday AM	56	No	55	No	
				Weekday PM	81	No	78	No	
				Weekday Pre-Event (14.5k)	75	No	61	No	
				Weekday Pre-Event (20k)	-	-	57	No	
				Weekend Midday	90	No	76	No	
9	Midway Drive & East Drive	EBL	90	Weekday AM	41	No	61	No	Y
				Weekday PM	73	No	157	**Yes**	
				Weekday Pre-Event (14.5k)	48	No	112	**Yes**	
				Weekday Pre-Event (20k)	-	-	75	No	
				Weekend Midday	109	**Yes**	93	**Yes**	
		WBL	100	Weekday AM	36	No	42	No	
				Weekday PM	54	No	64	No	
				Weekday Pre-Event (14.5k)	48	No	55	No	
				Weekday Pre-Event (20k)	-	-	74	No	
				Weekend Midday	100	No	48	No	
10	Hancock Street & Channel Way	NBL	60	Weekday AM	46	No	47	No	N
				Weekday PM	39	No	40	No	
				Weekday Pre-Event (14.5k)	36	No	25	No	
				Weekday Pre-Event (20k)	-	-	27	No	
				Weekend Midday	40	No	35	No	
17	Camino Del Rio West & Hancock Street	NBL	100	Weekday AM	70	No	69	No	Y
				Weekday PM	154	**Yes**	209	**Yes**	
				Weekday Pre-Event (14.5k)	177	**Yes**	188	**Yes**	
				Weekday Pre-Event (20k)	-	-	195	**Yes**	
				Weekend Midday	143	**Yes**	76	No	
		I-5 SB Off-Ramp	3500	Weekday AM	745	No	609	No	
				Weekday PM	442	No	1268	No	
				Weekday Pre-Event (14.5k)	447	No	1287	No	
				Weekday Pre-Event (20k)	-	-	1370	No	
				Weekend Midday	1384	No	1347	No	
		I-8 WB Off-Ramp	3700	Weekday AM	1840	No	1256	No	
				Weekday PM	548	No	4067	**Yes**	
				Weekday Pre-Event (14.5k)	570	No	4148	**Yes**	
				Weekday Pre-Event (20k)	-	-	4502	**Yes**	
				Weekend Midday	4564	**Yes**	4406	**Yes**	
		SBR	130	Weekday AM	258	**Yes**	216	**Yes**	
				Weekday PM	176	**Yes**	256	**Yes**	
				Weekday Pre-Event (14.5k)	199	**Yes**	278	**Yes**	
				Weekday Pre-Event (20k)	-	-	286	**Yes**	
				Weekend Midday	221	**Yes**	170	**Yes**	
18	Camino Del Rio West & Kurtz Street	EBR	200	Weekday AM	37	No	-	-	Y
				Weekday PM	141	No	-	-	
				Weekday Pre-Event (14.5k)	272	**Yes**	-	-	
				Weekday Pre-Event (20k)	-	-	-	-	
				Weekend Midday	354	**Yes**	-	-	
		SBL	100	Weekday AM	211	**Yes**	208	**Yes**	
				Weekday PM	84	No	133	**Yes**	
				Weekday Pre-Event (14.5k)	179	**Yes**	136	**Yes**	
				Weekday Pre-Event (20k)	-	-	142	**Yes**	
				Weekend Midday	183	**Yes**	231	**Yes**	

Table 6-2. Opening Year (2030) Plus Project Phase 1 Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2030 Base		2030 With Project		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
19	Camino Del Rio West & Sports Arena Boulevard	EBR	300	Weekday AM	169	No	169	No	Y
				Weekday PM	218	No	301	**Yes**	
				Weekday Pre-Event (14.5k)	196	No	268	No	
				Weekday Pre-Event (20k)	-	-	308	**Yes**	
				Weekend Midday	313	**Yes**	484	**Yes**	
		WBL	180	Weekday AM	202	**Yes**	212	**Yes**	
				Weekday PM	168	No	196	**Yes**	
				Weekday Pre-Event (14.5k)	168	No	153	No	
				Weekday Pre-Event (20k)	-	-	173	No	
				Weekend Midday	192	**Yes**	212	**Yes**	
		NBL	260	Weekday AM	308	**Yes**	324	**Yes**	
				Weekday PM	265	**Yes**	352	**Yes**	
				Weekday Pre-Event (14.5k)	304	**Yes**	381	**Yes**	
				Weekday Pre-Event (20k)	-	-	375	**Yes**	
				Weekend Midday	337	**Yes**	313	**Yes**	
20	Rosecrans Street & Midway Drive	EBL	100	Weekday AM	134	**Yes**	132	**Yes**	Y
				Weekday PM	209	**Yes**	216	**Yes**	
				Weekday Pre-Event (14.5k)	200	**Yes**	205	**Yes**	
				Weekday Pre-Event (20k)	-	-	196	**Yes**	
				Weekend Midday	212	**Yes**	181	**Yes**	
		EBR	240	Weekday AM	119	No	140	No	
				Weekday PM	220	No	243	**Yes**	
				Weekday Pre-Event (14.5k)	158	No	176	No	
				Weekday Pre-Event (20k)	-	-	177	No	
				Weekend Midday	243	**Yes**	219	No	
		WBL	250	Weekday AM	224	No	198	No	
				Weekday PM	269	**Yes**	275	**Yes**	
				Weekday Pre-Event (14.5k)	196	No	260	**Yes**	
				Weekday Pre-Event (20k)	-	-	283	**Yes**	
				Weekend Midday	294	**Yes**	225	No	
		WBR	180	Weekday AM	209	**Yes**	175	No	
				Weekday PM	307	**Yes**	342	**Yes**	
				Weekday Pre-Event (14.5k)	313	**Yes**	345	**Yes**	
				Weekday Pre-Event (20k)	-	-	346	**Yes**	
				Weekend Midday	308	**Yes**	258	**Yes**	
		NBL	280	Weekday AM	238	No	228	No	
				Weekday PM	276	No	442	**Yes**	
				Weekday Pre-Event (14.5k)	335	**Yes**	453	**Yes**	
				Weekday Pre-Event (20k)	-	-	448	**Yes**	
				Weekend Midday	423	**Yes**	393	**Yes**	
		SBL	320	Weekday AM	276	No	276	No	
				Weekday PM	253	No	294	No	
				Weekday Pre-Event (14.5k)	197	No	221	No	
				Weekday Pre-Event (20k)	-	-	224	No	
				Weekend Midday	235	No	306	No	
21	Rosecrans Street & North Evergreen Street	NBL	180	Weekday AM	50	No	46	No	N
				Weekday PM	30	No	45	No	
				Weekday Pre-Event (14.5k)	<25	No	63	No	
				Weekday Pre-Event (20k)	-	-	44	No	
				Weekend Midday	81	No	90	No	
		SBL	310	Weekday AM	289	No	175	No	
				Weekday PM	175	No	136	No	
				Weekday Pre-Event (14.5k)	135	No	130	No	
				Weekday Pre-Event (20k)	-	-	126	No	
				Weekend Midday	274	No	182	No	
22	Rosecrans Street & Lytton Street	WBL	245	Weekday AM	359	**Yes**	358	**Yes**	Y
				Weekday PM	385	**Yes**	382	**Yes**	
				Weekday Pre-Event (14.5k)	364	**Yes**	371	**Yes**	
				Weekday Pre-Event (20k)	-	-	373	**Yes**	
				Weekend Midday	232	No	259	**Yes**	
		NBL	100	Weekday AM	99	No	54	No	
				Weekday PM	94	No	101	**Yes**	
				Weekday Pre-Event (14.5k)	95	No	113	**Yes**	
				Weekday Pre-Event (20k)	-	-	118	**Yes**	
				Weekend Midday	128	**Yes**	71	No	
		NBR	490	Weekday AM	240	No	215	No	
				Weekday PM	436	No	526	**Yes**	
				Weekday Pre-Event (14.5k)	173	No	419	No	
				Weekday Pre-Event (20k)	-	-	404	No	
				Weekend Midday	166	No	505	**Yes**	
		SBL	470	Weekday AM	584	**Yes**	496	**Yes**	
				Weekday PM	125	No	119	No	
				Weekday Pre-Event (14.5k)	83	No	80	No	
				Weekday Pre-Event (20k)	-	-	77	No	
				Weekend Midday	156	No	197	No	

Table 6-2. Opening Year (2030) Plus Project Phase 1 Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2030 Base		2030 With Project		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
23	Rosecrans Street & Kurtz Street	WBR	70	Weekday AM	165	**Yes**	176	**Yes**	Y
				Weekday PM	141	**Yes**	150	**Yes**	
				Weekday Pre-Event (14.5k)	99	**Yes**	73	**Yes**	
				Weekday Pre-Event (20k)	-	-	75	**Yes**	
				Weekend Midday	176	**Yes**	103	**Yes**	
		SBL	100	Weekday AM	63	No	70	No	
				Weekday PM	65	No	75	No	
				Weekday Pre-Event (14.5k)	61	No	55	No	
				Weekday Pre-Event (20k)	-	-	78	No	
				Weekend Midday	65	No	116	**Yes**	
24	Rosecrans Street & Hancock Street	NBL	120	Weekday AM	68	No	59	No	Y
				Weekday PM	73	No	148	**Yes**	
				Weekday Pre-Event (14.5k)	156	**Yes**	164	**Yes**	
				Weekday Pre-Event (20k)	-	-	158	**Yes**	
				Weekend Midday	106	No	216	**Yes**	
25	Pacific Highway & Rosecrans Street	EBL	120	Weekday AM	62	No	57	No	Y
				Weekday PM	103	No	86	No	
				Weekday Pre-Event (14.5k)	75	No	51	No	
				Weekday Pre-Event (20k)	-	-	40	No	
				Weekend Midday	68	No	30	No	
		EBR	100	Weekday AM	45	No	45	No	
				Weekday PM	91	No	102	**Yes**	
				Weekday Pre-Event (14.5k)	59	No	73	No	
				Weekday Pre-Event (20k)	-	-	60	No	
				Weekend Midday	56	No	50	No	
		WBL	150	Weekday AM	116	No	111	No	
				Weekday PM	127	No	134	No	
				Weekday Pre-Event (14.5k)	130	No	136	No	
				Weekday Pre-Event (20k)	-	-	132	No	
				Weekend Midday	112	No	108	No	
		NBL	150	Weekday AM	107	No	103	No	
				Weekday PM	173	**Yes**	193	**Yes**	
				Weekday Pre-Event (14.5k)	257	**Yes**	291	**Yes**	
				Weekday Pre-Event (20k)	-	-	293	**Yes**	
				Weekend Midday	127	No	148	No	
		NBR	320	Weekday AM	43	No	40	No	
				Weekday PM	123	No	136	No	
				Weekday Pre-Event (14.5k)	65	No	51	No	
				Weekday Pre-Event (20k)	-	-	52	No	
				Weekend Midday	40	No	30	No	
		SBL	230	Weekday AM	49	No	48	No	
				Weekday PM	86	No	97	No	
				Weekday Pre-Event (14.5k)	60	No	62	No	
				Weekday Pre-Event (20k)	-	-	64	No	
				Weekend Midday	70	No	59	No	
26	Pacific Highway & Kurtz Street	NBL	200	Weekday AM	183	No	198	No	Y
				Weekday PM	168	No	226	**Yes**	
				Weekday Pre-Event (14.5k)	135	No	127	No	
				Weekday Pre-Event (20k)	-	-	103	No	
				Weekend Midday	120	No	367	**Yes**	
27	Pacific Highway & Enterprise Street	EBL	200	Weekday AM	41	No	35	No	Y
				Weekday PM	98	No	123	No	
				Weekday Pre-Event (14.5k)	99	No	97	No	
				Weekday Pre-Event (20k)	-	-	101	No	
				Weekend Midday	50	No	118	No	
		EBR	200	Weekday AM	<25	No	<25	No	
				Weekday PM	69	No	73	No	
				Weekday Pre-Event (14.5k)	50	No	49	No	
				Weekday Pre-Event (20k)	-	-	49	No	
				Weekend Midday	35	No	<25	No	
		NBL	280	Weekday AM	334	**Yes**	357	**Yes**	
				Weekday PM	289	**Yes**	374	**Yes**	
				Weekday Pre-Event (14.5k)	305	**Yes**	413	**Yes**	
				Weekday Pre-Event (20k)	-	-	415	**Yes**	
				Weekend Midday	170	No	310	**Yes**	
		NBR	300	Weekday AM	37	No	42	No	
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	-	-	<25	No	
				Weekend Midday	<25	No	<25	No	
		SBL	200	Weekday AM	162	No	152	No	
				Weekday PM	133	No	153	No	
				Weekday Pre-Event (14.5k)	133	No	113	No	
				Weekday Pre-Event (20k)	-	-	186	No	
				Weekend Midday	49	No	47	No	

Table 6-2. Opening Year (2030) Plus Project Phase 1 Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2030 Base		2030 With Project		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
30	Sea World Drive & Friars Rd	WBR	300	Weekday AM	<25	No	<25	No	N
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	-	-	<25	No	
				Weekend Midday	<25	No	<25	No	
		NBR	185	Weekday AM	62	No	56	No	
				Weekday PM	278	**Yes**	100	No	
				Weekday Pre-Event (14.5k)	56	No	55	No	
				Weekday Pre-Event (20k)	-	-	53	No	
				Weekend Midday	60	No	47	No	
		SBL	300	Weekday AM	60	No	58	No	
				Weekday PM	102	No	64	No	
				Weekday Pre-Event (14.5k)	62	No	61	No	
				Weekday Pre-Event (20k)	-	-	65	No	
				Weekend Midday	59	No	59	No	
31	Sea World Drive & Pacific Highway	EBL	250	Weekday AM	51	No	46	No	Y
				Weekday PM	116	No	103	No	
				Weekday Pre-Event (14.5k)	94	No	109	No	
				Weekday Pre-Event (20k)	-	-	108	No	
				Weekend Midday	137	No	148	No	
		EBR	200	Weekday AM	<25	No	<25	No	
				Weekday PM	92	No	87	No	
				Weekday Pre-Event (14.5k)	62	No	58	No	
				Weekday Pre-Event (20k)	-	-	72	No	
				Weekend Midday	79	No	73	No	
		WBL	125	Weekday AM	46	No	44	No	
				Weekday PM	75	No	86	No	
				Weekday Pre-Event (14.5k)	62	No	70	No	
				Weekday Pre-Event (20k)	-	-	65	No	
				Weekend Midday	47	No	42	No	
		WBR	200	Weekday AM	31	No	36	No	
				Weekday PM	70	No	72	No	
				Weekday Pre-Event (14.5k)	36	No	37	No	
				Weekday Pre-Event (20k)	-	-	32	No	
				Weekend Midday	39	No	41	No	
		NBL	325	Weekday AM	44	No	40	No	
				Weekday PM	221	No	231	No	
				Weekday Pre-Event (14.5k)	52	No	48	No	
				Weekday Pre-Event (20k)	-	-	49	No	
				Weekend Midday	71	No	68	No	
		NBR	100	Weekday AM	55	No	50	No	
				Weekday PM	239	**Yes**	236	**Yes**	
				Weekday Pre-Event (14.5k)	87	No	111	**Yes**	
				Weekday Pre-Event (20k)	-	-	80	No	
				Weekend Midday	56	No	41	No	
		SBL	215	Weekday AM	78	No	82	No	
				Weekday PM	225	**Yes**	270	**Yes**	
				Weekday Pre-Event (14.5k)	292	**Yes**	355	**Yes**	
				Weekday Pre-Event (20k)	-	-	392	**Yes**	
				Weekend Midday	310	**Yes**	309	**Yes**	
32	Sea World Drive & I-5 Southbound Ramps	EBR	400	Weekday AM	39	No	44	No	Y
				Weekday PM	100	No	97	No	
				Weekday Pre-Event (14.5k)	83	No	83	No	
				Weekday Pre-Event (20k)	-	-	76	No	
				Weekend Midday	80	No	77	No	
		WBL	120	Weekday AM	218	**Yes**	218	**Yes**	
				Weekday PM	204	**Yes**	209	**Yes**	
				Weekday Pre-Event (14.5k)	204	**Yes**	210	**Yes**	
				Weekday Pre-Event (20k)	-	-	214	**Yes**	
				Weekend Midday	202	**Yes**	198	**Yes**	
		I-5 SB Off-Ramp	3700	Weekday AM	153	No	178	No	
				Weekday PM	152	No	248	No	
				Weekday Pre-Event (14.5k)	153	No	605	No	
				Weekday Pre-Event (20k)	-	-	930	No	
				Weekend Midday	152	No	150	No	
33	Kemper St & Kurtz St	NBL	150	Weekday AM	0	0	<25	No	N
				Weekday PM	0	0	29	No	
				Weekday Pre-Event (14.5k)	0	0	29	No	
				Weekday Pre-Event (20k)	0	0	35	No	
				Weekend Midday	0	0	<25	No	
34	Frontier Dr & Kurtz St	NBL	150	Weekday AM	0	0	66	No	N
				Weekday PM	0	0	44	No	
				Weekday Pre-Event (14.5k)	0	0	42	No	
				Weekday Pre-Event (20k)	0	0	60	No	
				Weekend Midday	0	0	68	No	

Table 6-3. Opening Year (2030) Plus Project Phase 1 with 14,500-Spectator Event Roadway Segment LOS Summary

ID	Roadway Segment	Extents	2030 Base					2030 (14.5k) With Project Phase 1					Project Effect (Y/N?)
			Weekday Event-Day					Weekday Event-Day					
			Functional Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	With Project Classification[6]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp	6 Lane Prime Arterial	60,000	14,045	0.234	A	6 Lane Prime Arterial	60,000	18,097	0.302	A	N
2		I-8 EB On Ramp to W Point Loma Boulevard	5 Lane Major Arterial	45,000	29,387	0.653	C	5 Lane Major Arterial	45,000	36,536	0.812	D	N
3		W Point Loma Boulevard to Hancock Street	5 Lane Collector (with two-way left-turn Lane)	37,500	18,742	0.500	C	5 Lane Collector (with two-way left-turn Lane)	37,500	29,071	0.775	D	N
4		Hancock Street to Kemper Street	5 Lane Collector (with two-way left-turn Lane)	37,500	18,758	0.500	C	5 Lane Collector (with two-way left-turn Lane)	37,500	22,578	0.602	C	N
5		Kemper Street to Frontier Drive	5 Lane Major Arterial	45,000	18,736	0.416	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	24,174	0.604	C	N
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	19,627	0.393	A	4 Lane Major Arterial (with 2 flexible lanes)	40,000	22,981	0.575	C	N
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	24,463	0.489	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	26,696	0.667	C	N
8		Rosecrans Street to Pacific Highway	2 Lane Collector (without two-way left-turn lane)	8,000	1,745	0.218	A	2 Lane Collector (without two-way left-turn lane)	8,000	5,373	0.672	D	N
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	63,039	1.051	**F**	6 Lane Prime Arterial	60,000	66,546	1.109	**F**	N
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	63,047	1.051	**F**	6 Lane Prime Arterial	60,000	66,659	1.111	**F**	N
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	52,827	0.880	D	6 Lane Prime Arterial	60,000	55,015	0.917	**E**	Y
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Collector (with two-way left-turn Lane)	30,000	10,427	0.348	B	2 Lane Collector (with 2 flexible lanes)	15,000	11,658	0.777	D	N
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	57,706	1.154	**F**	6 Lane Major Arterial	50,000	61,743	1.235	**F**	N
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	25,483	0.849	**E**	4 Lane Collector (with two-way left-turn Lane)	30,000	26,032	0.868	**E**	N
15	Kurtz Street	Kemper Street to Frontier Drive	2 Lane Collector (one-way)	17,500	3,260	0.186	A	2 Lane Collector (with two-way left-turn Lane)	15,000	11,254	0.750	D	N
16		Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	3,276	0.187	A	2 Lane Collector (without two-way left-turn lane)	8,000	8,597	1.075	**F**	Y
17		Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	5,220	0.298	A	2 Lane Collector (one-way)	17,500	8,536	0.488	B	N
18	Hancock Street	Sports Arena Boulevard to Channel Way	2 Lane Collector (without two-way left-turn lane)	8,000	3,571	0.446	C	4 Lane Collector (without two-way left-turn Lane)	15,000	11,181	0.745	D	N
19		Channel Way to Kurtz St	2 Lane Collector (with two-way left-turn Lane)	15,000	3,463	0.231	A	4 Lane Collector (without two-way left-turn Lane)	15,000	10,173	0.678	D	N
20		Kurtz Street to Greenwood Street	2 Lane Collector (one-way)	17,500	4,406	0.252	A	2 Lane Collector (one-way)	17,500	7,339	0.419	A	N
21		Greenwood Street to Camino Del Rio West	2 Lane Collector (one-way)	17,500	4,406	0.252	A	2 Lane Collector (one-way)	17,500	7,239	0.414	A	N
Future Roadway Segments													
22	*Frontier Drive (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	10,684	0.712	D	N
23	*Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	4,154	0.277	A	N

Notes:

[1]Functional Classification based on the Midway Pacific Highway Community Plan.

[2]LOS E Capacity provided by City of San Diego staff. LOS E capacity of Segment 12 under WP Conditions is based on a 2-lane Collector with two-way left-turn lane as the project wouldn't construct the median for a Major Arterial on Rosecrans St because there is not a project effect, and instead proposes a 2-lane Collector with flex lanes.

[3]ADT - Average Daily Traffic.

[4]V/C Ratio - Volume-to-capacity ratio.

[5]LOS - Level of Service.

[6]With Project Classification based on roadway classifications proposed by the Midway Rising Project.

6.3 FULL CAPACITY EVENT ANALYSIS (20,000 SPECTATORS)

A full capacity event with 20,000 spectators would be expected to generate approximately 16,412 average daily vehicle trips with 3,629 Pre-Event PM Peak Hour Trips (3,055 inbound / 573 outbound). The full capacity event was analyzed for the Pre-Event PM peak hour only since this is the highest trip generating peak based on all land uses on the site. This analysis is being analyzed to inform the project's development of an event management plan to manage traffic on the full-capacity event days.

6.3.1 TRAFFIC VOLUMES

The Opening Year (2030) Plus Project Phase 1 traffic volumes will consist of the Opening Year (2030) Base scenario, and proposed project traffic for the project under Phase 1 with a 20,000-spectator event. **Figure 6-4** shows the Opening Year (2030) Project Phase 1 traffic volumes during the Pre-Event PM peak for a 20,000-spectator event.

6.3.2 INTERSECTION ANALYSIS

Table 6-1 displays the LOS analysis results for the study intersections under Opening Year (2030) Plus Project Phase 1 scenario with 20,000-spectators. Under Opening Year (2030) Plus Project Phase 1 scenario, 7 intersections are expected to operate at LOS E or F during the Pre-Event PM peak hour with a 20,000-spectator event.

Appendix S contains the intersection LOS calculation worksheets for the Opening Year (2030) Plus Project Phase 1 scenario Pre-Event PM peak for a 20,000 spectator event.

6.3.3 QUEUEING ANALYSIS

Table 6-2 displays the expected 95th percentile queues under Opening Year (2030) Plus Project Phase 1 scenario with 20,000-spectators. The 95th percentile queue lengths reported represent an average of five SimTraffic runs. **Appendix T** contains the 95th percentile queue worksheets for Opening Year (2030) Plus Project Phase 1 scenario Pre-Event PM peak for a 20,000 spectator event. Under Opening Year (2030) Plus Project Phase 1 scenario, queues would be expected to exceed the existing available storage length at 17 intersections in the pre-event PM peak with 20,000-spectator event.

6.3.4 ROADWAY SEGMENT ANALYSIS

The Opening Year (2030) Plus Project Phase 1 scenario roadway segment analysis was performed based on proposed roadway geometries and 2030 expected daily roadway segment volumes on a weekday, 20,000-spectator event day. **Table 6-4** summarizes the roadway segment LOS analysis at the study segments under Opening Year (2030) Plus Project Phase 1 scenario for a 20,000-spectator, weekday event day.

Under Opening Year (2030) Plus Project Phase 1 scenario, all roadway segments would be expected to operate at LOS D or better on a weekday, 20,000-spectator event day except the following:

- Camino del Rio West north of Greenwood Street (LOS F)
- Camino del Rio West between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Frontier Drive (LOS E)
- Kurtz Street between Kemper Street and Frontier Drive (LOS F)
- Kurtz Street between Frontier Drive and Sherman Street (LOS F)

Figure 6-4. Opening Year (2030) Plus Project Phase 1 Traffic Volumes (20,000 spectators) (Page 1 of 2)

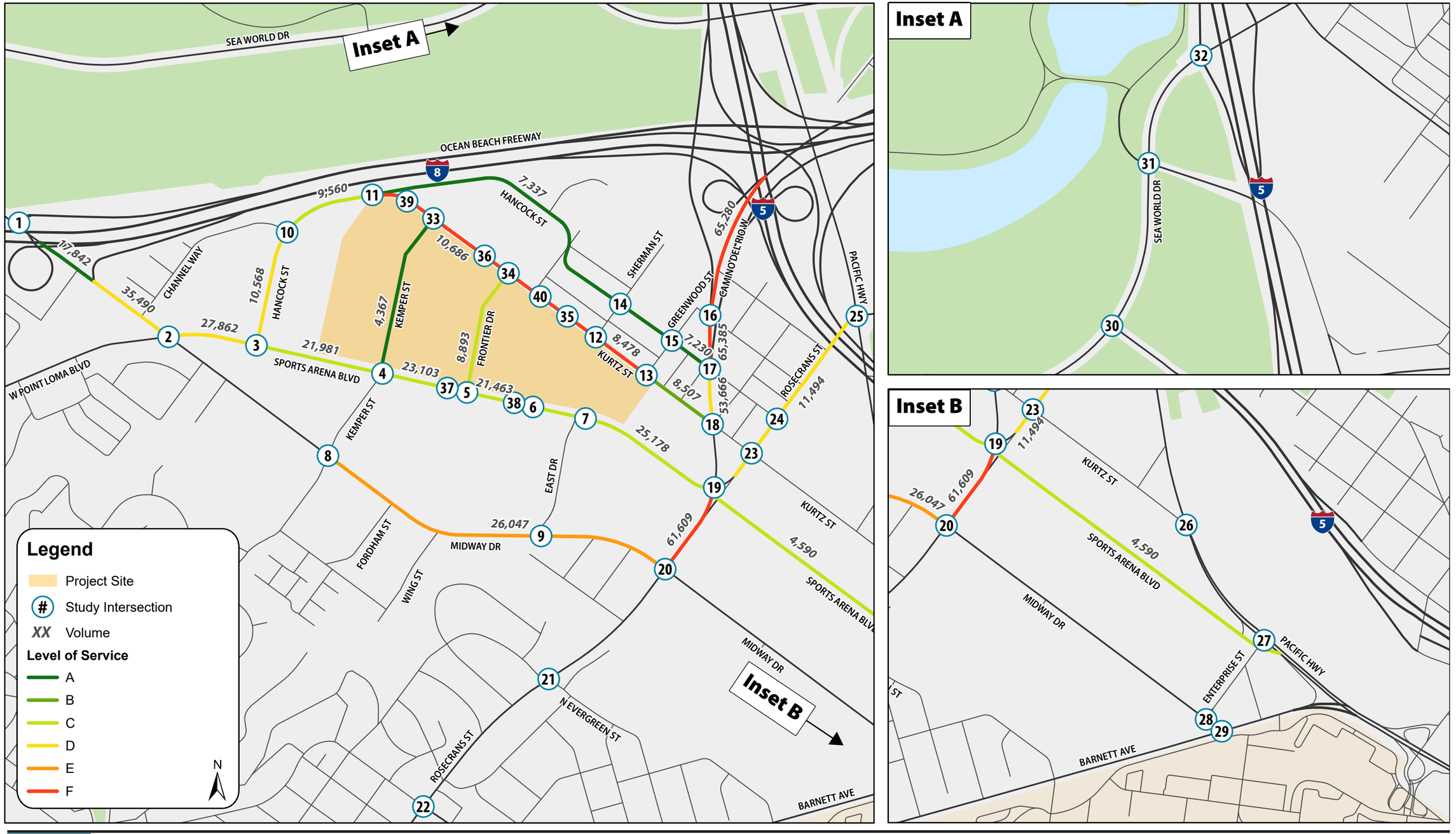
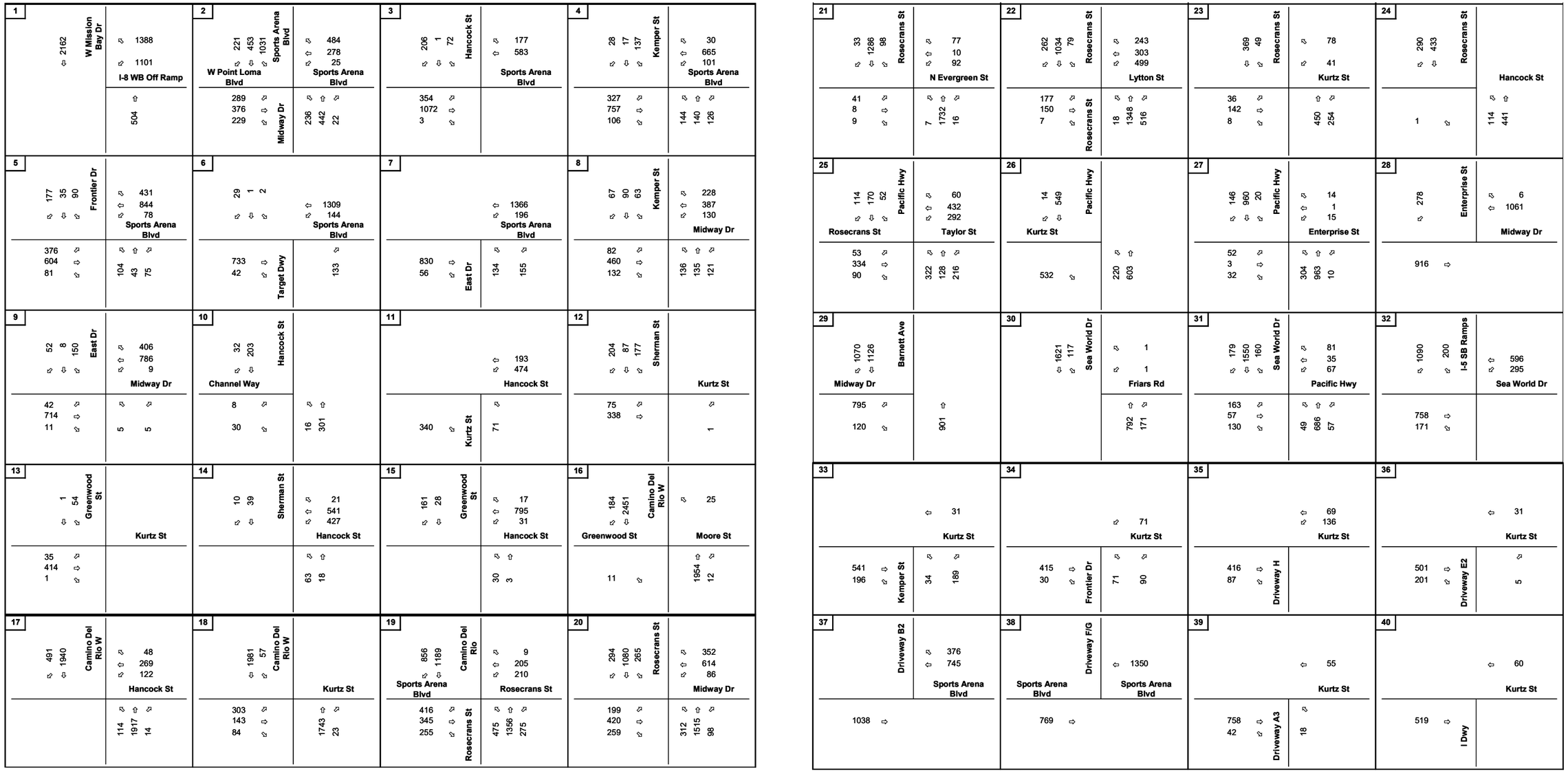


Figure 6-4. Opening Year (2030) Plus Project Phase 1 Traffic Volumes (20,000 spectators) (Page 2 of 2)



Legend

X = Pre-Event Peak Hour Turning Volumes

North

Table 6-4. Opening Year (2030) Plus Project Phase 1 with 20,000-Spectator Event Roadway Segment LOS Summary

ID	Roadway Segment	Extents	2030 Base					2030 (20k) With Project Phase 1				
			Weekday Event-Day					Weekday Event-Day				
			Functional Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	With Project Classification[6]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp	6 Lane Prime Arterial	60,000	14,045	0.234	A	6 Lane Prime Arterial	60,000	17,842	0.297	A
2		I-8 EB On Ramp to W Point Loma Boulevard	5 Lane Major Arterial	45,000	29,387	0.653	C	5 Lane Major Arterial	45,000	35,490	0.789	D
3		W Point Loma Boulevard to Hancock Street	5 Lane Collector (with two-way left-turn Lane)	37,500	18,742	0.500	C	5 Lane Collector (with two-way left-turn Lane)	37,500	27,862	0.743	D
4		Hancock Street to Kemper Street	5 Lane Collector (with two-way left-turn Lane)	37,500	18,758	0.500	C	5 Lane Collector (with two-way left-turn Lane)	37,500	21,981	0.586	C
5		Kemper Street to Frontier Drive	5 Lane Major Arterial	45,000	18,736	0.416	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	23,103	0.578	C
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	19,627	0.393	A	4 Lane Major Arterial (with 2 flexible lanes)	40,000	21,463	0.537	C
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	24,463	0.489	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	25,178	0.629	C
8		Rosecrans Street to Pacific Highway	2 Lane Collector (without two-way left-turn lane)	8,000	1,745	0.218	A	2 Lane Collector (without two-way left-turn lane)	8,000	5,067	0.633	D
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	63,039	1.051	**F**	6 Lane Prime Arterial	60,000	65,280	1.088	**F**
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	63,047	1.051	**F**	6 Lane Prime Arterial	60,000	65,385	1.090	**F**
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	52,827	0.880	D	6 Lane Prime Arterial	60,000	53,666	0.894	D
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Collector (with two-way left-turn Lane)	30,000	10,427	0.348	B	2 Lane Collector (with 2 flexible lanes)	15,000	11,494	0.766	D
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	57,706	1.154	**F**	6 Lane Major Arterial	50,000	61,609	1.232	**F**
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	25,483	0.849	**E**	4 Lane Collector (with two-way left-turn Lane)	30,000	26,047	0.868	**E**
15	Kurtz Street	Kemper Street to Frontier Drive	2 Lane Collector (one-way)	17,500	3,260	0.186	A	2 Lane Collector (without two-way left-turn lane)	8,000	10,686	1.336	**F**
16		Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	3,276	0.187	A	2 Lane Collector (without two-way left-turn lane)	8,000	8,478	1.060	**F**
17		Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	5,220	0.298	A	2 Lane Collector (one-way)	17,500	8,507	0.486	B
18	Hancock Street	Sports Arena Boulevard to Channel Way	2 Lane Collector (without two-way left-turn lane)	8,000	3,571	0.446	C	4 Lane Collector (without two-way left-turn Lane)	15,000	10,568	0.705	D
19		Channel Way to Kurtz St	2 Lane Collector (with two-way left-turn Lane)	15,000	3,463	0.231	A	4 Lane Collector (without two-way left-turn Lane)	15,000	9,560	0.637	C
20		Kurtz Street to Greenwood Street	2 Lane Collector (one-way)	17,500	4,406	0.252	A	2 Lane Collector (one-way)	17,500	7,337	0.419	A
21		Greenwood Street to Camino Del Rio West	2 Lane Collector (one-way)	17,500	4,406	0.252	A	2 Lane Collector (one-way)	17,500	7,230	0.413	A
Future Roadway Segments												
22	*Frontier Drive (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	8,893	0.593	C
23	*Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	4,367	0.291	A

Notes:

[1]Functional Classification based on the Midway Pacific Highway Community Plan.

[2]LOS E Capacity provided by City of San Diego staff. LOS E capacity of Segment 12 under WP Conditions is based on a 2-lane Collector with two-way left-turn lane as the project wouldn't construct the median for a Major Arterial on Rosecrans St because there is not a project effect, and instead proposes a 2-lane Collector with flex lanes.

[3]ADT - Average Daily Traffic.

[4]V/C Ratio - Volume-to-capacity ratio.

[5]LOS - Level of Service.

[6]With Project Classification based on roadway classifications proposed by the Midway Rising Project.

7 OPENING YEAR (2030) PLUS PROJECT PHASE 1 PLUS IMPROVEMENTS

7.1 SIGNAL OPTIMIZATION

It is assumed that signal optimization will occur at all signalized intersections within the study area due to the increase in vehicle volumes and new travel patterns caused by the project, and the redevelopment of the NAVWAR facility that will require signal optimization to properly serve each approach.

Optimization would include:

- Optimized cycle lengths
- Optimized phase splits
- Optimized corridor offsets for coordinated corridors (Sports Arena Blvd, Rosecrans Street, Camino del Rio)
- Optimized lead/lag left turn phasing

These improvements have been applied to both the Opening Year (2030) Plus Project Phase 1 and the Opening Year (2035) Plus Project Phase 2 Buildout scenarios.

7.2 PROJECT INTERSECTION IMPROVEMENTS

The project causes operational effects in the year 2030 at the 8 intersections listed in Section 6.2. Operations could be improved to an acceptable level of service at 5 of these intersections by implementing the following improvements. Improvements made by the project at 2 more of the intersections listed in **Table 7-1** would improve operations but the intersection would still operate at LOS E for the reasons listed. Lastly, at one intersection (#16 Camino del Rio and Moore Street), there are no reasonable improvements that can be made to enhance operations, as described further below.

Locations of intersection improvements are shown in **Figure 7-2**. **Figure 7-3** illustrates the resulting lane geometries at the study intersections under 2030 Plus Project Plus Improvements.

7.3 PROJECT ROADWAY IMPROVEMENTS

The project causes operational effects in the year 2030 at the three roadway segments listed in Section 6.3.4. The project does not propose to provide improvements to roadway segments with project effects because there are no reasonable improvements that can be made to enhance operations, as described further in **Table 7-2** below.

Table 7-1. Opening Year (2030) Plus Project Phase 1 Intersection Improvements Summary

<table>
<tr><th>#</th><th>Location</th><th>2030 Considered Improvement</th><th>2030 Improvement Decision</th></tr>
<tr><td>2</td><td>Midway Dr / W Point Loma Blvd & Sports Arena Blvd</td><td>Improvements (See Appendix U for a high-level feasibility concept of the physical improvements described below):
- Signal timing optimization
- Reduce roadway width in northeast corner to convert westbound channelized right turn lane to an exclusive right turn lane per CP.
- Provide overlap phase for westbound right turn movement. Requires signal modification.
- Remove small, channelized portions of northbound and southbound right turn movements. Right-most lanes will be shared through-right instead.
- Separate southbound shared through/left turn lane into exclusive left turn and exclusive through lane. Southbound approach to include 2 left turn lanes, 1 through lane, and 1 shared through/right turn lane. Requires signal modification.
- Separate northbound shared through/left turn lane into exclusive left turn and exclusive through lane. Northbound approach to include 2 left turn lanes, 1 through lanes, and 1 shared through/right turn lane.
- Widen by 6 feet to construct additional eastbound through lane. Eastbound approach to include 1 left turn lane, 1 shared left/through lane, 1 through lane, and 1 right turn lane.
- Modify northbound and southbound signal timing to protected left turn phasing instead of split phasing.
Results: Maintain LOS E or better for all peaks.</td><td>Midway Rising will improve this intersection to the extent feasible by incorporating the improvements described. The intersection cannot be improved to LOS D or better without diminishing pedestrian and bicycle safety or conflicting with the CP’s visions for multimodal improvements. Removal of the westbound channelized free right turn lane as proposed in the CP prevents this intersection from being able to improve to LOS D or better. Removal of the free right turn would also decrease pedestrian safety. There is not enough right-of-way to further widen the intersection due to the adjacent residential and commercial land uses, the skew of the intersection, and the proposed multimodal improvements on all approaches to the intersection (including bus only lanes).</td></tr>
<tr><td>5</td><td>West Dr / Frontier Dr & Sports Arena Blvd</td><td>Improvement: Signal timing optimization. Increase in the overall signal cycle length to 100 seconds during the AM peak and 150 seconds during the PM and Pre-Event PM peaks. Increase in cycle length and optimized splits helps accommodate the increase in volumes for the eastbound left turn movement, westbound through movement, and southbound movements from the project.
Results: Improved to LOS D or better for all peaks.</td><td>Midway Rising will improve this intersection to an acceptable LOS by optimizing signal timing.</td></tr>
<tr><td>14</td><td>Sherman Street & Hancock St</td><td>Improvements (See Figure 7-1 for an illustration of temporary improvements described below): Implement temporary traffic control during the PM Pre-Event peak period to modify intersection geometry during the PM Pre-Event peak. Implement traffic control flagger (or appropriate traffic control setup) to allow two westbound lanes to turn left from Hancock Street onto southbound Sherman Street, and convert Sherman Street (temporarily) to a one-way two-lane southbound street. Vehicles wishing to travel northbound on Sherman Street from Kurtz Street will be redirected to Greenwood Street. At Sherman Street & Kurtz Street, two southbound lanes would be directed to turn right or go straight into the H1 driveway for Entertainment Center parking.
A separate analysis was performed at this intersection for the Opening Year (2030) Pre-event PM peak accounting for the traffic pattern modifications from temporary traffic control. The results are summarized in the table below:
<table>
<tr><th>Scenario</th><th></th><th>Delay (sec)</th><th>LOS</th></tr>
<tr><td rowspan="2">Opening Year (2030) Plus Project Phase 1 Plus Improvements – Pre-Event PM Peak</td><td>Normal Operations</td><td>50.1</td><td>F</td></tr>
<tr><td>Temporary Event Operations</td><td>23.5</td><td>C</td></tr>
</table>
Results: Improved to LOS C or better for pre-event peak period.</td><td>Midway Rising will improve this intersection to an acceptable LOS by incorporating temporary traffic control (including a traffic control flagger) during the pre-event peak period.</td></tr>
<tr><td>16</td><td>Camino del Rio W & Moore St</td><td>No reasonable improvement found: No reasonable improvements can be made to increase operations.</td><td>Midway Rising will <u>not</u> make improvements to this intersection. The deficient LOS at this intersection is dictated by the eastbound right turn movement from Moore Street, where 10 or fewer vehicles turn right per hour. The project does not add vehicular traffic to this approach. Synchro assumes these vehicles are unable to find a gap in traffic on southbound Camino del Rio W to make a right turn. In reality, these vehicles will likely find a gap from the queue when vehicles keep the intersection clear, or they can use Hancock Street instead at the signalized intersection. Due to low volumes on the side street,</td></tr>
</table>

#	Location	2030 Considered Improvement	2030 Improvement Decision
			and the close proximity to the nearest signalized intersection, it is not recommended to consider signalizing the intersection to improve side street operations.
17	Camino del Rio W & Hancock St	**Improvement:** Signal timing optimization. Increase in the overall cycle length to 120 seconds during the AM peak, 145 seconds during the PM peak, and 100 seconds during the Pre-Event PM peak. Increase in cycle length and optimized splits helps accommodate the increase in volumes for the northbound and southbound through movements resulting from the project. **Results:** Improved to LOS D or better for all peaks.	**Midway Rising will improve this intersection to an acceptable LOS by optimizing signal timing.**
19	Rosecrans St/Sports Arena Blvd & Camino Del Rio W	**Improvements:** - Convert channelized right turn lane to exclusive right turn lane per CP. - Remove northbound "channelized" right turn and ancillary intersection per CP. - Allow through movement from eastbound Sports Arena Boulevard to Sports Arena Boulevard per CP. - Modify eastbound approach to include 1 left turn lane, 1 shared left/through lane, 1 right turn lane to Sports Arena Boulevard, and 1 right turn lane to Camino del Rio W. Requires traffic signal modification. **Results**: Project effect at this intersection is not realized until 2035, however, implementation of these improvements would improve **Intersection #26 to LOS C or better for all peaks** by allowing vehicles travelling southeast-bound on Sports Arena Boulevard to continue through the intersection towards Pacific Highway. The improvements reduce the number of vehicles with the following travel pattern: left from Sports Arena Boulevard onto Rosecrans Street, right turn onto Kurtz Street (Intersection #26), and another right turn onto Pacific Highway.	**Midway Rising will improve this intersection to an acceptable LOS in Opening Year (2030) Plus Project to address the project effect the project would cause at Intersection #26.**
20	Rosecrans St & Midway Dr	**Improvement:** Signal timing optimization. Increase the overall signal cycle length to 135 seconds during the AM peak, 150 seconds during the PM peak, and 100 seconds during the Pre-Event PM peak. For the AM peak, increase in cycle length, optimized splits, and lagging left turn phases helps accommodate the increase in volumes for the northbound and southbound through movements. For the commuter PM and pre-event PM peak, the decrease in cycle length decreases unnecessary time for the left turn movements and increases overall operations. For the weekend peak, the increase in overall cycle length decreases unnecessary time for the left turn movements and increases time for through movements. **Results:** Improved to LOS D or better for all peaks.	**Midway Rising will improve this intersection to an acceptable LOS by optimizing signal timing.**
26	Kurtz St & Pacific Hwy	**Improvements: I**mprovements at Intersection #19 will reduce the number of vehicles turning right from Pacific Highway onto southbound Kurtz Street. No improvements needed at this intersection after implementation of improvements at Intersection #19. **Results:** Improved to LOS C or better for all peaks by improving Intersection #19.	**Midway Rising will improve this intersection to an acceptable LOS by implementing improvements at Intersection #19.**
27	Pacific Hwy & Enterprise St	**Improvements:** Modify southbound approach to add 2nd left turn lane. Requires median modification. Modify northbound approach to add 2nd left turn lane. Requires median modification. **Results:** Improved to LOS D or better for all peaks	**Midway Rising will not make improvements to this intersection.** *A majority of the trips assigned to this intersection are from the redevelopment of the NAVWAR facility and are unrelated to the Midway Rising project. Across all 2030 scenarios, Midway Rising assigns a maximum of 56 trips to this intersection during the weekend peak. NAVWAR assigns 493 trips during the weekday PM peak, and during this same weekday PM peak Midway Rising assigns 29 trips. Additionally, across all 2035 scenarios, Midway Rising assigns a negative number of trips to this intersection meaning the project effect at full project buildout is entirely attributed to the NAVWAR facility.*

Table 7-2. Opening Year (2030) Plus Project Phase 1 Roadway Segment Improvements Summary

ID	Location	2030 Considered Improvement	2030 Improvement Decision
11	Camino Del Rio between West Hancock Street and Kurtz Street	Widening the roadway to an 8-Lane Prime Arterial would improve roadway segment operations	**Midway Rising will <u>not</u> improve this roadway segment.** Widening the roadway is infeasible due to limited right-of-way caused by surrounding land uses. This segment of roadway is built out to its ultimate classification per the Community Plan, and any increase in vehicular capacity above the ultimate classification does not align with City or state climate action goals. *Midway Rising does not recommend vehicle capacity improvements on this segment.*
15	Kurtz Street between Kemper Street and Frontier Drive	Widening the roadway to a 4-Lane Collector with two-way left-turn lane would improve roadway segment operations, but is infeasible due to fronting land uses on both sides of Kurtz Street.	**Midway Rising will <u>not</u> improve this roadway segment.** Midway Rising proposes multimodal improvements along Kurtz Street, including a Class I multi-use path and improved pedestrian facilities, intended to increase pedestrian and bicycle activity along Kurtz Street by providing safe access between the site and high-frequency transit services at Old Town Transit Center, Rosecrans Street, and Sports Arena Boulevard. Although widening the roadway would improve vehicular LOS, this would reduce the multimodal improvements along this segment that connect to high-frequency transit services. Additionally, the project proposes to move the curbline into the street by 5 feet and remove approximately 36 on-street parking spaces to increase the space dedicated to multimodal users along the project frontage. *Thus, the Midway Rising does not recommend vehicle capacity improvements on this segment.*
16	Kurtz Street between Frontier Drive and Sherman Street	Widening the roadway to a 2-Lane Collector with two-way left-turn lane improves roadway segment operations, but is infeasible due to fronting land uses on both sides of Kurtz Street.	**Midway Rising will <u>not</u> improve this roadway segment.** Midway Rising proposes multimodal improvements along Kurtz Street, including a Class I multi-use path and improved pedestrian facilities, intended to increase pedestrian and bicycle activity along Kurtz Street by providing safe access between the site and high-frequency transit services at Old Town Transit Center, Rosecrans Street, and Sports Arena Boulevard. Although widening the roadway would improve vehicular LOS, this would reduce the multimodal improvements along this segment that connect to high-frequency transit services. Additionally, the project proposes to move the curbline into the street by 5 feet and remove approximately 30 on-street parking spaces to increase the amount of space dedicated to multimodal users along the project frontage. *Thus, the Midway Rising does not recommend vehicle capacity improvements on this segment.*

Figure 7-1. Temporary Traffic Control for Opening Year (2030) Plus Project Phase 1 for Intersection #14



Figure 7-2. Intersection Improvement Locations for Opening Year (2030) Plus Project Phase 1

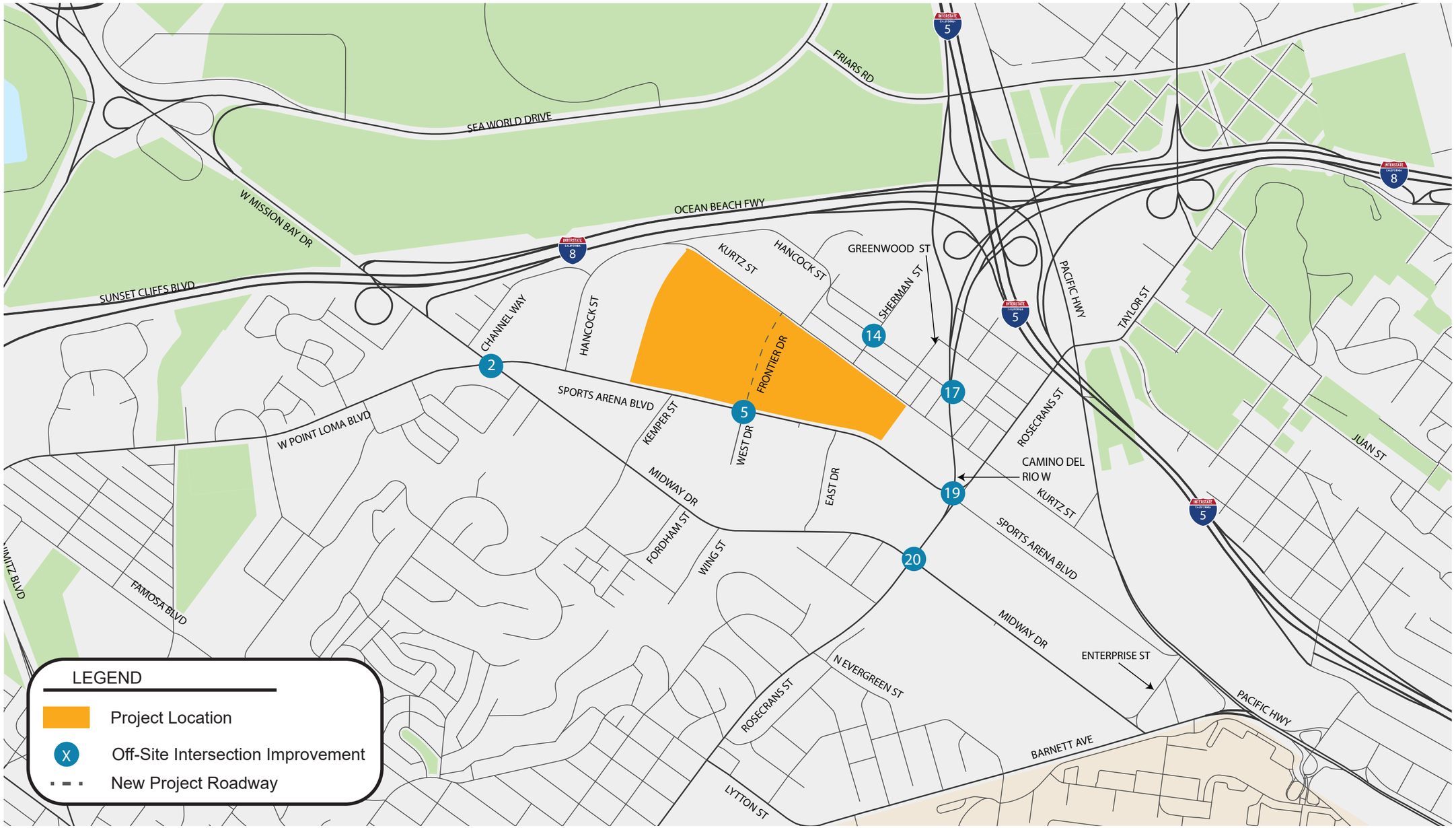
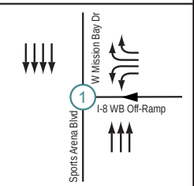


Figure 7-3. Opening Year (2030) Plus Project Phase 1 Plus Improvements - Intersection Geomentries (Page 1 of 2)

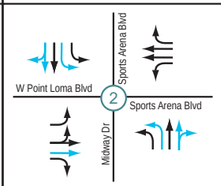


Figure 7-3 . Opening Year (2030) Plus Project Phase 1 Plus Improvements - Intersection Geometries (Page 2 of 2)

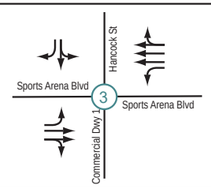
W Mission Bay Dr/Sports Arena Blvd and Interstate 8 WB Off Ramp



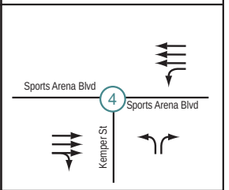
Sports Arena Blvd and W Point Loma Blvd and Midway Dr



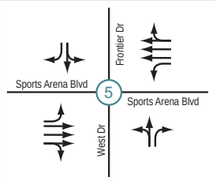
Sports Arena Blvd and Hancock St/Commercial Dwy 1



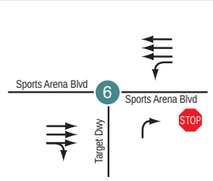
Sports Arena Blvd and Kemper St



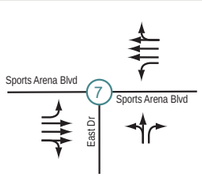
Sports Arena Blvd and Frontier Dr/West Dr



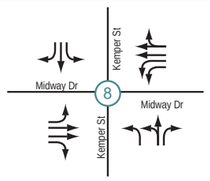
Sports Arena Blvd and Target Dwy



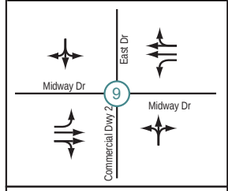
Sports Arena Blvd and East Dr



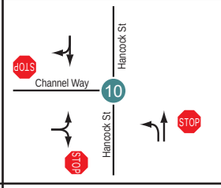
Midway Dr and Kemper St



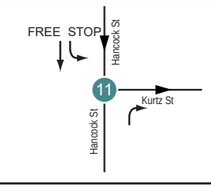
Midway Dr and East Dr/ Commercial Dwy 2



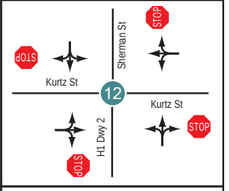
Hancock St and Channel Way



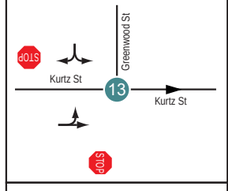
Hancock St and Kurtz St



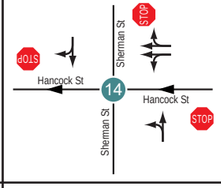
Kurtz St and Sherman St/H1 Dwy 2



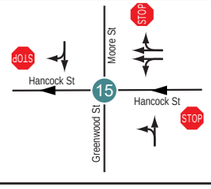
Kurtz St and Greenwood St



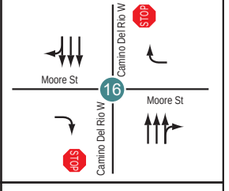
Hancock St and Sherman St



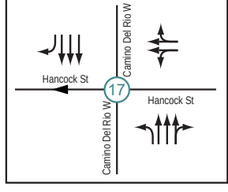
Hancock St and Greenwood St/Moore St



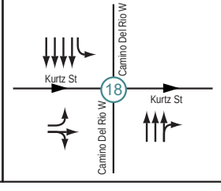
Camino Del Rio W and Moore St



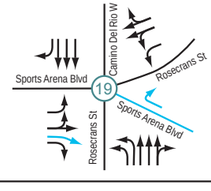
Camino Del Rio W and Hancock St



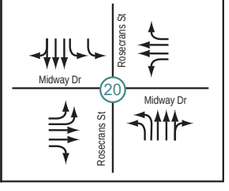
Camino Del Rio W and Kurtz St



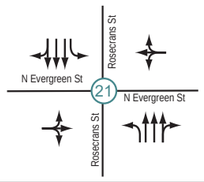
Sports Arena Blvd and Rosecrans St and Camino Del Rio W



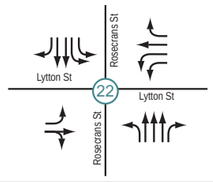
Rosecrans St and Midway Dr



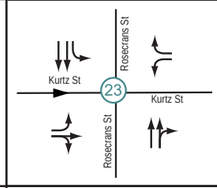
Rosecrans St and N Evergreen St



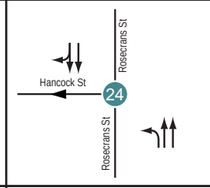
Rosecrans St and Lytton St



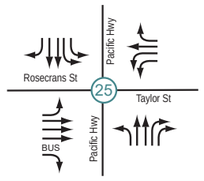
Rosecrans St and Kurtz St



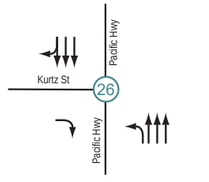
Rosecrans St and Hancock St



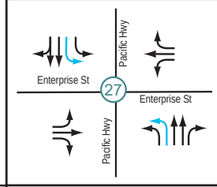
Pacific Hwy and Rosecrans St and Taylor St



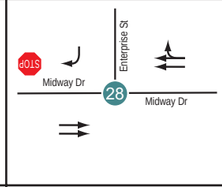
Kurtz St and Pacific Hwy



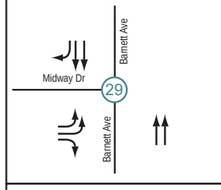
Pacific Hwy and Enterprise St



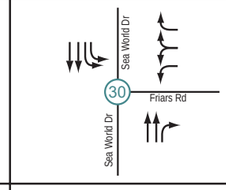
Midway Dr and Enterprise St



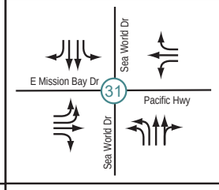
Barnett Ave and Midway Dr



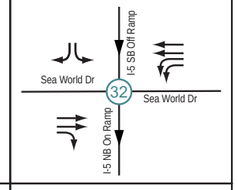
Sea World Dr and Friars Rd



Sea World Dr and E Mission Bay Dr and Pacific Hwy



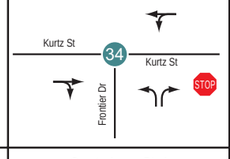
I-5 Southbound On/Off-Ramps and Sea World Dr



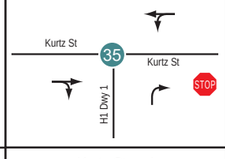
Kurtz St and Kemper St

Intersection #33 to be completed in Opening Year 2035 Plus Project Phase 2 Buildout

Kurtz St and Frontier Dr



Kurtz St and Driveway H1 Dwy 1



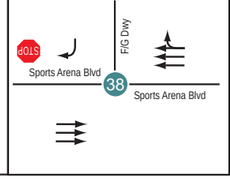
Kurtz St and E2 Dwy

Intersection #36 to be completed in Opening Year 2035 Plus Project Phase 2 Buildout

Sports Arena Blvd B2 Dwy

Intersection #37to be completed in Opening Year 2035 Plus Project Phase 2 Buildout

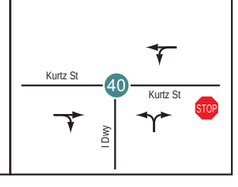
Sports Arena Blvd and F/G Dwy



Kurtz St and A3 Dwy

Intersection #39 to be completed in Opening Year 2035 Plus Project Phase 2 Buildout

Kurtz St and Privately-Owned Parcel Dwy



LEGEND

- Signalized Intersection
- Unsignalized Intersection
- Opening Year (2030) Plus Project Movement
- Opening Year (2030) Plus Project Plus Improvements

7.4 OPENING YEAR (2030) PLUS PROJECT PLUS IMPROVEMENT VOLUMES

Under the Opening Year (2030) Plus Project Phase 1 Plus Improvements scenario, volume adjustments were applied at three intersections due to the lane geometry and control changes for the Sports Arena Boulevard/Rosecrans Street & Camino del Rio W intersection (Intersection #19). Specifically, the CP recommends reconstructing existing raised medians to allow the eastbound through movement from Sports Arena Boulevard across the intersection south of Rosecrans Street to Sports Arena Boulevard, a movement that is currently prohibited. It was assumed that approximately 75% of the northbound right turns from Rosecrans Street to Kurtz Street (Intersection #23) would choose to make the new through movement instead. These volumes were rerouted through the system for each scenario.

Figures 7-4 through 7-6 illustrate the traffic volume adjustments under Opening Year (2030) Plus Project Phase 1 Plus Improvements for Intersections #19, #23, and #26.

- **Figure 7-4**. Opening Year (2030) Plus Project Phase 1 Plus Improvements with 14,500-spectators for Commuter AM and Commuter PM Peak Hours
- **Figure 7-5** Opening Year (2030) Plus Project Phase 1 Plus Improvements with 14,500-spectators for Pre-Event PM and Weekend Peak Hour
- **Figure 7-6.** Opening Year (2030) Plus Project Phase 1 Plus Improvements with 20,000-spectators for Pre-Event PM Peak Hour

Figure 7-4. Opening Year (2030) Plus Project Phase 1 Plus Improvements (14,500-spectators) – AM and PM Peak Traffic Volumes with Intersection #19 Geometry Modification

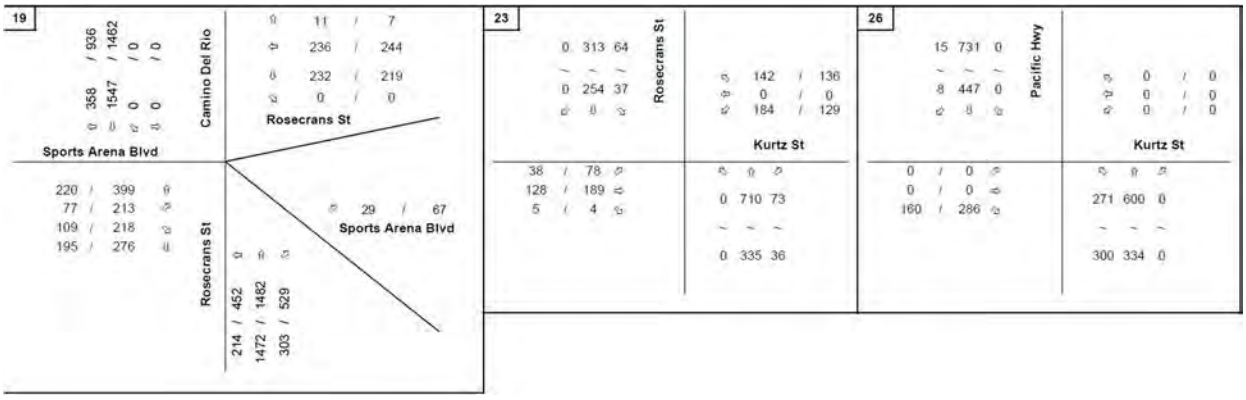
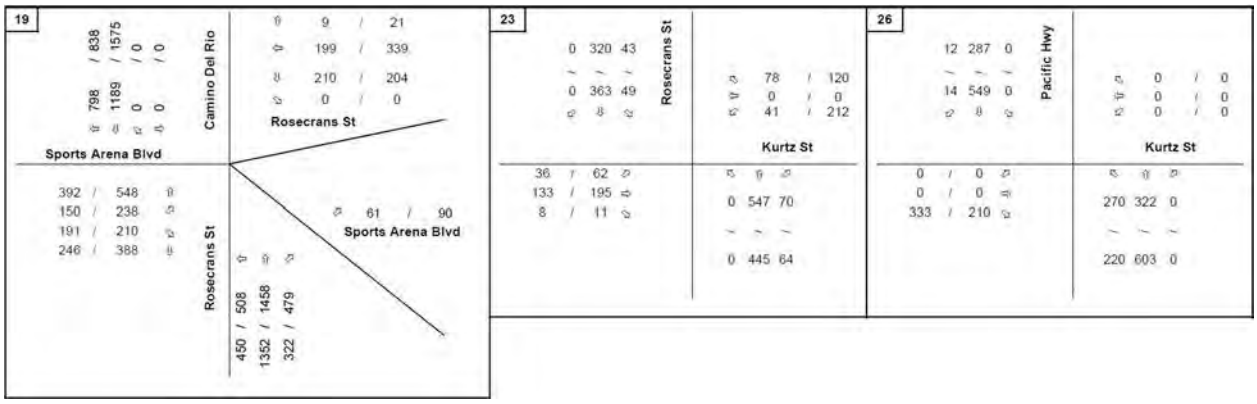


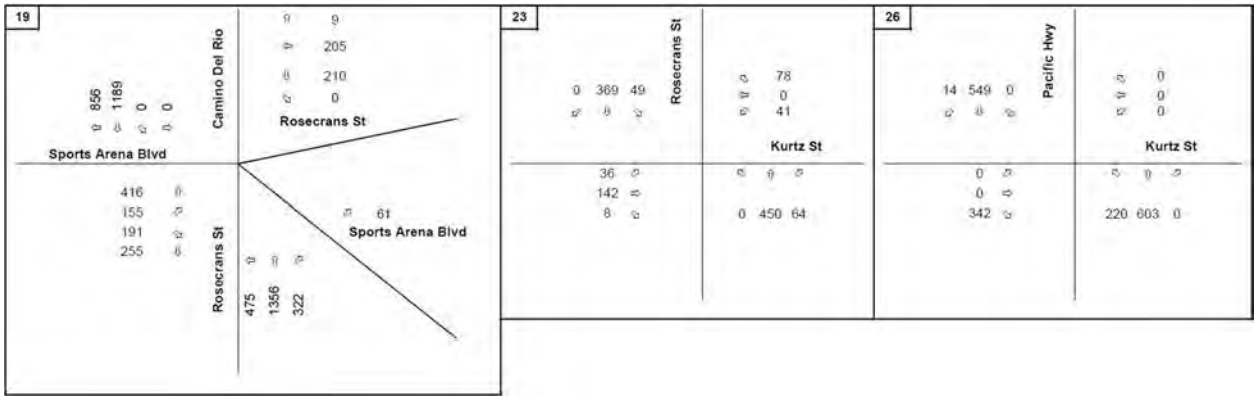
Figure 7-5. Opening Year (2030) Plus Project Phase 1 Plus Improvements (14,500-spectators) – Pre-Event PM and Weekend Peak Traffic Volumes with Intersection #19 Geometry Modification



Legend

X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

Figure 7-6. Opening Year (2030) Plus Project Phase 1 Plus Improvements (20,000-spectators) – Pre-Event PM Peak Traffic Volumes with Intersection #19 Geometry Modification



Legend

X = Pre-Event Peak Hour Turning Volumes

7.5 INTERSECTION ANALYSIS RESULTS

Table 7-3 illustrates the intersection LOS results for the Opening Year (2030) Plus Project Phase 1 Plus Improvements scenario. The LOS worksheets are contained in **Appendix V**.

7.6 QUEUING ANALYSIS

Additionally, based on the SimTraffic analysis, many of the queue lengths exceed the storage pockets. At many of these locations, the baseline traffic volumes already exceed the storage pocket, or there is no additional right-of-way to construct an additional turn pocket or extend the length of the existing turn pocket. Therefore, no improvements to address storage queues, except one as described below, are recommended.

- Intersection #3: Sports Arena Blvd & Hancock St / Commercial Driveway 1
  - *Improvement*: Restripe eastbound approach to extend the left turn storage from 160' to 350'. This will not affect the adjacent westbound left turn pocket for intersection #2 (Sports Arena Boulevard / Midway Drive / West Point Loma Drive). See **Appendix U** for a high-level feasibility concept of the physical improvements.
  - *Results*: Improved queue lengths for all peaks.

Table 7-4 summarizes the queue results under Opening Year (2030) Plus Project Phase 1 Plus Improvements scenario. The 95th percentile queue worksheets are contained in **Appendix W**.

Table 7-3. Opening Year (2030) Plus Project Plus Improvements Phase 1 Intersection LOS Summary

#	INTERSECTION	PEAK HOUR	Opening Year (2030) Plus Project Phase 1		Opening Year (2030) Plus Project Plus Improvements Phase 1		Project Effect?
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	1. Weekday AM	33.2	C	60.6	E	Y
		2. Weekday Commuter PM	80.8	F	67.3	E	
		3. Weekday Pre-Event PM (14.5k)	76.8	E	64.1	E	
		4. Weekend Midday	66.3	E	75.5	E	
5	West Dr/Frontier Dr & Sports Arena Blvd	1. Weekday AM	18.9	B	28.7	C	N
		2. Weekday Commuter PM	155.8	F	49.5	D	
		3. Weekday Pre-Event PM (14.5k)	ECL	F	53.5	D	
		4. Weekend Midday	115.7	F	55.7	E	
17	Camino Del Rio W & Hancock St	1. Weekday AM	ECL	F	24.3	C	N
		2. Weekday Commuter PM	14.7	B	27.1	C	
		3. Weekday Pre-Event PM (14.5k)	16.7	B	30.0	C	
		4. Weekend Midday	29.2	C	23.1	C	
20	Rosecrans St & Midway Dr	1. Weekday AM	57.4	E	54.8	D	N
		2. Weekday Commuter PM	73.3	E	48.1	D	
		3. Weekday Pre-Event PM (14.5k)	76.6	E	36.1	D	
		4. Weekend Midday	91.3	F	54.1	D	
26	Kurtz St & Pacific Hwy	1. Weekday AM	15.3	C	3.6	A	N
		Worst Mvmt	EB				
		2. Weekday Commuter PM	94.0	F	5.2	A	
		Worst Mvmt	EB				
		3. Weekday Pre-Event PM (14.5k)	56.6	F	4.5	A	
		Worst Mvmt	EB				
		4. Weekend Midday	18.3	C	3.3	A	
		Worst Mvmt	EB				

Notes:

Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition and Highway Capacity Manual 2000 Edition* and performed using Synchro 11

Table 7-4. Opening Year (2030) Plus Project Plus Improvements Phase 1 Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2030 With Project		2030 Plus Project Plus Improvements		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	4200	Weekday AM	1,364	No	366	No	N
				Weekday PM	3,163	No	510	No	
				Weekday Pre-Event (14.5k)	3,388	No	3,388	No	
				Weekday Pre-Event (20k)	3,367	No	3,367	No	
				Weekend Midday	697	No	697	No	
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360	Weekday AM	559	**Yes**	185	No	Y
				Weekday PM	574	**Yes**	546	**Yes**	
				Weekday Pre-Event (14.5k)	562	**Yes**	562	**Yes**	
				Weekday Pre-Event (20k)	547	**Yes**	547	**Yes**	
				Weekend Midday	519	**Yes**	519	**Yes**	
		WBL	150	Weekday AM	<25	No	<25	No	
				Weekday PM	41	No	28	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	<25	No	<25	No	
				Weekend Midday	39	No	39	No	
		NBL	230	Weekday AM	100	No	327	**Yes**	
				Weekday PM	181	No	408	**Yes**	
				Weekday Pre-Event (14.5k)	137	No	137	No	
				Weekday Pre-Event (20k)	125	No	125	No	
				Weekend Midday	120	No	120	No	
3	Sports Arena Boulevard & Hancock Street	EBL	350	Weekday AM	82	No	106	No	N
				Weekday PM	308	**Yes**	297	No	
				Weekday Pre-Event (14.5k)	302	**Yes**	302	No	
				Weekday Pre-Event (20k)	310	**Yes**	310	No	
				Weekend Midday	145	No	145	No	
		WBL	100	Weekday AM	<25	No	<25	No	
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	<25	No	<25	No	
				Weekend Midday	25	No	25	No	
4	Sports Arena Boulevard & Kemper Street	EBL	440	Weekday AM	68	No	86	No	Y
				Weekday PM	656	**Yes**	523	**Yes**	
				Weekday Pre-Event (14.5k)	694	**Yes**	694	**Yes**	
				Weekday Pre-Event (20k)	698	**Yes**	698	**Yes**	
				Weekend Midday	169	No	169	No	
		WBL	175	Weekday AM	121	No	181	**Yes**	
				Weekday PM	286	**Yes**	176	**Yes**	
				Weekday Pre-Event (14.5k)	168	No	168	No	
				Weekday Pre-Event (20k)	172	No	172	No	
				Weekend Midday	127	No	127	No	
		NBL	100	Weekday AM	95	No	120	**Yes**	
				Weekday PM	216	**Yes**	160	**Yes**	
				Weekday Pre-Event (14.5k)	223	**Yes**	223	**Yes**	
				Weekday Pre-Event (20k)	226	**Yes**	226	**Yes**	
				Weekend Midday	98	No	98	No	
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330	Weekday AM	88	No	203	No	Y
				Weekday PM	315	No	348	**Yes**	
				Weekday Pre-Event (14.5k)	315	No	315	No	
				Weekday Pre-Event (20k)	315	No	315	No	
				Weekend Midday	223	No	223	No	
		WBL	175	Weekday AM	115	No	226	**Yes**	
				Weekday PM	124	No	198	**Yes**	
				Weekday Pre-Event (14.5k)	98	No	98	No	
				Weekday Pre-Event (20k)	97	No	97	No	
				Weekend Midday	109	No	109	No	
6	Sports Arena Boulevard & Target Driveway	WBL	125	Weekday AM	75	No	89	No	N
				Weekday PM	100	No	90	No	
				Weekday Pre-Event (14.5k)	93	No	93	No	
				Weekday Pre-Event (20k)	67	No	67	No	
				Weekend Midday	250	**Yes**	250	**Yes**	
7	Sports Arena Boulevard & East Driveway	WBL	125	Weekday AM	136	**Yes**	166	**Yes**	Y
				Weekday PM	270	**Yes**	169	**Yes**	
				Weekday Pre-Event (14.5k)	247	**Yes**	247	**Yes**	
				Weekday Pre-Event (20k)	243	**Yes**	243	**Yes**	
				Weekend Midday	143	**Yes**	143	**Yes**	
		NBR	100	Weekday AM	58	No	65	No	
				Weekday PM	210	**Yes**	82	No	
				Weekday Pre-Event (14.5k)	205	**Yes**	205	**Yes**	
				Weekday Pre-Event (20k)	204	**Yes**	204	**Yes**	
				Weekend Midday	145	**Yes**	145	**Yes**	

Table 7-4. Opening Year (2030) Plus Project Plus Improvements Phase 1 Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2030 With Project		2030 Plus Project Plus Improvements		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
8	Midway Drive & Kemper Street	EBL	320	Weekday AM	97	No	109	No	N
				Weekday PM	283	No	166	No	
				Weekday Pre-Event (14.5k)	176	No	176	No	
				Weekday Pre-Event (20k)	329	**Yes**	329	**Yes**	
				Weekend Midday	309	No	309	No	
		EBR	150	Weekday AM	72	No	63	No	
				Weekday PM	51	No	123	No	
				Weekday Pre-Event (14.5k)	37	No	37	No	
				Weekday Pre-Event (20k)	42	No	42	No	
				Weekend Midday	102	No	102	No	
		WBL	250	Weekday AM	80	No	73	No	
				Weekday PM	225	No	131	No	
				Weekday Pre-Event (14.5k)	147	No	147	No	
				Weekday Pre-Event (20k)	206	No	206	No	
				Weekend Midday	102	No	102	No	
		NBL	90	Weekday AM	86	No	84	No	
				Weekday PM	202	**Yes**	175	**Yes**	
				Weekday Pre-Event (14.5k)	200	**Yes**	200	**Yes**	
				Weekday Pre-Event (20k)	201	**Yes**	201	**Yes**	
				Weekend Midday	179	**Yes**	179	**Yes**	
		SBL	100	Weekday AM	58	No	60	No	
				Weekday PM	82	No	85	No	
				Weekday Pre-Event (14.5k)	69	No	69	No	
				Weekday Pre-Event (20k)	76	No	76	No	
				Weekend Midday	138	**Yes**	138	**Yes**	
		SBR	115	Weekday AM	55	No	63	No	
				Weekday PM	78	No	73	No	
				Weekday Pre-Event (14.5k)	61	No	61	No	
				Weekday Pre-Event (20k)	57	No	57	No	
				Weekend Midday	76	No	76	No	
9	Midway Drive & East Drive	EBL	90	Weekday AM	61	No	46	No	N
				Weekday PM	157	**Yes**	57	No	
				Weekday Pre-Event (14.5k)	112	**Yes**	112	**Yes**	
				Weekday Pre-Event (20k)	75	No	75	No	
				Weekend Midday	93	**Yes**	93	**Yes**	
		WBL	100	Weekday AM	42	No	25	No	
				Weekday PM	64	No	43	No	
				Weekday Pre-Event (14.5k)	55	No	55	No	
				Weekday Pre-Event (20k)	74	No	74	No	
				Weekend Midday	48	No	48	No	
17	Camino Del Rio West & Hancock Street	NBL	100	Weekday AM	69	No	79	No	Y
				Weekday PM	209	**Yes**	139	**Yes**	
				Weekday Pre-Event (14.5k)	188	**Yes**	188	**Yes**	
				Weekday Pre-Event (20k)	195	**Yes**	195	**Yes**	
				Weekend Midday	76	No	76	No	
		I-5 SB Off-Ramp	3500	Weekday AM	609	No	445	No	
				Weekday PM	1,268	No	1,258	No	
				Weekday Pre-Event (14.5k)	1,287	No	1,287	No	
				Weekday Pre-Event (20k)	1,370	No	1,370	No	
				Weekend Midday	1,347	No	1,347	No	
		I-8 WB Off-Ramp	3700	Weekday AM	1,256	No	558	No	
				Weekday PM	4,067	**Yes**	4,025	**Yes**	
				Weekday Pre-Event (14.5k)	4,148	**Yes**	4,148	**Yes**	
				Weekday Pre-Event (20k)	4,502	**Yes**	4,502	**Yes**	
				Weekend Midday	4,406	**Yes**	4,406	**Yes**	
		SBR	130	Weekday AM	216	**Yes**	185	**Yes**	
				Weekday PM	256	**Yes**	285	**Yes**	
				Weekday Pre-Event (14.5k)	278	**Yes**	278	**Yes**	
				Weekday Pre-Event (20k)	286	**Yes**	286	**Yes**	
				Weekend Midday	170	**Yes**	170	**Yes**	
18	Camino Del Rio West & Kurtz Street	SBL	100	Weekday AM	208	**Yes**	176	**Yes**	N
				Weekday PM	133	**Yes**	53	No	
				Weekday Pre-Event (14.5k)	136	**Yes**	136	**Yes**	
				Weekday Pre-Event (20k)	142	**Yes**	142	**Yes**	
				Weekend Midday	231	**Yes**	231	**Yes**	
19	Camino Del Rio West & Sports Arena Boulevard	EBR	300	Weekday AM	169	No	141	No	Y
				Weekday PM	301	**Yes**	167	No	
				Weekday Pre-Event (14.5k)	268	No	268	No	
				Weekday Pre-Event (20k)	308	**Yes**	308	**Yes**	
				Weekend Midday	484	**Yes**	484	**Yes**	
		WBL	180	Weekday AM	212	**Yes**	212	**Yes**	
				Weekday PM	196	**Yes**	188	**Yes**	
				Weekday Pre-Event (14.5k)	153	No	153	No	
				Weekday Pre-Event (20k)	173	No	173	No	
				Weekend Midday	212	**Yes**	212	**Yes**	
		NBL	260	Weekday AM	324	**Yes**	240	No	
				Weekday PM	352	**Yes**	396	**Yes**	
				Weekday Pre-Event (14.5k)	381	**Yes**	381	**Yes**	
				Weekday Pre-Event (20k)	375	**Yes**	375	**Yes**	
				Weekend Midday	313	**Yes**	313	**Yes**	

Table 7-4. Opening Year (2030) Plus Project Plus Improvements Phase 1 Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2030 With Project		2030 Plus Project Plus Improvements		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
20	Rosecrans Street & Midway Drive	EBL	100	Weekday AM	132	**Yes**	142	**Yes**	Y
				Weekday PM	216	**Yes**	201	**Yes**	
				Weekday Pre-Event (14.5k)	205	**Yes**	205	**Yes**	
				Weekday Pre-Event (20k)	196	**Yes**	196	**Yes**	
				Weekend Midday	181	**Yes**	181	**Yes**	
		EBR	240	Weekday AM	140	No	138	No	
				Weekday PM	243	**Yes**	165	No	
				Weekday Pre-Event (14.5k)	176	No	176	No	
				Weekday Pre-Event (20k)	177	No	177	No	
				Weekend Midday	219	No	219	No	
		WBL	250	Weekday AM	198	No	201	No	
				Weekday PM	275	**Yes**	130	No	
				Weekday Pre-Event (14.5k)	260	**Yes**	260	**Yes**	
				Weekday Pre-Event (20k)	283	**Yes**	283	**Yes**	
				Weekend Midday	225	No	225	No	
		WBR	180	Weekday AM	175	No	194	**Yes**	
				Weekday PM	342	**Yes**	301	**Yes**	
				Weekday Pre-Event (14.5k)	345	**Yes**	345	**Yes**	
				Weekday Pre-Event (20k)	346	**Yes**	346	**Yes**	
				Weekend Midday	258	**Yes**	258	**Yes**	
		NBL	280	Weekday AM	228	No	222	No	
				Weekday PM	442	**Yes**	412	**Yes**	
				Weekday Pre-Event (14.5k)	453	**Yes**	453	**Yes**	
				Weekday Pre-Event (20k)	448	**Yes**	448	**Yes**	
				Weekend Midday	393	**Yes**	393	**Yes**	
		SBL	320	Weekday AM	276	No	428	**Yes**	
				Weekday PM	294	No	137	No	
				Weekday Pre-Event (14.5k)	221	No	221	No	
				Weekday Pre-Event (20k)	224	No	224	No	
				Weekend Midday	306	No	306	No	
21	Rosecrans Street & North Evergreen Street	NBL	180	Weekday AM	46	No	61	No	N
				Weekday PM	45	No	<25	No	
				Weekday Pre-Event (14.5k)	63	No	63	No	
				Weekday Pre-Event (20k)	44	No	44	No	
				Weekend Midday	90	No	90	No	
		SBL	310	Weekday AM	175	No	134	No	
				Weekday PM	136	No	75	No	
				Weekday Pre-Event (14.5k)	130	No	130	No	
				Weekday Pre-Event (20k)	126	No	126	No	
				Weekend Midday	182	No	182	No	
22	Rosecrans Street & Lytton Street	WBL	245	Weekday AM	358	**Yes**	366	**Yes**	Y
				Weekday PM	382	**Yes**	270	**Yes**	
				Weekday Pre-Event (14.5k)	371	**Yes**	371	**Yes**	
				Weekday Pre-Event (20k)	373	**Yes**	373	**Yes**	
				Weekend Midday	259	**Yes**	259	**Yes**	
		NBL	100	Weekday AM	54	No	87	No	
				Weekday PM	101	**Yes**	92	No	
				Weekday Pre-Event (14.5k)	113	**Yes**	113	**Yes**	
				Weekday Pre-Event (20k)	118	**Yes**	118	**Yes**	
				Weekend Midday	71	No	71	No	
		NBR	490	Weekday AM	215	No	217	No	
				Weekday PM	526	**Yes**	199	No	
				Weekday Pre-Event (14.5k)	419	No	419	No	
				Weekday Pre-Event (20k)	404	No	404	No	
				Weekend Midday	505	**Yes**	505	**Yes**	
		SBL	470	Weekday AM	496	**Yes**	304	No	
				Weekday PM	119	No	67	No	
				Weekday Pre-Event (14.5k)	80	No	80	No	
				Weekday Pre-Event (20k)	77	No	77	No	
				Weekend Midday	197	No	197	No	
23	Rosecrans Street & Kurtz Street	WBR	70	Weekday AM	176	**Yes**	300	**Yes**	Y
				Weekday PM	150	**Yes**	65	No	
				Weekday Pre-Event (14.5k)	73	**Yes**	73	**Yes**	
				Weekday Pre-Event (20k)	75	**Yes**	75	**Yes**	
				Weekend Midday	103	**Yes**	103	**Yes**	
		SBL	100	Weekday AM	70	No	76	No	
				Weekday PM	75	No	68	No	
				Weekday Pre-Event (14.5k)	55	No	55	No	
				Weekday Pre-Event (20k)	78	No	78	No	
				Weekend Midday	116	**Yes**	116	**Yes**	
24	Rosecrans Street & Hancock Street	NBL	120	Weekday AM	59	No	60	No	N
				Weekday PM	148	**Yes**	60	No	
				Weekday Pre-Event (14.5k)	164	**Yes**	164	**Yes**	
				Weekday Pre-Event (20k)	158	**Yes**	158	**Yes**	
				Weekend Midday	216	**Yes**	216	**Yes**	

Table 7-4. Opening Year (2030) Plus Project Plus Improvements Phase 1 Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2030 With Project		2030 Plus Project Plus Improvements		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
25	Pacific Highway & Rosecrans Street	EBL	120	Weekday AM	57	No	62	No	Y
				Weekday PM	86	No	71	No	
				Weekday Pre-Event (14.5k)	51	No	51	No	
				Weekday Pre-Event (20k)	40	No	40	No	
				Weekend Midday	30	No	30	No	
		EBR	100	Weekday AM	45	No	52	No	
				Weekday PM	102	**Yes**	76	No	
				Weekday Pre-Event (14.5k)	73	No	73	No	
				Weekday Pre-Event (20k)	60	No	60	No	
				Weekend Midday	50	No	50	No	
		WBL	150	Weekday AM	111	No	117	No	
				Weekday PM	134	No	125	No	
				Weekday Pre-Event (14.5k)	136	No	136	No	
				Weekday Pre-Event (20k)	132	No	132	No	
				Weekend Midday	108	No	108	No	
		NBL	150	Weekday AM	103	No	107	No	
				Weekday PM	193	**Yes**	226	**Yes**	
				Weekday Pre-Event (14.5k)	291	**Yes**	291	**Yes**	
				Weekday Pre-Event (20k)	293	**Yes**	293	**Yes**	
				Weekend Midday	148	No	148	No	
		NBR	320	Weekday AM	40	No	48	No	
				Weekday PM	136	No	87	No	
				Weekday Pre-Event (14.5k)	51	No	51	No	
				Weekday Pre-Event (20k)	52	No	52	No	
				Weekend Midday	30	No	30	No	
		SBL	230	Weekday AM	48	No	47	No	
				Weekday PM	97	No	64	No	
				Weekday Pre-Event (14.5k)	62	No	62	No	
				Weekday Pre-Event (20k)	64	No	64	No	
				Weekend Midday	59	No	59	No	
26	Pacific Highway & Kurtz Street	NBL	200	Weekday AM	198	No	160	No	N
				Weekday PM	226	**Yes**	127	No	
				Weekday Pre-Event (14.5k)	127	No	127	No	
				Weekday Pre-Event (20k)	103	No	103	No	
				Weekend Midday	367	**Yes**	367	**Yes**	
27	Pacific Highway & Enterprise Street	EBL	200	Weekday AM	35	No	42	No	N
				Weekday PM	123	No	87	No	
				Weekday Pre-Event (14.5k)	97	No	97	No	
				Weekday Pre-Event (20k)	101	No	101	No	
				Weekend Midday	118	No	118	No	
		EBR	200	Weekday AM	<25	No	<25	No	
				Weekday PM	73	No	44	No	
				Weekday Pre-Event (14.5k)	49	No	49	No	
				Weekday Pre-Event (20k)	49	No	49	No	
				Weekend Midday	<25	No	<25	No	
		NBL	280	Weekday AM	357	**Yes**	196	No	
				Weekday PM	374	**Yes**	240	No	
				Weekday Pre-Event (14.5k)	413	**Yes**	413	**Yes**	
				Weekday Pre-Event (20k)	415	**Yes**	415	**Yes**	
				Weekend Midday	310	**Yes**	310	**Yes**	
		NBR	300	Weekday AM	42	No	31	No	
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	<25	No	53	No	
				Weekend Midday	<25	No	41	No	
		SBL	200	Weekday AM	152	No	88	No	
				Weekday PM	153	No	141	No	
				Weekday Pre-Event (14.5k)	113	No	113	No	
				Weekday Pre-Event (20k)	186	No	186	No	
				Weekend Midday	47	No	47	No	
30	Sea World Drive & Friars Rd	WBR	300	Weekday AM	<25	No	<25	No	N
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	<25	No	<25	No	
				Weekend Midday	<25	No	<25	No	
		NBR	185	Weekday AM	56	No	57	No	
				Weekday PM	100	No	58	No	
				Weekday Pre-Event (14.5k)	55	No	55	No	
				Weekday Pre-Event (20k)	53	No	53	No	
				Weekend Midday	47	No	47	No	
		SBL	300	Weekday AM	58	No	59	No	
				Weekday PM	64	No	79	No	
				Weekday Pre-Event (14.5k)	61	No	61	No	
				Weekday Pre-Event (20k)	65	No	65	No	
				Weekend Midday	59	No	59	No	

Table 7-4. Opening Year (2030) Plus Project Plus Improvements Phase 1 Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2030 With Project		2030 Plus Project Plus Improvements		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
31	Sea World Drive & Pacific Highway	EBL	250	Weekday AM	46	No	43	No	N
				Weekday PM	103	No	137	No	
				Weekday Pre-Event (14.5k)	109	No	109	No	
				Weekday Pre-Event (20k)	108	No	108	No	
				Weekend Midday	148	No	148	No	
		EBR	200	Weekday AM	<25	No	<25	No	
				Weekday PM	87	No	90	No	
				Weekday Pre-Event (14.5k)	58	No	58	No	
				Weekday Pre-Event (20k)	72	No	72	No	
				Weekend Midday	73	No	73	No	
		WBL	125	Weekday AM	44	No	43	No	
				Weekday PM	86	No	78	No	
				Weekday Pre-Event (14.5k)	70	No	70	No	
				Weekday Pre-Event (20k)	65	No	65	No	
				Weekend Midday	42	No	42	No	
		WBR	200	Weekday AM	36	No	37	No	
				Weekday PM	72	No	31	No	
				Weekday Pre-Event (14.5k)	37	No	37	No	
				Weekday Pre-Event (20k)	32	No	32	No	
				Weekend Midday	41	No	41	No	
		NBL	325	Weekday AM	40	No	41	No	
				Weekday PM	231	No	60	No	
				Weekday Pre-Event (14.5k)	48	No	48	No	
				Weekday Pre-Event (20k)	49	No	49	No	
				Weekend Midday	68	No	68	No	
		NBR	100	Weekday AM	50	No	48	No	
				Weekday PM	236	**Yes**	97	No	
				Weekday Pre-Event (14.5k)	111	**Yes**	111	**Yes**	
				Weekday Pre-Event (20k)	80	No	80	No	
				Weekend Midday	41	No	41	No	
		SBL	215	Weekday AM	82	No	68	No	
				Weekday PM	270	**Yes**	242	**Yes**	
				Weekday Pre-Event (14.5k)	355	**Yes**	355	**Yes**	
				Weekday Pre-Event (20k)	392	**Yes**	392	**Yes**	
				Weekend Midday	309	**Yes**	309	**Yes**	
32	Sea World Drive & I-5 Southbound Ramps	EBR	400	Weekday AM	44	No	43	No	Y
				Weekday PM	97	No	58	No	
				Weekday Pre-Event (14.5k)	83	No	83	No	
				Weekday Pre-Event (20k)	76	No	76	No	
				Weekend Midday	77	No	77	No	
		WBL	120	Weekday AM	218	**Yes**	217	**Yes**	
				Weekday PM	209	**Yes**	214	**Yes**	
				Weekday Pre-Event (14.5k)	210	**Yes**	210	**Yes**	
				Weekday Pre-Event (20k)	214	**Yes**	214	**Yes**	
				Weekend Midday	198	**Yes**	198	**Yes**	
		I-5 SB Off-Ramp	3700	Weekday AM	178	No	1,426	No	
				Weekday PM	248	No	421	No	
				Weekday Pre-Event (14.5k)	605	No	605	No	
				Weekday Pre-Event (20k)	930	No	930	No	
				Weekend Midday	150	No	150	No	
33	Kemper St & Kurtz St	NBL	150	Weekday AM	<25	No	<25	No	N
				Weekday PM	29	No	43	No	
				Weekday Pre-Event (14.5k)	29	No	29	No	
				Weekday Pre-Event (20k)	35	No	35	No	
				Weekend Midday	<25	No	<25	No	
34	Frontier Dr & Kurtz St	NBL	150	Weekday AM	66	No	85	No	N
				Weekday PM	44	No	51	No	
				Weekday Pre-Event (14.5k)	42	No	42	No	
				Weekday Pre-Event (20k)	60	No	60	No	
				Weekend Midday	68	No	68	No	

8 OPENING YEAR (2035) BASE SCENARIO

This section summarizes the Opening Year (2035) Base scenario. This scenario establishes a baseline to compare against the Opening Year (2035) Plus Project Phase 2 Buildout scenario to determine project effects caused by the project. Year 2035 was selected as the anticipated opening year of Phase 2 Project Buildout per information provided by the applicant.

8.1 ROADWAY NETWORK CHANGES

The existing roadway network, reflective of conditions in December 2023 (as discussed in Section 3.1), was used for the Opening Year (2035) Base analysis.

8.2 TRAFFIC VOLUMES

Based on coordination with the City during the scoping phase, Opening Year (2035) Base intersection and roadway traffic volumes were forecasted by applying an ambient growth rate of 0.55% per year and adding the NAVWAR project traffic to determine baseline volumes. The growth rate was calculated using the SANDAG ABM2+ 2021 Regional Plan model volumes.

The Sports Arena is anticipated to be demolished once the new Entertainment Center construction is complete in 2030. The growth associated with the event space is accounted for in the trip generation calculations, so the growth rate was not applied to the event-related trips. Instead, event traffic was subtracted from peak hour traffic before the growth rate was applied and then was added back afterward. NAVWAR traffic for Opening Year (2035) was calculated using linear interpolation between the NAVWAR Near-Term Year 2030 Alternative 2 and Year 2050 with Alternative 2 project trips, because the NAVWAR study does not include a 2035 scenario. Linear interpolation of the NAVWAR project trips between 2030 and 2050 was applied to develop NAVWAR Year 2035 Alternative 2 project trips. The NAVWAR project trips were only added to the intersections and roadway segments within the NAVWAR project study area that overlap with this study. **Figure 8-1** illustrates the interpolated NAVWAR Near-Term (Year 2035) project traffic added to the study intersections and roadway segments.

Figure 8-2 illustrates the resulting Opening Year (2035) Base traffic volumes.

8.3 INTERSECTION ANALYSIS

Table 8-1 displays the LOS analysis results for the study intersections under Opening Year (2035) Base scenario.

Under Opening Year (2035) Base scenario, all intersections would be expected to operate at LOS D or better during all peak hours except:

- Intersection #2 – Sports Arena Boulevard / Midway Dr & W Point Loma Blvd (PM: LOS E; Pre-Event: LOS E; WKND: LOS E)
- Intersection #5 – West Drive / Frontier Drive & Sports Arena Boulevard (Pre-Event: LOS F)
- Intersection #6 – Target Driveway & Sports Arena Boulevard (PM: LOS F; WKND: LOS F)
- Intersection #16 – Camino del Rio W & Moore Street (WKND: LOS F)
- Intersection #17 – Camino del Rio W & Hancock Street (AM: LOS F)
- Intersection #19 – Rosecrans Street & Sports Arena Boulevard & Camino del Rio W (WKND: LOS E)

- Intersection #20 – Rosecrans Street & Midway Drive (AM: LOS E; PM: LOS E; Pre-Event: LOS E; WKND: LOS F)
- Intersection #22 – Rosecrans Street & Lytton Street (AM: LOS F; PM: LOS E)
- Intersection #26 – Kurtz Street & Pacific Highway (PM: LOS F; Pre-Event; LOS F)
- Intersection #28 – Midway Drive & Enterprise Street (PM: LOS E)
- Intersection #29 – Barnett Avenue & Midway Drive (PM: LOS E)

Appendix X contains the intersection LOS calculation worksheets for the study intersections under Opening Year (2035) Base scenario.

8.4 QUEUEING ANALYSIS

Table 8-2 displays the 95th percentile queues under the Opening Year (2035) Base scenario. The 95th percentile queue lengths reported represent an average of five SimTraffic runs. **Appendix Y** contains the 95th percentile queue worksheets for Opening Year (2035) Base scenario. Under Opening Year (2035) Base scenario, queues are expected to exceed the existing available storage length at:

- 7 intersections in the Commuter AM peak hour,
- 17 intersections in the Commuter PM peak hour,
- 14 intersections in the Pre-Event PM peak hour, and
- 14 intersections during the Weekend Midday peak hour.

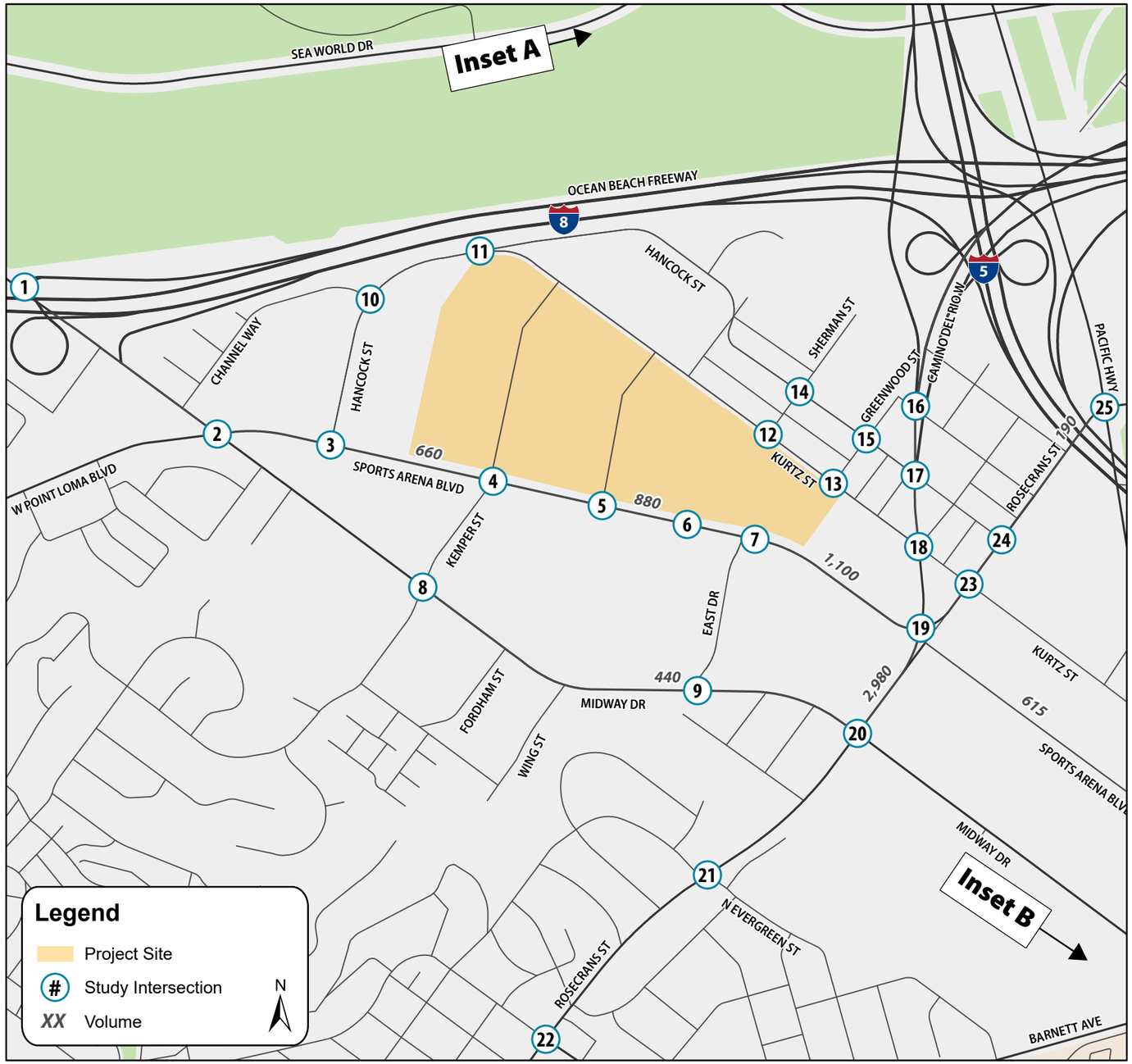
8.5 ROADWAY SEGMENT ANALYSIS

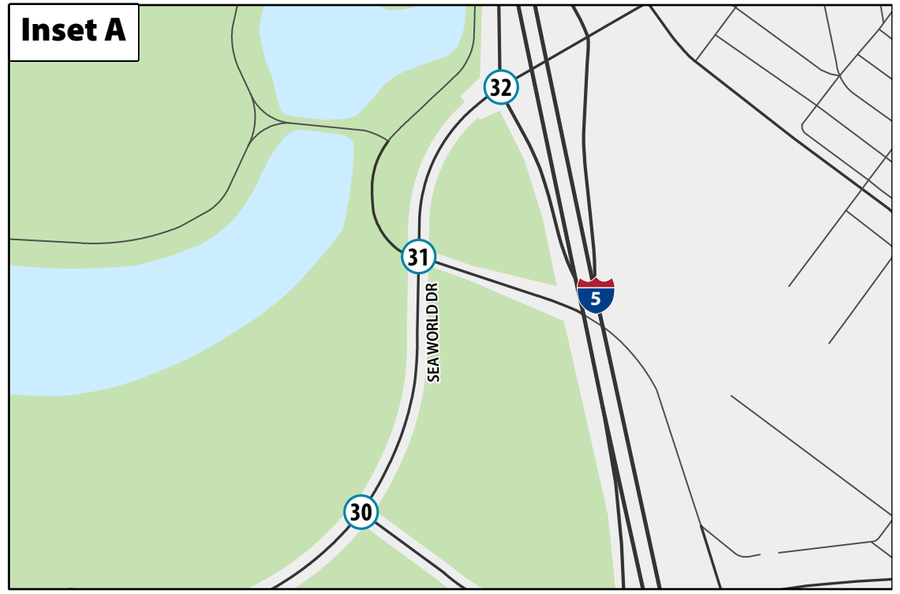
The Opening Year (2035) Base roadway segment analysis was performed based on existing roadway geometries and existing 24-hour roadway segment counts grown to year 2035 on a weekday event day (See Section 8.2). **Table 8-3** summarizes the roadway segment LOS analysis at the study segments under the Opening Year (2035) Base scenario for a weekday event day.

Under the Opening Year (2035) Base scenario, all roadway segments would be expected to operate at LOS D or better on a weekday event day except the following:

- Camino del Rio West north of Greenwood Street (LOS F)
- Camino del Rio West between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Rosecrans Street (LOS E)

Figure 8-1. Opening Year (2035) NAVWAR Assignment (Page 1 of 2)





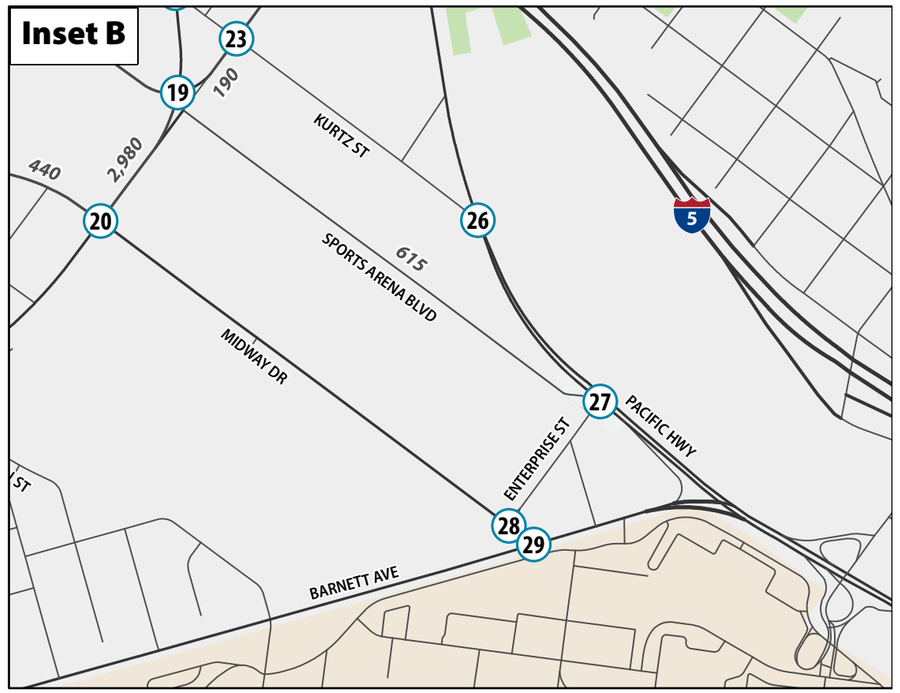
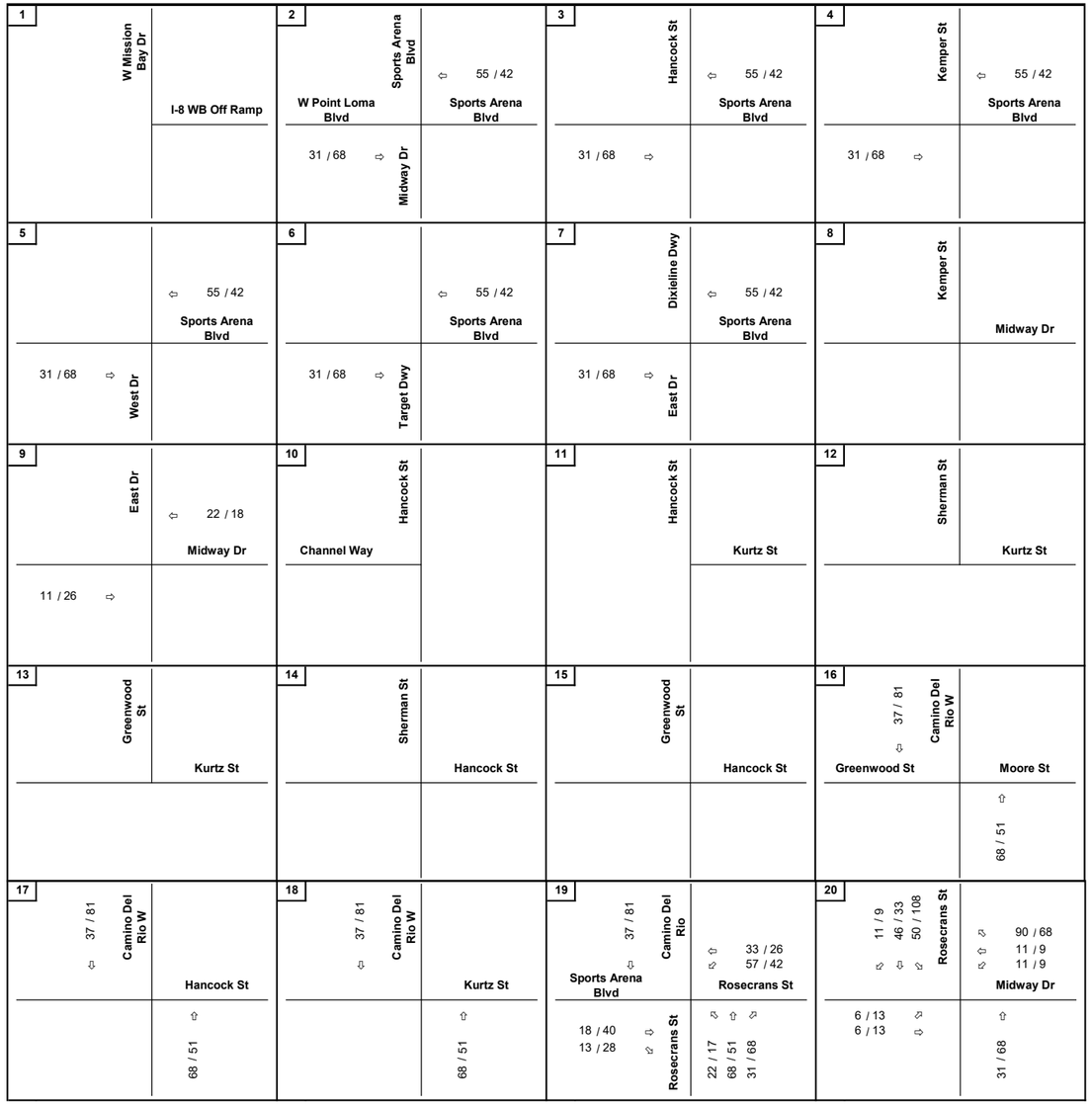
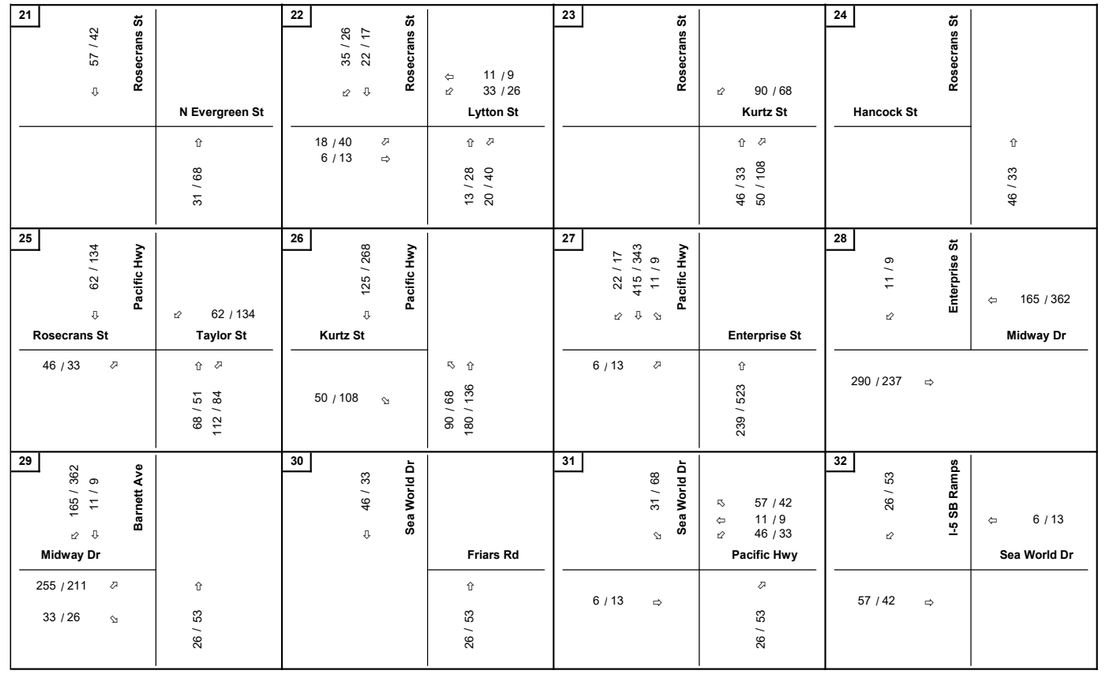


Figure 8-1. Opening Year (2035) NAVWAR Assignment (Page 2 of 2)





Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Figure 8-2. Opening Year (2035) Base Traffic Volumes (Page 1 of 3)

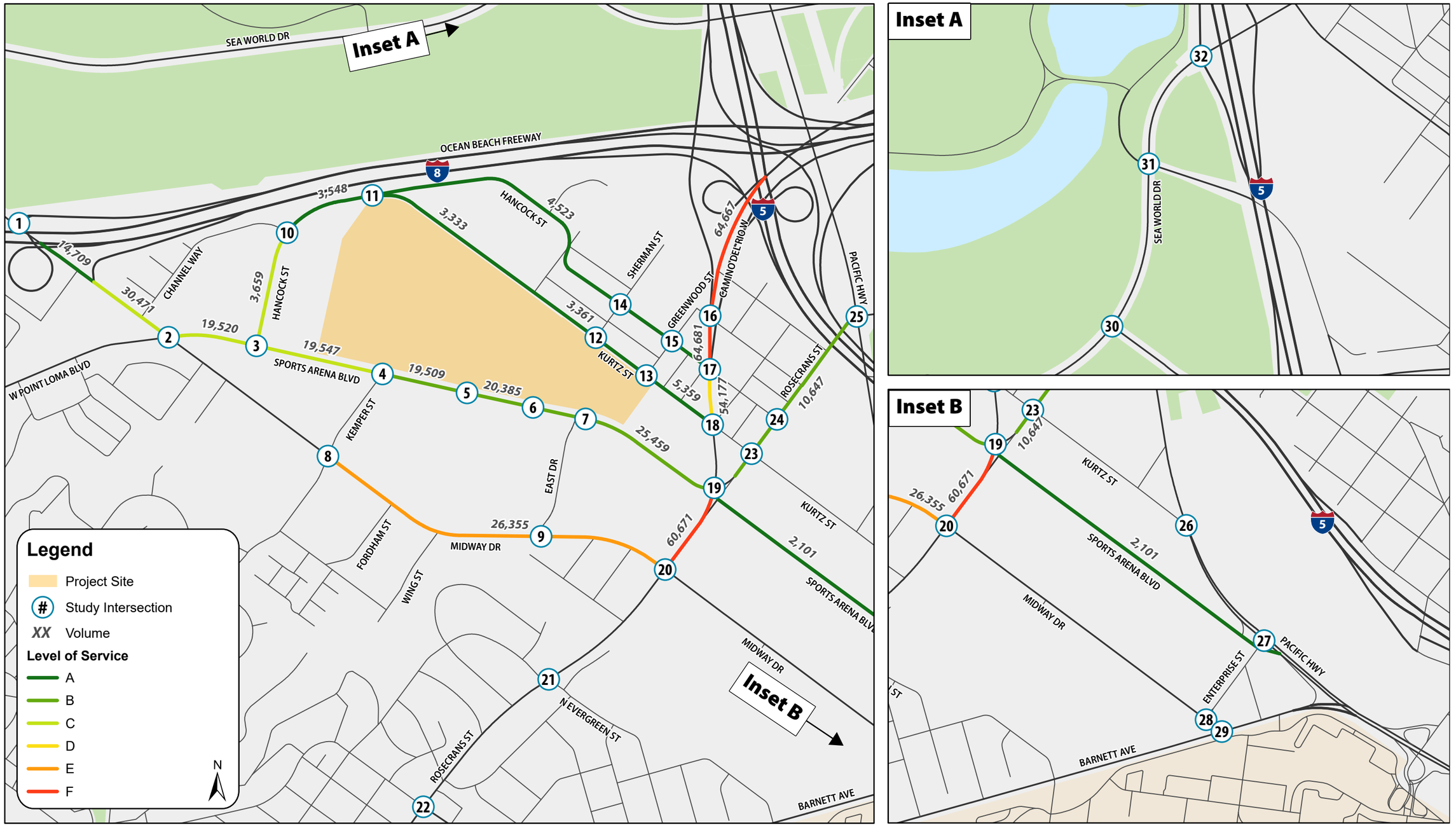
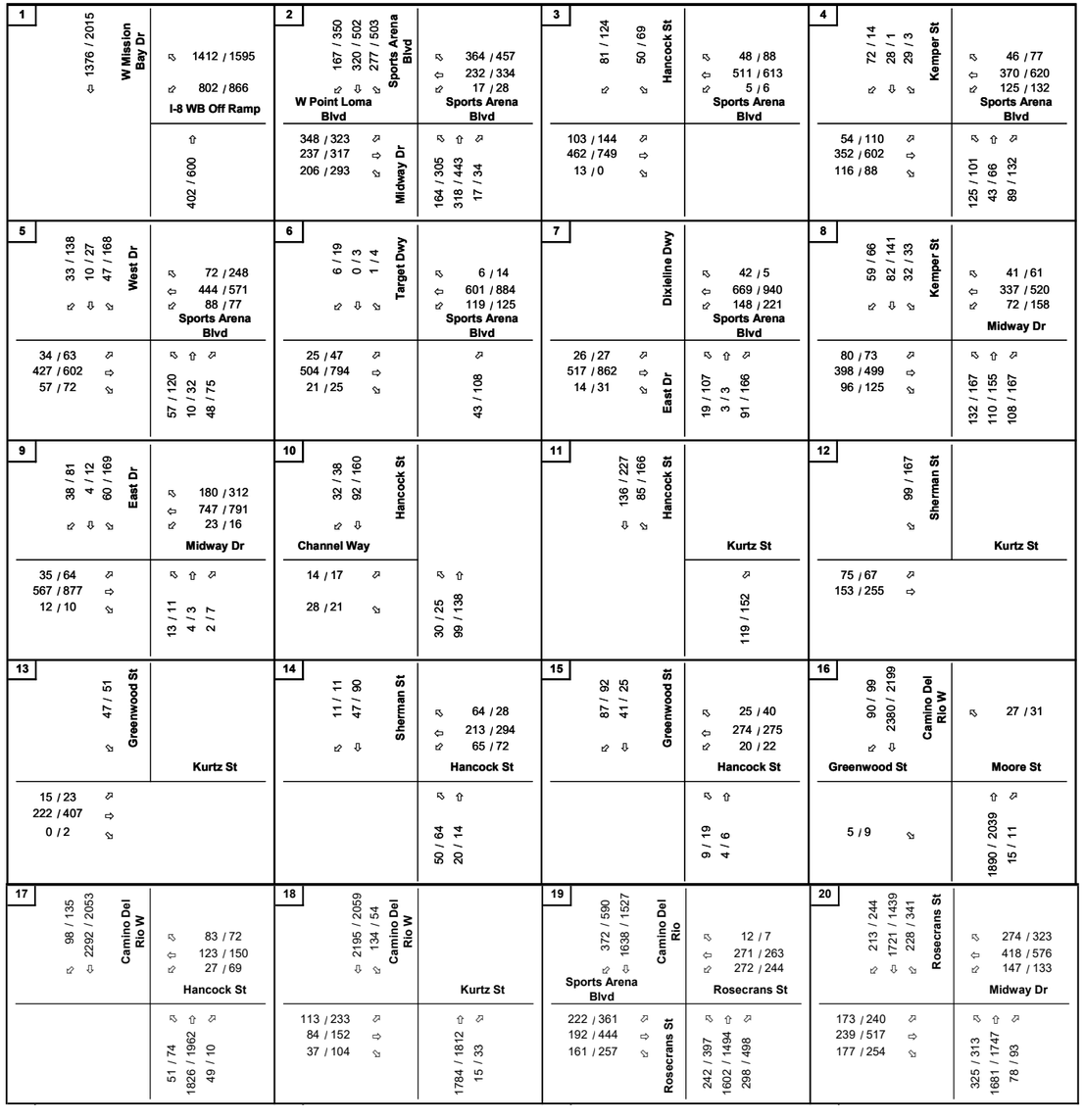


Figure 8-2. Opening Year (2035) Base Traffic Volumes (Page 2 of 3)

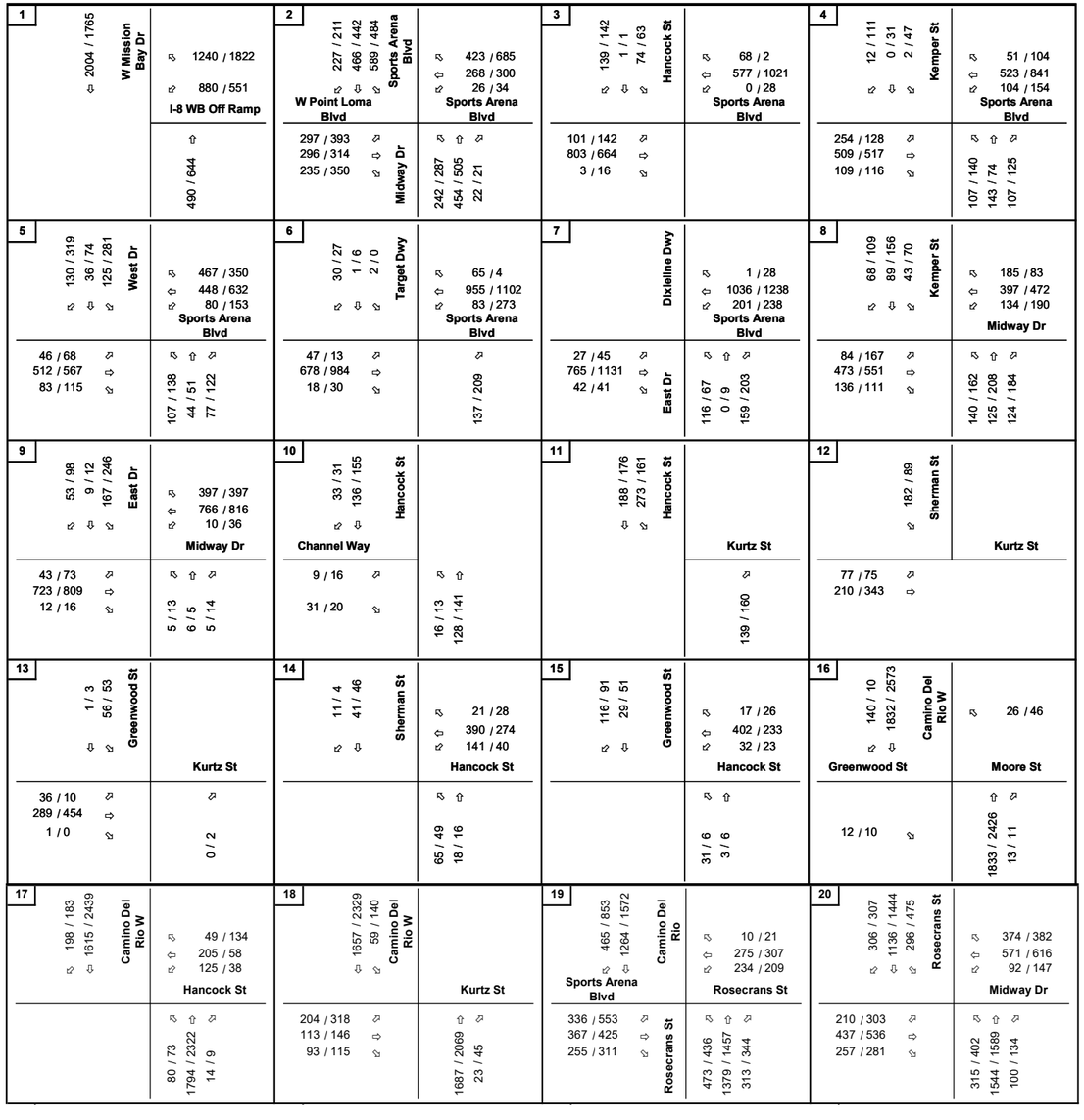


Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Figure 8-2. Opening Year (2035) Base Traffic Volumes (Page 3 of 3)



Legend

X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

North

Table 8-1. Opening Year (2035) Base Intersection LOS Summary

#	INTERSECTION	TRAFFIC CONTROL	HCM EDITION	PEAK HOUR	2035 Base	
					DELAY (a)	LOS (b)
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	Signal	**HCM 2000**	1. Weekday AM	19.9	B
				2. Weekday Commuter PM	28.5	C
				3. Weekday Pre Event PM	21.7	C
				4. Weekend Midday	33.8	C
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	32.0	C
				2. Weekday Commuter PM	64.5	**E**
				3. Weekday Pre Event PM	64.5	**E**
				4. Weekend Midday	59.1	**E**
3	Commercial Dwy 1/Hancock St & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	8.7	A
				2. Weekday Commuter PM	16.4	B
				3. Weekday Pre Event PM	15.8	B
				4. Weekend Midday	11.6	B
4	Kemper St/Existing Dwy 1 & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	13.8	B
				2. Weekday Commuter PM	19.3	B
				3. Weekday Pre Event PM	23.2	C
				4. Weekend Midday	21.0	C
5	West Dr/Existing Dwy 2 & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	13.9	B
				2. Weekday Commuter PM	32.7	C
				3. Weekday Pre Event PM	89.2	**F**
				4. Weekend Midday	46.4	D
6	Target Dwy/Existing VIP Access Rd & Sports Arena Blvd	One-Way Stop	HCM 6th	1. Weekday AM	14.2	B
				Worst Mvmt	SB	
				2. Weekday Commuter PM	56.7	**F**
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	28.3	D
				Worst Mvmt	SB	
				4. Weekend Midday	ECL	**F**
				Worst Mvmt	SB	
7	East Dr/Commercial Dwy 3 & Sports Arena Blvd	Signal	HCM 6th	1. Weekday AM	9.2	A
				2. Weekday Commuter PM	21.1	C
				3. Weekday Pre Event PM	21.0	C
				4. Weekend Midday	18.5	B
8	Kemper St & Midway Dr	Signal	HCM 6th	1. Weekday AM	19.6	B
				2. Weekday Commuter PM	36.9	D
				3. Weekday Pre Event PM	34.5	C
				4. Weekend Midday	28.4	C
9	Commercial Dwy 2/East Dr & Midway Dr	Signal	HCM 6th	1. Weekday AM	9.3	A
				2. Weekday Commuter PM	13.1	B
				3. Weekday Pre Event PM	14.3	B
				4. Weekend Midday	19.1	B
10	Hancock St & Channel Way	All-Way Stop	HCM 6th	1. Weekday AM	8.0	A
				2. Weekday Commuter PM	8.5	A
				3. Weekday Pre Event PM	8.3	A
				4. Weekend Midday	8.5	A
11	Kurtz St & Hancock St	One-Way Stop	HCM 6th	1. Weekday AM	9.9	A
				Worst Mvmt	SB	
				2. Weekday Commuter PM	10.9	B
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	12.1	B
				Worst Mvmt	SB	
				4. Weekend Midday	10.9	B
				Worst Mvmt	SB	
12	Kurtz St & Sherman St	All-Way Stop	HCM 6th	1. Weekday AM	8.6	A
				2. Weekday Commuter PM	9.5	A
				3. Weekday Pre Event PM	9.5	A
				4. Weekend Midday	9.7	A
13	Kurtz St & Greenwood St	Two-Way Stop	HCM 6th	1. Weekday AM	9.7	A
				Worst Mvmt	SB	
				2. Weekday Commuter PM	10.6	B
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	10.4	B
				Worst Mvmt	SB	
				4. Weekend Midday	10.6	B
				Worst Mvmt	SB	
14	Sherman St & Hancock St	All-Way Stop	HCM 6th	1. Weekday AM	9.0	A
				2. Weekday Commuter PM	9.7	A
				3. Weekday Pre Event PM	11.4	B
				4. Weekend Midday	9.0	A
15	Greenwood St & Hancock St	All-Way Stop	HCM 6th	1. Weekday AM	8.8	A
				2. Weekday Commuter PM	8.8	A
				3. Weekday Pre Event PM	9.9	A
				4. Weekend Midday	8.6	A
16	Camino Del Rio W & Moore St	Two-Way Stop	HCM 6th	1. Weekday AM	34.9	D
				Worst Mvmt	EB	
				2. Weekday Commuter PM	32.9	D
				Worst Mvmt	EB	
				3. Weekday Pre Event PM	26.1	D
				Worst Mvmt	EB	
				4. Weekend Midday	53.0	**F**
				Worst Mvmt	WB	
17	Camino Del Rio W & Hancock St	Signal	HCM 6th	1. Weekday AM	ECL	**F**
				2. Weekday Commuter PM	12.1	B
				3. Weekday Pre Event PM	13.9	B
				4. Weekend Midday	33.2	C
18	Camino Del Rio W & Kurtz St	Signal	HCM 6th	1. Weekday AM	5.1	A
				2. Weekday Commuter PM	8.9	A
				3. Weekday Pre Event PM	8.8	A
				4. Weekend Midday	8.6	A
19	Rosecrans St & Sports Arena Blvd & Camino Del Rio W	Signal	**HCM 2000**	1. Weekday AM	32.9	C
				2. Weekday Commuter PM	42.4	D
				3. Weekday Pre Event PM	43.5	D
				4. Weekend Midday	55.7	**E**
20	Rosecrans St & Midway Dr	Signal	HCM 6th	1. Weekday AM	67.5	**E**
				2. Weekday Commuter PM	71.1	**E**
				3. Weekday Pre Event PM	79.0	**E**
				4. Weekend Midday	82.9	**F**

Notes:

Bold values indicate intersections operating at LOS E or F.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition* or the *Highway Capacity Manual 2000* and performed using Synchro 11.0

Table 8-1. Opening Year (2035) Base Intersection LOS Summary

#	INTERSECTION	TRAFFIC CONTROL	HCM EDITION	PEAK HOUR	2035 Base	
					DELAY (a)	LOS (b)
21	Rosecrans St & N Evergreen St	Signal	HCM 6th	1. Weekday AM	17.4	B
				2. Weekday Commuter PM	20.8	C
				3. Weekday Pre Event PM	18.2	B
				4. Weekend Midday	21.5	C
22	Rosecrans St & Lytton St	Signal	HCM 6th	1. Weekday AM	87.1	**F**
				2. Weekday Commuter PM	57.3	**E**
				3. Weekday Pre Event PM	40.5	D
				4. Weekend Midday	40.2	D
23	Rosecrans St & Kurtz St	Signal	**HCM 2000**	1. Weekday AM	21.2	C
				2. Weekday Commuter PM	28.8	C
				3. Weekday Pre Event PM	18.2	B
				4. Weekend Midday	31.7	C
24	Rosecrans St & Hancock St	One-Way Stop	HCM 6th	1. Weekday AM	9.6	A
				Worst Mvmt	SE	
				2. Weekday Commuter PM	10.1	B
				Worst Mvmt	SE	
				3. Weekday Pre Event PM	10.9	B
				Worst Mvmt	SE	
				4. Weekend Midday	9.6	A
				Worst Mvmt	SE	
25	Pacific Hwy & Rosecrans St/Taylor St	Signal	HCM 6th	1. Weekday AM	21.8	C
				2. Weekday Commuter PM	32.0	C
				3. Weekday Pre Event PM	36.4	D
				4. Weekend Midday	23.2	C
26	Kurtz St & Pacific Hwy	One-Way Stop	HCM 6th	1. Weekday AM	20.8	C
				Worst Mvmt	NBL	
				2. Weekday Commuter PM	ECL	**F**
				Worst Mvmt	EB	
				3. Weekday Pre Event PM	125.7	**F**
				Worst Mvmt	EB	
				4. Weekend Midday	17.9	C
				Worst Mvmt	EB	
27	Pacific Hwy & Enterprise St	Signal	HCM 6th	1. Weekday AM	38.5	D
				2. Weekday Commuter PM	37.1	D
				3. Weekday Pre Event PM	29.4	C
				4. Weekend Midday	18.9	B
28	Midway Dr & Enterprise St	One-Way Stop	HCM 6th	1. Weekday AM	14.2	B
				Worst Mvmt	SB	
				2. Weekday Commuter PM	35.4	**E**
				Worst Mvmt	SB	
				3. Weekday Pre Event PM	34.8	D
				Worst Mvmt	SB	
				4. Weekend Midday	15.0	C
				Worst Mvmt	SB	
29	Barnett Ave & Midway Dr	Signal	**HCM 2000**	1. Weekday AM	28.6	C
				2. Weekday Commuter PM	70.7	**E**
				3. Weekday Pre Event PM	54.0	D
				4. Weekend Midday	27.3	C
30	Sea World Dr & Friars Rd	Signal	HCM 6th	1. Weekday AM	5.5	A
				2. Weekday Commuter PM	5.7	A
				3. Weekday Pre Event PM	4.8	A
				4. Weekend Midday	4.8	A
31	Sea World Dr & E Mission Bay Dr/Pacific Highway	Signal	HCM 6th	1. Weekday AM	16.6	B
				2. Weekday Commuter PM	30.7	C
				3. Weekday Pre Event PM	23.5	C
				4. Weekend Midday	22.1	C
32	I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr	Signal	**HCM 2000**	1. Weekday AM	32.6	C
				2. Weekday Commuter PM	22.8	C
				3. Weekday Pre Event PM	23.5	C
				4. Weekend Midday	19.7	B

Notes:
Bold values indicate intersections operating at LOS E or F.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition or the Highway Capacity Manual 2000 and performed using Synchro 11.0

Table 8-2. Opening Year (2035) Base Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	4,200	Weekday AM	329	No
				Weekday PM	2,642	No
				Weekday Pre-Event	460	No
				Weekend Midday	716	No
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360	Weekday AM	211	No
				Weekday PM	517	**Yes**
				Weekday Pre-Event	540	**Yes**
				Weekend Midday	464	**Yes**
		WBL	150	Weekday AM	<25	No
				Weekday PM	58	No
				Weekday Pre-Event	47	No
				Weekend Midday	29	No
		NBL	230	Weekday AM	81	No
				Weekday PM	107	No
				Weekday Pre-Event	100	No
				Weekend Midday	208	No
3	Sports Arena Boulevard & Hancock Street	EBL	160	Weekday AM	71	No
				Weekday PM	134	No
				Weekday Pre-Event	103	No
				Weekend Midday	105	No
		WBL	100	Weekday AM	<25	No
				Weekday PM	<25	No
				Weekday Pre-Event	<25	No
				Weekend Midday	32	No
4	Sports Arena Boulevard & Kemper Street	EBL	440	Weekday AM	53	No
				Weekday PM	83	No
				Weekday Pre-Event	129	No
				Weekend Midday	83	No
		WBL	175	Weekday AM	104	No
				Weekday PM	167	No
				Weekday Pre-Event	129	No
				Weekend Midday	144	No
		NBL	100	Weekday AM	95	No
				Weekday PM	136	**Yes**
				Weekday Pre-Event	150	**Yes**
				Weekend Midday	116	**Yes**
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330	Weekday AM	44	No
				Weekday PM	47	No
				Weekday Pre-Event	39	No
				Weekend Midday	53	No
		WBL	175	Weekday AM	90	No
				Weekday PM	128	No
				Weekday Pre-Event	125	No
				Weekend Midday	155	No
6	Sports Arena Boulevard & Target Driveway	EBL	150	Weekday AM	28	No
				Weekday PM	63	No
				Weekday Pre-Event	56	No
				Weekend Midday	26	No
		WBL	125	Weekday AM	62	No
				Weekday PM	75	No
				Weekday Pre-Event	64	No
				Weekend Midday	160	**Yes**
7	Sports Arena Boulevard & East Driveway	EBL	125	Weekday AM	41	No
				Weekday PM	75	No
				Weekday Pre-Event	67	No
				Weekend Midday	64	No
		WBL	125	Weekday AM	111	No
				Weekday PM	237	**Yes**
				Weekday Pre-Event	228	**Yes**
				Weekend Midday	167	**Yes**
		NBR	100	Weekday AM	51	No
				Weekday PM	166	**Yes**
				Weekday Pre-Event	147	**Yes**
				Weekend Midday	99	No

Table 8-2. Opening Year (2035) Base Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
8	Midway Drive & Kemper Street	EBL	320	Weekday AM	87	No
				Weekday PM	97	No
				Weekday Pre-Event	106	No
				Weekend Midday	189	No
		EBR	150	Weekday AM	49	No
				Weekday PM	64	No
				Weekday Pre-Event	80	No
				Weekend Midday	151	**Yes**
		WBL	250	Weekday AM	77	No
				Weekday PM	176	No
				Weekday Pre-Event	156	No
				Weekend Midday	163	No
		NBL	90	Weekday AM	92	**Yes**
				Weekday PM	200	**Yes**
				Weekday Pre-Event	181	**Yes**
				Weekend Midday	174	**Yes**
		SBL	100	Weekday AM	52	No
				Weekday PM	78	No
				Weekday Pre-Event	91	No
				Weekend Midday	105	**Yes**
		SBR	115	Weekday AM	54	No
				Weekday PM	109	No
				Weekday Pre-Event	67	No
				Weekend Midday	119	**Yes**
9	Midway Drive & East Drive	EBL	90	Weekday AM	28	No
				Weekday PM	106	**Yes**
				Weekday Pre-Event	53	No
				Weekend Midday	129	**Yes**
		WBL	100	Weekday AM	48	No
				Weekday PM	46	No
				Weekday Pre-Event	51	No
				Weekend Midday	101	**Yes**
10	Hancock Street & Channel Way	NBL	60	Weekday AM	47	No
				Weekday PM	41	No
				Weekday Pre-Event	34	No
				Weekend Midday	34	No
17	Camino Del Rio West & Hancock Street	NBL	100	Weekday AM	73	No
				Weekday PM	167	**Yes**
				Weekday Pre-Event	177	**Yes**
				Weekend Midday	149	**Yes**
		I-5 SB Off-Ramp	3,500	Weekday AM	623	No
				Weekday PM	633	No
				Weekday Pre-Event	453	No
				Weekend Midday	1,404	No
		I-8 WB Off-Ramp	3,700	Weekday AM	1,317	No
				Weekday PM	1,362	No
				Weekday Pre-Event	595	No
				Weekend Midday	4,645	**Yes**
		SBR	130	Weekday AM	240	**Yes**
				Weekday PM	174	**Yes**
				Weekday Pre-Event	209	**Yes**
				Weekend Midday	220	**Yes**
18	Camino Del Rio West & Kurtz Street	EBR	200	Weekday AM	65	No
				Weekday PM	324	**Yes**
				Weekday Pre-Event	288	**Yes**
				Weekend Midday	354	**Yes**
		SBL	100	Weekday AM	207	**Yes**
				Weekday PM	190	**Yes**
				Weekday Pre-Event	185	**Yes**
				Weekend Midday	184	**Yes**

Table 8-2. Opening Year (2035) Base Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
19	Camino Del Rio West & Sports Arena Boulevard	EBR	300	Weekday AM	146	No
				Weekday PM	276	No
				Weekday Pre-Event	244	No
				Weekend Midday	360	**Yes**
		WBL	180	Weekday AM	178	No
				Weekday PM	182	**Yes**
				Weekday Pre-Event	175	No
				Weekend Midday	202	**Yes**
		NBL	260	Weekday AM	173	No
				Weekday PM	286	**Yes**
				Weekday Pre-Event	335	**Yes**
				Weekend Midday	349	**Yes**
20	Rosecrans Street & Midway Drive	EBL	100	Weekday AM	136	**Yes**
				Weekday PM	216	**Yes**
				Weekday Pre-Event	207	**Yes**
				Weekend Midday	208	**Yes**
		EBR	240	Weekday AM	139	No
				Weekday PM	330	**Yes**
				Weekday Pre-Event	225	No
				Weekend Midday	233	No
		WBL	250	Weekday AM	240	No
				Weekday PM	259	**Yes**
				Weekday Pre-Event	208	No
				Weekend Midday	268	**Yes**
		WBR	180	Weekday AM	228	**Yes**
				Weekday PM	311	**Yes**
				Weekday Pre-Event	306	**Yes**
				Weekend Midday	339	**Yes**
		NBL	280	Weekday AM	248	No
				Weekday PM	319	**Yes**
				Weekday Pre-Event	343	**Yes**
				Weekend Midday	434	**Yes**
		SBL	320	Weekday AM	287	No
				Weekday PM	281	No
				Weekday Pre-Event	223	No
				Weekend Midday	265	No
21	Rosecrans Street & North Evergreen Street	NBL	180	Weekday AM	60	No
				Weekday PM	31	No
				Weekday Pre-Event	<25	No
				Weekend Midday	87	No
		SBL	310	Weekday AM	386	**Yes**
				Weekday PM	185	No
				Weekday Pre-Event	175	No
				Weekend Midday	239	No
22	Rosecrans Street & Lytton Street	WBL	245	Weekday AM	374	**Yes**
				Weekday PM	371	**Yes**
				Weekday Pre-Event	372	**Yes**
				Weekend Midday	246	**Yes**
		NBL	100	Weekday AM	103	**Yes**
				Weekday PM	107	**Yes**
				Weekday Pre-Event	93	No
				Weekend Midday	78	No
		NBR	490	Weekday AM	305	No
				Weekday PM	449	No
				Weekday Pre-Event	206	No
				Weekend Midday	172	No
		SBL	470	Weekday AM	748	**Yes**
				Weekday PM	124	No
				Weekday Pre-Event	88	No
				Weekend Midday	162	No

Table 8-2. Opening Year (2035) Base Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
23	Rosecrans Street & Kurtz Street	WBR	70	Weekday AM	142	**Yes**
				Weekday PM	166	**Yes**
				Weekday Pre-Event	111	**Yes**
				Weekend Midday	180	**Yes**
		SBL	100	Weekday AM	62	No
				Weekday PM	70	No
				Weekday Pre-Event	55	No
				Weekend Midday	78	No
24	Rosecrans Street & Hancock Street	NBL	120	Weekday AM	61	No
				Weekday PM	116	No
				Weekday Pre-Event	133	**Yes**
				Weekend Midday	102	No
25	Pacific Highway & Rosecrans Street	EBL	120	Weekday AM	81	No
				Weekday PM	115	No
				Weekday Pre-Event	95	No
				Weekend Midday	56	No
		EBR	100	Weekday AM	51	No
				Weekday PM	94	No
				Weekday Pre-Event	55	No
				Weekend Midday	61	No
		WBL	150	Weekday AM	119	No
				Weekday PM	119	No
				Weekday Pre-Event	120	No
				Weekend Midday	109	No
		NBL	150	Weekday AM	108	No
				Weekday PM	177	**Yes**
				Weekday Pre-Event	263	**Yes**
				Weekend Midday	111	No
		NBR	320	Weekday AM	70	No
				Weekday PM	164	No
				Weekday Pre-Event	66	No
				Weekend Midday	35	No
		SBL	230	Weekday AM	56	No
				Weekday PM	84	No
				Weekday Pre-Event	75	No
				Weekend Midday	61	No
26	Pacific Highway & Kurtz Street	NBL	200	Weekday AM	196	No
				Weekday PM	235	**Yes**
				Weekday Pre-Event	179	No
				Weekend Midday	100	No
27	Pacific Highway & Enterprise Street	EBL	200	Weekday AM	46	No
				Weekday PM	136	No
				Weekday Pre-Event	117	No
				Weekend Midday	51	No
		EBR	200	Weekday AM	26	No
				Weekday PM	72	No
				Weekday Pre-Event	46	No
				Weekend Midday	37	No
		NBL	280	Weekday AM	352	**Yes**
				Weekday PM	384	**Yes**
				Weekday Pre-Event	340	**Yes**
				Weekend Midday	202	No
		NBR	300	Weekday AM	35	No
				Weekday PM	<25	No
				Weekday Pre-Event	<25	No
				Weekend Midday	<25	No
		SBL	200	Weekday AM	182	No
				Weekday PM	144	No
				Weekday Pre-Event	128	No
				Weekend Midday	48	No

Table 8-2. Opening Year (2035) Base Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
30	Sea World Drive & Friars Rd	WBR	300	Weekday AM	<25	No
				Weekday PM	<25	No
				Weekday Pre-Event	<25	No
				Weekend Midday	<25	No
		NBR	185	Weekday AM	60	No
				Weekday PM	312	**Yes**
				Weekday Pre-Event	58	No
				Weekend Midday	68	No
		SBL	300	Weekday AM	60	No
				Weekday PM	105	No
				Weekday Pre-Event	60	No
				Weekend Midday	63	No
31	Sea World Drive & Pacific Highway	EBL	250	Weekday AM	41	No
				Weekday PM	115	No
				Weekday Pre-Event	102	No
				Weekend Midday	151	No
		EBR	200	Weekday AM	28	No
				Weekday PM	95	No
				Weekday Pre-Event	69	No
				Weekend Midday	94	No
		WBL	125	Weekday AM	61	No
				Weekday PM	90	No
				Weekday Pre-Event	72	No
				Weekend Midday	43	No
		WBR	200	Weekday AM	53	No
				Weekday PM	73	No
				Weekday Pre-Event	49	No
				Weekend Midday	35	No
		NBL	325	Weekday AM	44	No
				Weekday PM	401	**Yes**
				Weekday Pre-Event	52	No
				Weekend Midday	64	No
		NBR	100	Weekday AM	87	No
				Weekday PM	242	**Yes**
				Weekday Pre-Event	125	**Yes**
				Weekend Midday	64	No
		SBL	215	Weekday AM	78	No
				Weekday PM	254	**Yes**
				Weekday Pre-Event	298	**Yes**
				Weekend Midday	293	**Yes**
32	Sea World Drive & I-5 Southbound Ramps	EBR	400	Weekday AM	47	No
				Weekday PM	113	No
				Weekday Pre-Event	77	No
				Weekend Midday	84	No
		WBL	120	Weekday AM	215	**Yes**
				Weekday PM	205	**Yes**
				Weekday Pre-Event	213	**Yes**
				Weekend Midday	215	**Yes**
		I-5 SB Off-Ramp	3,700	Weekday AM	152	No
				Weekday PM	154	No
				Weekday Pre-Event	153	No
				Weekend Midday	155	No

Table 8-3. Opening Year (2035) Base Roadway Segment LOS Summary

ID	Roadway Segment	Extents	2035 Base Weekday Event-Day				
			Functional Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp	6 Lane Prime Arterial	60,000	14,709	0.245	A
2		I-8 EB On Ramp to W Point Loma Boulevard	5 Lane Major Arterial	45,000	30,471	0.677	C
3		W Point Loma Boulevard to Hancock Street	5 Lane Collector (with two-way left-turn Lane)	37,500	19,520	0.521	C
4		Hancock Street to Kemper Street	5 Lane Collector (with two-way left-turn Lane)	37,500	19,547	0.521	C
5		Kemper Street to Frontier Drive	5 Lane Major Arterial	45,000	19,509	0.434	B
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	20,385	0.408	B
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	25,459	0.509	B
8		Rosecrans Street to Pacific Highway	2 Lane Collector (without two-way left-turn lane)	8,000	2,101	0.263	A
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	64,667	1.078	**F**
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	64,681	1.078	**F**
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	54,177	0.903	D
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Collector (with two-way left-turn Lane)	30,000	10,647	0.355	B
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	60,671	1.213	**F**
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	26,355	0.879	**E**
15	Kurtz Street	Kemper Street to Frontier Drive	2 Lane Collector (one-way)	17,500	3,333	0.190	A
16		Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	3,361	0.192	A
17		Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	5,359	0.306	A
18	Hancock Street	Sports Arena Boulevard to Channel Way	2 Lane Collector (without two-way left-turn lane)	8,000	3,659	0.457	C
19		Channel Way to Kurtz St	2 Lane Collector (with two-way left-turn Lane)	15,000	3,548	0.237	A
20		Kurtz Street to Greenwood Street	2 Lane Collector (one-way)	17,500	4,523	0.258	A
21		Greenwood Street to Camino Del Rio West	2 Lane Collector (one-way)	17,500	4,523	0.258	A
Future Roadway Segments							
22	*Frontier Drive (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-
23	*Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-

Notes:

[1]Functional Classification based on the Midway Pacific Highway Community Plan.

[2]LOS E Capacity provided by City of San Diego staff.

[3]ADT - Average Daily Traffic.

[4]V/C Ratio - Volume-to-capacity ratio.

[5]LOS - Level of Service.

9 OPENING YEAR (2035) PLUS PROJECT PHASE 2 BUILDOUT

This section summarizes the Opening Year (2035) Plus Project Phase 2 Buildout Scenario. The project Phase 2 buildout scenario includes demolition of the existing Sports Arena and existing land uses west of Frontier Drive, and construction of residential and commercial land uses west of Frontier Drive, and construction of Kemper Street. This scenario is analyzed for a typical event (14,500 spectators) and full capacity event (20,000 spectators). The full capacity event is expected to occur approximately 2 times per year, and thus was not analyzed for the purpose of identifying project effects and improvements but is included for informational purposes.

9.1 ROADWAY NETWORK CHANGES

The roadway network under Opening Year (2035) Plus Project Phase 2 Buildout includes the roadway network under Plus Project Phase 1 scenario plus the construction of:

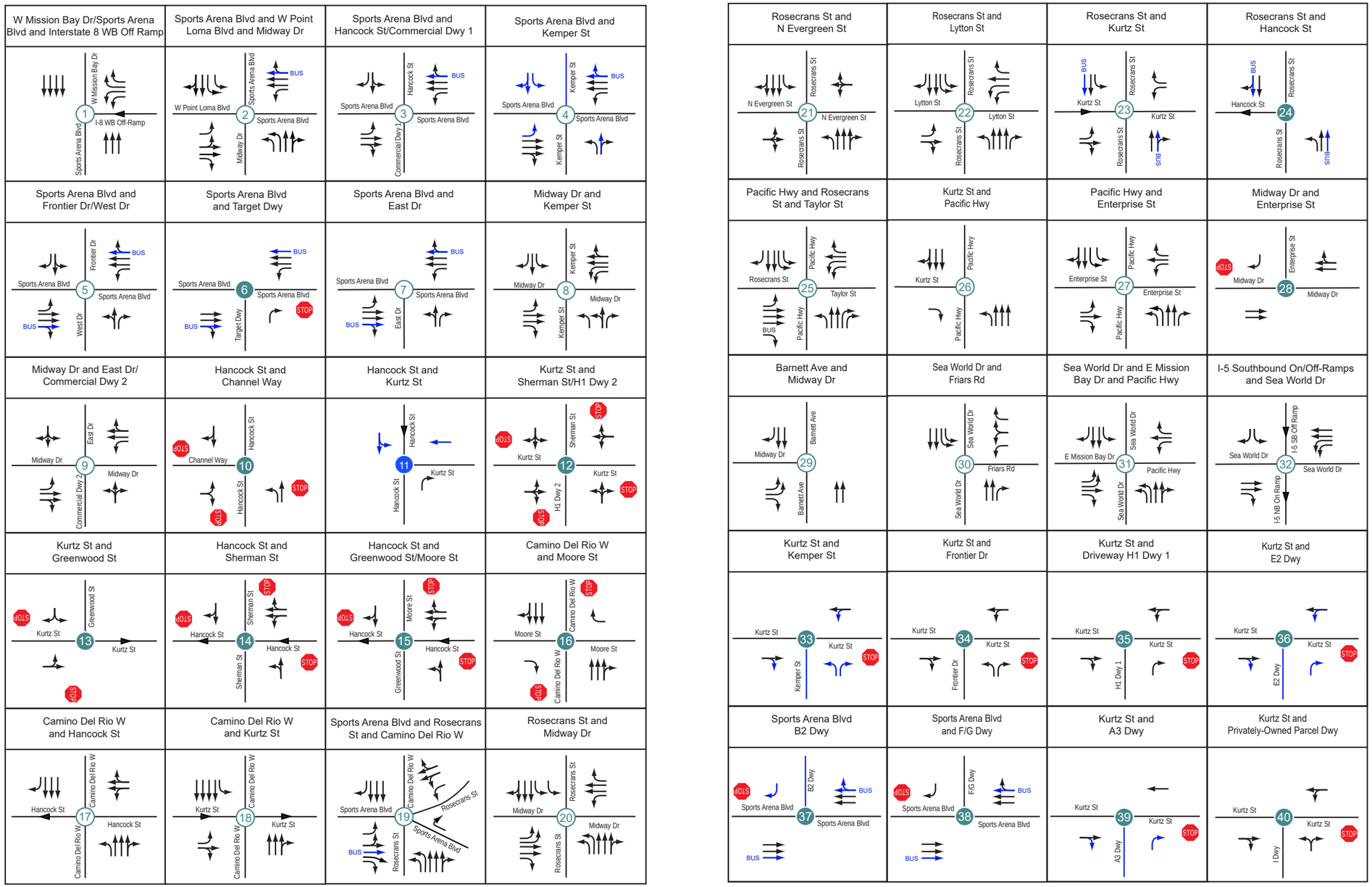
- Intersection #4: Kemper Street/Sports Arena Boulevard (southbound approach) and Intersection #33: Kemper Street/Kurtz Street;
- Roundabout at Intersection #11: Hancock Street and Kurtz Street;
- Access points on the west side of Frontier Drive and both sides of Kemper Street;
- Entertainment Center operations access driveways on Kurtz Street and Sports Arena Boulevard.
- Elimination of eastbound exclusive right turn lane at the intersection of Kurtz Street and Camino del Rio West to accommodate proposed multi-use path;
- Conversion of Kurtz Street from one-way (southbound) to two-way between Hancock Street and Sherman Street;
- Bus only lanes on Sports Arena Boulevard between Point Loma Boulevard and Camino Del Rio West/Rosecrans Street – right-most through lane converted to right-turn only pocket and through lane for buses only;
- Bus only lanes on Rosecrans Street between Sports Arena Boulevard and Pacific Highway– right-most through lane converted to right-turn only pocket and through lane for buses only;

The roadway network will not change between typical-capacity and full-capacity events. **Figure 9-1** illustrates the lane geometries at the study intersections for the Opening Year (2035) Plus Project Phase 2 Buildout scenario.

Figure 9-1. Opening Year (2035) Plus Project Phase 2 Buildout Intersection Geometries (Page 1 of 2)



Figure 9-1. Opening Year (2035) Plus Project Phase 2 Buildout Intersection Geometries (Page 2 of 2)



9.2 TYPICAL EVENT ANALYSIS (14,500 SPECTATORS)

A typical event with 14,500 spectators is expected to generate approximately 28,481 average daily vehicle trips with 1,682 AM Commuter Peak Hour Trips (356 inbound / 1,326 outbound), 2,976 PM Commuter Peak Hour Trips (2,239 inbound / 736 outbound), and 2,668 Pre-Event PM Peak Hour Trips (2,096 inbound / 572 outbound). The typical event scenario was analyzed for all peak periods.

9.2.1 TRAFFIC VOLUMES

The Opening Year (2035) Plus Project Phase 2 Buildout traffic volumes will consist of the Opening Year (2035) Base scenario, and proposed project Phase 2 traffic for full buildout of the project with a 14,500-spectator event. **Figure 9-2** shows the Opening Year (2035) Plus Project Phase 2 Buildout traffic volumes during all peak hours for a 14,500-spectator event.

9.2.2 INTERSECTION ANALYSIS

Table 9-1 displays the LOS analysis results for the study intersections under Opening Year (2035) Plus Project Phase 2 Buildout scenario with 14,500-spectators.

Under the Opening Year (2035) Plus Project Phase 2 Buildout scenario, the project is expected to cause an effect at the following intersections:

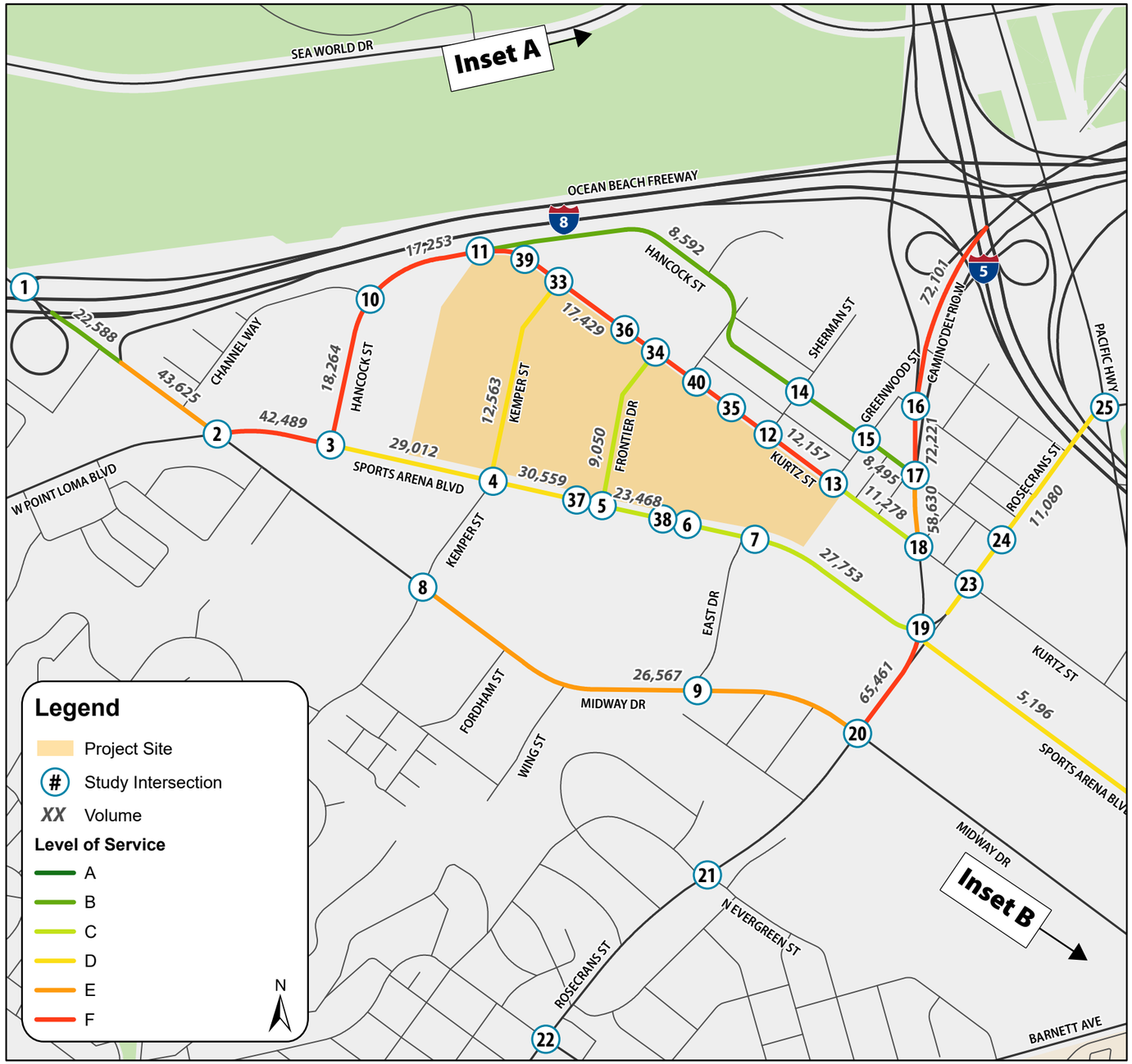
- Intersection #2 – Sports Arena Boulevard / Midway Dr & W Point Loma Blvd (PM: LOS F; Pre-Event: LOS F; WKND: LOS F)
- Intersection #5 – West Drive / Frontier Drive & Sports Arena Blvd (PM: LOS F; Pre-Event: LOS F; WKND: LOS F)
- Intersection #14 – Sherman Street & Hancock Street (Pre-Event: LOS E)
- Intersection #16 – Camino del Rio W & Moore Street (PM: LOS E; Pre-Event: LOS E; WKND: LOS F)
- Intersection #17 – Camino del Rio W & Hancock Street (AM: LOS F)
- Intersection #19 – Rosecrans Street & Sports Arena Boulevard & Camino del Rio W (WKND: LOS F)
- Intersection #20 – Rosecrans Street & Midway Drive (AM: LOS E; PM: LOS E; Pre-Event: LOS E; WKND: LOS F)
- Intersection #22 – Rosecrans Street & Lytton Street (AM: LOS E; PM: LOS E)
- Intersection #27 – Pacific Highway & Enterprise Street (PM: LOS E; Pre-Event: LOS E)
- Intersection #28 – Midway Drive & Enterprise Street (PM: LOS E; Pre-Event: LOS E)
- Intersection #29 – Barnett Avenue & Midway Drive (PM: LOS E)

The following intersections operate at LOS E or F under the Opening Year (2035) Plus Project Phase 2 scenario, but are not identified as a project effect:

- Intersection #6 – Target Driveway and Sports Arena Boulevard (WKND: LOS E)
- Intersection #26 – Kurtz Street & Pacific Highway (PM: LOS F; Pre-Event: LOS F)

Appendix Z contains the intersection LOS calculation worksheets for the Opening Year (2035) Plus Project Phase 2 Buildout.

Figure 9-2. Opening Year (2035) Plus Project Phase 2 Traffic Volumes (14,500 spectators) (Page 1 of 3)



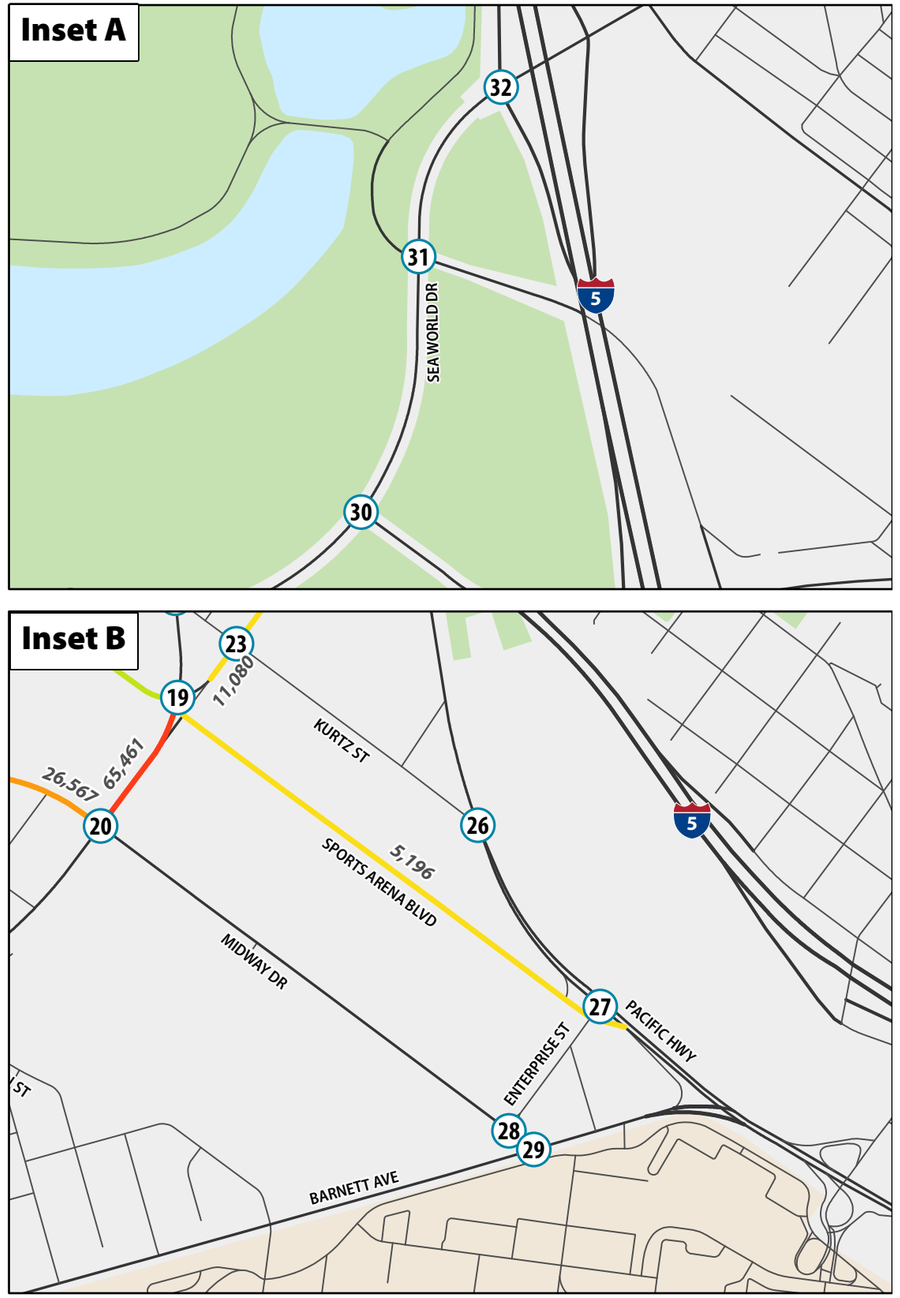
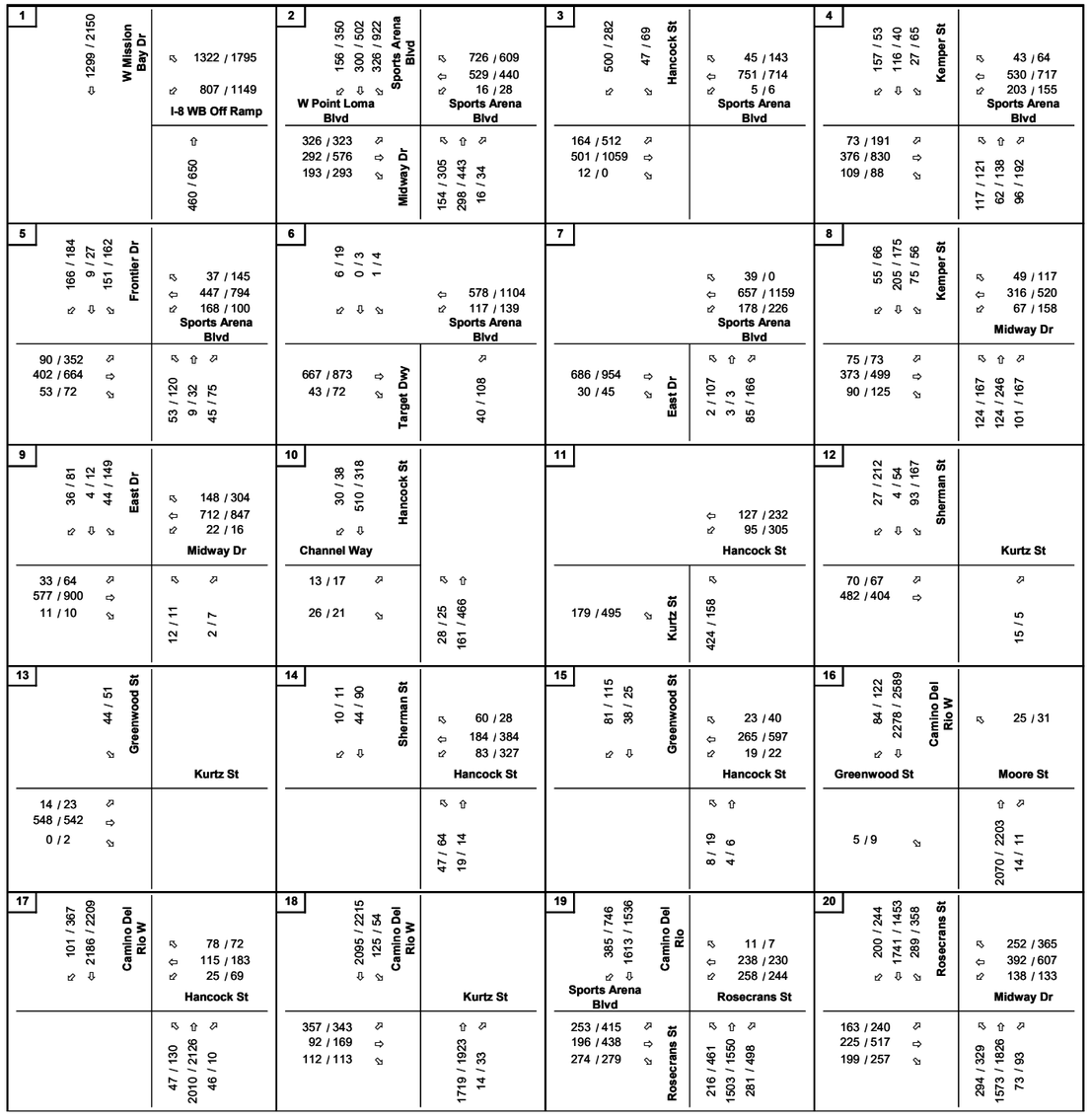
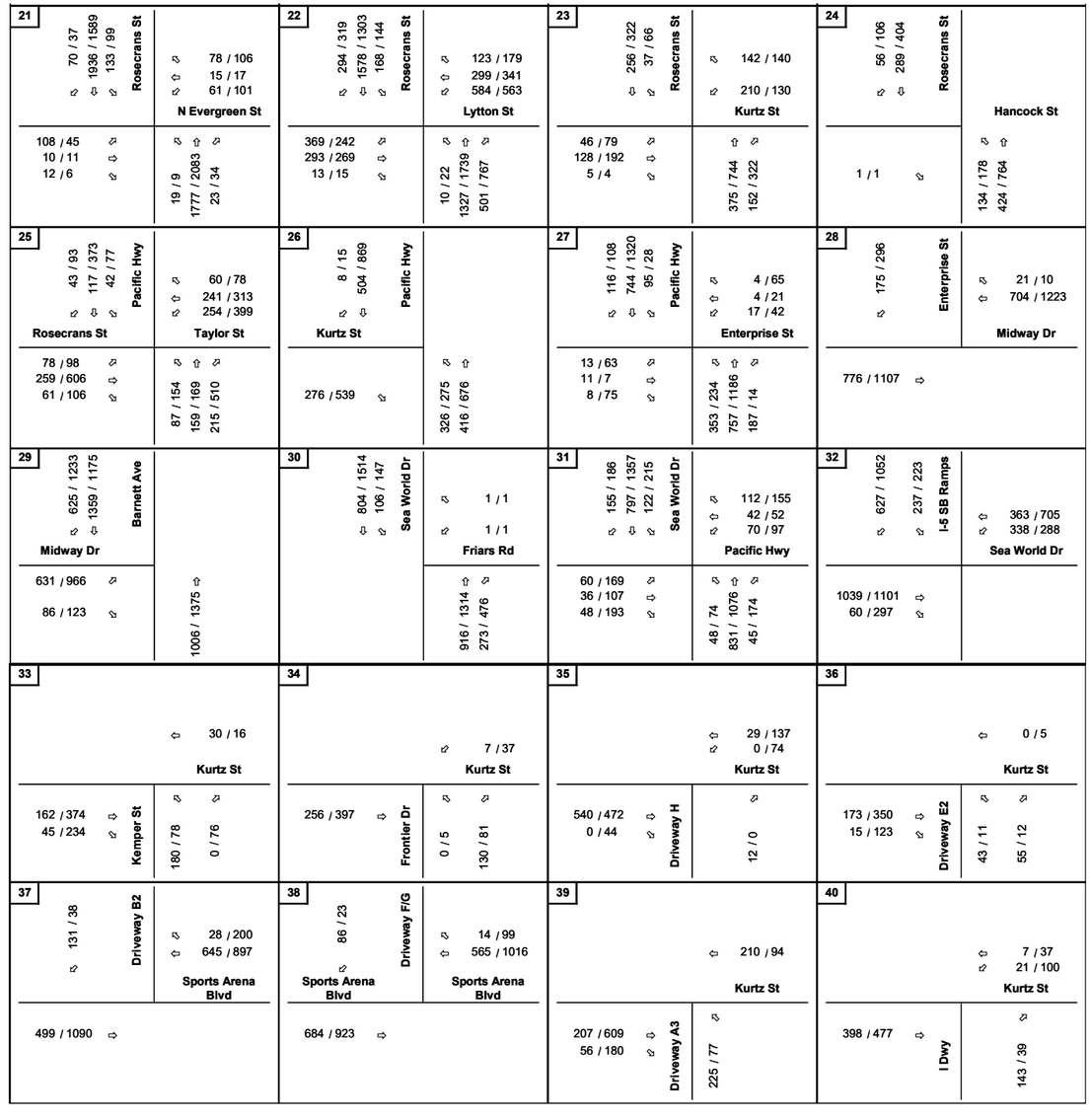


Figure 9-2. Opening Year (2035) Plus Project Phase 2 Traffc Volumes (14,500 spectators) (Page 2 of 3)



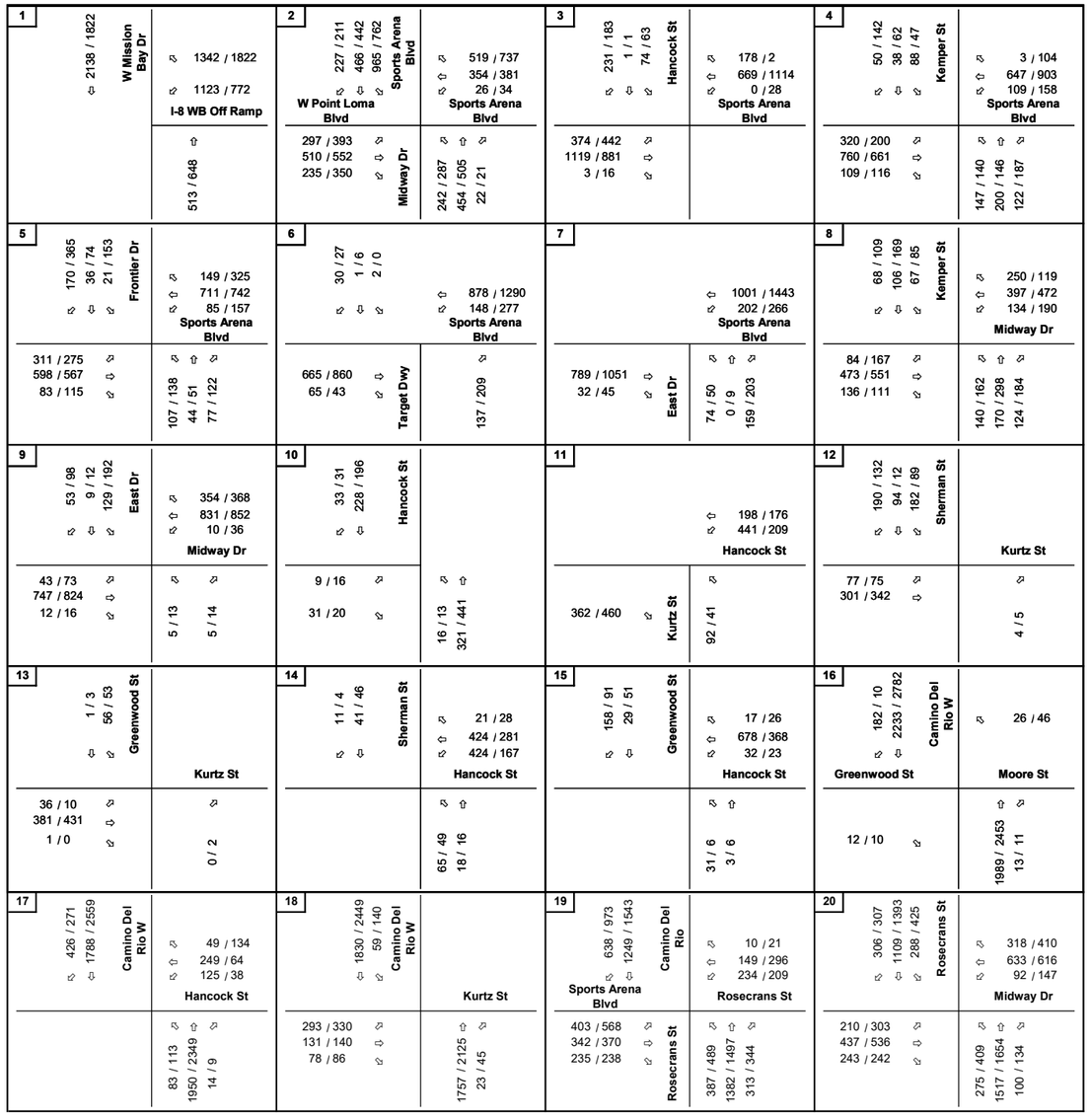


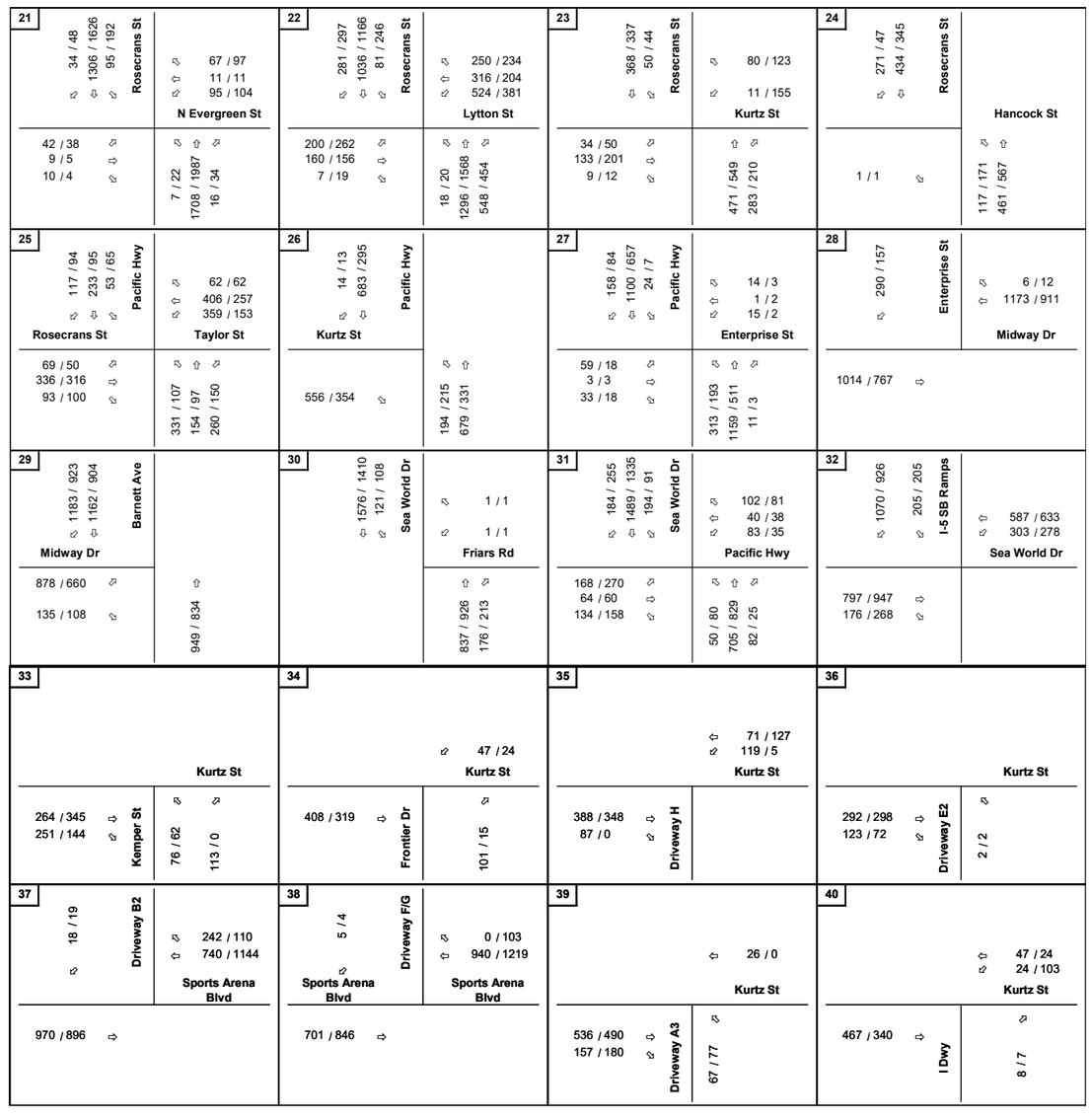
Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Figure 9-2. Opening Year (2035) Plus Project Phase 2 Traffic Volumes (14,500 spectators) (Page 3 of 3)





Legend

X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

North

Table 9-1. Opening Year (2035) Plus Project Phase 2 Buildout Intersection LOS Summary

#	INTERSECTION	PEAK HOUR	2035 Baseline		Opening Year (2035) Plus Project Phase 2 Buildout		Project Effect?
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	1. Weekday AM	19.9	B	19.8	B	N
		2. Weekday Commuter PM	28.5	C	51.2	D	
		3. Weekday Pre-Event PM (14.5k)	21.7	C	28.0	C	
		4. Weekday Pre-Event PM (20k)	-	-	34.1	C	
		5. Weekend Midday	33.8	C	35.2	D	
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	1. Weekday AM	32.0	C	43.7	D	Y
		2. Weekday Commuter PM	64.5	**E**	129.7	**F**	
		3. Weekday Pre-Event PM (14.5k)	64.5	**E**	107.6	**F**	
		4. Weekday Pre-Event PM (20k)	-	-	115.7	**F**	
		5. Weekend Midday	59.1	**E**	98.8	**F**	
3	Commercial Dwy 1/Hancock St & Sports Arena Blvd	1. Weekday AM	8.7	A	22.4	C	N
		2. Weekday Commuter PM	16.4	B	33.0	C	
		3. Weekday Pre-Event PM (14.5k)	15.8	B	25.0	C	
		4. Weekday Pre-Event PM (20k)	-	-	25.6	C	
		5. Weekend Midday	11.6	B	22.8	C	
4	Kemper St & Sports Arena Blvd	1. Weekday AM	13.8	B	17.4	B	N
		2. Weekday Commuter PM	19.3	B	38.3	D	
		3. Weekday Pre-Event PM (14.5k)	23.2	C	48.6	D	
		4. Weekday Pre-Event PM (20k)	-	-	51.7	D	
		5. Weekend Midday	21.0	C	25.2	C	
5	West Dr/Frontier Dr & Sports Arena Blvd	1. Weekday AM	13.9	B	22.4	C	Y
		2. Weekday Commuter PM	32.7	C	ECL	**F**	
		3. Weekday Pre-Event PM (14.5k)	89.2	**F**	ECL	**F**	
		4. Weekday Pre-Event PM (20k)	-	-	ECL	**F**	
		5. Weekend Midday	46.4	D	127.7	**F**	
6	Target Dwy & Sports Arena Blvd	1. Weekday AM	14.2	B	14.8	B	N
		Worst Mvmt	SB		WBL		
		2. Weekday Commuter PM	56.7	**F**	22.0	C	
		Worst Mvmt	SB		WBL		
		3. Weekday Pre-Event PM (14.5k)	28.3	D	19.0	C	
		Worst Mvmt	SB		WBL		
		4. Weekday Pre-Event PM (20k)	-	-	20.0	C	
		Worst Mvmt			WBL		
		5. Weekend Midday	ECL	**F**	39.9	**E**	
		Worst Mvmt	SB		WBL		
7	East Dr & Sports Arena Blvd	1. Weekday AM	9.2	A	7.7	A	N
		2. Weekday Commuter PM	21.1	C	15.2	B	
		3. Weekday Pre-Event PM (14.5k)	21.0	C	14.7	B	
		4. Weekday Pre-Event PM (20k)	-	-	14.6	B	
		5. Weekend Midday	18.5	B	13.2	B	
8	Kemper St & Midway Dr	1. Weekday AM	19.6	B	20.6	C	N
		2. Weekday Commuter PM	36.9	D	39.3	D	
		3. Weekday Pre-Event PM (14.5k)	34.5	C	36.4	D	
		4. Weekday Pre-Event PM (20k)	-	-	36.5	D	
		5. Weekend Midday	28.4	C	32.6	C	
9	Commercial Dwy 2/East Dr & Midway Dr	1. Weekday AM	9.3	A	9.0	A	N
		2. Weekday Commuter PM	13.1	B	14.5	B	
		3. Weekday Pre-Event PM (14.5k)	14.3	B	16.1	B	
		4. Weekday Pre-Event PM (20k)	-	-	16.1	B	
		5. Weekend Midday	19.1	B	16.2	B	
10	Hancock St & Channel Way	1. Weekday AM	8.0	A	14.9	B	N
		2. Weekday Commuter PM	8.5	A	15.1	C	
		3. Weekday Pre-Event PM (14.5k)	8.3	A	10.7	B	
		4. Weekday Pre-Event PM (20k)	-	-	11.1	B	
		5. Weekend Midday	8.5	A	13.4	B	
11	Kurtz St & Hancock St *	1. Weekday AM	9.9	A	4.8	A	N
			SB				
		2. Weekday Commuter PM	10.9	B	7.8	A	
			SB				
		3. Weekday Pre-Event PM (14.5k)	12.1	B	7.9	A	
			SB				
		4. Weekday Pre-Event PM (20k)	-	-	8.8	A	
		5. Weekend Midday	10.9	B	6.2	A	
			SB				
12	H1 Dwy 2/Sherman St & Kurtz St	1. Weekday AM	8.6	A	16.4	C	N
		2. Weekday Commuter PM	9.5	A	20.3	C	
		3. Weekday Pre-Event PM (14.5k)	9.5	A	17.6	C	
		4. Weekday Pre-Event PM (20k)	-	-	19.0	C	
		5. Weekend Midday	9.7	A	12.5	B	
13	Kurtz St & Greenwood St	1. Weekday AM	9.7	A	10.9	B	N
			SB				
		2. Weekday Commuter PM	10.6	B	10.9	B	
			SB				
		3. Weekday Pre-Event PM (14.5k)	10.4	B	9.5	A	
			SB				
		4. Weekday Pre-Event PM (20k)	-	-	9.7	A	
		5. Weekend Midday	10.6	B	9.8	A	
			SB				
14	Sherman St & Hancock St	1. Weekday AM	9.0	A	8.9	A	Y
		2. Weekday Commuter PM	9.7	A	21.7	C	
		3. Weekday Pre-Event PM (14.5k)	11.4	B	42.6	**E**	
		4. Weekday Pre-Event PM (20k)	-	-	48.8	**E**	
		5. Weekend Midday	9.0	A	10.8	B	
15	Greenwood St & Hancock St	1. Weekday AM	8.8	A	8.7	A	N
		2. Weekday Commuter PM	8.8	A	11.8	B	
		3. Weekday Pre-Event PM (14.5k)	9.9	A	13.4	B	
		4. Weekday Pre-Event PM (20k)	-	-	14.3	B	
		5. Weekend Midday	8.6	A	9.5	A	
16	Camino Del Rio W & Moore St	1. Weekday AM	34.9	D	32.2	D	Y
		Worst Mvmt	EB		EB		
		2. Weekday Commuter PM	32.9	D	46.2	**E**	
		Worst Mvmt	EB		EB		
		3. Weekday Pre-Event PM (14.5k)	26.1	D	37.1	**E**	
		Worst Mvmt	EB		EB		
		4. Weekday Pre-Event PM (20k)	-	-	38.3	**E**	
		Worst Mvmt			EB		
		5. Weekend Midday	53.0	**F**	54.3	**F**	
		Worst Mvmt	WB		WB		
17	Camino Del Rio W & Hancock St	1. Weekday AM	ECL	**F**	ECL	**F**	Y
		2. Weekday Commuter PM	12.1	B	14.2	B	
		3. Weekday Pre-Event PM (14.5k)	13.9	B	14.9	B	
		4. Weekday Pre-Event PM (20k)	-	-	14.9	B	
		5. Weekend Midday	33.2	C	42.2	D	
18	Camino Del Rio W & Kurtz St	1. Weekday AM	5.1	A	9.8	A	N
		2. Weekday Commuter PM	8.9	A	15.0	B	
		3. Weekday Pre-Event PM (14.5k)	8.8	A	12.0	B	
		4. Weekday Pre-Event PM (20k)	-	-	12.8	B	
		5. Weekend Midday	8.6	A	8.4	A	
19	Rosecrans St & Sports Arena Blvd & Camino Del Rio W	1. Weekday AM	32.9	C	26.3	C	Y
		2. Weekday Commuter PM	42.4	D	49.1	D	
		3. Weekday Pre-Event PM (14.5k)	43.5	D	40.4	D	
		4. Weekday Pre-Event PM (20k)	-	-	41.3	D	
		5. Weekend Midday	55.7	**E**	84.1	**F**	
20	Rosecrans St & Midway Dr	1. Weekday AM	67.5	**E**	60.0	**E**	Y
		2. Weekday Commuter PM	71.1	**E**	79.2	**E**	
		3. Weekday Pre-Event PM (14.5k)	79.0	**E**	78.5	**E**	
		4. Weekday Pre-Event PM (20k)	-	-	80.9	**F**	
		5. Weekend Midday	82.9	**F**	88.2	**F**	

Notes:

Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition and Highway Capacity Manual 2000 Edition* and performed using Synchro 11

*Intersection is analyzed as a roundabout using SIDRA software (HCM 6th Edition) in Opening Year (2035) Plus Project Phase 2 Buildout

Table 9-1. Opening Year (2035) Plus Project Phase 2 Buildout Intersection LOS Summary

#	INTERSECTION	PEAK HOUR	2035 Baseline		Opening Year (2035) Plus Project Phase 2 Buildout		Project Effect?
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
21	Rosecrans St & N Evergreen St	1. Weekday AM	17.4	B	16.0	B	N
		2. Weekday Commuter PM	20.8	C	20.4	C	
		3. Weekday Pre-Event PM (14.5k)	18.2	B	16.7	B	
		4. Weekday Pre-Event PM (20k)	-	-	16.7	B	
		5. Weekend Midday	21.5	C	21.0	C	
22	Rosecrans St & Lytton St	1. Weekday AM	87.1	**F**	76.9	**E**	Y
		2. Weekday Commuter PM	57.3	**E**	57.4	**E**	
		3. Weekday Pre-Event PM (14.5k)	40.5	D	40.8	D	
		4. Weekday Pre-Event PM (20k)	-	-	40.7	D	
		5. Weekend Midday	40.2	D	40.9	D	
23	Rosecrans St & Kurtz St	1. Weekday AM	21.2	C	29.5	C	N
		2. Weekday Commuter PM	28.8	C	26.4	C	
		3. Weekday Pre-Event PM (14.5k)	18.2	B	15.4	B	
		4. Weekday Pre-Event PM (20k)	-	-	15.7	B	
		5. Weekend Midday	31.7	C	30.3	C	
24	Rosecrans St & Hancock St	1. Weekday AM	9.6	A	8.6	A	N
		Worst Mvmt	SE		NBL		
		2. Weekday Commuter PM	10.1	B	9.6	A	
		Worst Mvmt	SE		NBL		
		3. Weekday Pre-Event PM (14.5k)	10.9	B	10.2	B	
		Worst Mvmt	SE		NBL		
		4. Weekday Pre-Event PM (20k)	-	-	10.2	B	
		Worst Mvmt			NBL		
		5. Weekend Midday	9.6	A	8.9	A	
		Worst Mvmt	SE		NBL		
25	Pacific Hwy & Rosecrans St/Taylor St	1. Weekday AM	21.8	C	21.4	C	N
		2. Weekday Commuter PM	32.0	C	27.6	C	
		3. Weekday Pre-Event PM (14.5k)	36.4	D	30.8	C	
		4. Weekday Pre-Event PM (20k)	-	-	30.9	C	
		5. Weekend Midday	23.2	C	23.1	C	
26	Kurtz St & Pacific Hwy	1. Weekday AM	20.8	C	17.6	C	N
		Worst Mvmt	NBL		NBL		
		2. Weekday Commuter PM	ECL	**F**	177.4	**F**	
		Worst Mvmt	EB		EB		
		3. Weekday Pre-Event PM (14.5k)	125.7	**F**	113.6	**F**	
		Worst Mvmt	EB		EB		
		4. Weekday Pre-Event PM (20k)	-	-	119.6	**F**	
		Worst Mvmt			EB		
		5. Weekend Midday	17.9	C	15.7	C	
		Worst Mvmt	EB		EB		
27	Pacific Hwy & Enterprise St	1. Weekday AM	38.5	D	49.8	D	Y
		2. Weekday Commuter PM	37.1	D	63.4	**E**	
		3. Weekday Pre-Event PM (14.5k)	29.4	C	64.9	**E**	
		4. Weekday Pre-Event PM (20k)	-	-	62.8	**E**	
		5. Weekend Midday	18.9	B	18.9	B	
28	Midway Dr & Enterprise St	1. Weekday AM	14.2	B	13.5	B	Y
		Worst Mvmt	SB		SB		
		2. Weekday Commuter PM	35.4	**E**	42.1	**E**	
		Worst Mvmt	SB		SB		
		3. Weekday Pre-Event PM (14.5k)	34.8	D	35.4	**E**	
		Worst Mvmt	SB		SB		
		4. Weekday Pre-Event PM (20k)	-	-	36.6	**E**	
		Worst Mvmt			SB		
		5. Weekend Midday	15.0	C	15.4	C	
		Worst Mvmt	SB		SB		
29	Barnett Ave & Midway Dr	1. Weekday AM	28.6	C	23.1	C	Y
		2. Weekday Commuter PM	70.7	**E**	74.0	**E**	
		3. Weekday Pre-Event PM (14.5k)	54.0	D	47.1	D	
		4. Weekday Pre-Event PM (20k)	-	-	50.6	D	
		5. Weekend Midday	27.3	C	26.4	C	
30	Sea World Dr & Friars Rd	1. Weekday AM	5.5	A	5.5	A	N
		2. Weekday Commuter PM	5.7	A	5.7	A	
		3. Weekday Pre-Event PM (14.5k)	4.8	A	4.8	A	
		4. Weekday Pre-Event PM (20k)	-	-	4.8	A	
		5. Weekend Midday	4.8	A	4.8	A	
31	Sea World Dr & E Mission Bay Dr/Pacific Highway	1. Weekday AM	16.6	B	16.0	B	N
		2. Weekday Commuter PM	30.7	C	30.8	C	
		3. Weekday Pre-Event PM (14.5k)	23.5	C	24.3	C	
		4. Weekday Pre-Event PM (20k)	-	-	25.6	C	
		5. Weekend Midday	22.1	C	22.1	C	
32	I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr	1. Weekday AM	32.6	C	34.5	C	N
		2. Weekday Commuter PM	22.8	C	23.6	C	
		3. Weekday Pre-Event PM (14.5k)	23.5	C	24.0	C	
		4. Weekday Pre-Event PM (20k)	-	-	24.3	C	
		5. Weekend Midday	19.7	**E**	17.6	B	
33	Kemper St & Kurtz St	1. Weekday AM	-	-	11.4	B	N
		2. Weekday Commuter PM	-	-	13.8	B	
		3. Weekday Pre-Event PM (14.5k)	-	-	12.1	B	
		4. Weekday Pre-Event PM (20k)	-	-	13.0	B	
		5. Weekend Midday	-	-	12.3	B	
34	Frontier Dr & Kurtz St	1. Weekday AM	-	-	10.8	B	N
		2. Weekday Commuter PM	-	-	12.2	B	
		3. Weekday Pre-Event PM (14.5k)	-	-	12.1	B	
		4. Weekday Pre-Event PM (20k)	-	-	12.5	B	
		5. Weekend Midday	-	-	10.3	B	
35	H1 Dwy 1 & Kurtz St	1. Weekday AM	-	-	12.2	B	N
		2. Weekday Commuter PM	-	-	8.9	A	
		3. Weekday Pre-Event PM (14.5k)	-	-	8.9	A	
		4. Weekday Pre-Event PM (20k)	-	-	9.1	A	
		5. Weekend Midday	-	-	8.1	A	
36	E2 Dwy & Kurtz St	1. Weekday AM	-	-	10.0	B	N
		2. Weekday Commuter PM	-	-	11.4	B	
		3. Weekday Pre-Event PM (14.5k)	-	-	10.8	B	
		4. Weekday Pre-Event PM (20k)	-	-	11.1	B	
		5. Weekend Midday	-	-	10.7	B	
37	Sports Arena Blvd & B2 Dwy	1. Weekday AM	-	-	14.1	B	N
		2. Weekday Commuter PM	-	-	15.5	C	
		3. Weekday Pre-Event PM (14.5k)	-	-	14.0	B	
		4. Weekday Pre-Event PM (20k)	-	-	14.1	B	
		5. Weekend Midday	-	-	16.4	C	
38	Sports Arena Blvd & F/G Dwy	1. Weekday AM	-	-	12.4	B	N
		2. Weekday Commuter PM	-	-	15.2	C	
		3. Weekday Pre-Event PM (14.5k)	-	-	13.4	B	
		4. Weekday Pre-Event PM (20k)	-	-	13.5	B	
		5. Weekend Midday	-	-	16.5	C	
39	A3 Dwy & Kurtz St	1. Weekday AM	-	-	17.0	C	N
		2. Weekday Commuter PM	-	-	19.9	C	
		3. Weekday Pre-Event PM (14.5k)	-	-	15.8	C	
		4. Weekday Pre-Event PM (20k)	-	-	17.7	C	
		5. Weekend Midday	-	-	15.0	C	
40	X Dwy & Kurtz St	1. Weekday AM	-	-	12.7	B	N
		2. Weekday Commuter PM	-	-	12.0	B	
		3. Weekday Pre-Event PM (14.5k)	-	-	11.5	B	
		4. Weekday Pre-Event PM (20k)	-	-	11.8	B	
		5. Weekend Midday	-	-	10.4	B	

Notes:

Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition and Highway Capacity Manual 2000 Edition* and performed using Synchro 11

9.2.2.1 Intersection LOS Comparison for Proposed Roundabout

The Midway Rising project proposes to provide a single-lane roundabout at the intersection of Hancock Street/ Kurtz Street rather than a traffic signal, which is proposed in the Midway-Pacific Highway Community Plan. The roundabout is intended to improve operational flow for the project as well as the rest of the community as redevelopment continues to occur on the north side of Hancock Street.

Table 9-2 summarizes a comparison between the roundabout and signalized intersection LOS results under the Opening Year (2035) Plus Project Phase 2 Buildout scenario at the intersection of Hancock Street /Kurtz Street. **Table 9-2** shows that both proposed intersection controls would be expected to operate at an acceptable LOS D or better, but the roundabout control would be expected to operate with a lower average delay than the signal control.

Table 9-2. Intersection LOS Analysis Comparison for Proposed Roundabout at Hancock St / Kurtz Street

Peak Hour	Intersection Control	Analysis Method	Opening Year (2035) Plus Project Phase 2 Buildout	
			Delay (s)	LOS
AM	Roundabout	SIDRA (HCM 6th)	4.8	A
	Signal	Synchro (HCM 6th)	11.1	B
PM	Roundabout	SIDRA (HCM 6th)	7.8	A
	Signal	Synchro (HCM 6th)	11.5	B

Appendix Z shows analysis results for Intersection #11 modeled as a signalized intersection and a roundabout for the 2035 With Project Phase 2 Buildout Scenario AM and PM peak periods.

9.2.3 QUEUEING ANALYSIS

Table 9-3 displays the 95th percentile queues under the Opening Year (2035) Plus Project Phase 2 Buildout scenario with 14,500-spectators. The 95th percentile queue lengths reported represent an average of five SimTraffic runs. **Appendix AA** contains the 95th percentile queue worksheets for Opening Year (2035) Plus Project Phase 2 Buildout scenario with 14,500-spectators. Under Opening Year (2035) Plus Project Phase 2 Buildout scenario, queues exceed the existing available storage length at:

- 10 intersections in the Commuter AM peak hour,
- 16 intersections in the Commuter PM peak hour, and
- 14 intersections in the Pre-Event PM peak hour with 14,500-spectator event.
- 18 intersections in the Weekend Midday peak hour

9.2.4 ROADWAY SEGMENT ANALYSIS

The Opening Year (2035) Plus Project Phase 2 Buildout scenario roadway segment analysis was performed based on proposed roadway geometries and 2035 expected daily roadway segment volumes on a weekday, 14,500-spectator event day. **Table 9-4** summarizes the roadway segment LOS analysis at the study segments under Opening Year (2035) Plus Project Phase 2 Buildout scenario for a weekday event day.

Under Opening Year (2035) Plus Project Phase 2 scenario (14,500-spectator event), the project would be expected to cause a project effect at the following locations:

- Sports Arena Boulevard between I-8 EB On Ramp and W Point Loma Boulevard (LOS E)
- Sports Arena Boulevard between W Point Loma Boulevard and Hancock St (LOS F)
- Camino Del Rio W between Hancock Street and Kurtz Street (LOS E)
- Kurtz Street between Kemper Street and Frontier Drive (LOS F)
- Kurtz Street between Frontier Drive and Sherman Street (LOS F)
- Hancock Street between Sports Arena Boulevard and Channel Way (LOS F)
- Hancock Street between Channel Way and Kurtz Street (LOS F)

The following roadway segments would be expected to operate at LOS E or F under the Opening Year (2035) Plus Project Phase 2 Buildout scenario (14,500-spectator event), but are not identified as a project effect:

- Camino del Rio W North of Greenwood Street (LOS F)
- Camino Del Rio W between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Rosecrans Street (LOS E)

Table 9-3. Opening Year (2035) Plus Project Phase 2 Buildout Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2035 Base		2035 With Project		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	4200	Weekday AM	329	No	1,399	No	N
				Weekday PM	2,642	No	2,879	No	
				Weekday Pre-Event (14.5k)	460	No	3,376	No	
				Weekday Pre-Event (20k)	-	-	3,217	No	
				Weekend Midday	716	No	1,228	No	
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360	Weekday AM	211	No	564	**Yes**	Y
				Weekday PM	517	**Yes**	549	**Yes**	
				Weekday Pre-Event (14.5k)	540	**Yes**	568	**Yes**	
				Weekday Pre-Event (20k)	-	-	554	**Yes**	
				Weekend Midday	464	**Yes**	591	**Yes**	
		WBL	150	Weekday AM	<25	No	36	No	
				Weekday PM	58	No	115	No	
				Weekday Pre-Event (14.5k)	47	No	56	No	
				Weekday Pre-Event (20k)	-	-	55	No	
				Weekend Midday	29	No	<25	No	
		NBL	230	Weekday AM	81	No	85	No	
				Weekday PM	107	No	181	No	
				Weekday Pre-Event (14.5k)	100	No	157	No	
				Weekday Pre-Event (20k)	-	-	156	No	
				Weekend Midday	208	No	215	No	
3	Sports Arena Boulevard & Hancock Street	EBL	160	Weekday AM	71	No	117	No	Y
				Weekday PM	134	No	318	**Yes**	
				Weekday Pre-Event (14.5k)	103	No	287	**Yes**	
				Weekday Pre-Event (20k)	-	-	310	**Yes**	
				Weekend Midday	105	No	261	**Yes**	
		WBL	100	Weekday AM	<25	No	<25	No	
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	-	-	<25	No	
				Weekend Midday	32	No	33	No	
4	Sports Arena Boulevard & Kemper Street	EBL	440	Weekday AM	53	No	80	No	Y
				Weekday PM	83	No	656	**Yes**	
				Weekday Pre-Event (14.5k)	129	No	634	**Yes**	
				Weekday Pre-Event (20k)	-	-	655	**Yes**	
				Weekend Midday	83	No	572	**Yes**	
		WBL	175	Weekday AM	104	No	142	No	
				Weekday PM	167	No	307	**Yes**	
				Weekday Pre-Event (14.5k)	129	No	267	**Yes**	
				Weekday Pre-Event (20k)	-	-	281	**Yes**	
				Weekend Midday	144	No	166	No	
		NBL	100	Weekday AM	95	No	99	No	
				Weekday PM	136	**Yes**	226	**Yes**	
				Weekday Pre-Event (14.5k)	150	**Yes**	229	**Yes**	
				Weekday Pre-Event (20k)	-	-	227	**Yes**	
				Weekend Midday	116	**Yes**	218	**Yes**	
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330	Weekday AM	44	No	114	No	Y
				Weekday PM	47	No	315	No	
				Weekday Pre-Event (14.5k)	39	No	331	**Yes**	
				Weekday Pre-Event (20k)	-	-	315	No	
				Weekend Midday	53	No	320	No	
		WBL	175	Weekday AM	90	No	159	No	
				Weekday PM	128	No	170	No	
				Weekday Pre-Event (14.5k)	125	No	116	No	
				Weekday Pre-Event (20k)	-	-	139	No	
				Weekend Midday	155	No	126	No	
6	Sports Arena Boulevard & Target Driveway	EBL	150	Weekday AM	28	No	-	-	Y
				Weekday PM	63	No	-	-	
				Weekday Pre-Event (14.5k)	56	No	-	-	
				Weekday Pre-Event (20k)	-	-	-	-	
				Weekend Midday	26	No	-	-	
		WBL	125	Weekday AM	62	No	87	No	
				Weekday PM	75	No	87	No	
				Weekday Pre-Event (14.5k)	64	No	97	No	
				Weekday Pre-Event (20k)	-	-	77	No	
				Weekend Midday	160	**Yes**	203	**Yes**	
7	Sports Arena Boulevard & East Driveway	EBL	125	Weekday AM	41	No	-	-	Y
				Weekday PM	75	No	-	-	
				Weekday Pre-Event (14.5k)	67	No	-	-	
				Weekday Pre-Event (20k)	-	-	-	-	
				Weekend Midday	64	No	-	-	
		WBL	125	Weekday AM	111	No	154	**Yes**	
				Weekday PM	237	**Yes**	236	**Yes**	
				Weekday Pre-Event (14.5k)	228	**Yes**	239	**Yes**	
				Weekday Pre-Event (20k)	-	-	239	**Yes**	
				Weekend Midday	167	**Yes**	180	**Yes**	
		NBR	100	Weekday AM	51	No	61	No	
				Weekday PM	166	**Yes**	146	**Yes**	
				Weekday Pre-Event (14.5k)	147	**Yes**	110	**Yes**	
				Weekday Pre-Event (20k)	-	-	103	**Yes**	
				Weekend Midday	99	No	124	**Yes**	

Table 9-3. Opening Year (2035) Plus Project Phase 2 Buildout Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2035 Base		2035 With Project		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
8	Midway Drive & Kemper Street	EBL	320	Weekday AM	87	No	94	No	Y
				Weekday PM	97	No	368	**Yes**	
				Weekday Pre-Event (14.5k)	106	No	439	**Yes**	
				Weekday Pre-Event (20k)	-	-	299	No	
				Weekend Midday	189	No	209	No	
		EBR	150	Weekday AM	49	No	54	No	
				Weekday PM	64	No	43	No	
				Weekday Pre-Event (14.5k)	80	No	64	No	
				Weekday Pre-Event (20k)	-	-	55	No	
				Weekend Midday	151	**Yes**	51	No	
		WBL	250	Weekday AM	77	No	77	No	
				Weekday PM	176	No	417	**Yes**	
				Weekday Pre-Event (14.5k)	156	No	242	No	
				Weekday Pre-Event (20k)	-	-	242	No	
				Weekend Midday	163	No	116	No	
		NBL	90	Weekday AM	92	**Yes**	95	**Yes**	
				Weekday PM	200	**Yes**	209	**Yes**	
				Weekday Pre-Event (14.5k)	181	**Yes**	209	**Yes**	
				Weekday Pre-Event (20k)	-	-	205	**Yes**	
				Weekend Midday	174	**Yes**	214	**Yes**	
		SBL	100	Weekday AM	52	No	101	**Yes**	
				Weekday PM	78	No	93	No	
				Weekday Pre-Event (14.5k)	91	No	112	**Yes**	
				Weekday Pre-Event (20k)	-	-	96	No	
				Weekend Midday	105	**Yes**	111	**Yes**	
		SBR	115	Weekday AM	54	No	58	No	
				Weekday PM	109	No	101	No	
				Weekday Pre-Event (14.5k)	67	No	87	No	
				Weekday Pre-Event (20k)	-	-	69	No	
				Weekend Midday	119	**Yes**	87	No	
9	Midway Drive & East Drive	EBL	90	Weekday AM	28	No	43	No	N
				Weekday PM	106	**Yes**	44	No	
				Weekday Pre-Event (14.5k)	53	No	32	No	
				Weekday Pre-Event (20k)	-	-	30	No	
				Weekend Midday	129	**Yes**	120	**Yes**	
		WBL	100	Weekday AM	48	No	48	No	
				Weekday PM	46	No	58	No	
				Weekday Pre-Event (14.5k)	51	No	68	No	
				Weekday Pre-Event (20k)	-	-	84	No	
				Weekend Midday	101	**Yes**	48	No	
10	Hancock Street & Channel Way	NBL	60	Weekday AM	47	No	46	No	N
				Weekday PM	41	No	57	No	
				Weekday Pre-Event (14.5k)	34	No	<25	No	
				Weekday Pre-Event (20k)	-	-	29	No	
				Weekend Midday	34	No	36	No	
17	Camino Del Rio West & Hancock Street	NBL	100	Weekday AM	73	No	57	No	Y
				Weekday PM	167	**Yes**	217	**Yes**	
				Weekday Pre-Event (14.5k)	177	**Yes**	175	**Yes**	
				Weekday Pre-Event (20k)	-	-	175	**Yes**	
				Weekend Midday	149	**Yes**	131	**Yes**	
		I-5 SB Off-Ramp	3500	Weekday AM	623	No	632	No	
				Weekday PM	633	No	774	No	
				Weekday Pre-Event (14.5k)	453	No	645	No	
				Weekday Pre-Event (20k)	-	-	687	No	
				Weekend Midday	1,404	No	1,371	No	
		I-8 WB Off-Ramp	3700	Weekday AM	1,317	No	1,357	No	
				Weekday PM	1,362	No	1,962	No	
				Weekday Pre-Event (14.5k)	595	No	1,411	No	
				Weekday Pre-Event (20k)	-	-	1,591	No	
				Weekend Midday	4,645	**Yes**	4,507	**Yes**	
		SBR	130	Weekday AM	240	**Yes**	220	**Yes**	
				Weekday PM	174	**Yes**	240	**Yes**	
				Weekday Pre-Event (14.5k)	209	**Yes**	243	**Yes**	
				Weekday Pre-Event (20k)	-	-	262	**Yes**	
				Weekend Midday	220	**Yes**	235	**Yes**	
18	Camino Del Rio West & Kurtz Street	EBR	200	Weekday AM	65	No	-	-	N
				Weekday PM	324	**Yes**	-	-	
				Weekday Pre-Event (14.5k)	288	**Yes**	-	-	
				Weekday Pre-Event (20k)	-	-	-	-	
				Weekend Midday	354	**Yes**	-	-	
		SBL	100	Weekday AM	207	**Yes**	205	**Yes**	
				Weekday PM	190	**Yes**	138	**Yes**	
				Weekday Pre-Event (14.5k)	185	**Yes**	89	No	
				Weekday Pre-Event (20k)	-	-	107	**Yes**	
				Weekend Midday	184	**Yes**	179	**Yes**	

Table 9-3. Opening Year (2035) Plus Project Phase 2 Buildout Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2035 Base		2035 With Project		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
19	Camino Del Rio West & Sports Arena Boulevard	EBR	300	Weekday AM	146	No	238	No	Y
				Weekday PM	276	No	258	No	
				Weekday Pre-Event (14.5k)	244	No	273	No	
				Weekday Pre-Event (20k)	-	-	259	No	
				Weekend Midday	360	**Yes**	410	**Yes**	
		WBL	180	Weekday AM	178	No	173	No	
				Weekday PM	182	**Yes**	178	No	
				Weekday Pre-Event (14.5k)	175	No	166	No	
				Weekday Pre-Event (20k)	-	-	164	No	
				Weekend Midday	202	**Yes**	230	**Yes**	
		NBL	260	Weekday AM	173	No	156	No	
				Weekday PM	286	**Yes**	326	**Yes**	
				Weekday Pre-Event (14.5k)	335	**Yes**	254	No	
				Weekday Pre-Event (20k)	-	-	280	**Yes**	
				Weekend Midday	349	**Yes**	324	**Yes**	
20	Rosecrans Street & Midway Drive	EBL	100	Weekday AM	136	**Yes**	136	**Yes**	Y
				Weekday PM	216	**Yes**	209	**Yes**	
				Weekday Pre-Event (14.5k)	207	**Yes**	190	**Yes**	
				Weekday Pre-Event (20k)	-	-	185	**Yes**	
				Weekend Midday	208	**Yes**	197	**Yes**	
		EBR	240	Weekday AM	139	No	159	No	
				Weekday PM	330	**Yes**	232	No	
				Weekday Pre-Event (14.5k)	225	No	166	No	
				Weekday Pre-Event (20k)	0	0	172	No	
				Weekend Midday	233	No	224	No	
		WBL	250	Weekday AM	240	No	209	No	
				Weekday PM	259	**Yes**	273	**Yes**	
				Weekday Pre-Event (14.5k)	208	No	261	**Yes**	
				Weekday Pre-Event (20k)	-	-	263	**Yes**	
				Weekend Midday	268	**Yes**	310	**Yes**	
		WBR	180	Weekday AM	228	**Yes**	205	**Yes**	
				Weekday PM	311	**Yes**	309	**Yes**	
				Weekday Pre-Event (14.5k)	306	**Yes**	342	**Yes**	
				Weekday Pre-Event (20k)	-	-	354	**Yes**	
				Weekend Midday	339	**Yes**	283	**Yes**	
		NBL	280	Weekday AM	248	No	247	No	
				Weekday PM	319	**Yes**	390	**Yes**	
				Weekday Pre-Event (14.5k)	343	**Yes**	373	**Yes**	
				Weekday Pre-Event (20k)	-	-	387	**Yes**	
				Weekend Midday	434	**Yes**	493	**Yes**	
		SBL	320	Weekday AM	287	No	270	No	
				Weekday PM	281	No	266	No	
				Weekday Pre-Event (14.5k)	223	No	224	No	
				Weekday Pre-Event (20k)	-	-	224	No	
				Weekend Midday	265	No	265	No	
21	Rosecrans Street & North Evergreen Street	NBL	180	Weekday AM	60	No	43	No	Y
				Weekday PM	31	No	30	No	
				Weekday Pre-Event (14.5k)	<25	No	28	No	
				Weekday Pre-Event (20k)	-	-	26	No	
				Weekend Midday	87	No	132	No	
		SBL	310	Weekday AM	386	**Yes**	406	**Yes**	
				Weekday PM	185	No	144	No	
				Weekday Pre-Event (14.5k)	175	No	138	No	
				Weekday Pre-Event (20k)	-	-	137	No	
				Weekend Midday	239	No	207	No	
22	Rosecrans Street & Lytton Street	WBL	245	Weekday AM	374	**Yes**	335	**Yes**	Y
				Weekday PM	371	**Yes**	358	**Yes**	
				Weekday Pre-Event (14.5k)	372	**Yes**	361	**Yes**	
				Weekday Pre-Event (20k)	-	-	348	**Yes**	
				Weekend Midday	246	**Yes**	271	**Yes**	
		NBL	100	Weekday AM	103	**Yes**	72	No	
				Weekday PM	107	**Yes**	78	No	
				Weekday Pre-Event (14.5k)	93	No	101	**Yes**	
				Weekday Pre-Event (20k)	-	-	92	No	
				Weekend Midday	78	No	79	No	
		NBR	490	Weekday AM	305	No	263	No	
				Weekday PM	449	No	532	**Yes**	
				Weekday Pre-Event (14.5k)	206	No	193	No	
				Weekday Pre-Event (20k)	-	-	237	No	
				Weekend Midday	172	No	696	**Yes**	
		SBL	470	Weekday AM	748	**Yes**	714	**Yes**	
				Weekday PM	124	No	119	No	
				Weekday Pre-Event (14.5k)	88	No	93	No	
				Weekday Pre-Event (20k)	-	-	89	No	
				Weekend Midday	162	No	179	No	

Table 9-3. Opening Year (2035) Plus Project Phase 2 Buildout Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2035 Base		2035 With Project		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
23	Rosecrans Street & Kurtz Street	WBR	70	Weekday AM	142	**Yes**	169	**Yes**	Y
				Weekday PM	166	**Yes**	136	**Yes**	
				Weekday Pre-Event (14.5k)	111	**Yes**	72	**Yes**	
				Weekday Pre-Event (20k)	-	-	69	No	
				Weekend Midday	180	**Yes**	151	**Yes**	
		SBL	100	Weekday AM	62	No	56	No	
				Weekday PM	70	No	114	**Yes**	
				Weekday Pre-Event (14.5k)	55	No	43	No	
				Weekday Pre-Event (20k)	-	-	45	No	
				Weekend Midday	78	No	130	**Yes**	
24	Rosecrans Street & Hancock Street	NBL	120	Weekday AM	61	No	70	No	Y
				Weekday PM	116	No	71	No	
				Weekday Pre-Event (14.5k)	133	**Yes**	142	**Yes**	
				Weekday Pre-Event (20k)	-	-	160	**Yes**	
				Weekend Midday	102	No	143	**Yes**	
25	Pacific Highway & Rosecrans Street	EBL	120	Weekday AM	81	No	71	No	Y
				Weekday PM	115	No	90	No	
				Weekday Pre-Event (14.5k)	95	No	77	No	
				Weekday Pre-Event (20k)	-	-	65	No	
				Weekend Midday	56	No	36	No	
		EBR	100	Weekday AM	51	No	46	No	
				Weekday PM	94	No	113	**Yes**	
				Weekday Pre-Event (14.5k)	55	No	63	No	
				Weekday Pre-Event (20k)	-	-	67	No	
				Weekend Midday	61	No	59	No	
		WBL	150	Weekday AM	119	No	119	No	
				Weekday PM	119	No	125	No	
				Weekday Pre-Event (14.5k)	120	No	126	No	
				Weekday Pre-Event (20k)	-	-	132	No	
				Weekend Midday	109	No	104	No	
		NBL	150	Weekday AM	108	No	97	No	
				Weekday PM	177	**Yes**	164	**Yes**	
				Weekday Pre-Event (14.5k)	263	**Yes**	265	**Yes**	
				Weekday Pre-Event (20k)	-	-	272	**Yes**	
				Weekend Midday	111	No	126	No	
		NBR	320	Weekday AM	70	No	57	No	
				Weekday PM	164	No	149	No	
				Weekday Pre-Event (14.5k)	66	No	72	No	
				Weekday Pre-Event (20k)	-	-	65	No	
				Weekend Midday	35	No	39	No	
		SBL	230	Weekday AM	56	No	43	No	
				Weekday PM	84	No	78	No	
				Weekday Pre-Event (14.5k)	75	No	64	No	
				Weekday Pre-Event (20k)	-	-	76	No	
				Weekend Midday	61	No	67	No	
26	Pacific Highway & Kurtz Street	NBL	200	Weekday AM	196	No	167	No	Y
				Weekday PM	235	**Yes**	219	**Yes**	
				Weekday Pre-Event (14.5k)	179	No	136	No	
				Weekday Pre-Event (20k)	-	-	135	No	
				Weekend Midday	100	No	308	**Yes**	
27	Pacific Highway & Enterprise Street	EBL	200	Weekday AM	46	No	39	No	Y
				Weekday PM	136	No	129	No	
				Weekday Pre-Event (14.5k)	117	No	105	No	
				Weekday Pre-Event (20k)	-	-	135	No	
				Weekend Midday	51	No	64	No	
		EBR	200	Weekday AM	26	No	28	No	
				Weekday PM	72	No	72	No	
				Weekday Pre-Event (14.5k)	46	No	46	No	
				Weekday Pre-Event (20k)	-	-	45	No	
				Weekend Midday	37	No	32	No	
		NBL	280	Weekday AM	352	**Yes**	321	**Yes**	
				Weekday PM	384	**Yes**	404	**Yes**	
				Weekday Pre-Event (14.5k)	340	**Yes**	421	**Yes**	
				Weekday Pre-Event (20k)	-	-	401	**Yes**	
				Weekend Midday	202	No	327	**Yes**	
		NBR	300	Weekday AM	35	No	<25	No	
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	54	No	
				Weekday Pre-Event (20k)	-	-	<25	No	
				Weekend Midday	<25	No	55	No	
		SBL	200	Weekday AM	182	No	152	No	
				Weekday PM	144	No	222	**Yes**	
				Weekday Pre-Event (14.5k)	128	No	177	No	
				Weekday Pre-Event (20k)	-	-	155	No	
				Weekend Midday	48	No	<25	No	

Table 9-3. Opening Year (2035) Plus Project Phase 2 Buildout Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2035 Base		2035 With Project		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
30	Sea World Drive & Friars Rd	WBR	300	Weekday AM	<25	No	<25	No	N
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	-	-	<25	No	
				Weekend Midday	<25	No	<25	No	
		NBR	185	Weekday AM	60	No	59	No	
				Weekday PM	312	**Yes**	134	No	
				Weekday Pre-Event (14.5k)	58	No	62	No	
				Weekday Pre-Event (20k)	-	-	56	No	
				Weekend Midday	68	No	56	No	
		SBL	300	Weekday AM	60	No	58	No	
				Weekday PM	105	No	65	No	
				Weekday Pre-Event (14.5k)	60	No	60	No	
				Weekday Pre-Event (20k)	-	-	65	No	
				Weekend Midday	63	No	57	No	
31	Sea World Drive & Pacific Highway	EBL	250	Weekday AM	41	No	47	No	Y
				Weekday PM	115	No	122	No	
				Weekday Pre-Event (14.5k)	102	No	100	No	
				Weekday Pre-Event (20k)	-	-	117	No	
				Weekend Midday	151	No	159	No	
		EBR	200	Weekday AM	28	No	<25	No	
				Weekday PM	95	No	82	No	
				Weekday Pre-Event (14.5k)	69	No	68	No	
				Weekday Pre-Event (20k)	-	-	76	No	
				Weekend Midday	94	No	74	No	
		WBL	125	Weekday AM	61	No	48	No	
				Weekday PM	90	No	93	No	
				Weekday Pre-Event (14.5k)	72	No	74	No	
				Weekday Pre-Event (20k)	-	-	79	No	
				Weekend Midday	43	No	40	No	
		WBR	200	Weekday AM	53	No	43	No	
				Weekday PM	73	No	71	No	
				Weekday Pre-Event (14.5k)	49	No	42	No	
				Weekday Pre-Event (20k)	-	-	44	No	
				Weekend Midday	35	No	38	No	
		NBL	325	Weekday AM	44	No	42	No	
				Weekday PM	401	**Yes**	440	**Yes**	
				Weekday Pre-Event (14.5k)	52	No	45	No	
				Weekday Pre-Event (20k)	-	-	44	No	
				Weekend Midday	64	No	64	No	
		NBR	100	Weekday AM	87	No	66	No	
				Weekday PM	242	**Yes**	238	**Yes**	
				Weekday Pre-Event (14.5k)	125	**Yes**	131	**Yes**	
				Weekday Pre-Event (20k)	-	-	146	**Yes**	
				Weekend Midday	64	No	81	No	
		SBL	215	Weekday AM	78	No	73	No	
				Weekday PM	254	**Yes**	336	**Yes**	
				Weekday Pre-Event (14.5k)	298	**Yes**	378	**Yes**	
				Weekday Pre-Event (20k)	-	-	381	**Yes**	
				Weekend Midday	293	**Yes**	316	**Yes**	
32	Sea World Drive & I-5 Southbound Ramps	EBR	400	Weekday AM	47	No	41	No	Y
				Weekday PM	113	No	118	No	
				Weekday Pre-Event (14.5k)	77	No	79	No	
				Weekday Pre-Event (20k)	-	-	86	No	
				Weekend Midday	84	No	90	No	
		WBL	120	Weekday AM	215	**Yes**	217	**Yes**	
				Weekday PM	205	**Yes**	208	**Yes**	
				Weekday Pre-Event (14.5k)	213	**Yes**	218	**Yes**	
				Weekday Pre-Event (20k)	-	-	214	**Yes**	
				Weekend Midday	215	**Yes**	200	**Yes**	
		I-5 SB Off-Ramp	3700	Weekday AM	152	No	205	No	
				Weekday PM	154	No	381	No	
				Weekday Pre-Event (14.5k)	153	No	858	No	
				Weekday Pre-Event (20k)	-	-	1,529	No	
				Weekend Midday	155	No	298	No	
33	Kemper St & Kurtz St	NBL	150	Weekday AM	0	0	86	No	N
				Weekday PM	0	0	48	No	
				Weekday Pre-Event (14.5k)	0	0	56	No	
				Weekday Pre-Event (20k)	0	0	49	No	
				Weekend Midday	0	0	48	No	
34	Frontier Dr & Kurtz St	NBL	150	Weekday AM	0	0	<25	No	N
				Weekday PM	0	0	<25	No	
				Weekday Pre-Event (14.5k)	0	0	<25	No	
				Weekday Pre-Event (20k)	0	0	<25	No	
				Weekend Midday	0	0	<25	No	

Table 9-4. Opening Year (2035) Plus Project Phase 2 Buildout with 14,500-Spectator Event Roadway Segment LOS Summary

ID	Roadway Segment	Extents	2035 Base Weekday Event-Day					2035 (14.5k) With Project Phase 2 Buildout Weekday Event-Day					
			Functional Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	With Project Classification[6]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	Project Effect (Y/N?)
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp	6 Lane Prime Arterial	60,000	14,709	0.245	A	6 Lane Prime Arterial	60,000	22,588	0.376	A	N
2		I-8 EB On Ramp to W Point Loma Boulevard	5 Lane Major Arterial	45,000	30,471	0.677	C	5 Lane Major Arterial	45,000	43,625	0.969	**E**	Y
3		W Point Loma Boulevard to Hancock Street	5 Lane Collector (with two-way left-turn Lane)	37,500	19,520	0.521	C	5 Lane Collector (with two-way left-turn Lane)	37,500	42,489	1.133	**F**	Y
4		Hancock Street to Kemper Street	5 Lane Collector (with two-way left-turn Lane)	37,500	19,547	0.521	C	5 Lane Collector (with two-way left-turn Lane)	37,500	29,012	0.774	D	N
5		Kemper Street to Frontier Drive	5 Lane Major Arterial	45,000	19,509	0.434	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	30,559	0.764	D	N
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	20,385	0.408	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	23,468	0.587	C	N
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	25,459	0.509	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	27,753	0.694	C	N
8		Rosecrans Street to Pacific Highway	2 Lane Collector (without two-way left-turn lane)	8,000	2,101	0.263	A	2 Lane Collector (without two-way left-turn lane)	8,000	6,044	0.755	D	N
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	64,667	1.078	**F**	6 Lane Prime Arterial	60,000	72,101	1.202	**F**	N
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	64,681	1.078	**F**	6 Lane Prime Arterial	60,000	72,221	1.204	**F**	N
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	54,177	0.903	D	6 Lane Prime Arterial	60,000	58,630	0.977	**E**	Y
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Collector (with two-way left-turn Lane)	30,000	10,647	0.355	B	2 Lane Collector (with 2 flexible lanes)	15,000	11,080	0.739	D	N
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	60,671	1.213	**F**	6 Lane Major Arterial	50,000	65,461	1.309	**F**	N
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	26,355	0.879	**E**	4 Lane Collector (with two-way left-turn Lane)	30,000	26,567	0.886	**E**	N
15	Kurtz Street	Kemper Street to Frontier Drive	2 Lane Collector (one-way)	17,500	3,333	0.190	A	2 Lane Collector (without two-way left-turn lane)	8,000	17,429	2.179	**F**	Y
16		Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	3,361	0.192	A	2 Lane Collector (without two-way left-turn lane)	8,000	12,157	1.520	**F**	Y
17		Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	5,359	0.306	A	2 Lane Collector (one-way)	17,500	11,278	0.644	C	N
18	Hancock Street	Sports Arena Boulevard to Channel Way	2 Lane Collector (without two-way left-turn lane)	8,000	3,659	0.457	C	4 Lane Collector (without two-way left-turn Lane)	15,000	18,264	1.218	**F**	Y
19		Channel Way to Kurtz St	2 Lane Collector (with two-way left-turn Lane)	15,000	3,548	0.237	A	4 Lane Collector (without two-way left-turn Lane)	15,000	17,253	1.150	**F**	Y
20		Kurtz Street to Greenwood Street	2 Lane Collector (one-way)	17,500	4,523	0.258	A	2 Lane Collector (one-way)	17,500	8,592	0.491	B	N
21		Greenwood Street to Camino Del Rio West	2 Lane Collector (one-way)	17,500	4,523	0.258	A	2 Lane Collector (one-way)	17,500	8,495	0.485	B	N
Future Roadway Segments													
22	*Frontier Drive (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	9,050	0.603	C	N
23	*Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	12,563	0.838	D	N

Notes:

[1]Functional Classification based on the Midway Pacific Highway Community Plan.

[2]LOS E Capacity provided by City of San Diego staff. LOS E capacity of Segment 12 under WP Conditions is based on a 2-lane Collector with two-way left-turn lane as the project wouldn't construct the median for a Major Arterial on Rosecrans St because there is not a project effect, and instead proposes a 2-lane Collector with flex lanes.

[3]ADT - Average Daily Traffic.

[4]V/C Ratio - Volume-to-capacity ratio.

[5]LOS - Level of Service.

[6]With Project Classification based on roadway classifications proposed by the Midway Rising Project.

9.3 FULL CAPACITY EVENT ANALYSIS (20,000 SPECTATORS)

A full capacity event with 20,000 spectators is expected to generate approximately 32,689 average daily vehicle trips with 4,362 Pre-Event PM Peak Hour Trips (3,569 inbound / 793 outbound). The full capacity event was analyzed for the Pre-Event PM peak hour only.

9.3.1 TRAFFIC VOLUMES

The Opening Year (2035) Plus Project Phase 2 Buildout traffic volumes consist of the Opening Year (2035) Base scenario Plus proposed project Phase 2 traffic for full buildout of the project with a 20,000-spectator event. **Figure 9-3** shows the Opening Year (2035) Plus Project Phase 2 Buildout traffic volumes during all peak hours for a 20,000-spectator event.

9.3.2 INTERSECTION ANALYSIS

Table 9-1 displays the LOS analysis results for the study intersections under Opening Year (2035) Plus Project Phase 2 Buildout scenario with 20,000-spectators. Under Opening Year (2035) Plus Project Phase 2 scenario, 8 intersections would be expected to operate at LOS E or F during the Pre-Event PM peak hour with a 20,000-spectator event. **Appendix AB** contains the intersection LOS calculation worksheets for the Opening Year (2035) Plus Project Phase 2 Buildout scenario for the Pre-Event PM peak for a 20,000 spectator event.

9.3.3 QUEUEING ANALYSIS

Table 9-2 displays the 95th percentile queues under the Opening Year (2035) Plus Project Phase 2 Buildout scenario with 20,000-spectators. The 95th percentile queue lengths reported represent an average of five SimTraffic runs. **Appendix AC** contains the 95th percentile queue worksheets for the Opening Year (2035) Plus Project Phase 2 Buildout scenario with 20,000-spectators. Under the Opening Year (2035) Plus Project Phase 2 Buildout scenario, queues exceed the existing available storage length at 29 intersections in the pre-event PM peak with 20,000-spectator event.

9.3.4 ROADWAY SEGMENT ANALYSIS

The Opening Year (2035) Plus Project Phase 2 Buildout scenario roadway segment analysis was performed based on proposed roadway geometries and 2035 daily roadway segment volumes on a weekday, 20,000-spectator event day. **Table 9-5** summarizes the roadway segment LOS analysis at the study segments under the Opening Year (2035) Plus Project Phase 2 Buildout scenario for a 20,000-spectator, weekday event day. Under the Opening Year (2035) Plus Project Phase 2 Buildout scenario, all roadway segments would be expected to operate at LOS D or better on a weekday, 20,000-spectator event day except the following:

Under Opening Year (2035) Plus Project Phase 2 scenario (20,000-spectator event), the project would be expected to cause a project effect at the following locations:

- Sports Arena Boulevard between I-8 EB On Ramp and W Point Loma Boulevard (LOS E)
- Sports Arena Boulevard between W Point Loma Boulevard and Hancock St (LOS F)
- Camino Del Rio W between Hancock Street and Kurtz Street (LOS E)
- Kurtz Street between Kemper Street and Frontier Drive (LOS F)
- Kurtz Street between Frontier Drive and Sherman Street (LOS F)
- Hancock Street between Sports Arena Boulevard and Channel Way (LOS F)
- Hancock Street between Channel Way and Kurtz Street (LOS F)

The following roadway segments would be expected to operate at LOS E or F under the Opening Year (2035) Plus Project Phase 2 Buildout scenario (20,000-spectator event), but are not identified as a project effect:

- Camino del Rio W North of Greenwood Street (LOS F)
- Camino Del Rio W between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Midway Drive between Kemper Street and Rosecrans Street (LOS E)

Figure 9-3. Opening Year (2035) Plus Project Phase 2 Traffic Volumes (20,000 spectators) (Page 1 of 2)

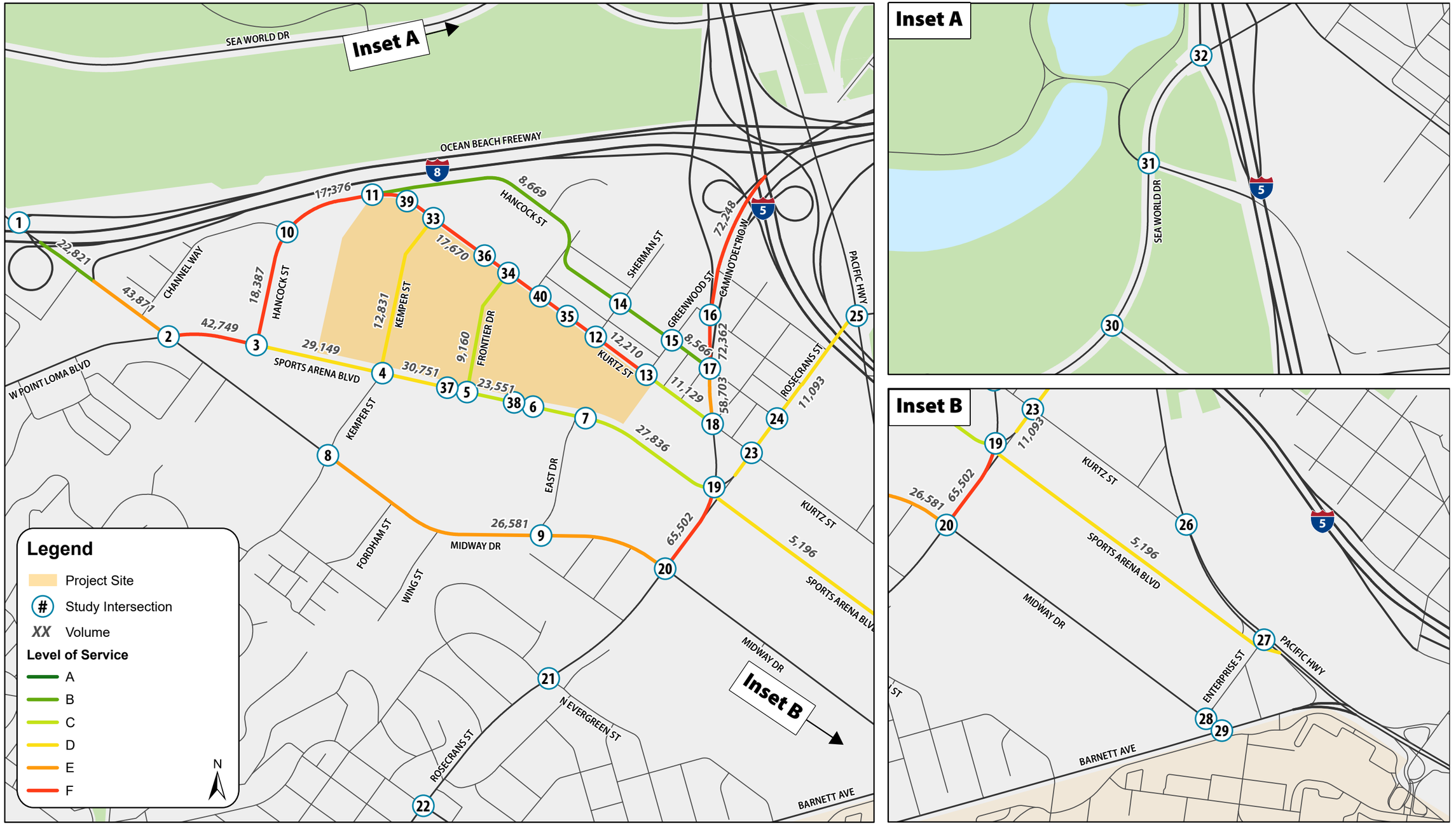
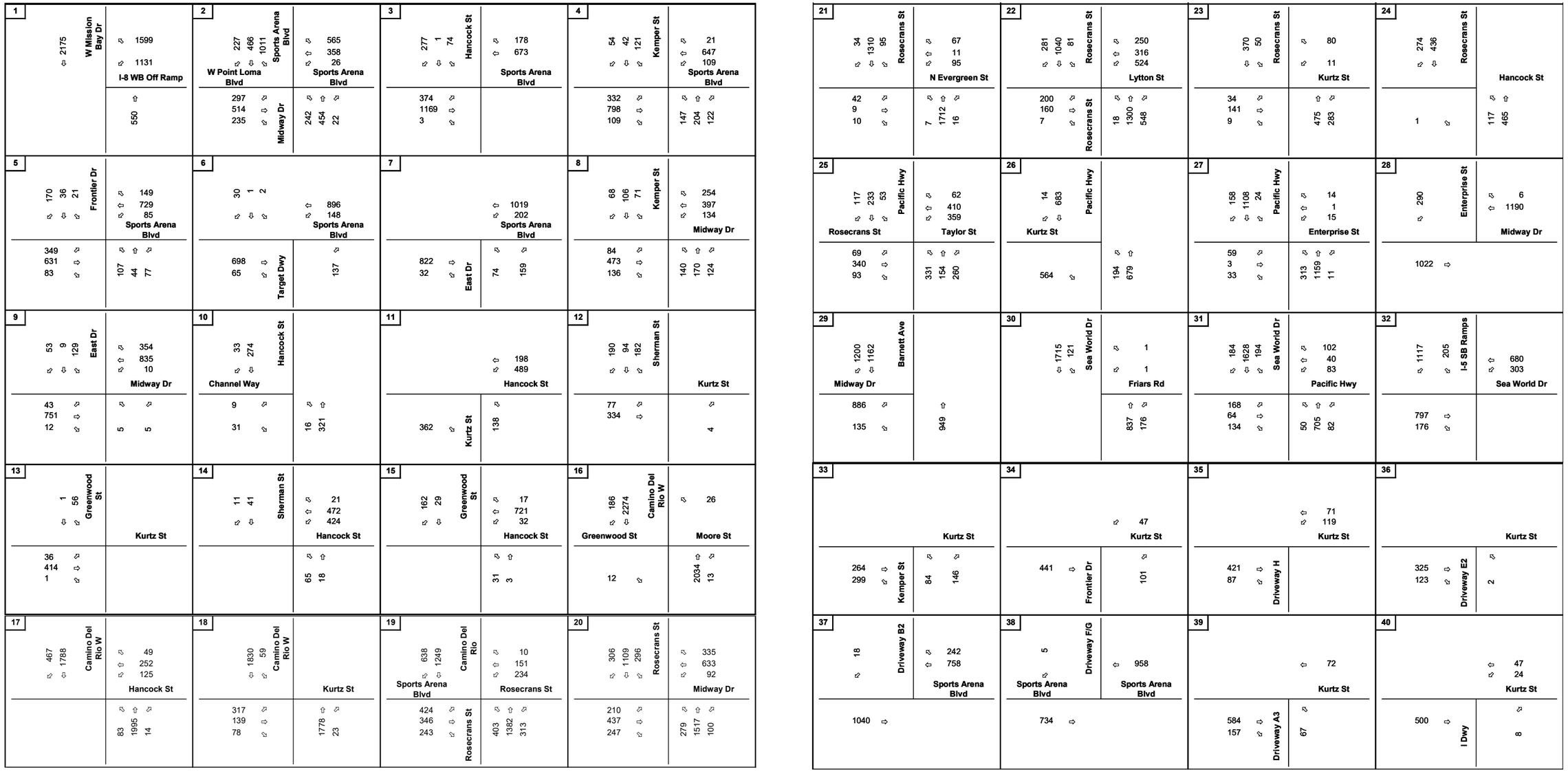


Figure 9-3. Opening Year (2035) Plus Project Phase 2 Traffic Volumes (20,000 spectators) (Page 2 of 2)



Legend

X = Pre-Event Peak Hour Turning Volumes

North

Table 9-5. Opening Year (2035) Plus Project Phase 2 Buildout with 20,000-Spectators Roadway Segment LOS Summary

ID	Roadway Segment	Extents	2035 Base Weekday Event-Day					2035 (20k) With Project Phase 2 Buildout Weekday Event-Day				
			Functional Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	With Project Classification[6]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp	6 Lane Prime Arterial	60,000	14,709	0.245	A	6 Lane Prime Arterial	60,000	22,821	0.380	A
2		I-8 EB On Ramp to W Point Loma Boulevard	5 Lane Major Arterial	45,000	30,471	0.677	C	5 Lane Major Arterial	45,000	43,871	0.975	**E**
3		W Point Loma Boulevard to Hancock Street	5 Lane Collector (with two-way left-turn Lane)	37,500	19,520	0.521	C	5 Lane Collector (with two-way left-turn Lane)	37,500	42,749	1.140	**F**
4		Hancock Street to Kemper Street	5 Lane Collector (with two-way left-turn Lane)	37,500	19,547	0.521	C	5 Lane Collector (with two-way left-turn Lane)	37,500	29,149	0.777	D
5		Kemper Street to Frontier Drive	5 Lane Major Arterial	45,000	19,509	0.434	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	30,751	0.769	D
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	20,385	0.408	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	23,551	0.589	C
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	25,459	0.509	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	27,836	0.696	C
8		Rosecrans Street to Pacific Highway	2 Lane Collector (without two-way left-turn lane)	8,000	2,101	0.263	A	2 Lane Collector (without two-way left-turn lane)	8,000	6,044	0.755	D
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	64,667	1.078	**F**	6 Lane Prime Arterial	60,000	72,248	1.204	**F**
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	64,681	1.078	**F**	6 Lane Prime Arterial	60,000	72,362	1.206	**F**
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	54,177	0.903	D	6 Lane Prime Arterial	60,000	58,703	0.978	**E**
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Collector (with two-way left-turn Lane)	30,000	10,647	0.355	B	2 Lane Collector (with 2 flexible lanes)	15,000	11,093	0.740	D
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	60,671	1.213	**F**	6 Lane Major Arterial	50,000	65,502	1.310	**F**
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	26,355	0.879	**E**	4 Lane Collector (with two-way left-turn Lane)	30,000	26,581	0.886	**E**
15	Kurtz Street	Kemper Street to Frontier Drive	2 Lane Collector (one-way)	17,500	3,333	0.190	A	2 Lane Collector (without two-way left-turn lane)	8,000	17,670	2.209	**F**
16		Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	3,361	0.192	A	2 Lane Collector (without two-way left-turn lane)	8,000	12,210	1.526	**F**
17		Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	5,359	0.306	A	2 Lane Collector (one-way)	17,500	11,129	0.636	C
18	Hancock Street	Sports Arena Boulevard to Channel Way	2 Lane Collector (without two-way left-turn lane)	8,000	3,659	0.457	C	4 Lane Collector (without two-way left-turn Lane)	15,000	18,387	1.226	**F**
19		Channel Way to Kurtz St	2 Lane Collector (with two-way left-turn Lane)	15,000	3,548	0.237	A	4 Lane Collector (without two-way left-turn Lane)	15,000	17,376	1.158	**F**
20		Kurtz Street to Greenwood Street	2 Lane Collector (one-way)	17,500	4,523	0.258	A	2 Lane Collector (one-way)	17,500	8,669	0.495	B
21		Greenwood Street to Camino Del Rio West	2 Lane Collector (one-way)	17,500	4,523	0.258	A	2 Lane Collector (one-way)	17,500	8,566	0.489	B
Future Roadway Segments												
22	*Frontier Drive (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	9,160	0.611	C
23	*Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-	2 Lane Collector (with two-way left-turn Lane)	15,000	12,831	0.855	D

Notes:

[1]Functional Classification based on the Midway Pacific Highway Community Plan.

[2]LOS E Capacity provided by City of San Diego staff. LOS E capacity of Segment 12 under WP Conditions is based on a 2-lane Collector with two-way left-turn lane as the project wouldn't construct the median for a Major Arterial on Rosecrans St because there is not a project effect, and instead proposes a 2-lane Collector with flex lanes.

[3]ADT - Average Daily Traffic.

[4]V/C Ratio - Volume-to-capacity ratio.

[5]LOS - Level of Service.

[6]With Project Classification based on roadway classifications proposed by the Midway Rising Project.

10 OPENING YEAR (2035) PLUS PROJECT PHASE 2 BUILDOUT PLUS IMPROVEMENTS

10.1 SIGNAL OPTIMIZATION

It is assumed that signal optimization will occur at all signalized intersections within the study area due to the increase in vehicle volumes and new travel patterns caused by the project, and the redevelopment of the NAVWAR facility that will require signal optimization to properly serve each approach.

Optimization would include:

- Optimized cycle lengths
- Optimized phase splits
- Optimized corridor offsets for coordinated corridors (Sports Arena Blvd, Rosecrans Street, Camino del Rio)
- Optimized lead/lag left turn phasing

These improvements have been applied to both the Opening Year (2030) Plus Project Phase 1 and the Opening Year (2035) Plus Project Phase 2 Buildout scenarios.

10.2 PROJECT INTERSECTION IMPROVEMENTS

The project would be expected to cause operational effects at the 11 intersections listed in Section 9.2. Operations could be improved to an acceptable level of service at 9 of these intersections by implementing the improvements described in Section 7.2 plus the ones in **Table 10-1** below. Similar to the Opening Year (2030) Plus Project Phase 1 Plus Improvements scenario, improvements made at 2 more of the intersections listed below would improve operations but the intersection would still operate at LOS E for the reasons listed below.

Locations of intersection improvements are shown in **Figure 10-1**. **Figure 10-2** illustrates the resulting lane geometries at the study intersections under Opening Year (2035) Plus Project Plus Improvements.

10.3 PROJECT ROADWAY IMPROVEMENTS

The project would be expected to cause operational effects in Opening Year (2035) Plus Project Phase 2 Buildout at the seven roadway segments listed in Section 9.3.4. The project proposes improvements to two segments. However, the project would still result in a transportation effect on roadway segments, as described further in **Table 10-2** below and **Table 7-2** in Section 7.3.

Table 10-1. Opening Year (2035) Plus Project Phase 2 Buildout Intersection Improvements Summary

Includes improvements from Opening Year (2030) Plus Project Phase 1 with the consideration of the following:

ID	Location	2035 Considered Improvement	2035 Improvement Decision
5	West Dr / Frontier Dr & Sports Arena Blvd	**Improvements:** Signal timing optimization. Increase in the overall signal cycle length to 105 seconds during the AM peak and 150 seconds during the PM and Pre-Event PM peaks. The increase in overall signal cycle length and optimized splits helps accommodate the increase in volumes for the eastbound left turn movement, westbound through movement, and southbound movements. **Results:** Improved to LOS E or better for all peaks. On event days, traffic control personnel would manage signal timing operations at this intersection during the PM peak, and would be able to manually provide green time to the heaviest movements.	**Midway Rising will improve this intersection to the extent feasible by optimizing signal timing and providing traffic control operators beginning at the start of the PM peak on event days.** *Improvements made in light of the CP where the number of eastbound left turn lanes is reduced from 2 to 1 to maintain three through lanes.*
22	Rosecrans Street & Lytton Street	**Improvements:** Restripe eastbound approach of Lytton Street to include 2nd eastbound left turn lane. No curb modifications would be required. **Results:** Improved to LOS D or better for all peaks	**Midway Rising will improve this intersection to an acceptable LOS by incorporating the improvements described.**
28	Midway Dr & Enterprise St	**Improvements:** No reasonable improvements can be made to increase operations. **Results**: Improved to LOS D or better for all peaks	**Midway Rising will <u>not</u> make improvements to this intersection.** *A majority of the trips assigned to this intersection are from the redevelopment of the NAVWAR facility, and are unrelated to the Midway Rising project. Additionally, this improvement does not make sense from a multimodal perspective, which is prioritized in the Midway-Pacific Highway Community Plan. The CP lists pedestrian-related improvements at this intersection, which include bulb-outs and a pedestrian refuge island. Adding any vehicle lanes to this intersection may preclude the addition of the improvements listed in the CP.*
29	Barnett Ave & Midway Dr	**Improvement:** Signal timing optimization. Decrease in overall cycle length to 110 seconds during the AM peak, 150 seconds during the PM peak, 100 seconds during the Pre-Event PM peak, and 90 seconds during the weekend peak helps decrease the amount of time unnecessarily dedicated to the southbound right turn movement, which helps serve all other movements more frequently. **Results:** Improved to LOS D or better for all peaks.	**Midway Rising will improve this intersection to an acceptable LOS by optimizing signal timing.**

Table 10-2. Opening Year (2035) Plus Project Phase 2 Buildout Roadway Segment Improvements Summary

Includes improvements from Opening Year (2030) Plus Project Phase 1 with the consideration of the following improvements:

ID	Location	2035 Considered Improvement	2035 Improvement Decision
2	Sports Arena Boulevard between I-8 EB On Ramp and W Point Loma Boulevard	Widening the roadway to a 6-Lane Major Arterial would improve roadway segment operations.	**Midway Rising will <u>not</u> improve this roadway segment.** Widening the roadway is infeasible due to limited right-of-way due to surrounding existing land uses. Additionally, class II bike lanes were recently added to this segment which involved a reduction in the number of vehicle lanes. Addition of vehicle lanes to this segment would require removal of these recent multimodal improvements. *Thus, Midway Rising does not recommend vehicle capacity improvements on this segment.*
3	Sports Arena Boulevard between W Point Loma Boulevard and Hancock Street	Widening the roadway to a 6-Lane Major Arterial would improve roadway segment operations.	**Midway Rising will <u>not</u> improve this roadway segment.** Widening the roadway is infeasible due to limited right-of-way due to surrounding existing land uses. Midway Rising proposes bus only lanes in both directions of Sports Arena Boulevard to improve transit connectivity to the Pacific Beach and Ocean Beach communities and increase transit ridership for access to and from the site, supporting City and State VMT reduction goals. Increasing the number of general-purpose travel lanes would negate the ability to implement bus only lanes. *Thus, Midway Rising does not recommend vehicle capacity improvements on this segment.*
18	Hancock Street between Sports Arena Boulevard and Channel Way	Widening the roadway beyond its ultimate classification of a 4-lane collector per the MPH Community Plan to a 4-lane with a two-way left-turn lane would improve roadway segment operations.	**Midway Rising will <u>not</u> improve this roadway segment <u>beyond</u> the ultimate classification planned for in the Community Plan.** The Midway Rising project will increase the capacity of this segment from a 2-lane collector to a 4-lane collector through restriping and converting angled parking to parallel parking (loss of approximately 20 parking spaces), consistent with the ultimate classification of the Community Plan. Widening the roadway beyond this is infeasible due to limited right-of-way due to surrounding existing land uses. Further increase in vehicular capacity beyond the ultimate roadway classification per the CP would not align with City or State climate action goals. *Thus, Midway Rising does not recommend vehicle capacity improvements on this segment beyond the ultimate classification from the Community Plan.*
19	Hancock Street between Channel Way and Kurtz Street	Widening the roadway beyond its ultimate classification of a 4-lane collector per the MPH Community Plan to a 4-lane with a two-way left-turn lane would improve roadway segment operations.	**Midway Rising will <u>not</u> improve this roadway segment <u>beyond</u> the ultimate classification planned for in the Community Plan.** The Midway Rising project will increase the capacity of this segment from a 2-lane collector to a 4-lane collector through restriping and converting angled parking to parallel parking (loss of approximately 16 parking spaces), consistent with the ultimate classification of the Community Plan. Widening the roadway beyond this is infeasible due to limited right-of-way due to surrounding existing land uses. Further increase in vehicular capacity beyond the ultimate classification per the CP would not align with City or State climate action goals. *Thus, Midway Rising does not recommend vehicle capacity improvements on this segment beyond the ultimate classification from the Community Plan.*

Figure 10-1. Intersection improvement Locations for Opening Year (2035) Plus Project Phase 2 Buildout

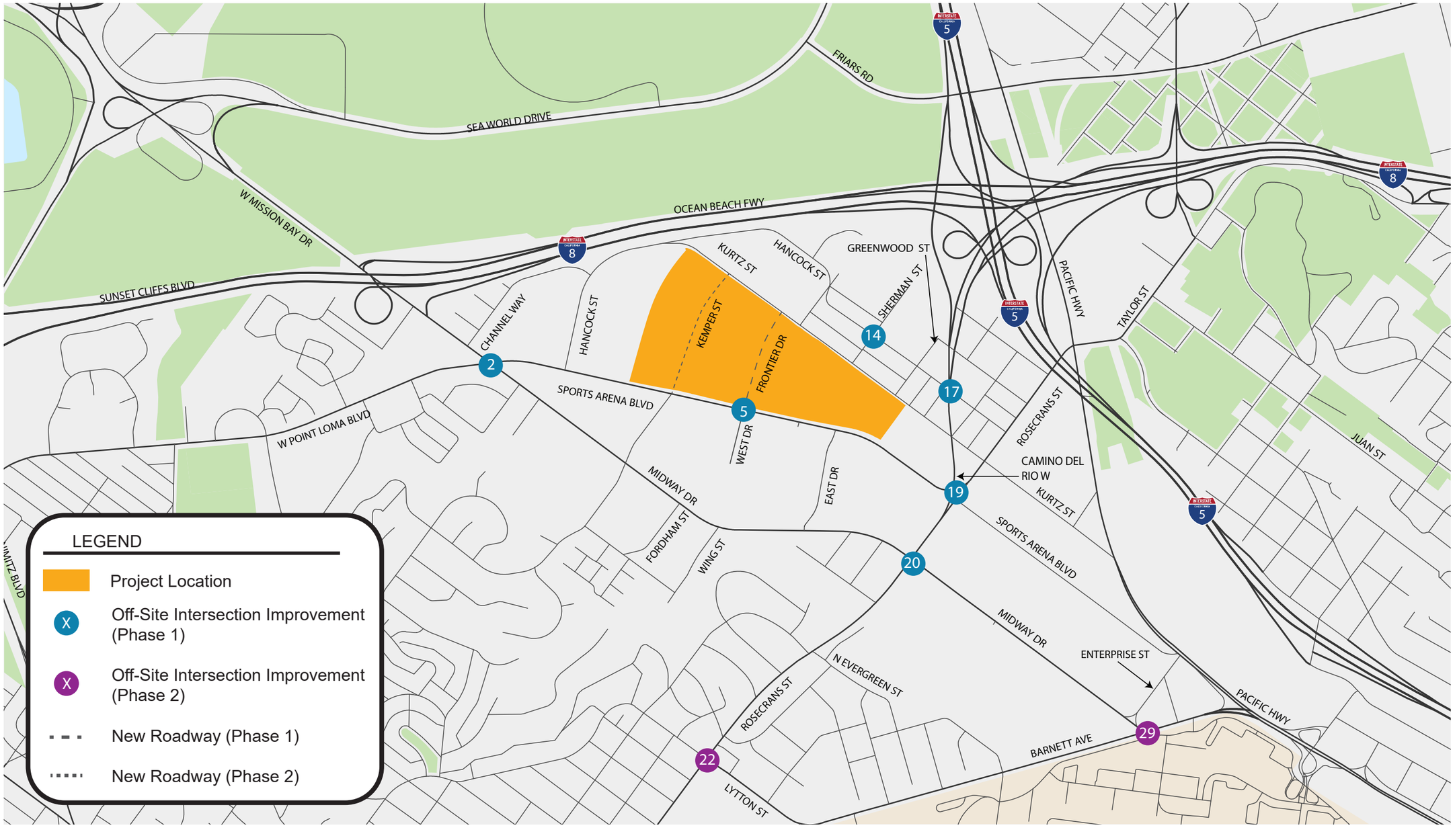
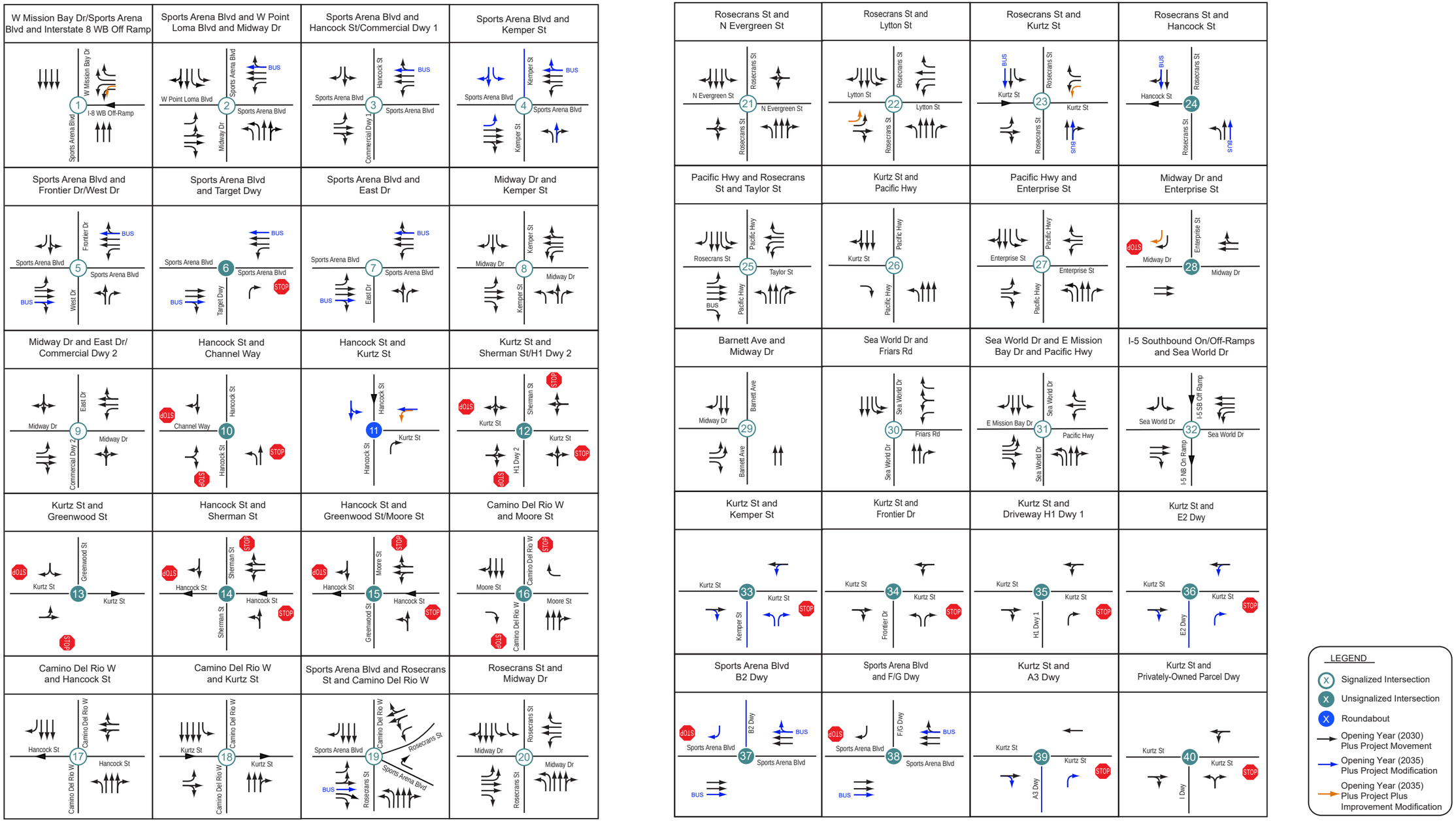


Figure 10-2. Opening Year (2035) Plus Project Phase 2 Buildout Plus Improvements - Intersection Geometries (Page 1 of 2)



Figure 10-2. Opening Year (2035) Plus Project Phase 2 Buildout Plus Improvements - Intersection Geometries (Page 2 of 2)



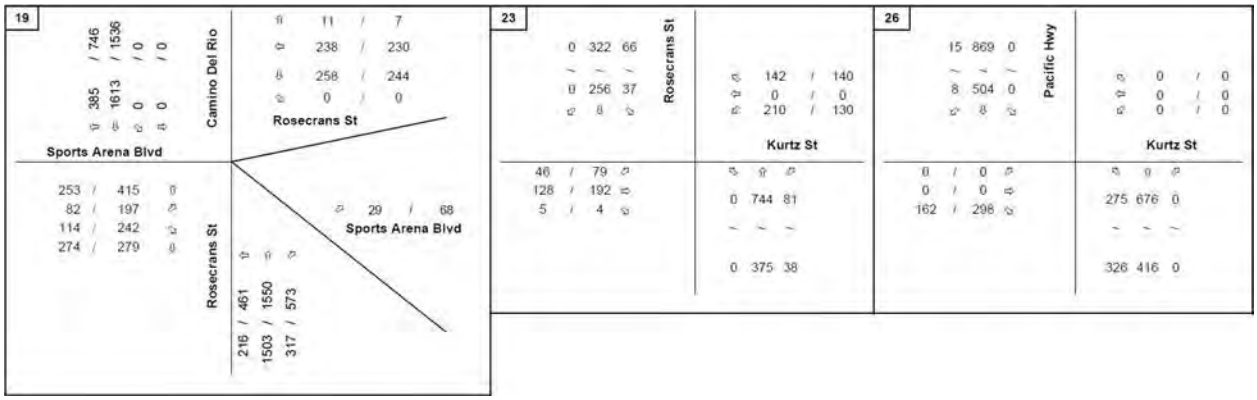
10.4 OPENING YEAR (2035) PLUS PROJECT PHASE 2 BUILDOUT PLUS IMPROVEMENT VOLUMES

Under the Opening Year (2035) Plus Project Phase 2 Buildout Plus Improvements scenario, volume adjustments were applied at three intersections due to the lane geometry and control changes for the Sports Arena Boulevard/Rosecrans Street & Camino del Rio W intersection (Intersection #19). Specifically, the CP recommends reconstructing existing raised medians to allow the eastbound through movement from Sports Arena Boulevard across the intersection south of Rosecrans Street to Sports Arena Boulevard, a movement that is currently prohibited. It was assumed that approximately 75% of the northbound right turns from Rosecrans Street to Kurtz Street (Intersection #23) would choose to make the new through movement instead. These volumes were rerouted through the system for each scenario.

Figure 10-3 through **Figure 10-5** illustrate the traffic volume adjustments under Opening Year (2035) Plus Project Phase 2 Plus Improvements for Intersections #19, #23, and #26.

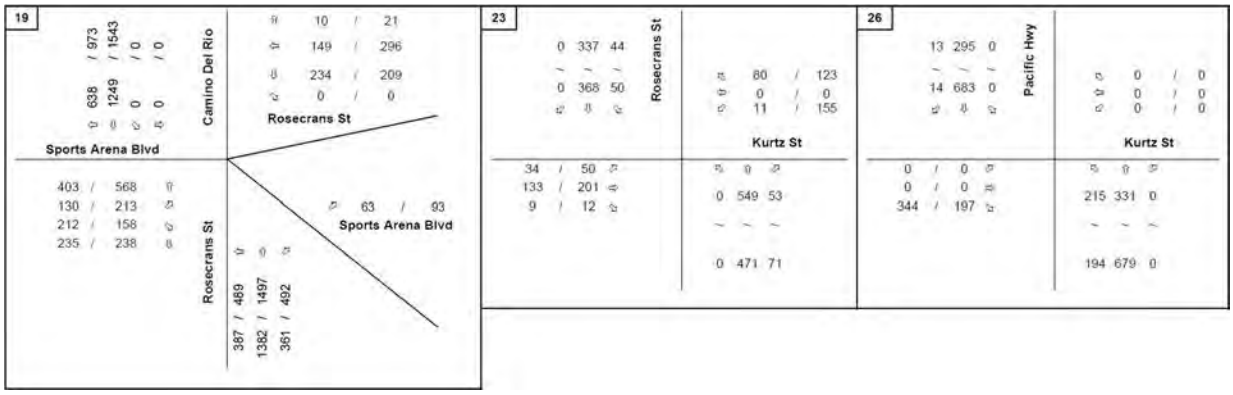
- **Figure 10-3:** Opening Year (2035) Plus Project Phase 2 Plus Improvements with 14,500-spectators for Commuter AM and Commuter PM Peak Hours
- **Figure 10-4:** Opening Year (2035) Plus Project Phase 2 Plus Improvements with 14,500-spectators for Pre-Event PM Peak Hour
- **Figure 10-5:** Opening Year (2035) Plus Project Phase 2 Plus Improvements with 20,000-spectators for Pre-Event PM Peak Hour

Figure 10-3. Opening Year (2035) Plus Project Phase 2 Plus Improvements (14,500-spectators) – AM and PM Peak Traffic Volumes with Intersection #19 Geometry Modification



Legend
X/Y = AM/PM Peak Hour Turning Volumes

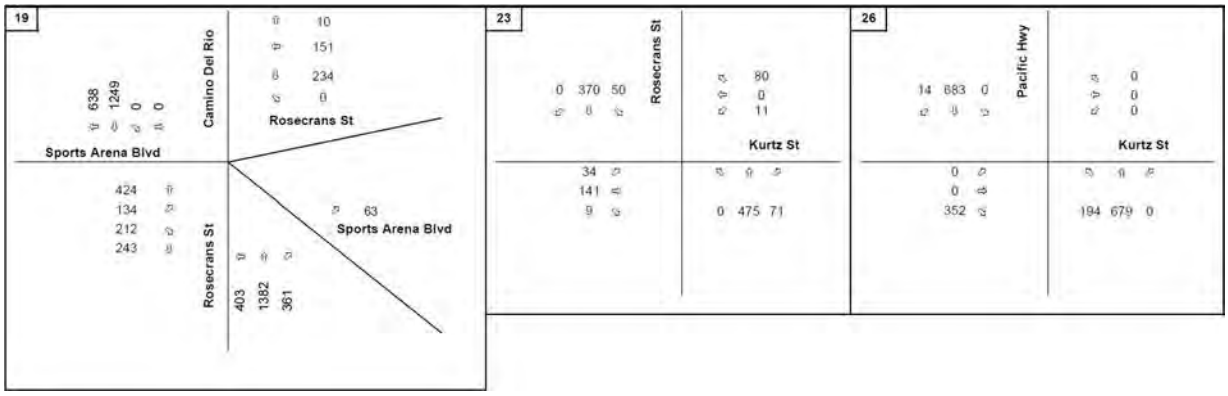
Figure 10-4. Opening Year (2035) Plus Project Phase 2 Plus Improvements (14,500-spectators) – Pre-Event PM and Weekend Peak Traffic Volumes with Intersection #19 Geometry Modification



Legend

X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

Figure 10-5. Opening Year (2035) Plus Project Phase 2 Plus Improvements (20,000-spectators) – Pre-Event PM Peak Traffic Volumes with Intersection #19 Geometry Modification



Legend

X = Pre-Event Peak Hour Turning Volumes

10.5 INTERSECTION ANALYSIS RESULTS

Table 10-3 illustrates the intersection LOS results for the Opening Year (2035) Plus Project Phase 2 Plus Improvements scenario. The LOS worksheets are contained in **Appendix AD**.

10.6 QUEUING ANALYSIS

Additionally, based on the SimTraffic analysis, many of the queue lengths exceed the storage pockets. At many of these locations, the baseline traffic volumes already exceed the storage pocket, or there is no room to construct an additional turn pocket or extend the length of the existing turn pocket. Therefore, no additional improvements to address queues are recommended in this phase of this project.

Table 10-4 summarizes the queue results under Opening Year (2035) Plus Project Phase 2 Plus Improvements scenario. The 95th percentile queue worksheets are contained in **Appendix AE**.

Table 10-3. Opening Year (2035) Plus Project Plus Improvements Phase 2 Buildout Intersection LOS Summary

#	INTERSECTION	PEAK HOUR	Opening Year (2035) Plus Project Phase 2		Opening Year (2035) Plus Project Plus Improvements Phase 2		Project Effect?
			DELAY (a)	LOS (b)	DELAY (a)	LOS (b)	
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	1. Weekday AM	43.7	D	114.8	F	Y
		2. Weekday Commuter PM	129.7	F	69.6	E	
		3. Weekday Pre-Event PM (14.5k)	107.6	F	66.0	E	
		4. Weekend Midday	98.8	F	71.5	E	
5	West Dr/Frontier Dr & Sports Arena Blvd	1. Weekday AM	22.4	C	36.7	D	N
		2. Weekday Commuter PM	ECL	F	63.5	E	
		3. Weekday Pre-Event PM (14.5k)	ECL	F	56.6	E	
		4. Weekend Midday	127.7	F	54.5	D	
17	Camino Del Rio W & Hancock St	1. Weekday AM	ECL	F	25.3	C	N
		2. Weekday Commuter PM	14.2	B	24.3	C	
		3. Weekday Pre-Event PM (14.5k)	14.9	B	22.7	C	
		4. Weekend Midday	42.2	D	29.7	C	
19	Rosecrans St & Sports Arena Blvd & Camino Del Rio W	1. Weekday AM	26.3	C	36.1	D	N
		2. Weekday Commuter PM	49.1	D	49.8	D	
		3. Weekday Pre-Event PM (14.5k)	40.4	D	43.1	D	
		4. Weekend Midday	84.1	F	79.2	E	
20	Rosecrans St & Midway Dr	1. Weekday AM	60.0	E	53.5	D	N
		2. Weekday Commuter PM	79.2	E	54.0	D	
		3. Weekday Pre-Event PM (14.5k)	78.5	E	42.6	D	
		4. Weekend Midday	88.2	F	53.8	D	
22	Rosecrans St & Lytton St	2. Weekday Commuter PM	76.9	E	58.1	E	N
		3. Weekday Pre-Event PM (14.5k)	57.4	E	48.8	D	
		4. Weekday Pre-Event PM (20k)	40.8	D	29.9	C	
		4. Weekend Midday	40.9	D	34.7	C	
26	Kurtz St & Pacific Hwy	1. Weekday AM	17.6	C	3.6	A	N
		Worst Mvmt	NBL				
		2. Weekday Commuter PM	177.4	F	5.0	A	
		Worst Mvmt	EB				
		3. Weekday Pre-Event PM (14.5k)	113.6	F	5.1	A	
		Worst Mvmt	EB				
		4. Weekend Midday	15.7	C	3.3	A	
		Worst Mvmt	EB				
29	Barnett Ave & Midway Dr	1. Weekday AM	23.1	C	22.8	C	N
		2. Weekday Commuter PM	74.0	E	41.1	D	
		3. Weekday Pre-Event PM (14.5k)	47.1	D	29.3	C	
		4. Weekday Pre-Event PM (20k)	50.6	D	27.6	C	
		5. Weekend Midday	26.4	C	23.2	C	

Notes:

Bold values indicate intersections operating at LOS E or F. **Bold and shaded** values indicate project significant impact.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition and Highway Capacity Manual 2000 Edition* and performed using Synchro 11

Table 10-4. Opening Year (2035) Plus Project Plus Improvements Phase 2 Buildout Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2035 Plus Project		2035 Plus Project Plus Improvements		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	4,200	Weekday AM	1,399	No	362	No	N
				Weekday PM	2,879	No	1,190	No	
				Weekday Pre-Event (14.5k)	3,376	No	741	No	
				Weekday Pre-Event (20k)	3,217	No	3,276	No	
				Weekend Midday	1,228	No	617	No	
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360	Weekday AM	564	**Yes**	356	No	Y
				Weekday PM	549	**Yes**	534	**Yes**	
				Weekday Pre-Event (14.5k)	568	**Yes**	559	**Yes**	
				Weekday Pre-Event (20k)	554	**Yes**	563	**Yes**	
				Weekend Midday	591	**Yes**	511	**Yes**	
		WBL	150	Weekday AM	36	No	33	No	
				Weekday PM	115	No	158	**Yes**	
				Weekday Pre-Event (14.5k)	56	No	114	No	
				Weekday Pre-Event (20k)	55	No	27	No	
				Weekend Midday	<25	No	56	No	
		NBL	230	Weekday AM	85	No	199	No	
				Weekday PM	181	No	425	**Yes**	
				Weekday Pre-Event (14.5k)	157	No	420	**Yes**	
				Weekday Pre-Event (20k)	156	No	204	No	
				Weekend Midday	215	No	411	**Yes**	
3	Sports Arena Boulevard & Hancock Street	EBL	350	Weekday AM	117	No	306	No	Y
				Weekday PM	318	**Yes**	506	**Yes**	
				Weekday Pre-Event (14.5k)	287	**Yes**	382	**Yes**	
				Weekday Pre-Event (20k)	310	**Yes**	289	No	
				Weekend Midday	261	**Yes**	273	No	
		WBL	100	Weekday AM	<25	No	<25	No	
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	<25	No	<25	No	
				Weekend Midday	33	No	76	No	
4	Sports Arena Boulevard & Kemper Street	EBL	440	Weekday AM	80	No	647	**Yes**	Y
				Weekday PM	656	**Yes**	183	No	
				Weekday Pre-Event (14.5k)	634	**Yes**	480	**Yes**	
				Weekday Pre-Event (20k)	655	**Yes**	300	No	
				Weekend Midday	572	**Yes**	174	No	
		WBL	175	Weekday AM	142	No	193	**Yes**	
				Weekday PM	307	**Yes**	227	**Yes**	
				Weekday Pre-Event (14.5k)	267	**Yes**	237	**Yes**	
				Weekday Pre-Event (20k)	281	**Yes**	296	**Yes**	
				Weekend Midday	166	No	236	**Yes**	
		NBL	100	Weekday AM	99	No	66	No	
				Weekday PM	226	**Yes**	192	**Yes**	
				Weekday Pre-Event (14.5k)	229	**Yes**	210	**Yes**	
				Weekday Pre-Event (20k)	227	**Yes**	195	**Yes**	
				Weekend Midday	218	**Yes**	140	**Yes**	
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330	Weekday AM	114	No	87	No	Y
				Weekday PM	315	No	341	**Yes**	
				Weekday Pre-Event (14.5k)	331	**Yes**	319	No	
				Weekday Pre-Event (20k)	315	No	317	No	
				Weekend Midday	320	No	314	No	
		WBL	175	Weekday AM	159	No	217	**Yes**	
				Weekday PM	170	No	239	**Yes**	
				Weekday Pre-Event (14.5k)	116	No	223	**Yes**	
				Weekday Pre-Event (20k)	139	No	266	**Yes**	
				Weekend Midday	126	No	200	**Yes**	
6	Sports Arena Boulevard & Target Driveway	WBL	125	Weekday AM	87	No	68	No	Y
				Weekday PM	87	No	93	No	
				Weekday Pre-Event (14.5k)	97	No	96	No	
				Weekday Pre-Event (20k)	77	No	175	**Yes**	
				Weekend Midday	203	**Yes**	124	No	
7	Sports Arena Boulevard & East Driveway	WBL	125	Weekday AM	154	**Yes**	181	**Yes**	Y
				Weekday PM	236	**Yes**	208	**Yes**	
				Weekday Pre-Event (14.5k)	239	**Yes**	172	**Yes**	
				Weekday Pre-Event (20k)	239	**Yes**	241	**Yes**	
				Weekend Midday	180	**Yes**	137	**Yes**	
		NBR	100	Weekday AM	61	No	58	No	
				Weekday PM	146	**Yes**	114	**Yes**	
				Weekday Pre-Event (14.5k)	110	**Yes**	94	No	
				Weekday Pre-Event (20k)	103	**Yes**	138	**Yes**	
				Weekend Midday	124	**Yes**	123	**Yes**	

Table 10-4. Opening Year (2035) Plus Project Plus Improvements Phase 2 Buildout Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2035 Plus Project		2035 Plus Project Plus Improvements		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
8	Midway Drive & Kemper Street	EBL	320	Weekday AM	94	No	503	**Yes**	Y
				Weekday PM	368	**Yes**	119	No	
				Weekday Pre-Event (14.5k)	439	**Yes**	152	No	
				Weekday Pre-Event (20k)	299	No	496	**Yes**	
				Weekend Midday	209	No	311	No	
		EBR	150	Weekday AM	54	No	91	No	
				Weekday PM	43	No	149	No	
				Weekday Pre-Event (14.5k)	64	No	184	**Yes**	
				Weekday Pre-Event (20k)	55	No	121	No	
				Weekend Midday	51	No	164	**Yes**	
		WBL	250	Weekday AM	77	No	98	No	
				Weekday PM	417	**Yes**	255	**Yes**	
				Weekday Pre-Event (14.5k)	242	No	139	No	
				Weekday Pre-Event (20k)	242	No	180	No	
				Weekend Midday	116	No	396	**Yes**	
		NBL	90	Weekday AM	95	**Yes**	85	No	
				Weekday PM	209	**Yes**	193	**Yes**	
				Weekday Pre-Event (14.5k)	209	**Yes**	177	**Yes**	
				Weekday Pre-Event (20k)	205	**Yes**	197	**Yes**	
				Weekend Midday	214	**Yes**	189	**Yes**	
		SBL	100	Weekday AM	101	**Yes**	99	No	
				Weekday PM	93	No	107	**Yes**	
				Weekday Pre-Event (14.5k)	112	**Yes**	95	No	
				Weekday Pre-Event (20k)	96	No	92	No	
				Weekend Midday	111	**Yes**	120	**Yes**	
		SBR	115	Weekday AM	58	No	66	No	
				Weekday PM	101	No	97	No	
				Weekday Pre-Event (14.5k)	87	No	57	No	
				Weekday Pre-Event (20k)	69	No	65	No	
				Weekend Midday	87	No	111	No	
9	Midway Drive & East Drive	EBL	90	Weekday AM	43	No	34	No	Y
				Weekday PM	44	No	99	**Yes**	
				Weekday Pre-Event (14.5k)	32	No	89	No	
				Weekday Pre-Event (20k)	30	No	37	No	
				Weekend Midday	120	**Yes**	96	**Yes**	
		WBL	100	Weekday AM	48	No	39	No	
				Weekday PM	58	No	73	No	
				Weekday Pre-Event (14.5k)	68	No	50	No	
				Weekday Pre-Event (20k)	84	No	63	No	
				Weekend Midday	48	No	76	No	
17	Camino Del Rio West & Hancock Street	NBL	100	Weekday AM	57	No	64	No	Y
				Weekday PM	217	**Yes**	164	**Yes**	
				Weekday Pre-Event (14.5k)	175	**Yes**	115	**Yes**	
				Weekday Pre-Event (20k)	175	**Yes**	104	**Yes**	
				Weekend Midday	131	**Yes**	142	**Yes**	
		I-5 SB Off-Ramp	3,500	Weekday AM	632	No	545	No	
				Weekday PM	774	No	1,019	No	
				Weekday Pre-Event (14.5k)	645	No	767	No	
				Weekday Pre-Event (20k)	687	No	1,374	No	
				Weekend Midday	1,371	No	1,331	No	
		I-8 WB Off-Ramp	3,700	Weekday AM	1,357	No	983	No	
				Weekday PM	1,962	No	3,007	No	
				Weekday Pre-Event (14.5k)	1,411	No	1,930	No	
				Weekday Pre-Event (20k)	1,591	No	4,519	**Yes**	
				Weekend Midday	4,507	**Yes**	4,334	**Yes**	
		SBR	130	Weekday AM	220	**Yes**	183	**Yes**	
				Weekday PM	240	**Yes**	269	**Yes**	
				Weekday Pre-Event (14.5k)	243	**Yes**	266	**Yes**	
				Weekday Pre-Event (20k)	262	**Yes**	286	**Yes**	
				Weekend Midday	235	**Yes**	288	**Yes**	
18	Camino Del Rio West & Kurtz Street	SBL	100	Weekday AM	205	**Yes**	160	**Yes**	N
				Weekday PM	138	**Yes**	88	No	
				Weekday Pre-Event (14.5k)	89	No	72	No	
				Weekday Pre-Event (20k)	107	**Yes**	60	No	
				Weekend Midday	179	**Yes**	176	**Yes**	
19	Camino Del Rio West & Sports Arena Boulevard	EBR	300	Weekday AM	238	No	128	No	Y
				Weekday PM	258	No	304	**Yes**	
				Weekday Pre-Event (14.5k)	273	No	206	No	
				Weekday Pre-Event (20k)	259	No	477	**Yes**	
				Weekend Midday	410	**Yes**	758	**Yes**	
		WBL	180	Weekday AM	173	No	307	**Yes**	
				Weekday PM	178	No	218	**Yes**	
				Weekday Pre-Event (14.5k)	166	No	242	**Yes**	
				Weekday Pre-Event (20k)	164	No	285	**Yes**	
				Weekend Midday	230	**Yes**	300	**Yes**	
		NBL	260	Weekday AM	156	No	292	**Yes**	
				Weekday PM	326	**Yes**	352	**Yes**	
				Weekday Pre-Event (14.5k)	254	No	200	No	
				Weekday Pre-Event (20k)	280	**Yes**	412	**Yes**	
				Weekend Midday	324	**Yes**	446	**Yes**	

Table 10-4. Opening Year (2035) Plus Project Plus Improvements Phase 2 Buildout Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2035 Plus Project		2035 Plus Project Plus Improvements		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
20	Rosecrans Street & Midway Drive	EBL	100	Weekday AM	136	**Yes**	136	**Yes**	Y
				Weekday PM	209	**Yes**	209	**Yes**	
				Weekday Pre-Event (14.5k)	190	**Yes**	180	**Yes**	
				Weekday Pre-Event (20k)	185	**Yes**	182	**Yes**	
				Weekend Midday	197	**Yes**	206	**Yes**	
		EBR	240	Weekday AM	159	No	149	No	
				Weekday PM	232	No	227	No	
				Weekday Pre-Event (14.5k)	166	No	142	No	
				Weekday Pre-Event (20k)	172	No	98	No	
				Weekend Midday	224	No	167	No	
		WBL	250	Weekday AM	209	No	221	No	
				Weekday PM	273	**Yes**	235	No	
				Weekday Pre-Event (14.5k)	261	**Yes**	134	No	
				Weekday Pre-Event (20k)	263	**Yes**	213	No	
				Weekend Midday	310	**Yes**	284	**Yes**	
		WBR	180	Weekday AM	205	**Yes**	234	**Yes**	
				Weekday PM	309	**Yes**	308	**Yes**	
				Weekday Pre-Event (14.5k)	342	**Yes**	244	**Yes**	
				Weekday Pre-Event (20k)	354	**Yes**	312	**Yes**	
				Weekend Midday	283	**Yes**	305	**Yes**	
		NBL	280	Weekday AM	247	No	227	No	
				Weekday PM	390	**Yes**	448	**Yes**	
				Weekday Pre-Event (14.5k)	373	**Yes**	277	No	
				Weekday Pre-Event (20k)	387	**Yes**	402	**Yes**	
				Weekend Midday	493	**Yes**	470	**Yes**	
		SBL	320	Weekday AM	270	No	411	**Yes**	
				Weekday PM	266	No	483	**Yes**	
				Weekday Pre-Event (14.5k)	224	No	204	No	
				Weekday Pre-Event (20k)	224	No	207	No	
				Weekend Midday	265	No	354	**Yes**	
21	Rosecrans Street & North Evergreen Street	NBL	180	Weekday AM	43	No	81	No	N
				Weekday PM	30	No	47	No	
				Weekday Pre-Event (14.5k)	28	No	46	No	
				Weekday Pre-Event (20k)	26	No	42	No	
				Weekend Midday	132	No	168	No	
		SBL	310	Weekday AM	406	**Yes**	144	No	
				Weekday PM	144	No	89	No	
				Weekday Pre-Event (14.5k)	138	No	99	No	
				Weekday Pre-Event (20k)	137	No	69	No	
				Weekend Midday	207	No	215	No	
22	Rosecrans Street & Lytton Street	WBL	245	Weekday AM	335	**Yes**	373	**Yes**	Y
				Weekday PM	358	**Yes**	374	**Yes**	
				Weekday Pre-Event (14.5k)	361	**Yes**	377	**Yes**	
				Weekday Pre-Event (20k)	348	**Yes**	299	**Yes**	
				Weekend Midday	271	**Yes**	211	No	
		NBL	100	Weekday AM	72	No	91	No	
				Weekday PM	78	No	129	**Yes**	
				Weekday Pre-Event (14.5k)	101	**Yes**	96	No	
				Weekday Pre-Event (20k)	92	No	106	**Yes**	
				Weekend Midday	79	No	94	No	
		NBR	490	Weekday AM	263	No	244	No	
				Weekday PM	532	**Yes**	444	No	
				Weekday Pre-Event (14.5k)	193	No	184	No	
				Weekday Pre-Event (20k)	237	No	355	No	
				Weekend Midday	696	**Yes**	427	No	
		SBL	470	Weekday AM	714	**Yes**	313	No	
				Weekday PM	119	No	154	No	
				Weekday Pre-Event (14.5k)	93	No	88	No	
				Weekday Pre-Event (20k)	89	No	59	No	
				Weekend Midday	179	No	147	No	
23	Rosecrans Street & Kurtz Street	WBR	70	Weekday AM	169	**Yes**	712	**Yes**	Y
				Weekday PM	136	**Yes**	198	**Yes**	
				Weekday Pre-Event (14.5k)	72	**Yes**	68	No	
				Weekday Pre-Event (20k)	69	No	484	**Yes**	
				Weekend Midday	151	**Yes**	837	**Yes**	
		SBL	100	Weekday AM	56	No	81	No	
				Weekday PM	114	**Yes**	141	**Yes**	
				Weekday Pre-Event (14.5k)	43	No	48	No	
				Weekday Pre-Event (20k)	45	No	118	**Yes**	
				Weekend Midday	130	**Yes**	98	No	
24	Rosecrans Street & Hancock Street	NBL	120	Weekday AM	70	No	145	**Yes**	Y
				Weekday PM	71	No	90	No	
				Weekday Pre-Event (14.5k)	142	**Yes**	62	No	
				Weekday Pre-Event (20k)	160	**Yes**	204	**Yes**	
				Weekend Midday	143	**Yes**	146	**Yes**	

Table 10-4. Opening Year (2035) Plus Project Plus Improvements Phase 2 Buildout Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2035 Plus Project		2035 Plus Project Plus Improvements		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
25	Pacific Highway & Rosecrans Street	EBL	120	Weekday AM	71	No	83	No	Y
				Weekday PM	90	No	137	**Yes**	
				Weekday Pre-Event (14.5k)	77	No	96	No	
				Weekday Pre-Event (20k)	65	No	79	No	
				Weekend Midday	36	No	50	No	
		EBR	100	Weekday AM	46	No	46	No	
				Weekday PM	113	**Yes**	171	**Yes**	
				Weekday Pre-Event (14.5k)	63	No	102	**Yes**	
				Weekday Pre-Event (20k)	67	No	75	No	
				Weekend Midday	59	No	64	No	
		WBL	150	Weekday AM	119	No	114	No	
				Weekday PM	125	No	112	No	
				Weekday Pre-Event (14.5k)	126	No	124	No	
				Weekday Pre-Event (20k)	132	No	146	No	
				Weekend Midday	104	No	114	No	
		NBL	150	Weekday AM	97	No	105	No	
				Weekday PM	164	**Yes**	256	**Yes**	
				Weekday Pre-Event (14.5k)	265	**Yes**	240	**Yes**	
				Weekday Pre-Event (20k)	272	**Yes**	245	**Yes**	
				Weekend Midday	126	No	183	**Yes**	
		NBR	320	Weekday AM	57	No	88	No	
				Weekday PM	149	No	189	No	
				Weekday Pre-Event (14.5k)	72	No	124	No	
				Weekday Pre-Event (20k)	65	No	103	No	
				Weekend Midday	39	No	66	No	
		SBL	230	Weekday AM	43	No	43	No	
				Weekday PM	78	No	84	No	
				Weekday Pre-Event (14.5k)	64	No	67	No	
				Weekday Pre-Event (20k)	76	No	73	No	
				Weekend Midday	67	No	65	No	
26	Pacific Highway & Kurtz Street	NBL	200	Weekday AM	167	No	142	No	N
				Weekday PM	219	**Yes**	179	No	
				Weekday Pre-Event (14.5k)	136	No	122	No	
				Weekday Pre-Event (20k)	135	No	132	No	
				Weekend Midday	308	**Yes**	142	No	
27	Pacific Highway & Enterprise Street	EBL	200	Weekday AM	39	No	40	No	N
				Weekday PM	129	No	129	No	
				Weekday Pre-Event (14.5k)	105	No	104	No	
				Weekday Pre-Event (20k)	135	No	112	No	
				Weekend Midday	64	No	39	No	
		EBR	200	Weekday AM	28	No	27	No	
				Weekday PM	72	No	75	No	
				Weekday Pre-Event (14.5k)	46	No	49	No	
				Weekday Pre-Event (20k)	45	No	50	No	
				Weekend Midday	32	No	32	No	
		NBL	280	Weekday AM	321	**Yes**	198	No	
				Weekday PM	404	**Yes**	225	No	
				Weekday Pre-Event (14.5k)	421	**Yes**	313	**Yes**	
				Weekday Pre-Event (20k)	401	**Yes**	306	**Yes**	
				Weekend Midday	327	**Yes**	159	No	
		NBR	300	Weekday AM	<25	No	<25	No	
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	54	No	55	No	
				Weekday Pre-Event (20k)	<25	No	<25	No	
				Weekend Midday	55	No	<25	No	
		SBL	200	Weekday AM	152	No	113	No	
				Weekday PM	222	**Yes**	151	No	
				Weekday Pre-Event (14.5k)	177	No	181	No	
				Weekday Pre-Event (20k)	155	No	129	No	
				Weekend Midday	<25	No	29	No	
30	Sea World Drive & Friars Rd	WBR	300	Weekday AM	<25	No	<25	No	N
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	<25	No	<25	No	
				Weekend Midday	<25	No	<25	No	
		NBR	185	Weekday AM	59	No	58	No	
				Weekday PM	134	No	106	No	
				Weekday Pre-Event (14.5k)	62	No	52	No	
				Weekday Pre-Event (20k)	56	No	54	No	
				Weekend Midday	56	No	49	No	
		SBL	300	Weekday AM	58	No	59	No	
				Weekday PM	65	No	86	No	
				Weekday Pre-Event (14.5k)	60	No	62	No	
				Weekday Pre-Event (20k)	65	No	65	No	
				Weekend Midday	57	No	54	No	

Table 10-4. Opening Year (2035) Plus Project Plus Improvements Phase 2 Buildout Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	2035 Plus Project		2035 Plus Project Plus Improvements		Project Effect?
					95th Percentile Queue (ft)	Exceeds Storage Length?	95th Percentile Queue (ft)	Exceeds Storage Length?	
31	Sea World Drive & Pacific Highway	EBL	250	Weekday AM	47	No	47	No	Y
				Weekday PM	122	No	145	No	
				Weekday Pre-Event (14.5k)	100	No	114	No	
				Weekday Pre-Event (20k)	117	No	121	No	
				Weekend Midday	159	No	140	No	
		EBR	200	Weekday AM	<25	No	<25	No	
				Weekday PM	82	No	135	No	
				Weekday Pre-Event (14.5k)	68	No	63	No	
				Weekday Pre-Event (20k)	76	No	70	No	
				Weekend Midday	74	No	66	No	
		WBL	125	Weekday AM	48	No	60	No	
				Weekday PM	93	No	108	No	
				Weekday Pre-Event (14.5k)	74	No	79	No	
				Weekday Pre-Event (20k)	79	No	69	No	
				Weekend Midday	40	No	38	No	
		WBR	200	Weekday AM	43	No	35	No	
				Weekday PM	71	No	89	No	
				Weekday Pre-Event (14.5k)	42	No	39	No	
				Weekday Pre-Event (20k)	44	No	43	No	
				Weekend Midday	38	No	30	No	
		NBL	325	Weekday AM	42	No	40	No	
				Weekday PM	440	**Yes**	75	No	
				Weekday Pre-Event (14.5k)	45	No	47	No	
				Weekday Pre-Event (20k)	44	No	51	No	
				Weekend Midday	64	No	57	No	
		NBR	100	Weekday AM	66	No	63	No	
				Weekday PM	238	**Yes**	232	**Yes**	
				Weekday Pre-Event (14.5k)	131	**Yes**	110	**Yes**	
				Weekday Pre-Event (20k)	146	**Yes**	120	**Yes**	
				Weekend Midday	81	No	56	No	
		SBL	215	Weekday AM	73	No	72	No	
				Weekday PM	336	**Yes**	319	**Yes**	
				Weekday Pre-Event (14.5k)	378	**Yes**	359	**Yes**	
				Weekday Pre-Event (20k)	381	**Yes**	391	**Yes**	
				Weekend Midday	316	**Yes**	63	No	
32	Sea World Drive & I-5 Southbound Ramps	EBR	400	Weekday AM	41	No	43	No	Y
				Weekday PM	118	No	96	No	
				Weekday Pre-Event (14.5k)	79	No	85	No	
				Weekday Pre-Event (20k)	86	No	80	No	
				Weekend Midday	90	No	78	No	
		WBL	120	Weekday AM	217	**Yes**	212	**Yes**	
				Weekday PM	208	**Yes**	200	**Yes**	
				Weekday Pre-Event (14.5k)	218	**Yes**	217	**Yes**	
				Weekday Pre-Event (20k)	214	**Yes**	215	**Yes**	
				Weekend Midday	200	**Yes**	208	**Yes**	
		I-5 SB Off-Ramp	3,700	Weekday AM	205	No	1,483	No	
				Weekday PM	381	No	760	No	
				Weekday Pre-Event (14.5k)	858	No	988	No	
				Weekday Pre-Event (20k)	1,529	No	1,232	No	
				Weekend Midday	298	No	1,526	No	
33	Kemper St & Kurtz St	NBL	150	Weekday AM	86	No	222	**Yes**	Y
				Weekday PM	48	No	62	No	
				Weekday Pre-Event (14.5k)	56	No	53	No	
				Weekday Pre-Event (20k)	49	No	56	No	
				Weekend Midday	48	No	56	No	
34	Frontier Dr & Kurtz St	NBL	150	Weekday AM	<25	No	<25	No	N
				Weekday PM	<25	No	<25	No	
				Weekday Pre-Event (14.5k)	<25	No	<25	No	
				Weekday Pre-Event (20k)	<25	No	<25	No	
				Weekend Midday	<25	No	<25	No	

11 PARKING & LOADING AREAS

The proposed project is located within the CC-3-6 zone and Parking Standards Transit Priority Area (PSTPA). The following sections of the Municipal Code were consulted in regard to parking required for each type of land use:

- Residential: Market Rate Dwelling Units: §142.0528; Affordable Dwelling Units: §142.0528
- Commercial (Retail and Restaurant): §142.0528
- Entertainment Center: §141.0622

Parking requirements influence which Mobility Choices Regulations outlined in Chapter 14, Article 3, Division 11 of the San Diego Municipal Code apply to the proposed project. Mobility Choices Regulations apply to both Commercial and Entertainment land uses, as discussed below. The purpose of the Mobility Choices Regulations is to assist in the City in determining the greatest VMT reductions that developments can implement to address project VMT impacts.

Additionally, San Diego Municipal Code (SDMC) Section 142.0528(c) requires a multiple dwelling residential development within a PSTPA to provide transportation amenities per *Appendix Q* of the Land Development Manual, and thus, transportation amenities are required for the residential portion of the Midway Rising project. Transportation amenities are intended to encourage alternative modes of transportation and facilitate non-vehicular access to everyday activities.

Per the SDMC (§142.0528), the project site is located within a PSTPA, and thus off-street vehicular parking spaces are not required for residential or commercial uses. If off-street parking is provided, the spaces must be unbundled, and include accessible, electric-vehicle, carpool, in addition to bicycle and motorcycle parking spaces. Detailed parking requirements for each land use are provided in this chapter.

11.1 RESIDENTIAL LAND USE

11.1.1 RESIDENTIAL PARKING REQUIREMENTS

Per Section 142.0528 of the SDMC (PSTPA Regulations), the minimum residential off-street vehicle parking space requirement is zero. Motorcycle parking and bicycle storage spaces are required per Section 142.0525(a) and Table 142-05C, regardless of whether vehicle parking is required. These parking spaces will be provided throughout the project site at the time when the residential units are constructed.

11.1.2 TRANSPORTATION AMENITIES

Mobility Choices Regulations do not apply to multi-family residential development in a Transit Priority Area that provides transportation amenities required by Section 142.0528 per Section 143.1102(g) of the SDMC. Midway Rising is located within a Parking Standards Transit Priority Area (PSTPA) as defined in the California Public Resources Code Section 21099 and City Mapping layers. SDMC Section 142.0528(c) requires a multiple dwelling residential development within a PSTPA to provide transportation amenities per *Appendix Q* of the Land Development Manual, and thus, transportation amenities are required for the residential portion of the Midway Rising project. Transportation amenities are intended to encourage alternative modes of transportation and facilitate non-vehicular access to everyday activities.

The project's Transportation Amenity requirements are determined by SDMC Section 142.0528(c). The following variables were applied to calculate a "score" for the amenity requirements:

- APN: 7602450900
- Total number of apartment units: 4,627
- Total number of bedrooms: 7,170

The Midway Rising project is required to provide at least 2 points of transportation amenities.

The project plans to provide 17 points of transportation amenities, which exceeds the required points as described in **Table 11-1.** The anticipated locations for these amenities are shown in **Figure 11-1.** The transportation amenities are anticipated to reduce vehicle trips by providing amenities that do not require residents to leave the site, or support those trips by other modes of transportation.

The additional points above those required are intended to offset the LOS E and F intersections that are unable to be improved to LOS D or better, as identified in Section 7.2 and Section 10.2 of this document, by encouraging a mode shift in travel patterns through provision of transportation amenities.

Table 11-1. Proposed Transportation Amenities

#	Amenity	Amenity Description	Project-Specific Notes	Transportation Amenities Points
1	**Transit and Active Transportation Infrastructure as outlined in Community Plan Mobility Elements**	Design and construct one or more of the following transit improvements on a street adjacent to the development: (a) the addition of pedestrian scale lighting (Section 142.0740), (b) sidewalk widening to 6 feet along property frontage and sidewalk widening to 10 feet near corners of intersection to allow for ADA required widths (this improvement shall be in addition to any improvements or measures otherwise required under other regulations or standards), (c) installation of transit shelters and/or benches. Transit shelters and benches shall be designed to MTS and ADA standards and require an approved agreement with MTS	The project proposes: a. Install a minimum of 6 ft wide sidewalks along the project frontage of Sports Arena Boulevard and Kurtz Street with at least 10 feet of space at the corners of intersections. b. Install transit shelters and benches for the three bus stops along Sports Arena Drive per MTS Design Guide. Transit shelters will be designed to MTS and ADA standards. An approved agreement with MTS will be recorded.	**5**
2	**Transit and Rideshare Information**	Install and maintain an on-site kiosk or information center with multi-modal wayfinding information and transit information. The kiosk information center shall be located in a prominent location that can easily be seen by residents entering and exiting the development. The kiosk or information center shall be shown on the project plans.	The project proposes an on-site multi-modal wayfinding kiosk in a location that meets the requirements of this amenity.	**1**
3	**On-Site Bicycle Repair Station**	Install and properly maintain an on-site public bicycle repair station. The bicycle repair station must be located in a well-lit area, near the street frontage and must include, at a minimum, a bike pump, English and metric Allen wrenches, pedal wrench, headset wrench, tire levers, and screwdrivers. The bicycle repair station shall be shown on the project plans.	The project proposes **two** on-site public bicycle repair stations which will meet the requirements of this amenity.	**4**
4	**Delivery Support**	Provide a secure area for receipt of deliveries that offers at least one of the following: (1) closed lockers, (2) temporary storage for packages, laundry, and other deliveries, or (3) temporary	The project proposes a secure area for receipt of deliveries which will meet the requirements of this amenity.	**1**

#	Amenity	Amenity Description	Project-Specific Notes	Transportation Amenities Points
		refrigeration for groceries. The secure area shall be shown on the project plans.		
5	**Outdoor Fitness Circuit**	Construct and maintain an outdoor fitness circuit within the development premises. The outdoor fitness circuit shall be available to the public at least 12 hours a day, 7 days a week and shall provide a minimum of 4 workout stations. The outdoor fitness circuit shall be shown on the project plans.	The project proposes an on-site outdoor fitness circuit which will meet the requirements of this amenity.	**2**
6	**Co-Working Space**	Provide and maintain a co-working space within the project premises available for resident use. The co-working space shall be at least 500 square feet and shall provide private or semi-private office work spaces. The co-working space shall be shown on the project plans.	The project proposes two co-working spaces which will meet the requirements of this amenity.	**4**
Total Transportation Amenities Points				**17**

Source: City of San Diego Land Development Manual, Appendix Q

Figure 11-1. Transportation Amenities - Proposed Strategy Locations Map

LEGEND

① TRANSIT SHELTERS AND BENCHES (TRANSIT AND ACTIVE TRANSPORTATION INFRASTRUCTURE)

② MULTI-MODAL WAYFINDING KIOSK (TRANSIT AND RIDESHARE INFORMATION)

③ BICYCLE REPAIR STATION (ON-SITE BICYCLE REPAIR STATION)

④ SECURE PACKAGE AREA (DELIVERY SUPPORT)

⑤ OUTDOOR FITNESS CIRCUIT

⑥ CO-WORKING SPACE

▬ ▬ 6FT SIDEWALKS WITH 10FT OF SPACE AT INTERSECTIONS (TRANSIT AND ACTIVE TRANSPORTATION INFRASTRUCTURE)



11.2 COMMERCIAL LAND USE

11.2.1 COMMERCIAL PARKING REQUIREMENTS

The project is located in a PSTPA and there is no minimum vehicular parking requirement for the commercial component of this development provided the VMT Reduction Measure requirements of Section 142.0530 are met, as described below in Section 11.2.2.

Short-term and long-term bicycle parking spaces are required for non-residential land use per Section 142.0530(e)(1) and (2) and motorcycle parking is required per Section 142.0530(g) of the SDMC. These parking spaces will be provided throughout the project site at the time when the retail, restaurants, and Entertainment Center & Theater are constructed.

11.2.2 COMPLETE COMMUNITIES: MOBILITY CHOICES

Chapter 14, Article 3, Division 11 of the San Diego Municipal Code describes the Complete Communities: Mobility Choices Regulations. The purpose of the Complete Communities: Mobility Choices Regulations is to assist in determining the greatest VMT reductions that developments can implement to address a development's VMT impact. The regulations apply to all development projects as described in Section 143.1102, including any commercial or office development with greater than 5,000 square feet gross floor area. Thus, as the Midway Rising project proposes approximately 140,000 sf of commercial land use, the project must provide VMT reduction measures.

Section 143.1103 of the SDMC requires that the project provide VMT reduction measures to achieve a minimum of 5 points per land use (or 8 points per land use if the project provides more than the minimum vehicular parking required based on basic parking rates). **Table 11-2** provides the minimum parking requirement calculations for the commercial land uses using the basic parking rates. As a result, the retail and restaurant land uses are required to provide 8 points each, for a total of 16 points of VMT reduction measures to meet the requirements of the Complete Communities: Mobility Choices regulations for the commercial land use portion of the project.

Table 11-2. Commercial Land Use – VMT Reduction Measures Point Requirements (Basic Parking Rates)

Land Use	Required Parking[1]	Parking Provided	VMT Reduction Measure Points Required
Retail	90	185	8
Restaurant	120	246	8
Total (Commercial)		431	
Minimum VMT Reduction Measure Points Required (Commercial):			16

[1] *City of San Diego Municipal Code Table 142-05E and Table 142-05F*

Appendix T of the *Mobility Choices Regulations: Implementation Guidelines* provides a list of VMT reduction measures, and the number of points associated with each measure. **Table 11-3** summarizes the list of VMT reduction measures the project proposes to meet this requirement. These measures will be provided by the project when the first of each type of land use is constructed.

Table 11-3. Commercial Land Use – VMT Reduction Measures

Measure	Project-Specific Notes	Points
Pedestrian 1. Pedestrian scale lighting adjacent to public pedestrian walkways along the entire development frontage.	Pedestrian scale lighting will be provided along the project frontage roadways of Sports Arena Boulevard and Kurtz Street	0.5
Pedestrian 2. Installing pop-outs at adjacent intersections or curb extensions at adjacent mid-block crosswalks. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or San Diego Metropolitan Transit System/North County Transit District may be required.	3 locations: • Sports Arena Boulevard & Frontier Drive (half intersection) • Sports Arena Boulevard & Kemper Street (half intersection) • Frontier Drive mid-block crossing (South) (full intersection)	5
Pedestrian 9. Widening sidewalk within the existing public right-of-way to Street Design Manual standards. The reduction of parkway/landscape buffer to less than the width required by the Street Design Manual standards to widen sidewalk width is not permitted. Requires replacement of existing sidewalk.	Multi-use path along Kurtz Street and Rosecrans Street (approximately 2,200 feet)	1.25
Bicycle 12. Providing on-site bicycle repair station.	Located near Class I path along Sherman Street alignment through site.	1.5
Bicycle 13. Installing new bicycle infrastructure (Class I, II, IV) that is part of the City's planned bikeway network that closes or incrementally closes an existing gap between two existing bikeways.	Class I multi-use path proposed for the north side of Sports Arena Boulevard, east side of Frontier Drive, south side of Kurtz Street, and east side of Rosecrans Street that would connect to Class II bike lanes on Pacific Highway and Sports Arena Boulevard (approximately 3,960').	2.25
Transit 19. Providing high cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of shelter, real time bus information monitors.	Provide enhanced amenities at proposed new bus stop on the west side of the Sports Arena Boulevard / Kemper Street intersection, including a shelter. Relocate existing bus stop (ID 13345) and upgrade to a RAPID bus stop per the MTS Designing for Transit Manual (February 2018) including real-time digital display for rapid bus stop and rapid shelter.	2.5
Transit 20. Providing low cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of bench, public art, static schedule and route display, trash receptacle.	Provide system map for local bus stop (ID 13344) on Sports Arena Boulevard.	1
Other 25. Installing a traffic calming measure, such as speed feedback signs, median slow points (chokers), and speed table/raised crosswalk. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or MTS/NCTD may be required.	Raised crossing / intersection on Frontier Drive.	2.5
Total VMT Reduction Measure Points (Commercial)		**16.5**

11.3 ENTERTAINMENT LAND USE

11.3.1 ENTERTAINMENT CENTER PARKING REQUIREMENTS

Per Section 141.0622 (d) of the SDMC (Sports Arenas and Stadiums), off-street parking shall be provided at a level sufficient to serve the facility without impacting adjacent or nearby property.

11.3.2 ENTERTAINMENT CENTER PARKING PROVIDED

The project will provide 2,100 spaces to accommodate events (along with transit, rideshare, biking, and walking) for up to 10,000 attendees. The 2,100 spaces are considered "right sized" for the site; the parking provided enables for the site to accommodate parking for a typical event on-site and minimize empty parking structures/spaces through the year (200 days of the year with no event). Limiting the amount of available parking has been found to encourage spectators to utilize other modes of transportation and potentially minimize the amount of traffic to be added to the roadway network. As discussed in Traffic Considerations for Special Events (ITE, 1976), larger stadiums and venues with higher generating-events, like weekend sporting events and high-selling concerts proposed at the proposed Entertainment Center experience higher vehicle occupancy rates. These types of events appeal to captive riders (i.e. teenagers and seniors), who are more likely to use alternative modes of transportation, and venues with limited parking spaces yield higher vehicle occupancy rates.

For events over 10,000 spectators, Midway Rising Project will maintain contracts with several entities—e.g., adjacent parking structures, business parks, and major landowners—for the use of their parking lots as overflow event parking.

11.3.3 COMPLETE COMMUNITIES: MOBILITY CHOICES (VMT REDUCTION MEASURES)

As discussed in the commercial land use section, this project is subject to Complete Communities: Mobility Choices Regulations.

Section 143.1103 of the SDMC requires that the project provide VMT reduction measures to achieve a minimum of 5 points per land use or 8 points per land use if the project provides more than the minimum vehicular parking required based on basic parking rates. **Table 11-4** provides the minimum parking requirement calculations for the entertainment land use using the basic parking rates. As a result, the entertainment land use is required to provide 5 points of VMT reduction measures to meet the requirements of the Complete Communities: Mobility Choices regulations.

Table 11-4. Entertainment Land Use – VMT Reduction Measures Point Requirements (Basic Parking Rates)

Land Use	Required Parking[1]	Parking Provided	VMT Reduction Measure Points Required
Entertainment	5,333	2,100	5
Minimum VMT Reduction Measure Points Required (Entertainment):			5

[1] *City of San Diego Municipal Code Table 142-05G*

Appendix T of the *Mobility Choices Regulations: Implementation Guidelines* provides a list of VMT reduction measures, and the number of points associated with each measure. **Table 11-6** summarizes the list of VMT reduction measures the project proposes to meet this requirement, and **Figure 11-2** shows the anticipated locations for these amenities. These measures will be provided by the project when this land use is constructed.

11.4 PARKING SUMMARY

Table 11-5 summarizes the required and provided vehicle parking for each proposed land use.

Table 11-5. Parking Summary Table

Land Use	Required Vehicle Parking Spaces	Proposed Vehicle Parking Spaces	Required/ Provided Short-Term Bike Parking Spaces	Required/ Provided Long-Term Bike Parking Spaces	Required/ Provided Motorcycle Parking Spaces	Required/ Provided Zero Emissions Vehicle Parking Spaces
Commercial	0	431	22	22	9	204
Entertainment Center	*	2,100	105	105	42	1,050
Residential	0	5,216	0	2,104	464	2,088
Total	*	**7,747**	**127**	**2,231**	**515**	**3,343**

*City of San Diego Municipal Code Section 141.0622 (d) indicates that off-street parking for sports arenas and stadiums shall be provided at a level sufficient to serve the facility without impacting adjacent or nearby property.

11.5 LOADING SPACES

The project proposed to provide off-street loading spaces for each land use as required by Section 142.1010 and Table 142.10B of the SDMC. Per the SDMC, the Midway Rising project requires a minimum of 17 residential loading zones, 5 commercial loading zones, and 2 entertainment center loading zones. The Midway Rising project proposes to provide 19 residential loading zones, five commercial loading zones, and two entertainment center loading zones for a total of 26 loading zones, which complies with this requirement.

Figure 11-3 displays the proposed loading zones to be provided on the site.

Table 11-6. Entertainment Land Use – VMT Reduction Measures

Measure	Project-Specific Notes	Points
Pedestrian 2. Installing pop-outs at adjacent intersections or curb extensions at adjacent mid-block crosswalks. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or San Diego Metropolitan Transit System/North County Transit District may be required.	2 locations: • Kemper Street mid-block crossing (North) (full intersection) • Kemper Street mid-block crossing (South) (full intersection)	5
Bicycle 12. Providing on-site bicycle repair station.	Located near Blocks D1 and D2	1.5
Transit 20. Providing low cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of bench, public art, static schedule and route display, trash receptacle.	Provide system map for local bus stop (new stop) on Sports Arena Boulevard on the west side of Kemper Street.	1
Total VMT Reduction Measure Points (Entertainment)		**7.5**

Figure 11-2. Proposed VMT Reductions Measures Locations Map

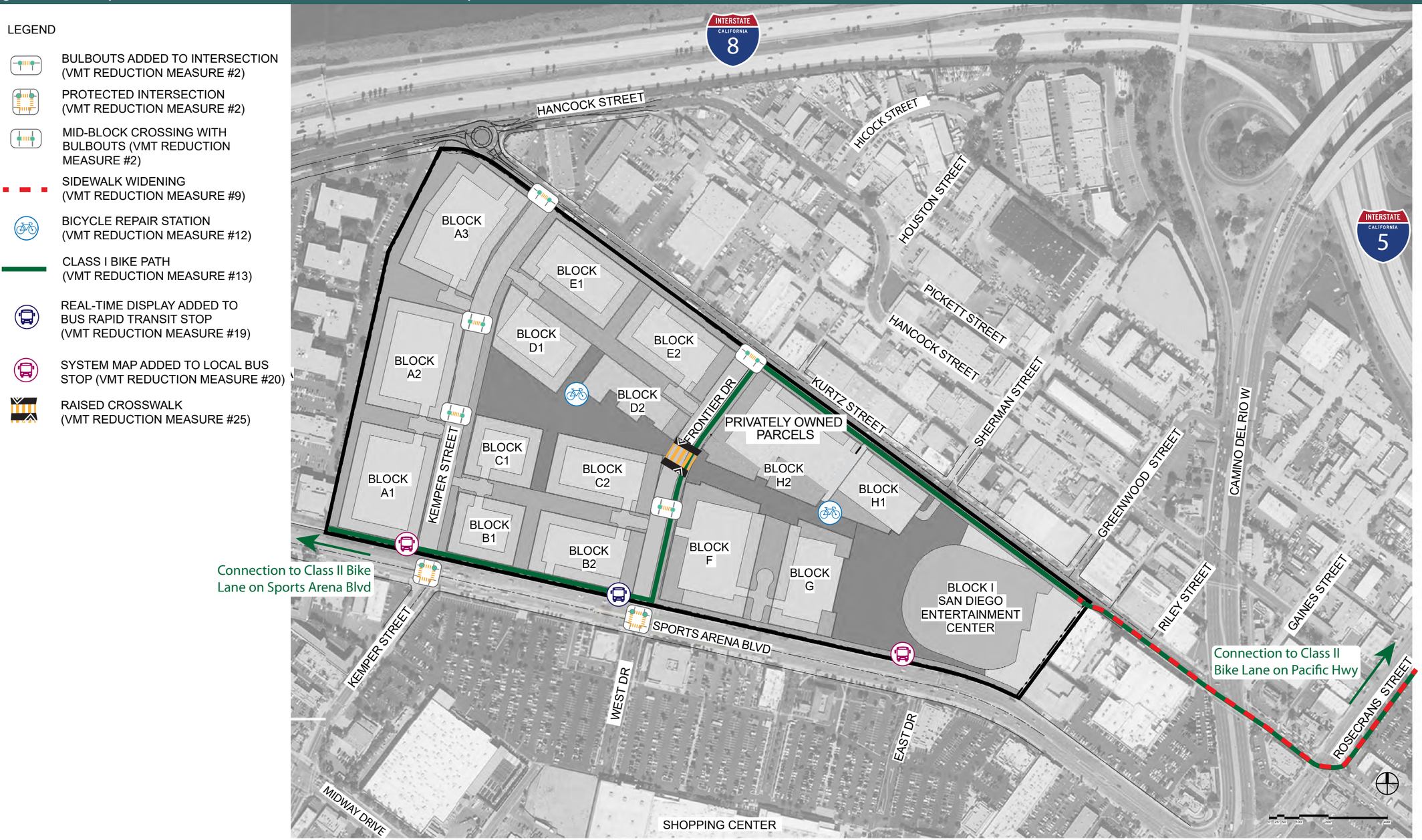


Figure 11-3. Project Turnaround and Loading Zones

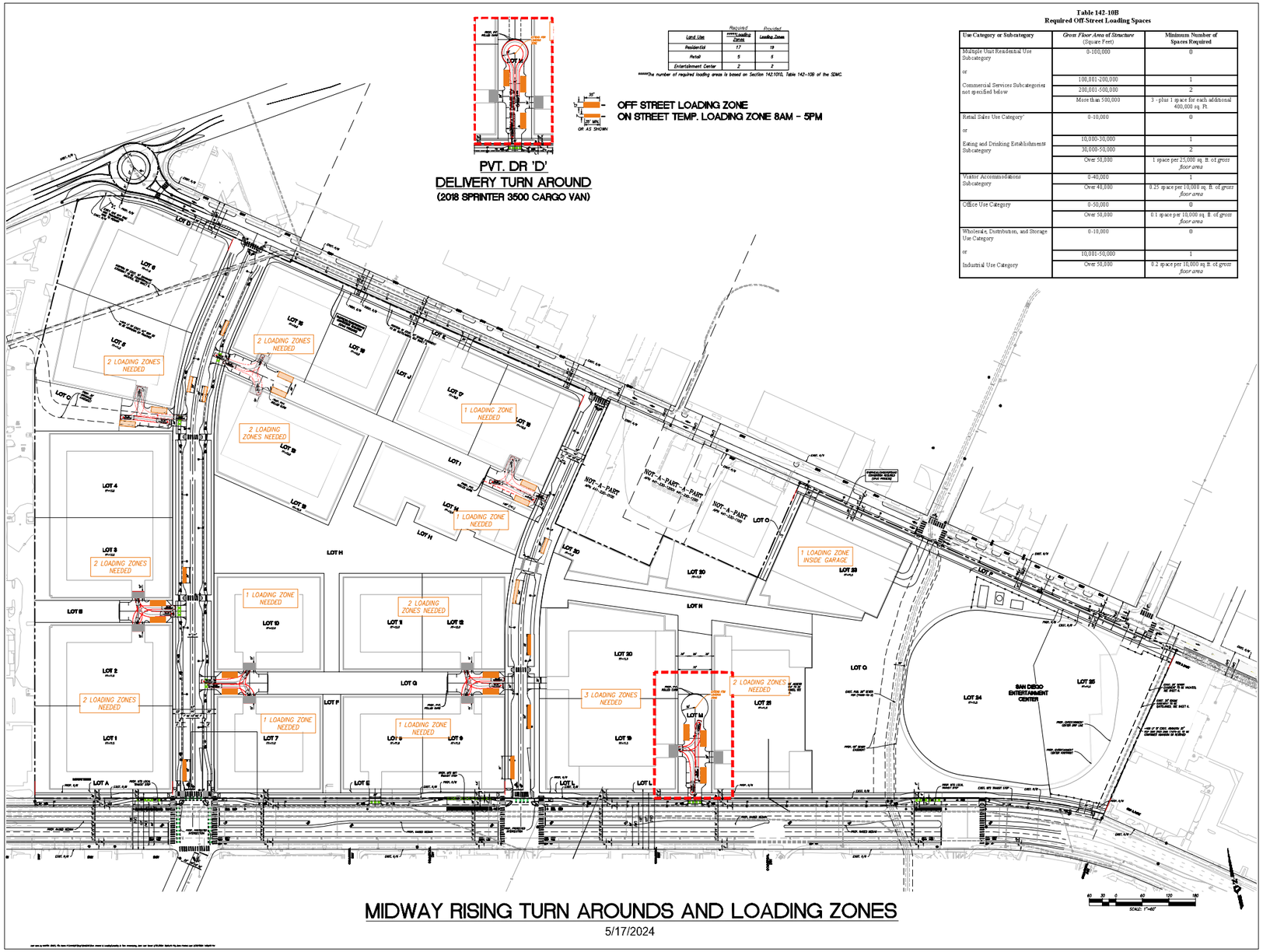


Table 142-10B
Required Off-Street Loading Spaces

Use Category or Subcategory	*Gross Floor Area of Structure* (Square Feet)	Minimum Number of Spaces Required
Multiple Unit Residential Use Subcategory	0-100,000	0
or		
Commercial Services Subcategories not specified below	100,001-200,000	1
	200,001-500,000	2
	More than 500,000	1 - plus 1 space for each additional 400,000 sq. ft.
Retail Sales Use Category*	0-10,000	0
or		
Eating and Drinking Establishments Subcategory	10,000-30,000	1
	30,000-50,000	2
	Over 50,000	1 space per 25,000 sq. ft. of *gross floor area*
Visitor Accommodations Subcategory	0-40,000	1
	Over 40,000	0.25 space per 10,000 sq. ft. of *gross floor area*
Office Use Category	0-50,000	0
	Over 50,000	0.1 space per 10,000 sq. ft. of *gross floor area*
Wholesale, Distribution, and Storage Use Category	0-10,000	0
or		
Industrial Use Category	10,001-50,000	1
	Over 50,000	0.2 space per 10,000 sq ft. of *gross floor area*

IMAGE SOURCE: PDC

12 SYSTEMIC SAFETY REVIEW

12.1 INTERSECTION SYSTEMIC SAFETY REVIEW

The TSM requires a Systemic Safety Review to determine if study intersections meet the criteria to be identified as a systemic hotspot for vehicles, pedestrians and bicycles. A review of the City of San Diego *Systemic Safety The Data-Driven Path to Vision Zero,* dated April 2019, indicated that an intersection can be considered a hotspot location based on intersection control, roadway cross-section, and primary roadway Average Daily Traffic (ADT). The Systemic Safety Review was completed for opening Year (2030) Plus Project Phase 1 and for Opening Year (2035) Plus Project Phase 2 Buildout scenarios.

12.2 SAFETY ANALYSIS RESULTS

Table 12-1 through **Table 12-5** summarize the systemic hotspots identified for vehicles, pedestrians, and bicycles. The vehicular and pedestrian hotspot analysis both utilize traffic volumes to determine hot spot locations. These two analyses were performed using both Opening Year (2030 and 2035) Plus Project volumes. Because the same hotspots were identified for both scenarios, all countermeasures will be implemented by the project in Opening Year (2030).

Table 12-1. Vehicular Systemic Hotspots Analysis (with Opening Year 2030 Plus Project Traffic Volumes)

ID	Intersection	Intersection Control	Primary Rd		Secondary Rd		Hotspot?	Intersection Footprint
			2030 14.5k ADT[1]	# of Lanes	2030 14.5k ADT[1]	# of Lanes		
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	Signalized	18,295	N/A	*14,700*	N/A	No	
2	Midway Drive & W Point Polma Blvd/Sports Arena Blvd	Signalized	36,625	6-Lane (2-Way)	29,086	6-Lane (2-Way)	No	
3	Sports Arena Blvd & Hancock St	Signalized	29,086	6-Lane (2-Way)	9,905	2-Lane (2-Way)	No	
4	Sports Arena Blvd & Kemper St	Signalized	23,230	6-Lane (2-Way)	8,012	2-Lane (2-Way)	No	
5	Sports Arena Blvd & West Dr	Signalized	21,461	6-Lane (2-Way)	7,619	2-Lane (2-Way)	No	
6	Sports Arena Blvd & Target Dwy	Unsignalized	20,672	6-Lane (2-Way)	*8,300*	2-Lane (2-Way)	No	
7	Sports Arena Blvd & East Dr	Signalized	24,408	6-Lane (2-Way)	*10,100*	2-Lane (2-Way)	No	
8	Midway Dr & Kemper St	Signalized	*17,400*	4-Lane (2-Way)	*5,300*	4-Lane (2-Way)	No	
9	Midway Dr & East Dr	Signalized	*23,000*	4-Lane (2-Way)	*7,000*	2-Lane (2-Way)	Yes	1
10	Hancock St & Channel Wy	Unsignalized	9,905	2-Lane (2-Way)	*800*	2-Lane (2-Way)	No	
11	Hancock St & Kurtz St	Signalized	8,795	2-Lane (2-Way)	6,348	N/A	No	
12	Kurtz St & Sherman St	Unsignalized	7,853	2-Lane (2-Way)	*7,000*	2-Lane (2-Way)	No	
13	Kurtz St & Greenwood St	Unsignalized	7,853	2-Lane (2-Way)	N/A	2-Lane (2-Way)	No	
14	Sherman St & Hancock St	Unsignalized	7,262	N/A	*6,600*	2-Lane (2-Way)	No	
15	Greenwood St & Hancock St	Unsignalized	7,262	N/A	N/A	2-Lane (2-Way)	No	
16	Camino Del Rio W & Moore St	Unsignalized	64,454	6-Lane (2-Way)	N/A	2-Lane (2-Way)	No	
17	Camino Del Rio W & Hancock St	Signalized	64,454	6-Lane (2-Way)	7,169	2-Lane (2-Way)	No	
18	Camino Del Rio W & Kurtz St	Signalized	53,232	N/A	7,923	N/A	No	
19	Camino Del Rio W/Rosecrans St & Sports Arena Blvd/Rosecrans St	Signalized	61,622	6-Lane (2-Way)	24,408	6-Lane (2-Way)	No	
20	Rosecrans St & Midway Dr	Signalized	61,622	6-Lane (2-Way)	24,479	4-Lane (2-Way)	Yes	2
21	Rosecrans St & N Evergreen St	Signalized	*36,700*	6-Lane (2-Way)	*2,300*	2-Lane (2-Way)	No	
22	Rosecrans St & Lytton St	Signalized	*33,400*	6-Lane (2-Way)	*14,200*	4-Lane (2-Way)	Yes	2
23	Rosecrans St & Kurtz St	Signalized	*21,400*	4-Lane (2-Way)	*12,900*	2-Lane (2-Way)	No	
24	Rosecrans St & Hancock St	Unsignalized	*20,300*	4-Lane (2-Way)	*10,500*	N/A	No	
25	Pacific Hwy & Rosecrans St/Taylor St	Signalized	*16,800*	6-Lane (2-Way)	*21,100*	4-Lane (2-Way)	Yes	2
26	Pacific Hwy & Kurtz St	Signalized	*30,100*	6-Lane (2-Way)	*10,900*	2-Lane (2-Way)	No	
27	Pacific Hwy & Enterprise St	Signalized	*32,900*	4-Lane (2-Way)	*22,500*	2-Lane (2-Way)	No	
28	Midway Dr & Enterprise St	Unsignalized	24,479	4-Lane (2-Way)	*7,100*	2-Lane (2-Way)	No	
29	Midway Dr & Barnett Ave	Signalized	24,479	4-Lane (2-Way)	*38,600*	4-Lane (2-Way)	Yes	3
30	Friars Rd & Sea World Dr	Signalized	*36,900*	4-Lane (2-Way)	*19,800*	4-Lane (2-Way)	Yes	3
31	Sea World Dr & E Mission Bay Dr/Pacific Hwy	Signalized	*28,100*	4-Lane (2-Way)	*9,500*	2-Lane (2-Way)	No	
32	Sea World Dr & I-5 SB Ramps	Signalized	*28,100*	4-Lane (2-Way)	*9,100*	N/A	No	

[1]Systemic safety analysis was performed using 2035 Plus Project (14,500 spectator) roadway segment ADT volumes where possible, and 2035 ABM2+/2021 RP ADTs elsewhere. Volumes from 2035 ABM2+/2021 RP are *italicized*.

Table 12-2. Vehicular Systemic Hotspots Analysis (with Opening Year 2035 Plus Project Traffic Volumes)

ID	Intersection	Intersection Control	Primary Rd		Secondary Rd		Hotspot?	Intersection Footprint
			2035 14.5k ADT[1]	# of Lanes	2035 14.5k ADT[1]	# of Lanes		
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	Signalized	24,427	N/A	*14,700*	N/A	No	
2	Midway Drive & W Point Polma Blvd/Sports Arena Blvd	Signalized	47,329	6-Lane (2-Way)	46,255	6-Lane (2-Way)	No	
3	Sports Arena Blvd & Hancock St	Signalized	46,255	6-Lane (2-Way)	14,866	2-Lane (2-Way)	No	
4	Sports Arena Blvd & Kemper St	Signalized	35,409	6-Lane (2-Way)	27,258	2-Lane (2-Way)	No	
5	Sports Arena Blvd & West Dr	Signalized	26,289	6-Lane (2-Way)	5,076	2-Lane (2-Way)	No	
6	Sports Arena Blvd & Target Dwy	Unsignalized	21,495	6-Lane (2-Way)	*8,300*	2-Lane (2-Way)	No	
7	Sports Arena Blvd & East Dr	Signalized	25,801	6-Lane (2-Way)	*10,100*	2-Lane (2-Way)	No	
8	Midway Dr & Kemper St	Signalized	*17,400*	4-Lane (2-Way)	*5,300*	4-Lane (2-Way)	No	
9	Midway Dr & East Dr	Signalized	*23,000*	4-Lane (2-Way)	*7,000*	2-Lane (2-Way)	Yes	1
10	Hancock St & Channel Wy	Unsignalized	14,866	2-Lane (2-Way)	*800*	2-Lane (2-Way)	No	
11	Hancock St & Kurtz St	Signalized	14,032	2-Lane (2-Way)	3,403	N/A	No	
12	Kurtz St & Sherman St	Unsignalized	10,338	2-Lane (2-Way)	*7,000*	2-Lane (2-Way)	No	
13	Kurtz St & Greenwood St	Unsignalized	10,338	2-Lane (2-Way)	N/A	2-Lane (2-Way)	No	
14	Sherman St & Hancock St	Unsignalized	8,583	N/A	*6,600*	2-Lane (2-Way)	No	
15	Greenwood St & Hancock St	Unsignalized	8,583	N/A	N/A	2-Lane (2-Way)	No	
16	Camino Del Rio W & Moore St	Unsignalized	68,813	6-Lane (2-Way)	N/A	2-Lane (2-Way)	No	
17	Camino Del Rio W & Hancock St	Signalized	67,286	6-Lane (2-Way)	8,492	2-Lane (2-Way)	No	
18	Camino Del Rio W & Kurtz St	Signalized	56,717	N/A	9,500	N/A	No	
19	Camino Del Rio W/Rosecrans St & Sports Arena Blvd/Rosecrans St	Signalized	65,490	6-Lane (2-Way)	25,801	6-Lane (2-Way)	No	
20	Rosecrans St & Midway Dr	Signalized	65,490	6-Lane (2-Way)	27,253	4-Lane (2-Way)	Yes	2
21	Rosecrans St & N Evergreen St	Signalized	*36,700*	6-Lane (2-Way)	*2,300*	2-Lane (2-Way)	No	
22	Rosecrans St & Lytton St	Signalized	*33,400*	6-Lane (2-Way)	*14,200*	4-Lane (2-Way)	Yes	2
23	Rosecrans St & Kurtz St	Signalized	*21,400*	4-Lane (2-Way)	*12,900*	2-Lane (2-Way)	No	
24	Rosecrans St & Hancock St	Unsignalized	*20,300*	4-Lane (2-Way)	*10,500*	N/A	No	
25	Pacific Hwy & Rosecrans St/Taylor St	Signalized	*16,800*	6-Lane (2-Way)	*21,100*	4-Lane (2-Way)	Yes	2
26	Pacific Hwy & Kurtz St	Signalized	*30,100*	6-Lane (2-Way)	*10,900*	2-Lane (2-Way)	No	
27	Pacific Hwy & Enterprise St	Signalized	*32,900*	4-Lane (2-Way)	*22,500*	2-Lane (2-Way)	No	
28	Midway Dr & Enterprise St	Unsignalized	27,253	4-Lane (2-Way)	*7,100*	2-Lane (2-Way)	No	
29	Midway Dr & Barnett Ave	Signalized	27,253	4-Lane (2-Way)	*38,600*	4-Lane (2-Way)	Yes	3
30	Friars Rd & Sea World Dr	Signalized	*36,900*	4-Lane (2-Way)	*19,800*	4-Lane (2-Way)	Yes	3
31	Sea World Dr & E Mission Bay Dr/Pacific Hwy	Signalized	*28,100*	4-Lane (2-Way)	*9,500*	2-Lane (2-Way)	No	
32	Sea World Dr & I-5 SB Ramps	Signalized	*28,100*	4-Lane (2-Way)	*9,100*	N/A	No	

[1]Systemic safety analysis was performed using 2035 Plus Project (14,500 spectator) roadway segment ADT volumes where possible, and 2035 ABM2+/2021 RP ADTs elsewhere. Volumes from 2035 ABM2+/2021 RP are *italicized*.

Table 12-3. Pedestrian Systemic Hotspots Analysis (with Opening Year 2030 Plus Project Traffic Volumes)

ID	Intersection	Intersection Control	Primary Rd		Secondary Rd		Hotspot?	Intersection Footprint
			2030 14.5k ADT	# of Lanes	2030 14.5k ADT	# of Lanes		
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	Signalized	18,295	N/A	*14,700*	N/A	No	
2	Midway Drive & W Point Polma Blvd/Sports Arena Blvd	Signalized	36,625	6-Lane (2-Way)	29,086	6-Lane (2-Way)	No	
3	Sports Arena Blvd & Hancock St	Signalized	29,086	6-Lane (2-Way)	9,905	2-Lane (2-Way)	No	
4	Sports Arena Blvd & Kemper St	Signalized	23,230	6-Lane (2-Way)	8,012	2-Lane (2-Way)	No	
5	Sports Arena Blvd & West Dr	Signalized	21,461	6-Lane (2-Way)	7,619	2-Lane (2-Way)	No	
6	Sports Arena Blvd & Target Dwy	Unsignalized	20,672	6-Lane (2-Way)	*8,300*	2-Lane (2-Way)	No	
7	Sports Arena Blvd & East Dr	Signalized	24,408	6-Lane (2-Way)	*10,100*	2-Lane (2-Way)	No	
8	Midway Dr & Kemper St	Signalized	*17,400*	4-Lane (2-Way)	*5,300*	4-Lane (2-Way)	No	
9	Midway Dr & East Dr	Signalized	*23,000*	4-Lane (2-Way)	*7,000*	2-Lane (2-Way)	Yes	2 3
10	Hancock St & Channel Wy	Unsignalized	9,905	2-Lane (2-Way)	*800*	2-Lane (2-Way)	No	
11	Hancock St & Kurtz St	Signalized	8,795	2-Lane (2-Way)	6,348	N/A	No	
12	Kurtz St & Sherman St	Unsignalized	7,853	2-Lane (2-Way)	*7,000*	2-Lane (2-Way)	No	
13	Kurtz St & Greenwood St	Unsignalized	7,853	2-Lane (2-Way)	N/A	2-Lane (2-Way)	No	
14	Sherman St & Hancock St	Unsignalized	7,262	N/A	*6,600*	2-Lane (2-Way)	No	
15	Greenwood St & Hancock St	Unsignalized	7,262	N/A	N/A	2-Lane (2-Way)	No	
16	Camino Del Rio W & Moore St	Unsignalized	64,454	6-Lane (2-Way)	N/A	2-Lane (2-Way)	No	
17	Camino Del Rio W & Hancock St	Signalized	64,454	6-Lane (2-Way)	7,169	2-Lane (2-Way)	No	
18	Camino Del Rio W & Kurtz St	Signalized	53,232	N/A	7,923	N/A	No	
19	Camino Del Rio W/Rosecrans St & Sports Arena Blvd/Rosecrans St	Signalized	61,622	6-Lane (2-Way)	24,408	6-Lane (2-Way)	No	
20	Rosecrans St & Midway Dr	Signalized	61,622	6-Lane (2-Way)	24,479	4-Lane (2-Way)	No	
21	Rosecrans St & N Evergreen St	Signalized	*36,700*	6-Lane (2-Way)	*2,300*	2-Lane (2-Way)	No	
22	Rosecrans St & Lytton St	Signalized	*33,400*	6-Lane (2-Way)	*14,200*	4-Lane (2-Way)	No	
23	Rosecrans St & Kurtz St	Signalized	*21,400*	4-Lane (2-Way)	*12,900*	2-Lane (2-Way)	Yes	2 3
24	Rosecrans St & Hancock St	Unsignalized	*20,300*	4-Lane (2-Way)	*10,500*	N/A	No	
25	Pacific Hwy & Rosecrans St/Taylor St	Signalized	*16,800*	6-Lane (2-Way)	*21,100*	4-Lane (2-Way)	No	
26	Pacific Hwy & Kurtz St	Signalized	*30,100*	6-Lane (2-Way)	*10,900*	2-Lane (2-Way)	No	
27	Pacific Hwy & Enterprise St	Signalized	*32,900*	4-Lane (2-Way)	*22,500*	2-Lane (2-Way)	No	
28	Midway Dr & Enterprise St	Unsignalized	24,479	4-Lane (2-Way)	*7,100*	2-Lane (2-Way)	No	
29	Midway Dr & Barnett Ave	Signalized	24,479	4-Lane (2-Way)	*38,600*	4-Lane (2-Way)	No	
30	Friars Rd & Sea World Dr	Signalized	*36,900*	4-Lane (2-Way)	*19,800*	4-Lane (2-Way)	No	
31	Sea World Dr & E Mission Bay Dr/Pacific Hwy	Signalized	*28,100*	4-Lane (2-Way)	*9,500*	2-Lane (2-Way)	No	
32	Sea World Dr & I-5 SB Ramps	Signalized	*28,100*	4-Lane (2-Way)	*9,100*	N/A	No	

[1]Systemic safety analysis was performed using 2035 Plus Project (14,500 spectator) roadway segment ADT volumes where possible, and 2035 ABM2+/2021 RP ADTs elsewhere. Volumes from 2035 ABM2+/2021 RP are *italicized.*

Table 12-4. Pedestrian Systemic Hotspots Analysis (with Opening Year 2035 Plus Project Traffic Volumes)

ID	Intersection	Intersection Control	Primary Rd		Secondary Rd		Hotspot?	Intersection Footprint
			2035 14.5k ADT	# of Lanes	2035 14.5k ADT	# of Lanes		
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	Signalized	24,427	N/A	*14,700*	N/A	No	
2	Midway Drive & W Point Polma Blvd/Sports Arena Blvd	Signalized	47,329	6-Lane (2-Way)	46,255	6-Lane (2-Way)	No	
3	Sports Arena Blvd & Hancock St	Signalized	46,255	6-Lane (2-Way)	14,866	2-Lane (2-Way)	No	
4	Sports Arena Blvd & Kemper St	Signalized	35,409	6-Lane (2-Way)	27,258	2-Lane (2-Way)	No	
5	Sports Arena Blvd & West Dr	Signalized	26,289	6-Lane (2-Way)	5,076	2-Lane (2-Way)	No	
6	Sports Arena Blvd & Target Dwy	Unsignalized	21,495	6-Lane (2-Way)	*8,300*	2-Lane (2-Way)	No	
7	Sports Arena Blvd & East Dr	Signalized	25,801	6-Lane (2-Way)	*10,100*	2-Lane (2-Way)	No	
8	Midway Dr & Kemper St	Signalized	*17,400*	4-Lane (2-Way)	*5,300*	4-Lane (2-Way)	No	
9	Midway Dr & East Dr	Signalized	*23,000*	4-Lane (2-Way)	*7,000*	2-Lane (2-Way)	Yes	2 3
10	Hancock St & Channel Wy	Unsignalized	14,866	2-Lane (2-Way)	*800*	2-Lane (2-Way)	No	
11	Hancock St & Kurtz St	Signalized	14,032	2-Lane (2-Way)	3,403	N/A	No	
12	Kurtz St & Sherman St	Unsignalized	10,338	2-Lane (2-Way)	*7,000*	2-Lane (2-Way)	No	
13	Kurtz St & Greenwood St	Unsignalized	10,338	2-Lane (2-Way)	N/A	2-Lane (2-Way)	No	
14	Sherman St & Hancock St	Unsignalized	8,583	N/A	*6,600*	2-Lane (2-Way)	No	
15	Greenwood St & Hancock St	Unsignalized	8,583	N/A	N/A	2-Lane (2-Way)	No	
16	Camino Del Rio W & Moore St	Unsignalized	68,813	6-Lane (2-Way)	N/A	2-Lane (2-Way)	No	
17	Camino Del Rio W & Hancock St	Signalized	67,286	6-Lane (2-Way)	8,492	2-Lane (2-Way)	No	
18	Camino Del Rio W & Kurtz St	Signalized	56,717	N/A	9,500	N/A	No	
19	Camino Del Rio W/Rosecrans St & Sports Arena Blvd/Rosecrans St	Signalized	65,490	6-Lane (2-Way)	25,801	6-Lane (2-Way)	No	
20	Rosecrans St & Midway Dr	Signalized	65,490	6-Lane (2-Way)	27,253	4-Lane (2-Way)	No	
21	Rosecrans St & N Evergreen St	Signalized	*36,700*	6-Lane (2-Way)	*2,300*	2-Lane (2-Way)	No	
22	Rosecrans St & Lytton St	Signalized	*33,400*	6-Lane (2-Way)	*14,200*	4-Lane (2-Way)	No	
23	Rosecrans St & Kurtz St	Signalized	*21,400*	4-Lane (2-Way)	*12,900*	2-Lane (2-Way)	Yes	2 3
24	Rosecrans St & Hancock St	Unsignalized	*20,300*	4-Lane (2-Way)	*10,500*	N/A	No	
25	Pacific Hwy & Rosecrans St/Taylor St	Signalized	*16,800*	6-Lane (2-Way)	*21,100*	4-Lane (2-Way)	No	
26	Pacific Hwy & Kurtz St	Signalized	*30,100*	6-Lane (2-Way)	*10,900*	2-Lane (2-Way)	No	
27	Pacific Hwy & Enterprise St	Signalized	*32,900*	4-Lane (2-Way)	*22,500*	2-Lane (2-Way)	No	
28	Midway Dr & Enterprise St	Unsignalized	27,253	4-Lane (2-Way)	*7,100*	2-Lane (2-Way)	No	
29	Midway Dr & Barnett Ave	Signalized	27,253	4-Lane (2-Way)	*38,600*	4-Lane (2-Way)	No	
30	Friars Rd & Sea World Dr	Signalized	*36,900*	4-Lane (2-Way)	*19,800*	4-Lane (2-Way)	No	
31	Sea World Dr & E Mission Bay Dr/Pacific Hwy	Signalized	*28,100*	4-Lane (2-Way)	*9,500*	2-Lane (2-Way)	No	
32	Sea World Dr & I-5 SB Ramps	Signalized	*28,100*	4-Lane (2-Way)	*9,100*	N/A	No	

[1]Systemic safety analysis was performed using 2035 Plus Project (14,500 spectator) roadway segment ADT volumes where possible, and 2035 ABM2+/2021 RP ADTs elsewhere. Volumes from 2035 ABM2+/2021 RP are *italicized.*

Table 12-5. Bicycle Systemic Hotspots Analysis

ID	Intersection	Intersection Control	Primary Rd # of Lanes	Secondary Rd # of Lanes	Hotspot?	Intersection Footprint
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	Signalized	N/A	4-Lane	No	
2	Midway Drive & W Point Polma Blvd/Sports Arena Blvd	Signalized	6-Lane	6-Lane	No	
3	Sports Arena Blvd & Hancock St	Signalized	6-Lane	2-Lane	No	
4	Sports Arena Blvd & Kemper St	Signalized	6-Lane	2-Lane	No	
5	Sports Arena Blvd & West Dr	Signalized	6-Lane	2-Lane	No	
6	Sports Arena Blvd & Target Dwy	Side-Street Stop	6-Lane	2-Lane	No	
7	Sports Arena Blvd & East Dr	Signalized	6-Lane	2-Lane	No	
8	Midway Dr & Kemper St	Signalized	4-Lane	4-Lane	Yes	1
9	Midway Dr & East Dr	Signalized	4-Lane	2-Lane	Yes	1
10	Hancock St & Channel Wy	All-Way Stop	2-Lane	2-Lane	No	
11	Hancock St & Kurtz St	Signalized	2-Lane	2-Lane	No	
12	Kurtz St & Sherman St	All-Way Stop	2-Lane	2-Lane	No	
13	Kurtz St & Greenwood St	All-Way Stop	2-Lane	2-Lane	No	
14	Sherman St & Hancock St	All-Way Stop	2-Lane	2-Lane	No	
15	Greenwood St & Hancock St	All-Way Stop	2-Lane	2-Lane	No	
16	Camino Del Rio W & Moore St	Side-Street Stop	6-Lane	2-Lane	No	
17	Camino Del Rio W & Hancock St	Signalized	6-Lane	2-Lane	No	
18	Camino Del Rio W & Kurtz St	Signalized	N/A	2-Lane	No	
19	Camino Del Rio W/Rosecrans St & Sports Arena Blvd/Rosecrans St	Signalized	6-Lane	6-Lane	No	
20	Rosecrans St & Midway Dr	Signalized	6-Lane	4-Lane	No	
21	Rosecrans St & N Evergreen St	Signalized	6-Lane	2-Lane	No	
22	Rosecrans St & Lytton St	Signalized	6-Lane	4-Lane	No	
23	Rosecrans St & Kurtz St	Signalized	4-Lane	2-Lane	Yes	1
24	Rosecrans St & Hancock St	Side-Street Stop	4-Lane	2-Lane	No	
25	Pacific Hwy & Rosecrans St/Taylor St	Signalized	6-Lane	4-Lane	No	
26	Pacific Hwy & Kurtz St	Signalized	6-Lane	2-Lane	No	
27	Pacific Hwy & Enterprise St	Signalized	4-Lane	2-Lane	Yes	1
28	Midway Dr & Enterprise St	Side-Street Stop	4-Lane	2-Lane	No	
29	Midway Dr & Barnett Ave	Signalized	4-Lane	4-Lane	Yes	1
30	Friars Rd & Sea World Dr	Signalized	4-Lane	4-Lane	Yes	1
31	Sea World Dr & E Mission Bay Dr/Pacific Hwy	Signalized	4-Lane	2-Lane	Yes	1
32	Sea World Dr & I-5 SB Ramps	Signalized	4-Lane	N/A	No	

12.3 SYSTEMIC SAFETY REVIEW RECOMMENDATIONS

Based on the review, the following hotspots and recommended countermeasures were identified that the project will provide:

- **Recommended Vehicle Countermeasure**: Retroreflective Signal Head Backplates
  - Intersection #9 - Midway Drive & East Drive
  - Intersection #20 - Rosecrans Street & Midway Drive
  - Intersection #22 - Rosecrans Street & Lytton Street
  - Intersection #25 - Pacific Highway & Rosecrans Street/Taylor Street
  - Intersection #29 - Midway Drive & Barnett Avenue
  - Intersection #30 - Friars Road & Sea World Drive
- **Recommended Pedestrian Countermeasure**: Lead Pedestrian Interval (see next section for more detail)
  - Intersection #9 - Midway Drive & East Drive
  - Intersection #23 - Rosecrans Street & Kurtz Street
- **Recommended Bicycle Countermeasure**: Public Safety Messaging Campaign (see next section for more detail)
  - Intersection #8 - Midway Drive & Kemper Street (no bike lanes on either street, therefore engineering countermeasure of bike detection is not applicable)
  - Intersection #9 - Midway Drive & East Drive (no bike lanes on either street, therefore engineering countermeasure of bike detection is not applicable)
  - Intersection #23 - Rosecrans Street & Kurtz Street (future multi-use path would typically not have loop detection)
  - Intersection #27 - Pacific Highway & Enterprise Street (bike detection already provided on Pacific Highway on the northbound approach, no bike pockets are available on the southbound approach, therefore engineering countermeasure of bike detection is not applicable)
  - Intersection #29 - Midway Drive & Barnett Avenue (bike detection already provided on Barnett Avenue; there are no bike lanes on Midway Drive, therefore engineering countermeasure of bike detection is not applicable)
  - Intersection #30 - Friars Road & Sea World Drive (only the eastbound approach has bike lane with no conflicting vehicle movements, therefore engineering countermeasure of bike detection is not applicable)
  - Intersection #31 - Sea World Drive & E Mission Bay Drive/Pacific Highway (Sea World Drive does not have bike lanes; bike detection not applicable)

12.3.1 PEDESTRIAN COUNTERMEASURE: LPI

For the two intersections where LPIs were recommended, an operational analysis was performed to make sure the intersections would still operate acceptably with the additional time provided to pedestrians. The results of these analyses are summarized below in **Table 12-6.**

Table 12-6. LPI Countermeasure Analysis Results

#	Intersection	Peak Hour	2030 Pus Project Plus Improvement		2035 Pus Project Plus Improvement	
			Delay	LOS	Delay	LOS
9	Midway Dr & East Dr/ Commercial Dr	Commuter AM	21.5	C	16.9	B
		Commuter PM	26.5	C	40.8	D
23	Rosecrans St & Kurtz St	Commuter AM	16.6	B	14.1	B
		Commuter PM	41.5	D	52.3	D

Source: HCM 6th Methodology in Synchro 11.0

Since the intersections would still be expected to operate acceptably, the project will implement Lead Pedestrian Interval signal modifications at both intersections at Opening Year (2030).

12.3.2 BICYCLE COUNTERMEASURE: SAFETY CAMPAIGN

The project will institute a Public Safety Messaging Campaign by posting flyers in the informational area of each residential building, as well as attaching the flyers to the digital ticket sales. The flyers would include statistics on bicycle-involved collisions and safe behaviors for bicyclists and drivers to minimize collisions and severity. Specifically, the education should focus on how bicyclists should behave at side-street stop-controlled intersections, and general behaviors for drivers when bicyclists are present.

13 ADDITIONAL TOPICS

This section discusses additional transportation topics including; site access and circulation; and pedestrian, bicycle, and transit access to the project.

13.1 SITE ACCESS AND ON-SITE CIRCULATION

Vehicle access for the project site is proposed via the following four locations:

- Intersection #4: Sports Arena Boulevard/Kemper Street (Signalized)
- Intersection #5: Sports Arena Boulevard/Frontier Drive (Signalized)
- Intersection #33: Kurtz Street/Kemper Street (Stop Controlled)
- Intersection #34: Kurtz Street/Frontier Drive (Stop Controlled)

Additionally, seven driveways would provide direct access to parking garages on the proposed project site:

- Intersection #37: Sports Arena Boulevard/Driveway B2 (Stop-Controlled)
- Intersection #38: Sports Arena Boulevard/ Driveway F/G (Stop-Controlled)
- Intersection #39: Kurtz Street/Driveway A3 (Stop-Controlled)
- Intersection #32: Kurtz Street/Driveway E2 (Stop-Controlled)
- Intersection #35: Kurtz Street/Driveway H1 (Stop-Controlled)
- Intersection #12: Kurtz Street/Sherman Street/Driveway H2 (Stop-Controlled)
- Intersection #40: Kurtz Street/Driveway X (Stop-Controlled)

Internal circulation is facilitated via the proposed new roadways, Kemper Street and Frontier Drive, which run parallel to each other through the project site, and connect Sports Arena Boulevard and Kurtz Street. Kemper Street provides access to residential land uses and parking garages, while Frontier Drive provides access to commercial, residential, and entertainment land uses. Parking is primarily provided via structures in each building; however, on-street parking is also provided on Kemper Street and Frontier Drive.

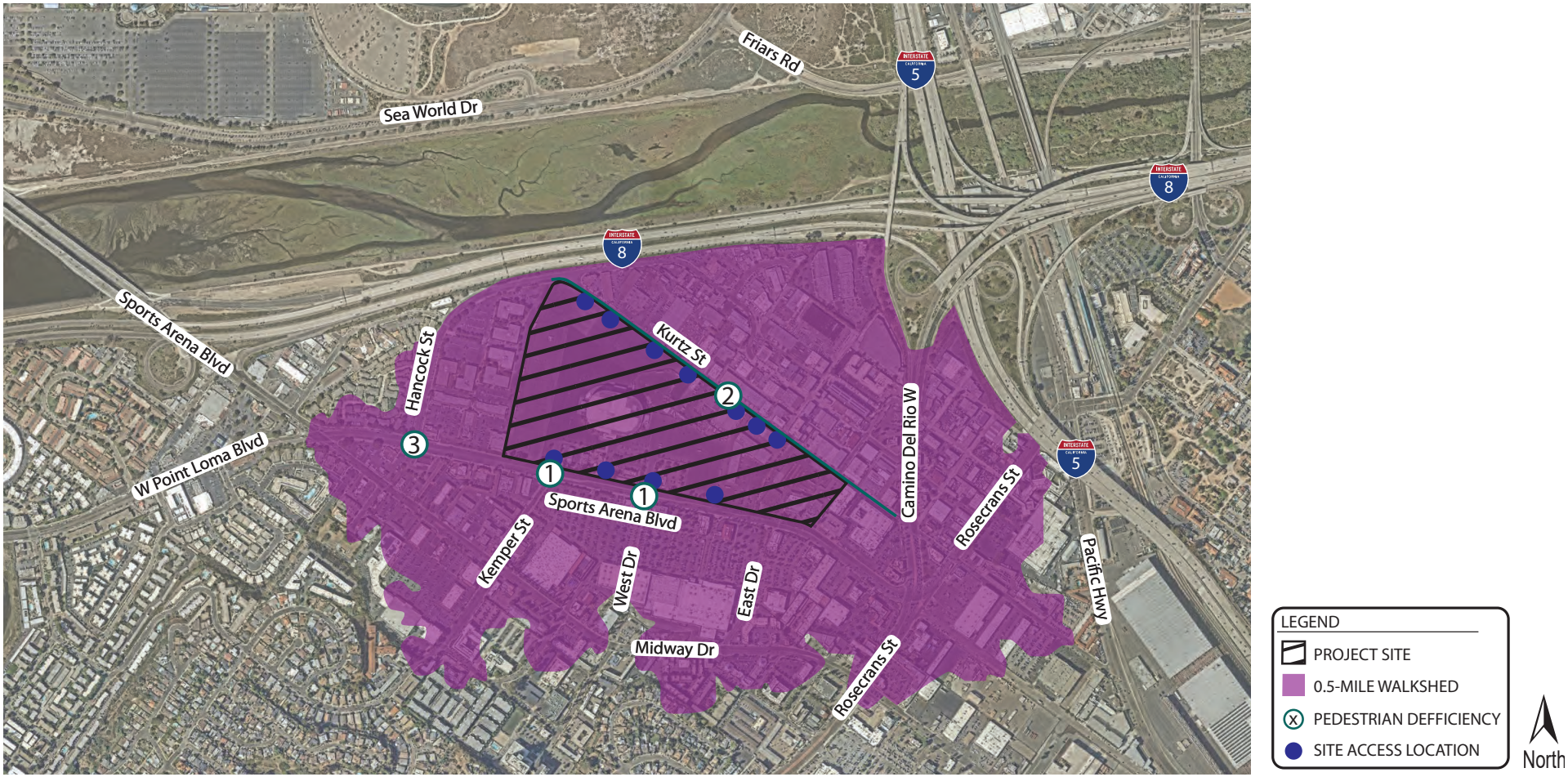
Pedestrian and bicycle access is also provided along Kemper Street and Frontier Drive, as well as throughout many of the green spaces across the site.

13.2 PEDESTRIAN FACILITIES

This section presents a qualitative evaluation of the existing pedestrian network within the project study area and includes a walkshed analysis that identifies any pedestrian barriers and walkability. The purpose of this evaluation is to provide a complete network of pedestrian-friendly, multi-modal facilities throughout the community and create a comfortable pedestrian experience consistent with the City of San Diego Pedestrian Master Plan (2006) and the Midway-Pacific Highway Community Plan (2018) pedestrian policies.

The walkshed analysis was performed using the TravelTime API Map Demo. This model was built by TravelTime from a range of data sets including OpenStreetMap and country-specific data. Walkshed maps including all locations within ½ mile walking distance measured from each pedestrian access point to the site were generated using the API. The Project's walkshed is shown in **Figure 13-1**.

Figure 13-1. Existing Walkshed



The following pedestrian environment deficiencies were identified within the walkshed:

1. Crossings along Sports Arena Boulevard at Kemper Street and West Drive providing site access lack crosswalk striping across north side of Sports Arena Boulevard.
2. South side of Kurtz Street has narrow and missing sidewalk sections
3. Curb ramp missing at southwest corner of Intersection # 3: Sports Arena Boulevard/Hancock Street

Project improvements for pedestrians include:

- Construct non-contiguous sidewalk facilities along the project frontages on Sports Arena Boulevard and Kurtz Street
- Construct non-contiguous sidewalk facilities along both sides of the proposed new roadways, Kemper Street and Frontier Drive
- Provide ADA-compliant curb ramps across all driveways and intersection crossings
- Add new crosswalks with pedestrian countdown signal heads across the southbound approaches of Intersection #4 Sports Arena Boulevard/Kemper Street and Intersection #5 Sports Arena Boulevard/Frontier Drive
- Add two mid-block crossings across Kemper Street and one mid-block crossing across Frontier Drive (See warrant analysis in the next section)
- Construct raised crosswalk on Frontier Drive between Block D2 and Block H2
- Construct non-contiguous and contiguous, internal sidewalk network connecting residential, commercial and entertainment center land uses

13.2.1 UNCONTROLLED CROSSWALK WARRANTS

The project proposes mid-block crosswalks on Kemper Street and Frontier Drive to facilitate anticipated heavy pedestrian travel flows based on locations of attractors and generators. The following four locations were evaluated against the City of San Diego Pedestrian Crosswalk Guidelines, adopted in 2015 as Council Policy 200-07. Per the guidelines, a location qualifies for a marked crosswalk if it meets each of the basic warrants and scores a minimum of 16 points for the point warrants.

- Kemper Street and mid-block crossing (North) – warrants met, crossing treatment recommended
- Kemper Street and mid-block crossing (South) – warrants met, crossing treatment recommended
- Frontier Drive and mid-block crossing (North) – warrants met, crossing treatment recommended
- Frontier Drive and mid-block crossing (South) – warrants met, crossing treatment recommended

The warrants system and points awarded are heavily geared towards providing crossings on existing roadways. However, these roadways and the land uses that are anticipated to produce the pedestrian demand do not currently exist. The mid-block crossing on Frontier Drive (South) meets the warrant because the crossing provides a direct pedestrian connection between parking at Blocks F and G and retail located on the west side of Frontier Drive, and between event parking in Block B2 and the Entertainment Center in Block I.

Table 13-1 indicates the recommended crossing treatments for locations that meet the warrants. The category thresholds are based on vehicle volumes, vehicle speeds, and pedestrian crossing distance at the proposed location. Location types are divided into categories A, B, C, and D, and are used to determine the appropriate treatment for the proposed marked crosswalk location.

Table 13-1. Crossing Treatment Recommendations from Council Policy 200-07

Crossing Distance[2]	Roadway ADT (vehicles per day)				
	< 1,500	1,501 – 5,000	5,001 – 12,000	12,001 – 15,000	> 15,000
< 40'	A	B	B	C	C / D[1]
40' to 52'	A	B	C	C / D[1]	D
> 52'	A	B / C[1]	C / D[1]	D	D

1. For streets with more than one lane at an approach or posted speed limit 30 mph or greater.
2. Crossing distance can be measured to a pedestrian refuge island if one is present.

Source: City of San Diego (February, 2015)

Based on the table, crossing treatment Category B is recommended for the crossings on Frontier Drive, and crossing treatment Category C is recommended for the crossings on Kemper Street.

Treatments for Category C crosswalks should apply two treatments, including radar speed feedback signs, striping changes, Rectangular Rapid Flashing Beacon (RRFB), staggered crosswalks with pedestrian refuge islands, or horizontal deflection traffic calming treatments. The following Category C treatments are recommended for each location on Kemper Street:

- Kemper Street mid-block crossing (North): RRFB and narrower lanes than typical (narrow lanes are incorporated into the design of the proposed new roadway)
- Kemper Street mid-block crossing (South) – RRFB and narrower lanes (narrow lanes are already incorporated into the design of the roadway)

Treatments for Category B crosswalks should include either "Yield to Pedestrian" signage if a median is present, RRFBs, or raised crosswalk or other traffic calming treatments. The following Category B treatments are recommended for each location on Frontier Drive:

- Frontier Drive mid-block crossing (North) – raised crosswalk and RRFB
- Frontier Drive mid-block crossing (South) – RRFB

The guidelines require additional treatments to be installed prior to the crosswalk. However, due to the mixed-use nature of this site, and the level of pedestrian demand anticipated to occur, crosswalks and treatments are recommended to be installed with construction of the roadways rather than waiting to install the treatments until after the site is constructed.

The crosswalk warrant analyses for each of the four proposed crossings are summarized in **Table 13-2** through **Table 13-5.** The location of each of the proposed crossings in relation to the nearest uncontrolled crossing are shown in **Figure 13-2**.

Table 13-2. Uncontrolled Crosswalk Warrant - Kemper Street and Mid-Block Crossing (North)

Project Name: Midway Rising **Project Location: Kemper Street and Mid-block Crossing (N)**

Warrants		Description	Project Specific Notes	Warrant Met?
Basic Warrants (location must meet all basic warrants)	Pedestrian Volume Warrant	Pedestrian volumes must be equal to or greater than ten (10) pedestrians per hour during the peak pedestrian hour. Children under 13, elderly over 64 years and/or disabled persons count as 1.5 pedestrians. Alternatively, this warrant can be satisfied using Latent Pedestrian Demand if conditions (a), (b), or (c).	Crossing does not exist; Latent Pedestrian Demand conditions used instead. Location meets condition (c)	Yes
	Approach Speed Warrant	The 85th percentile approach speed must be equal to or lower than 40 MPH. This warrant does not apply when a pedestrian hybrid beacon or a pedestrian traffic signal will be installed.	Roadway does not exist, therefore speed cannot be evaluated. Roadway speed limit will be 25 mph, and will includes traffic calming measures such as narrow 10' lanes and curb extensions. Adjacent land uses include residential and retail with a lot of pedestrian and bicycle activity. Speeds are expected to remain below 40 mph.	Yes
	Nearest Controlled Crossing	The proposed location must be further than 250 feet from the nearest controlled crossing location (measured from the nearest edge of the proposed marked crosswalk to the closest edge of the controlled crossing).	Nearest controlled crossing location is 450' to the north.	Yes
	Visibility Warrant	The motorist must have an unrestricted view of all pedestrians at the proposed location for the distance required by the following table (stopping sight distance is to be interpolated when 85th percentile speed is between 5 mph increments): **85th Percentile Speed (MPH)** / **Stopping Sight Distance (feet)** 25 / 150 30 / 200 35 / 250 40 / 300	Roadway does not exist. A 30 mph 85th percentile speed is assumed(conservative approach to 25 mph speed limit). Curb extensions will allow pedestrians to be visible to vehicles for at least 200'.	Yes
	Illumination Warrant	The proposed location must have existing lighting.	Project proposes lighting at the crosswalks and along the project roadways.	Yes
	Accessibility Warrant	The proposed location must have existing accessibility to disabled pedestrians or have accessibility improvements programmed.	The crosswalk and curb ramps are designed to meet ADA requirements.	Yes
			Is the Basic Warrant met?	**Yes**

Warrants		Description	Project Specific Notes	Points
Points Warrant (location must score a minimum of 16 points)	Pedestrian Volume Warrant	**Number of Pedestrians (Peak Hour)** / **Points** 10-25 / 4 points 26-50 / 8 points 51+ / 10 points **Total Avilable Points: 10**	Roadway does not exist, therefore pedestrian volume not available	0
	Latent Pedestrian Demand Warrant	(a) The proposed crosswalk is in a commercial, mixed land use, or high density residential area. **3 points** (b) A pedestrian or shared use path is interrupted by a restricted crossing. **3 points** (c*) A pedestrian attractor/generator is directly adjacent to the proposed crosswalk as defined in the explanatory notes below. **4 points** **Total Available Points: 10**	Location meets condition (c) **Applies for all three proposed crosswalk locations*	4
	General Condition Warrant	(a) The nearest controlled crossing is greater than 300 feet from the proposed crosswalk. **3 points** (b) The proposed crosswalk will position pedestrians to be better seen by motorists. **3 points** (c) The proposed crosswalk will establish a mid-block crossing between adjacent signalized intersections or it will connect an existing pedestrian path. **3 points** (d) The proposed crosswalk is located within 1/4 mile of pedestrian attractors/generators as defined in the explanatory notes below. **3 points** (e) An existing bus stop is located within 100 feet of the proposed crosswalk. **3 points** (f) Other factors. **3 points** **Total Available Points: 18**	Location meets conditions (a), (b), (c), and (d)	12
	Gap Time Warrant	**Average Number of Vehicular Gaps per 5-Minute Period** / **Points** 0 – 0.99 / 0 points 1 – 1.99 / 1 point 2 – 2.99 / 8 points 3 – 3.99 / 10 points 4 – 4.99 / 8 points 5 – 5.99 / 1 point 6 or over / 0 points **Total Avilable Points: 10**	Roadway does not exist, therefore gap study cannot be conducted	0
			Total Points	**16**
			Is the Points Warrant met?	**Yes**

Explanatory Notes:

Pedestrian Volume Warrant

The Pedestrian Volume Warrant assigns point values based on pedestrian crossing volumes at the proposed crosswalk. Children under 13, elderly over 64 years and/or disabled persons count as 1.5 pedestrians.

Latend Pedestrian Demand Warrant

The Latent Pedestrian Demand Warrant may be used in lieu of the Pedestrian Volume Warrant.

General Condition Warrant

The General Condition Warrant presents six (6) unique categories. A location can score either zero (0) or three (3) points for each unique category, making a total 18 possible points available. The general conditions include the following:

(a) *The nearest controlled crossing is greater than 300 feet from the proposed crosswalk.*

The distance should be measured from the proposed location of the crosswalk to the nearest controlled intersection, i.e. stop sign, traffic signal, etc.

(b) *The proposed crosswalk will position pedestrians to be better seen by motorists.*

This condition should be considered at locations where one leg of the intersection provides better sight distance than the other legs.

(c) *The proposed crosswalk will establish a mid-block crossing between adjacent signalized intersections.*

This warrant refers to a condition where there is a high pedestrian attractor/generator nearby, and adequate crossing can be provided that could help channelize a recognized heavy flow of mid-block pedestrians.

(d) *The proposed crosswalk is located within ¼ mile of the following pedestrian attractors/generators as defined below:*

- International Border Crossing
- Major Multi-Modal Transit Centers (>10,000 boardings per day)
- Transit Stops (>1,000boardings per day)
- Elementary/Middle/ High Schools
- Universities and Colleges
- Neighborhood Civic Facilities (Libraries, Post Office & Religious Facilities)
- Neighborhood and Community Retail
- Pedestrian Intensive Beaches
- Parks & Recreation (excludes non-useable open space)
- Mixed Land Uses (housing near employment and/or commercial)

(e) *A bus stop is located within 100 feet of the proposed crosswalk.*

This warrant is applicable if there is a bus stop within 100-feet of the proposed crosswalk.

(f) *Other factors.*

Other factors allow for extenuating circumstances

Gap Time Warrant

Gap time is the time needed for a pedestrian to cross the travelled lanes of a roadway at an average walking speed without the need for a driver to yield. The number of usable gaps (or gaps that exceed the minimum time needed to cross) are counted during the peak vehicular hour and averaged per five-minute period.

Table 13-3. Uncontrolled Crosswalk Warrant - Kemper Street and Mid-Block Crossing (South)

Project Name: Midway Rising **Project Location: Kemper Street and Mid-block Crossing (S)**

Warrants		Description	Project Specific Notes	Warrant Met?
Basic Warrants (location must meet all basic warrants)	Pedestrian Volume Warrant	Pedestrian volumes must be equal to or greater than ten (10) pedestrians per hour during the peak pedestrian hour. Children under 13, elderly over 64 years and/or disabled persons count as 1.5 pedestrians. Alternatively, this warrant can be satisfied using Latent Pedestrian Demand if conditions (a), (b), or (c).	Crossing does not exist; Latent Pedestrian Demand conditions used instead. Location meets condition (c)	Yes
	Approach Speed Warrant	The 85th percentile approach speed must be equal to or lower than 40 MPH. This warrant does not apply when a pedestrian hybrid beacon or a pedestrian traffic signal will be installed.	Roadway does not exist, therefore speed cannot be evaluated. Roadway speed limit will be 25 mph, and will includes traffic calming measures such as narrow 10' lanes and curb extensions. Adjacent land uses include residential and retail with a lot of pedestrian and bicycle activity. Speeds are expected to remain below 40 mph.	Yes
	Nearest Controlled Crossing	The proposed location must be further than 250 feet from the nearest controlled crossing location (measured from the nearest edge of the proposed marked crosswalk to the closest edge of the controlled crossing).	Nearest controlled crossing location is 425' to the south.	Yes
	Visibility Warrant	The motorist must have an unrestricted view of all pedestrians at the proposed location for the distance required by the following table (stopping sight distance is to be interpolated when 85th percentile speed is between 5 mph increments): **85th Percentile Speed (MPH)** / **Stopping Sight Distance (feet)** 25 / 150 30 / 200 35 / 250 40 / 300	Roadway does not exist. A 30 mph 85th percentile speed is assumed(conservative approach to 25 mph speed limit). Curb extensions will allow pedestrians to be visible to vehicles for at least 200'.	Yes
	Illumination Warrant	The proposed location must have existing lighting.	Project proposes lighting at the crosswalks and along the project roadways.	Yes
	Accessibility Warrant	The proposed location must have existing accessibility to disabled pedestrians or have accessibility improvements programmed.	The crosswalk and curb ramps are designed to meet ADA requirements.	Yes
			Is the Basic Warrant met?	**Yes**

Warrants		Description	Project Specific Notes	Points
Points Warrant (location must score a minimum of 16 points)	Pedestrian Volume Warrant	**Number of Pedestrians (Peak Hour)** / **Points** 10-25 / 4 points 26-50 / 8 points 51+ / 10 points **Total Avilable Points: 10**	Roadway does not exist, therefore pedestrian volume not available	0
	Latent Pedestrian Demand Warrant	(a) The proposed crosswalk is in a commercial, mixed land use, or high density residential area. **3 points** (b) A pedestrian or shared use path is interrupted by a restricted crossing. **3 points** (c*) A pedestrian attractor/generator is directly adjacent to the proposed crosswalk as defined in the explanatory notes below. **4 points** **Total Available Points: 10**	Location meets condition (c) **Applies for all three proposed crosswalk locations*	4
	General Condition Warrant	(a) The nearest controlled crossing is greater than 300 feet from the proposed crosswalk. **3 points** (b) The proposed crosswalk will position pedestrians to be better seen by motorists. **3 points** (c) The proposed crosswalk will establish a mid-block crossing between adjacent signalized intersections or it will connect an existing pedestrian path. **3 points** (d) The proposed crosswalk is located within 1/4 mile of pedestrian attractors/generators as defined in the explanatory notes below. **3 points** (e) An existing bus stop is located within 100 feet of the proposed crosswalk. **3 points** (f) Other factors. **3 points** **Total Available Points: 18**	Location meets conditions (a), (b), (c), and (d)	12
	Gap Time Warrant	**Average Number of Vehicular Gaps per 5-Minute Period** / **Points** 0 – 0.99 / 0 points 1 – 1.99 / 1 point 2 – 2.99 / 8 points 3 – 3.99 / 10 points 4 – 4.99 / 8 points 5 – 5.99 / 1 point 6 or over / 0 points **Total Avilable Points: 10**	Roadway does not exist, therefore gap study cannot be conducted	0
			Total Points	**16**
			Is the Points Warrant met?	**Yes**

Explanatory Notes:

Pedestrian Volume Warrant

The Pedestrian Volume Warrant assigns point values based on pedestrian crossing volumes at the proposed crosswalk. Children under 13, elderly over 64 years and/or disabled persons count as 1.5 pedestrians.

Latend Pedestrian Demand Warrant

The Latent Pedestrian Demand Warrant may be used in lieu of the Pedestrian Volume Warrant.

General Condition Warrant

The General Condition Warrant presents six (6) unique categories. A location can score either zero (0) or three (3) points for each unique category, making a total 18 possible points available. The general conditions include the following:

(a) *The nearest controlled crossing is greater than 300 feet from the proposed crosswalk.*

The distance should be measured from the proposed location of the crosswalk to the nearest controlled intersection, i.e. stop sign, traffic signal, etc.

(b) *The proposed crosswalk will position pedestrians to be better seen by motorists.*

This condition should be considered at locations where one leg of the intersection provides better sight distance than the other legs.

(c) *The proposed crosswalk will establish a mid-block crossing between adjacent signalized intersections.*

This warrant refers to a condition where there is a high pedestrian attractor/generator nearby, and adequate crossing can be provided that could help channelize a recognized heavy flow of mid-block pedestrians.

(d) *The proposed crosswalk is located within ¼ mile of the following pedestrian attractors/generators as defined below:*

- International Border Crossing
- Major Multi-Modal Transit Centers (>10,000 boardings per day)
- Transit Stops (>1,000boardings per day)
- Elementary/Middle/ High Schools
- Universities and Colleges
- Neighborhood Civic Facilities (Libraries, Post Office & Religious Facilities)
- Neighborhood and Community Retail
- Pedestrian Intensive Beaches
- Parks & Recreation (excludes non-useable open space)
- Mixed Land Uses (housing near employment and/or commercial)

(e) *A bus stop is located within 100 feet of the proposed crosswalk.*

This warrant is applicable if there is a bus stop within 100-feet of the proposed crosswalk.

(f) *Other factors.*

Other factors allow for extenuating circumstances

Gap Time Warrant

Gap time is the time needed for a pedestrian to cross the travelled lanes of a roadway at an average walking speed without the need for a driver to yield. The number of usable gaps (or gaps that exceed the minimum time needed to cross) are counted during the peak vehicular hour and averaged per five-minute period.

Table 13-4. Uncontrolled Crosswalk Warrant - Frontier Drive and Mid-Block Crossing (North)

Project Name: Midway Rising **Project Location: Frontier Drive and Mid-block Crossing (N)**

Warrants		Description	Project Specific Notes	Warrant Met?
Basic Warrants (location must meet all basic warrants)	Pedestrian Volume Warrant	Pedestrian volumes must be equal to or greater than ten (10) pedestrians per hour during the peak pedestrian hour. Children under 13, elderly over 64 years and/or disabled persons count as 1.5 pedestrians. Alternatively, this warrant can be satisfied using Latent Pedestrian Demand if conditions (a), (b), or (c).	Crossing does not exist; Latent Pedestrian Demand conditions used instead. Location meets condition (c)	Yes
	Approach Speed Warrant	The 85th percentile approach speed must be equal to or lower than 40 MPH. This warrant does not apply when a pedestrian hybrid beacon or a pedestrian traffic signal will be installed.	Roadway does not exist, therefore speed cannot be evaluated. Roadway speed limit will be 25 mph, and will includes traffic calming measures such as narrow 10' lanes and curb extensions. Adjacent land uses include residential and retail with a lot of pedestrian and bicycle activity. Speeds are expected to remain below 40 mph.	Yes
	Nearest Controlled Crossing	The proposed location must be further than 250 feet from the nearest controlled crossing location (measured from the nearest edge of the proposed marked crosswalk to the closest edge of the controlled crossing).	Nearest controlled crossing location is 390' to the north.	Yes
	Visibility Warrant	The motorist must have an unrestricted view of all pedestrians at the proposed location for the distance required by the following table (stopping sight distance is to be interpolated when 85th percentile speed is between 5 mph increments): **85th Percentile Speed (MPH)** / **Stopping Sight Distance (feet)** 25 / 150 30 / 200 35 / 250 40 / 300	Roadway does not exist. A 30 mph 85th percentile speed is assumed(conservative approach to 25 mph speed limit). Curb extensions will allow pedestrians to be visible to vehicles for at least 200'.	Yes
	Illumination Warrant	The proposed location must have existing lighting.	Project proposes lighting at the crosswalks and along the project roadways.	Yes
	Accessibility Warrant	The proposed location must have existing accessibility to disabled pedestrians or have accessibility improvements programmed.	The crosswalk and curb ramps are designed to meet ADA requirements.	Yes
			Is the Basic Warrant met?	**Yes**

Warrants		Description	Project Specific Notes	Points
Points Warrant (location must score a minimum of 16 points)	Pedestrian Volume Warrant	**Number of Pedestrians (Peak Hour)** / **Points** 10-25 / 4 points 26-50 / 8 points 51+ / 10 points **Total Avilable Points: 10**	Roadway does not exist, therefore pedestrian volume not available	0
	Latent Pedestrian Demand Warrant	(a) The proposed crosswalk is in a commercial, mixed land use, or high density residential area. **3 points** (b) A pedestrian or shared use path is interrupted by a restricted crossing. **3 points** (c*) A pedestrian attractor/generator is directly adjacent to the proposed crosswalk as defined in the explanatory notes below. **4 points** **Total Available Points: 10**	Location meets condition (c) **Applies for all three proposed crosswalk locations*	4
	General Condition Warrant	(a) The nearest controlled crossing is greater than 300 feet from the proposed crosswalk. **3 points** (b) The proposed crosswalk will position pedestrians to be better seen by motorists. **3 points** (c) The proposed crosswalk will establish a mid-block crossing between adjacent signalized intersections or it will connect an existing pedestrian path. **3 points** (d) The proposed crosswalk is located within 1/4 mile of pedestrian attractors/generators as defined in the explanatory notes below. **3 points** (e) An existing bus stop is located within 100 feet of the proposed crosswalk. **3 points** (f) Other factors. **3 points** **Total Available Points: 18**	Location meets conditions (a), (b), (c), and (d)	12
	Gap Time Warrant	**Average Number of Vehicular Gaps per 5-Minute Period** / **Points** 0 – 0.99 / 0 points 1 – 1.99 / 1 point 2 – 2.99 / 8 points 3 – 3.99 / 10 points 4 – 4.99 / 8 points 5 – 5.99 / 1 point 6 or over / 0 points **Total Avilable Points: 10**	Roadway does not exist, therefore gap study cannot be conducted	0
			Total Points	**16**
			Is the Points Warrant met?	**Yes**

Explanatory Notes:

Pedestrian Volume Warrant

The Pedestrian Volume Warrant assigns point values based on pedestrian crossing volumes at the proposed crosswalk. Children under 13, elderly over 64 years and/or disabled persons count as 1.5 pedestrians.

Latend Pedestrian Demand Warrant

The Latent Pedestrian Demand Warrant may be used in lieu of the Pedestrian Volume Warrant.

General Condition Warrant

The General Condition Warrant presents six (6) unique categories. A location can score either zero (0) or three (3) points for each unique category, making a total 18 possible points available. The general conditions include the following:

(a) *The nearest controlled crossing is greater than 300 feet from the proposed crosswalk.*

The distance should be measured from the proposed location of the crosswalk to the nearest controlled intersection, i.e. stop sign, traffic signal, etc.

(b) *The proposed crosswalk will position pedestrians to be better seen by motorists.*

This condition should be considered at locations where one leg of the intersection provides better sight distance than the other legs.

(c) *The proposed crosswalk will establish a mid-block crossing between adjacent signalized intersections.*

This warrant refers to a condition where there is a high pedestrian attractor/generator nearby, and adequate crossing can be provided that could help channelize a recognized heavy flow of mid-block pedestrians.

(d) *The proposed crosswalk is located within ¼ mile of the following pedestrian attractors/generators as defined below:*

- International Border Crossing
- Major Multi-Modal Transit Centers (>10,000 boardings per day)
- Transit Stops (>1,000boardings per day)
- Elementary/Middle/ High Schools
- Universities and Colleges
- Neighborhood Civic Facilities (Libraries, Post Office & Religious Facilities)
- Neighborhood and Community Retail
- Pedestrian Intensive Beaches
- Parks & Recreation (excludes non-useable open space)
- Mixed Land Uses (housing near employment and/or commercial)

(e) *A bus stop is located within 100 feet of the proposed crosswalk.*

This warrant is applicable if there is a bus stop within 100-feet of the proposed crosswalk.

(f) *Other factors.*

Other factors allow for extenuating circumstances

Gap Time Warrant

Gap time is the time needed for a pedestrian to cross the travelled lanes of a roadway at an average walking speed without the need for a driver to yield. The number of usable gaps (or gaps that exceed the minimum time needed to cross) are counted during the peak vehicular hour and averaged per five-minute period.

Table 13-5. Uncontrolled Crosswalk Warrant - Frontier Drive and Mid-Block Crossing (South)

Project Name: Midway Rising **Project Location: Frontier Drive and Mid-block Crossing (S)**

Warrants		Description	Project Specific Notes	Warrant Met?
Basic Warrants (location must meet all basic warrants)	Pedestrian Volume Warrant	Pedestrian volumes must be equal to or greater than ten (10) pedestrians per hour during the peak pedestrian hour. Children under 13, elderly over 64 years and/or disabled persons count as 1.5 pedestrians. Alternatively, this warrant can be satisfied using Latent Pedestrian Demand if conditions (a), (b), or (c).	Crossing does not exist; Latent Pedestrian Demand conditions used instead. Location meets condition (c)	Yes
	Approach Speed Warrant	The 85th percentile approach speed must be equal to or lower than 40 MPH. This warrant does not apply when a pedestrian hybrid beacon or a pedestrian traffic signal will be installed.	Roadway does not exist, therefore speed cannot be evaluated. Roadway speed limit will be 25 mph, and will includes traffic calming measures such as narrow 10' lanes and curb extensions. Adjacent land uses include residential and retail with a lot of pedestrian and bicycle activity. Speeds are expected to remain below 40 mph.	Yes
	Nearest Controlled Crossing	The proposed location must be further than 250 feet from the nearest controlled crossing location (measured from the nearest edge of the proposed marked crosswalk to the closest edge of the controlled crossing).	Nearest controlled crossing location is 260' to the south.	Yes
	Visibility Warrant	The motorist must have an unrestricted view of all pedestrians at the proposed location for the distance required by the following table (stopping sight distance is to be interpolated when 85th percentile speed is between 5 mph increments): **85th Percentile Speed (MPH)** / **Stopping Sight Distance (feet)** 25 / 150 30 / 200 35 / 250 40 / 300	Roadway does not exist. A 30 mph 85th percentile speed is assumed(conservative approach to 25 mph speed limit). Curb extensions will allow pedestrians to be visible to vehicles for at least 200'.	Yes
	Illumination Warrant	The proposed location must have existing lighting.	Project proposes lighting at the crosswalks and along the project roadways.	Yes
	Accessibility Warrant	The proposed location must have existing accessibility to disabled pedestrians or have accessibility improvements programmed.	The crosswalk and curb ramps are designed to meet ADA requirements.	Yes
			Is the Basic Warrant met?	**Yes**

Warrants		Description	Project Specific Notes	Points
Points Warrant (location must score a minimum of 16 points)	Pedestrian Volume Warrant	**Number of Pedestrians (Peak Hour)** / **Points** 10-25 / 4 points 26-50 / 8 points 51+ / 10 points **Total Avilable Points: 10**	Roadway does not exist, therefore pedestrian volume not available	0
	Latent Pedestrian Demand Warrant	(a) The proposed crosswalk is in a commercial, mixed land use, or high density residential area. **3 points** (b) A pedestrian or shared use path is interrupted by a restricted crossing. **3 points** (c*) A pedestrian attractor/generator is directly adjacent to the proposed crosswalk as defined in the explanatory notes below. **4 points** **Total Available Points: 10**	Location meets condition (c) **Applies for all three proposed crosswalk locations*	4
	General Condition Warrant	(a) The nearest controlled crossing is greater than 300 feet from the proposed crosswalk. **3 points** (b) The proposed crosswalk will position pedestrians to be better seen by motorists. **3 points** (c) The proposed crosswalk will establish a mid-block crossing between adjacent signalized intersections or it will connect an existing pedestrian path. **3 points** (d) The proposed crosswalk is located within 1/4 mile of pedestrian attractors/generators as defined in the explanatory notes below. **3 points** (e) An existing bus stop is located within 100 feet of the proposed crosswalk. **3 points** (f) Other factors. **3 points** **Total Available Points: 18**	Location meets conditions (b), (c), (d), and (f) (f) This proposed crosswalk is located where Entertainment Center spectators are anticipated to cross Frontier Drive based on the location of the venue and the nearest parking structure. It is unlikely pedestrians would utilize the nearest crossing in either direction and will instead cross at this proposed location.	12
	Gap Time Warrant	**Average Number of Vehicular Gaps per 5-Minute Period** / **Points** 0 – 0.99 / 0 points 1 – 1.99 / 1 point 2 – 2.99 / 8 points 3 – 3.99 / 10 points 4 – 4.99 / 8 points 5 – 5.99 / 1 point 6 or over / 0 points **Total Avilable Points: 10**	Roadway does not exist, therefore gap study cannot be conducted	0
			Total Points	**16**
			Is the Points Warrant met?	**Yes**

Explanatory Notes:

Pedestrian Volume Warrant

The Pedestrian Volume Warrant assigns point values based on pedestrian crossing volumes at the proposed crosswalk. Children under 13, elderly over 64 years and/or disabled persons count as 1.5 pedestrians.

Latend Pedestrian Demand Warrant

The Latent Pedestrian Demand Warrant may be used in lieu of the Pedestrian Volume Warrant.

General Condition Warrant

The General Condition Warrant presents six (6) unique categories. A location can score either zero (0) or three (3) points for each unique category, making a total 18 possible points available. The general conditions include the following:

(a) *The nearest controlled crossing is greater than 300 feet from the proposed crosswalk.*

The distance should be measured from the proposed location of the crosswalk to the nearest controlled intersection, i.e. stop sign, traffic signal, etc.

(b) *The proposed crosswalk will position pedestrians to be better seen by motorists.*

This condition should be considered at locations where one leg of the intersection provides better sight distance than the other legs.

(c) *The proposed crosswalk will establish a mid-block crossing between adjacent signalized intersections.*

This warrant refers to a condition where there is a high pedestrian attractor/generator nearby, and adequate crossing can be provided that could help channelize a recognized heavy flow of mid-block pedestrians.

(d) *The proposed crosswalk is located within ¼ mile of the following pedestrian attractors/generators as defined below:*

- International Border Crossing
- Major Multi-Modal Transit Centers (>10,000 boardings per day)
- Transit Stops (>1,000boardings per day)
- Elementary/Middle/ High Schools
- Universities and Colleges
- Neighborhood Civic Facilities (Libraries, Post Office & Religious Facilities)
- Neighborhood and Community Retail
- Pedestrian Intensive Beaches
- Parks & Recreation (excludes non-useable open space)
- Mixed Land Uses (housing near employment and/or commercial)

(e) *A bus stop is located within 100 feet of the proposed crosswalk.*

This warrant is applicable if there is a bus stop within 100-feet of the proposed crosswalk.

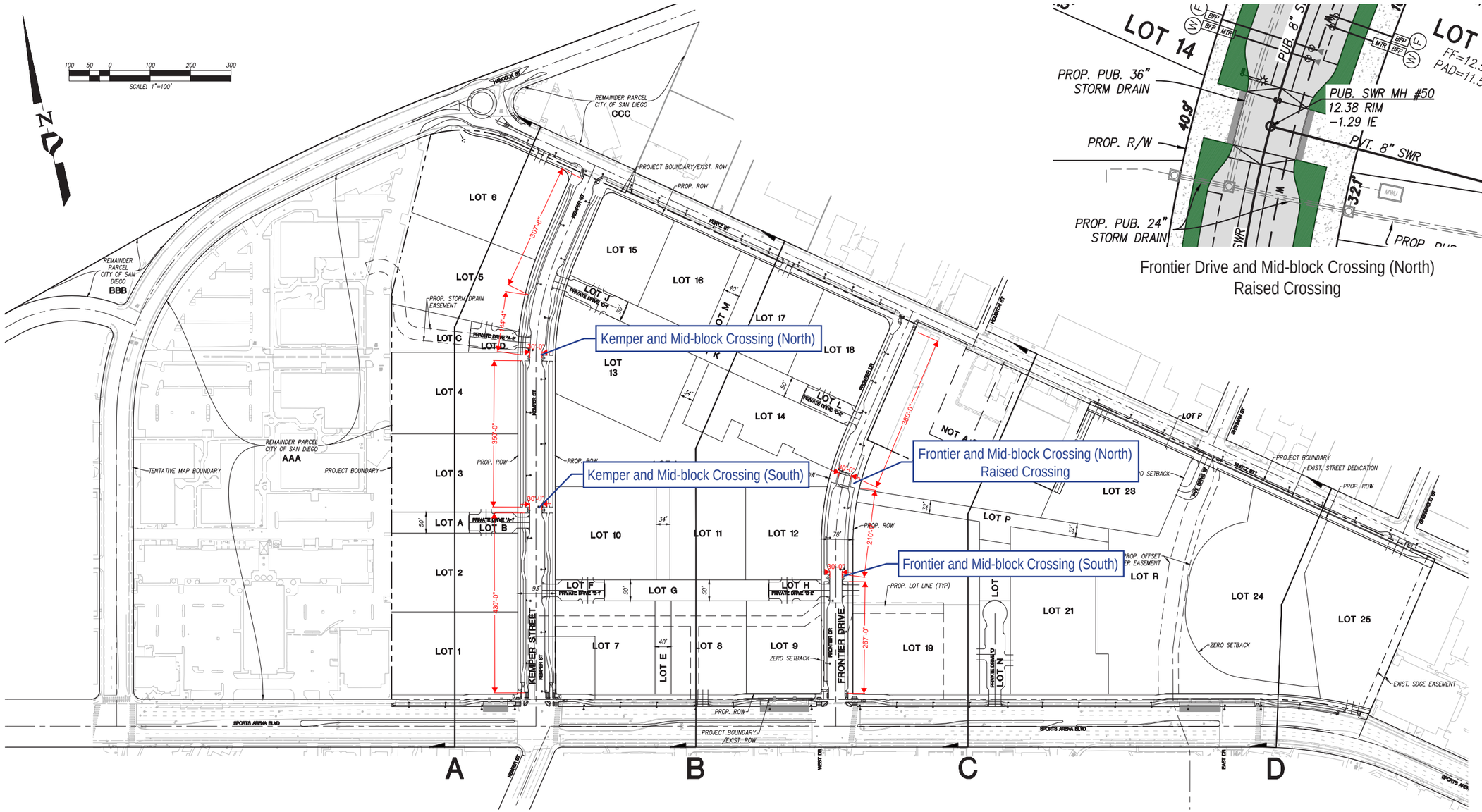
(f) *Other factors.*

Other factors allow for extenuating circumstances

Gap Time Warrant

Gap time is the time needed for a pedestrian to cross the travelled lanes of a roadway at an average walking speed without the need for a driver to yield. The number of usable gaps (or gaps that exceed the minimum time needed to cross) are counted during the peak vehicular hour and averaged per five-minute period.

Figure 13-2. Proposed Mid-Block Crossing Locations



Frontier Drive and Mid-block Crossing (North)
Raised Crossing

13.3 BICYCLE FACILITIES

This section presents a qualitative evaluation of the existing bicycle network within the project study area and includes a bikeshed analysis that identifies any barriers and overall bike-ability. The purpose of this evaluation is to provide a complete network of multi-modal facilities throughout the community and create a comfortable bicycling experience consistent with the City of San Diego Bicycle Master Plan (2013) and the Midway-Pacific Highway Community Plan (2018) bicycling policies.

The bikeshed analysis was performed using the TravelTime API Map Demo. This model was built by TravelTime from a range of data sets including OpenStreetMap and country-specific data. 15-minute and 30-minute bikeshed maps were generated using the API for the project site address.

The project's bikeshed is shown in **Figure 13-3**.

Within the study area, existing Class II bike lanes are provided on Sports Arena Boulevard (from the I-8 ramps to Camino Del Rio West to), W. Point Loma Boulevard (Class IV between Adrian Street and Groton Street), Rosecrans Street, Barnett Avenue, Pacific Highway, and Sea World Drive. There are also two Class I multi-use paths north of the project site, one located along the north side of Sea World Drive connecting to Ingraham Street, and another located on the north side of I-8 connecting to W. Mission Bay Drive.

The following bicycle environment deficiencies were identified:

1. Class II bike lanes on Sports Arena Boulevard along the project frontage lack enhanced striping such as conflict striping at driveways and buffers.
2. Class II bike lanes along Rosecrans Street lack buffers.
3. Midway Drive lacks bike lanes.

Project improvements for bicyclists include:

- Construct a Class I multi-use path along the project frontage (south side) on Kurtz Street.
- Construct a Class I multi-use path along the south side of Kurtz Street (east of the site) and along the southeast side of Rosecrans Street to provide a connection to the Old Town Transit Center via walking and biking. The project proposes to construct this facility within the existing street rights-of-way by narrowing the vehicular travel way, not within private property that is not part of the Midway Rising project. Conceptual plans for this proposed improvement are included in **Appendix A**.
- Construct a Class I multi-use path along the east side of proposed Frontier Drive.
- Construct a Class I multi-use path along the project frontage (north side) on Sports Arena Boulevard and a Class IV one-way cycle-track in the westbound direction along the project frontage.
- Construct Class IV one-way cycle-tracks on both sides of the proposed Kemper Street extension within the site.

Additionally, a Class IV cycle track is planned along Pacific Highway between Taylor Street and Laurel Street to be implemented by future development per the Midway-Pacific Highway CP.

Figure 13-3. Existing Bikeshed



13.4 TRANSIT FACILITIES

Figure 13-4 illustrates all transit stops within a half of a mile walking distance of each pedestrian point of the project site, and the proposed modifications to the existing transit stops along the project frontage. **Table 13-6** evaluates the provided amenities for each of these stops. There are two bus stops (ID 13344 and ID 13345) located along the Sports Arena Boulevard project frontage which serve MTS Routes 8 and 9. One of the existing bus stops (ID 13345) has a bench, shelter, trash bin, and wayfinding, while the other stop (ID 13344) has only a bench. The project will be responsible for constructing a third bus stop on the project frontage on the west side of the Sports Arena Boulevard / Kemper Street intersection. There is also a bus stop (ID 13346) located less than 100 feet west of the project frontage on Sports Arena Boulevard, which will remain in place.

Additionally, the site is within a half-mile walking distance of bus stops serving Routes 28 and 35 along Sports Arena Boulevard, Rosecrans Street, East Drive, and W. Point Loma Boulevard, and within 0.7 mile to 1 mile of the Old Town Transit Center which serves the MTS Green and Blue line trolleys and various local bus routes.

Appendix AF contains the current schedules for MTS Routes 8, 9, 28, and 35.

SANDAG's 2021 Regional Plan vision identifies two new *Rapid* bus routes in the study area:

- Rapid Route 10 serving La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town Transit Center, and Central Mobility Hub, running along Sports Arena Boulevard – anticipated to be in service by 2035
- Rapid Route 28 serving Point Loma to Kearny Mesa via Central Mobility Hub and Linda Vista

The Central Mobility Hub CMCP recommends transit only lanes on:

- Sports Arena Boulevard from Point Loma Boulevard to Rosecrans Street
- Rosecrans Street from Pacific Highway to Sports Arena Boulevard

The Midway Rising project proposes the following transit-related improvements:

- Stripe exclusive bus / right-turn only lanes on Sports Arena Boulevard and Rosecrans Street. The project team will coordinate with MTS, SANDAG, and the City regarding the details of implementation for these improvements. This modification to the CP was analyzed as part of the Midway Rising Community Plan Amendment transportation study and is also accounted for in this LMA (by reducing the vehicular capacity of Sports Arena Boulevard and Rosecrans Street).
- Construct new local bus stop (ID not identified by MTS) on the west side of the Sports Arena Boulevard / Kemper Street intersection. Provide a sign, bench, schedule display, route and system map, trash receptacle, concrete bus pad, and shelter.
- Relocate existing bus stop (ID 13345) to the west side of the Sports Arena Boulevard / Frontier Drive intersection (approximately 150' to the east of existing stop) and designate stop as a future RAPID bus stop per the MTS Designing for Transit Manual (February 2018). The RAPID service is anticipated to be implemented by 2035. Provide a sign, bench, schedule display, trash receptacle, concrete bus pad, rapid shelter, and a real-time digital display. Developer to coordinate with MTS for improvements.
- Relocate existing local bus stop (ID 13344) to the west side of the Sports Arena Boulevard / East Drive intersection (approximately 200' to the west of the existing stop). Provide a sign, bench, schedule display, route and system map, trash receptacle, concrete bus pad, and shelter.

Figure 13-4a. Existing Transit Stop Locations

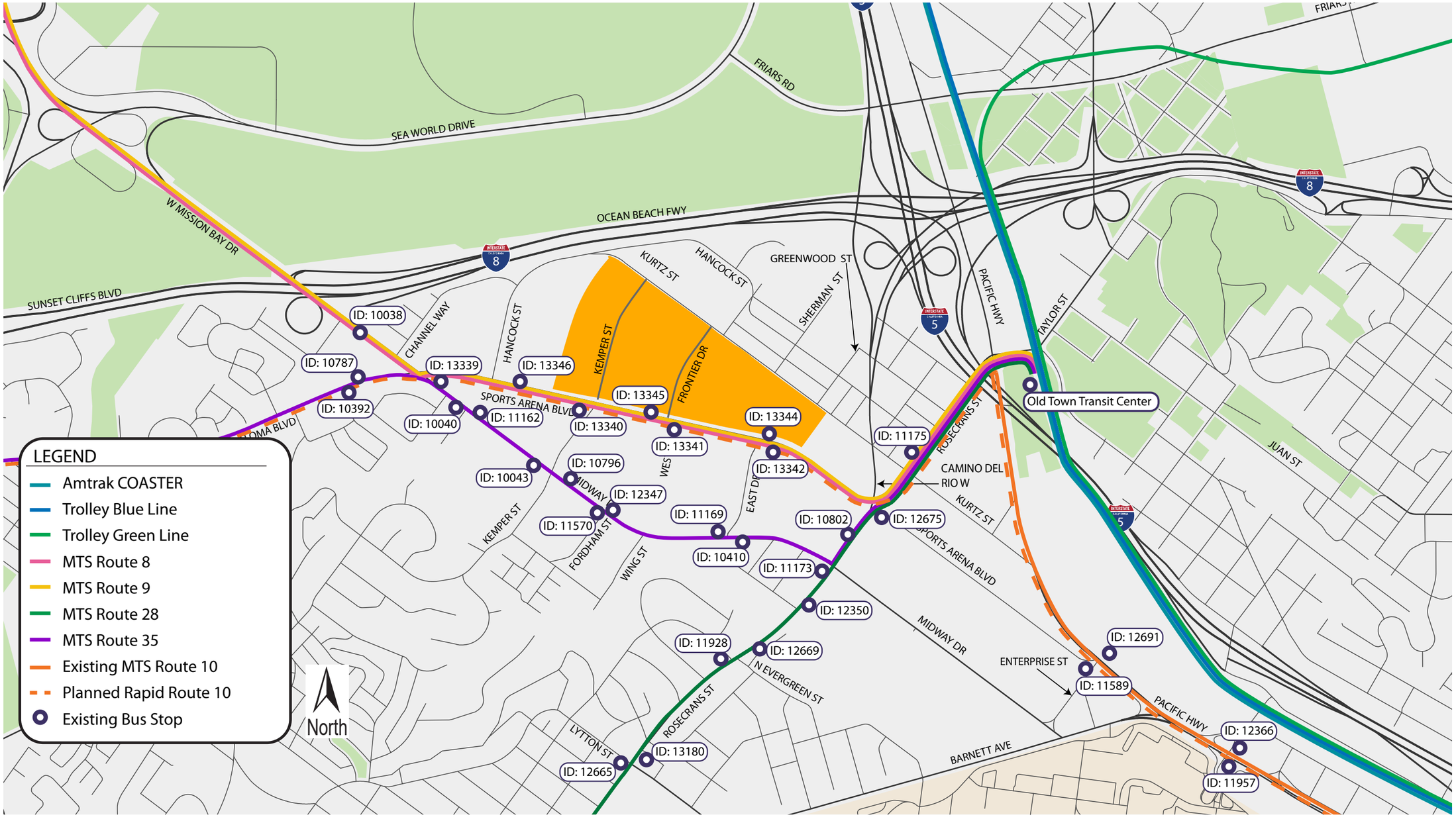


Figure 13-4b. Proposed Transit Stop Locations

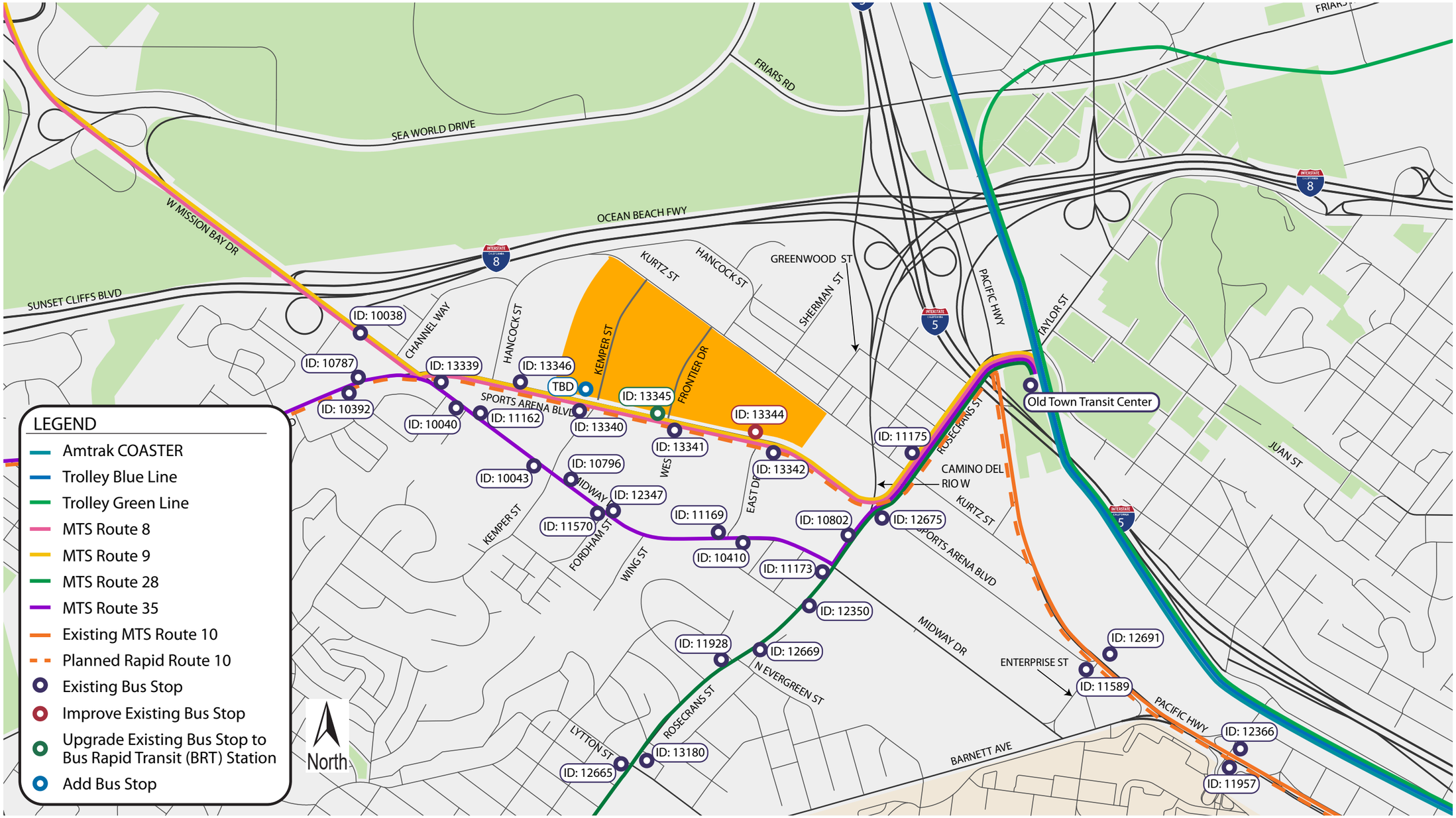


Table 13-6. Transit Amenity Evaluation

Stop ID	Sign	Bench	Shelter	Lighting	Trash Can
Old Town Transit Center	x	x	x	x	x
10038	x	x			
10040	x	x	x	x	x
10043	x	x	x	x	x
10392	x	x			
10410	x	x	x	x	x
10787	x	x	x		x
10796	x	x			
10802	x	x			
11162	x	x			
11169	x	x			
11173	x	x	x	x	x
11575	x	x			
11570	x	x	x		x
11589	x				
11928	x	x			
11957	x	x			
12347	x	x			
12350	x	x	x		x
12366	x	x	x		x
12669	x	x			
12665	x				
12675	x	x	x		
12691	x				
13180	x	x	x	x	x
13339	x	x		x	
13340	x	x		x	
13341	x	x		x	
13342	x	x		x	
13344*	x	x			
13345*	x	x	x	x	x
13346	x	x			

Notes:
*Indicates stop is located along project frontage.

13.5 PROPOSED MULTIMODAL FEATURES SUMMARY

The project will provide accessible connections to the trolley station as envisioned in the CP to enable and achieve multi-modal reductions, discussed in Section 4.1 of this report. The proposed multi-modal improvements are illustrated in **Figure 13-5**.

The following multi-modal improvements are proposed as part of the Phase 1 of the project, expected to occur in 2030:

- Construct a Class I multi-use path along the project frontage (south side) on Kurtz Street from the west edge of Block H1 to Greenwood Street.
- Construct a Class I multi-use path along the east side of Frontier Drive (south of the privately-owned parcels) when this public street is constructed.
- Construct a Class I multi-use path along the project frontage (north side) on Sports Arena Boulevard and a Class IV one-way cycle-track in the westbound direction along the project frontage from Frontier Drive to the east edge of the site.
- Relocate existing local bus stop (ID 13344) to the west side of the Sports Arena Boulevard / East Drive intersection (approximately 200' to the west of the existing stop). Provide a sign, bench, schedule display, route and system map, trash receptacle, concrete bus pad, and shelter.
- Provide event shuttle service between off-site business park lot and the Entertainment Center from 5pm to 1am. Shuttles will be used for events with greater than 10,000 spectators. Event shuttle will run along Sports Arena Boulevard, Frontier Drive, Kurtz Street, and Hancock Street. For all events with greater than 10,000 spectators, shuttle headway will be 5 minutes for pre-event and post-event service.
- Provide event shuttle service between Old Town Transit Center and the Entertainment Center from 5pm to 1am. Shuttles will be used for events with greater than 7,500 spectators. Event shuttle will run along Rosecrans Street, Sports Arena Boulevard, Frontier Drive, and Kurtz Street. For events with between 7,500 and 14,500 spectators, shuttle headway will be 5 minutes for pre-event and post-event service. For events with 20,000 spectators, shuttle headway will be 2 minutes for pre-event and post-event service.
- Provide a retail daily shuttle service between Old Town Transit Center and Frontier Drive for the first 10 years of the project opening Phase 1, anticipated to occur in 2030. The shuttle would operate between 12:00 PM and 10:00 PM using one vehicle at 20- to 30-minute headways. Shuttle included based on anticipated VMT mitigation.

The following multi-modal improvements are proposed as part of the Phase 2 of the project, expected to occur in 2035:

- Construct a Class I multi-use path along the project frontage (south side) on Kurtz Street from Hancock Street to the west edge of Block H1.
- Construct a Class I multi-use path along the east side of Frontier Drive (along the privately-owned parcels frontage).
- Construct a Class I multi-use path along the south side of Kurtz Street (east of Greenwood Street) and along the southeast side of Rosecrans Street to provide a connection to the Old Town Transit Center via walking and biking. The multi-use path will be developed in coordination with the City and adjacent property owners; however, it is intended to be feasible within existing City right-of-way, and not be located within private property. Conceptual plans for this proposed improvement

are included in **Appendix A.**

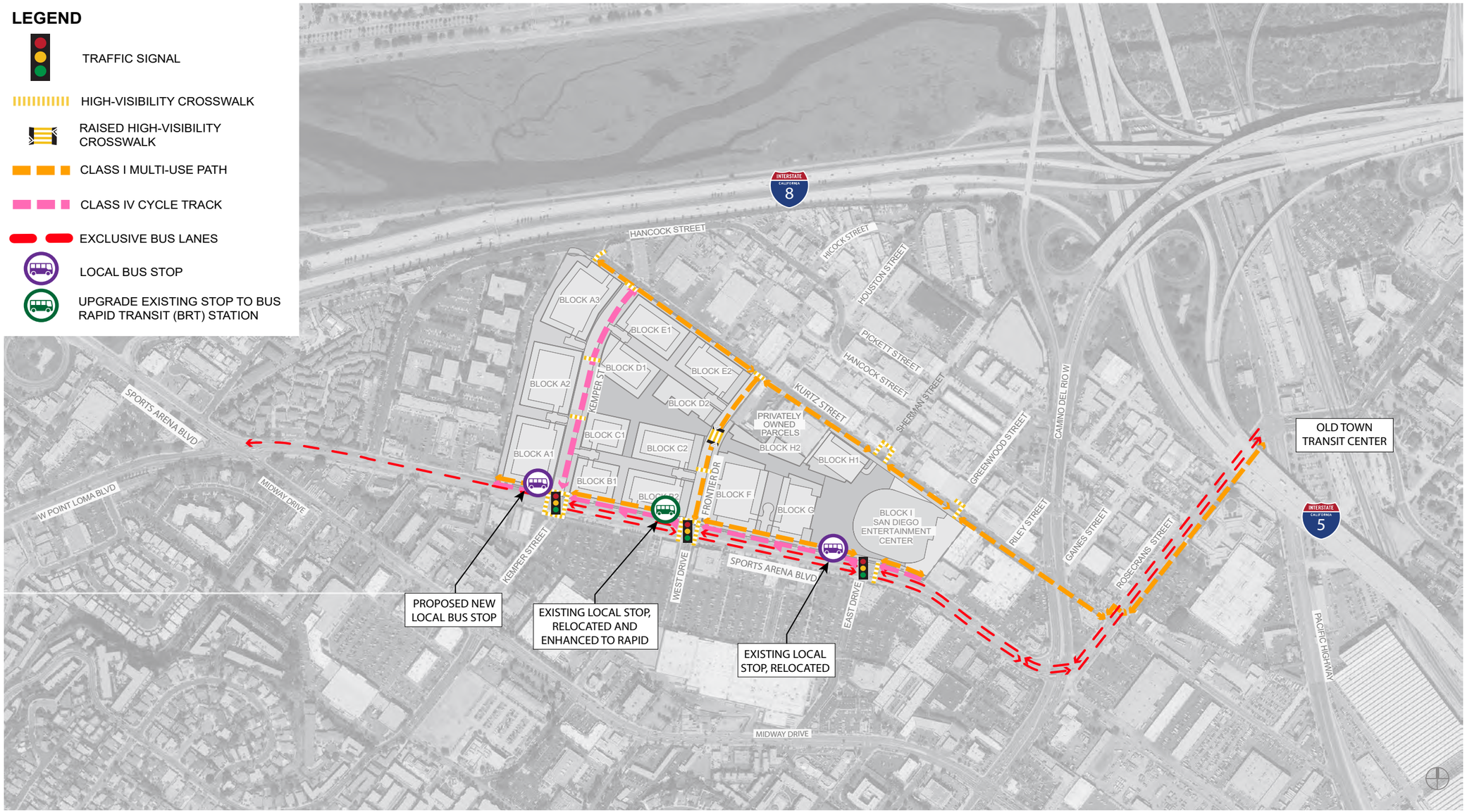
- Construct a Class I multi-use path along the project frontage (north side) on Sports Arena Boulevard and a Class IV one-way cycle-track in the westbound direction along the project frontage from the west edge of the site to Frontier Drive.
- Construct Class IV one-way cycle-tracks on both sides of the proposed Kemper Street extension within the site.
- Construct a roundabout at the intersection of Hancock Street and Kurtz Street.
- Stripe exclusive bus / right-turn only lanes on:
  - Sports Arena Boulevard between W Point Loma Boulevard and Kemper Street – westbound direction only
  - Sports Arena Boulevard between Kemper Street and Camino Del Rio West – both directions
  - Rosecrans Street between Sports Arena Boulevard and Kemper Street – both directions

  The project team will coordinate with MTS, the San Diego Association of Governments (SANDAG), and the City regarding the timeline and design details of implementation for these improvements. Developer is responsible for striping only.
- Construct a new local bus stop (ID not identified by MTS) on the west side of the Sports Arena Boulevard / Kemper Street intersection. Provide a sign, bench, schedule display, route and system map, trash receptacle, concrete bus pad, and shelter.
- Relocate existing bus stop (ID 13345) to the west side of the Sports Arena Boulevard / Frontier Drive intersection (approximately 150' to the east of existing stop) and designate stop as a future RAPID bus stop per the MTS Designing for Transit Manual (February 2018). The RAPID service is anticipated to be implemented by 2035. Provide a sign, bench, schedule display, trash receptacle, concrete bus pad, rapid shelter, and a real-time digital display. Developer to coordinate with MTS for improvements.
- Provide event shuttle service between offsite parking at SeaWorld and the Entertainment Center from 5pm to 1am. Shuttles will be used for events with greater than 12,000 spectators. Event shuttle will run along W Mission Bay Drive, Sports Arena Boulevard, Frontier Drive, Kurtz Street and Hancock Street. For events with between 12,000 and 14,500 spectators, shuttle headway will be 5 minutes for pre-event and post-event service. For events with 20,000 spectators, shuttle headway will be 2 minutes for pre-event and post-event service.

Figure 13-6 through **Figure 13-11** provide cross-sections for the internal site roadways and the project adjacent roadways including the proposed roadway improvements discussed above. The figures are as follows:

- **Figure 13-6:** Sports Arena Boulevard along the project frontage
- **Figure 13-7:** Kurtz Street between Hancock Street and Frontier Drive
- **Figure 13-8:** Kurtz Street between east of Sherman Street and Greenwood Street
- **Figure 13-9:** Kurtz Street between Greenwood Street and Camino Del Rio West
- **Figure 13-10:** Frontier Drive within the project site
- **Figure 13-11:** Kemper Street within the project site

Figure 13-5. Proposed Multimodal Improvements



BASEMAP SOURCE: SAFDIE RABINES ARCHITECTS

Figure 13-6. Roadway Improvements - CPA Scenario (Cross Section A - Sports Arena Boulevard)



(A) Sports Arena Boulevard

EXISTING



PROPOSED

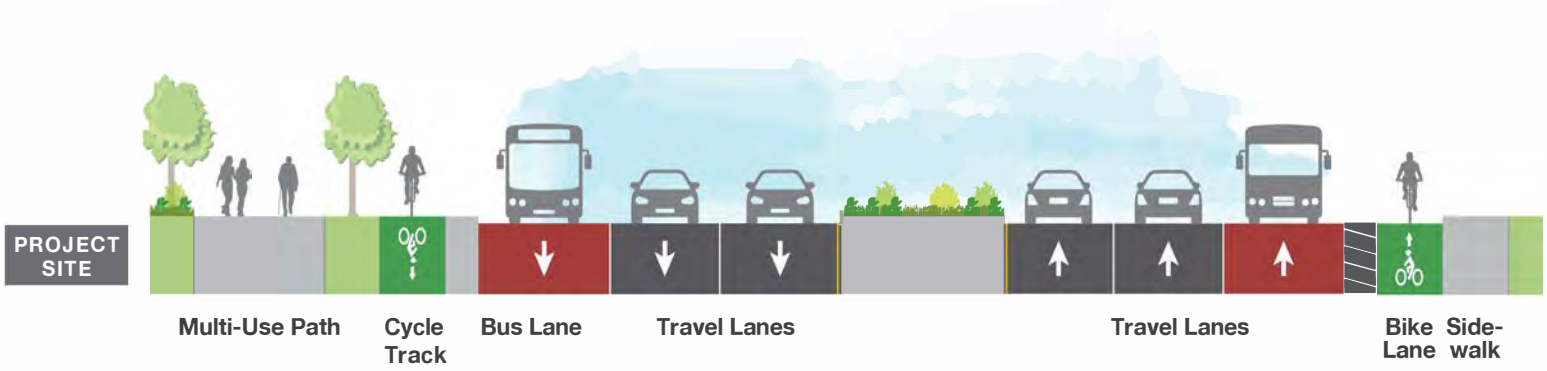
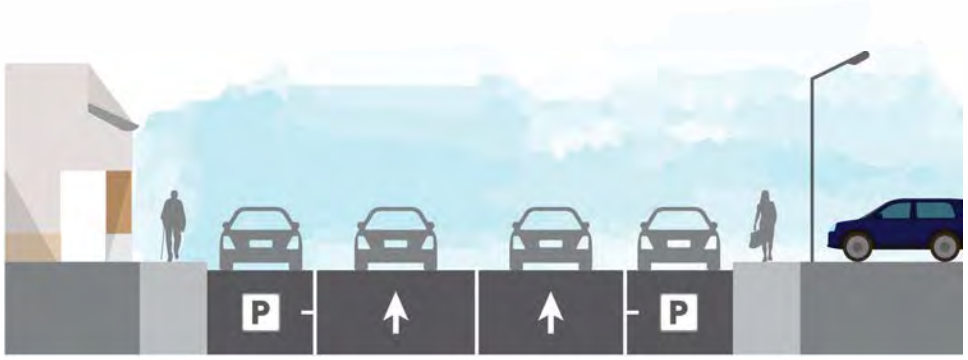


Figure 13-7. Roadway Improvements - CPA Scenario (Cross Section B - Kurtz St)



(B) Kurtz Street 1

EXISTING



Sidewalk **Travel Lanes** **Sidewalk**

PROPOSED



Sidewalk **Travel Lanes** **Multi-Use Path**

PROJECT SITE

Figure 13-8. Roadway Improvements - CPA Scenario (Cross Section C - Kurtz St)



(C) Kurtz Street 2

EXISTING



Sidewalk **Travel Lanes** **Sidewalk**

PROPOSED



Sidewalk **Travel Lanes** **Multi-Use Path**

Figure 13-9 Roadway Improvements - CPA Scenario (Cross Section D - Kurtz St)



(D) Kurtz Street 3

EXISTING



PROPOSED



Figure 13-10. Roadway Improvements - CPA Scenario (Cross Section E - Frontier Drive)



(E) Frontier Drive



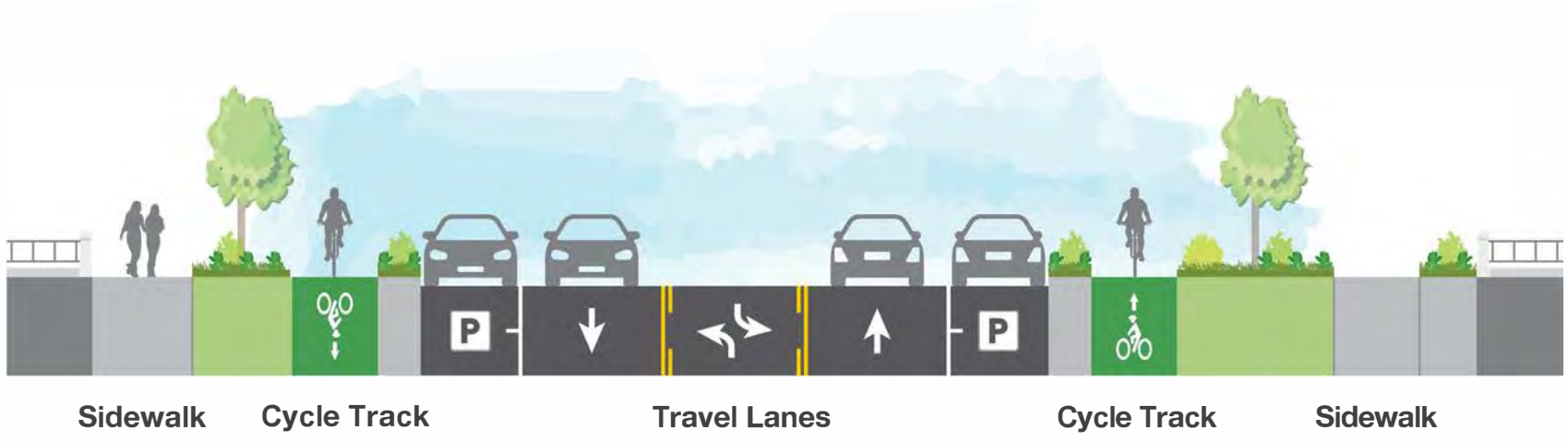
Sidewalk **Travel Lanes** **Multi-Use Path**

PROPOSED

Figure 13-11. Roadway Improvements - CPA Scenario (Cross Section F - Kemper Street)



(F) Kemper Street



PROPOSED

APPENDICES

Appendix A Midway Rising Project Tentative Map

Appendix B Midway Pacific Highway Community Plan Amendment

Appendix C Midway-Pacific Highway CP Excerpts

Appendix D Signal Timing Sheets

Appendix E Existing Traffic Count Data

Appendix F Existing Conditions Intersection LOS Worksheets

Appendix G Existing Conditions 95th Percentile Queue Worksheets

Appendix H NCHRP 8-51 Excerpts

Appendix I Trip Distribution Maps

Appendix J Trip Distribution by Land Use

Appendix K Streetlight Top Routes – Residential Land Use

Appendix L Streetlight Top Routes – Commercial Land Use

Appendix M Streetlight Top Routes – Entertainment Center Land Use

Appendix N Project Site Trip Assignments

Appendix O Opening Year (2030) Base Conditions Intersection LOS Worksheets

Appendix P Opening Year (2030) Base Conditions 95th Percentile Queue Worksheets

Appendix Q Opening Year (2030) Plus Project Phase 1 (14,500-spectator) Conditions Intersection LOS Worksheets

Appendix R Opening Year (2030) Plus Project Phase 1 (14,500-spectator) Conditions 95th Percentile Queue Worksheets

Appendix S Opening Year (2030) Plus Project Phase 1 (20,000-spectator) Conditions Intersection LOS Worksheets

Appendix T Opening Year (2030) Plus Project Phase 1 (20,000-spectator) Conditions 95th Percentile Queue Worksheets

Appendix U Off-Site Intersection Improvements Feasibility Concepts

Appendix V Opening Year (2030) Plus Project Phase 1 Plus Improvements Intersection LOS Worksheets

Appendix W Opening Year (2030) Plus Project Phase 1 Plus Improvements 95th Percentile Queue Worksheets

Appendix X Opening Year (2035) Base Conditions Intersection LOS Worksheets

Appendix Y Opening Year (2035) Base Conditions 95th Percentile Queue Worksheets

Appendix Z Opening Year (2035) Plus Project Phase 2 Buildout (14,500-spectator) Conditions Intersection LOS Worksheets

Appendix AA Opening Year (2035) Plus Project Phase 2 Buildout (14,500-spectator) Conditions 95th Percentile Queue Worksheets

Appendix AB Opening Year (2035) Plus Project Phase 2 Buildout (20,000-spectator) Conditions Intersection LOS Worksheets

Appendix AC Opening Year (2035) Plus Project Phase 2 Buildout (20,000-spectator) Conditions 95th Percentile Queue Worksheets

Appendix AD Opening Year (2035) Plus Project Phase 2 Plus Improvements Intersection LOS Worksheets

Appendix AE Opening Year (2035) Plus Project Phase 2 Plus Improvements 95th Percentile Queue Worksheets

Appendix AF MTS Routes

Appendix A

Midway Rising Project Tentative Map

VESTING TENTATIVE MAP NO. 3258589
FOR
MIDWAY RISING
SAN DIEGO, CA

OWNER

FEE TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION

ASSESSOR'S PARCEL NUMBERS:

PARCEL 1: 441-590-04, PORTION OF
PARCEL 2: 441-590-04, PORTION OF
PARCEL 3: 441-590-04, PORTION OF
PARCEL 4: 441-590-04, PORTION OF

APPLICANT

SHELBY JORDAN II
MIDWAY RISING, LLC
700 SECOND STREET
ENCINITAS, CA 92024
P: (213) 458-2735

PROPERTY ADDRESS

3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

PROPERTY AREA

GROSS PROJECT AREA= 49.23 ACRES
GROSS PROPERTY AREA= 68.56 ACRES

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS A.L.T.A. IS THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 6, EPOCH 1991.35 GRID BEARING BETWEEN G.P.S. STATION 237 AND G.P.S. STATION 1027 PER ROS 14492.

I.E., SOUTH 34°26'55" EAST

THE COMBINED SCALE FACTOR AT G.P.S. STATION 237 IS 1.0000097. QUOTED BEARINGS FROM REFERENCE DEEDS/MAPS MAY OR MAY NOT BE IN TERMS OF SAID SYSTEM.

TOPOGRAPHY NOTES

1. TOPOGRAPHY SHOWN ON THIS SURVEY IS BASED UPON AN AERIAL SURVEY BY TERRASCRIBE INC., IN JANUARY 2023, AND A FIELD REVIEW IN FEBRUARY 2023.
2. THE LOCATIONS OF UNDERGROUND UTILITIES ON THIS SURVEY HAVE BEEN ESTIMATED BY PHYSICAL SURFACE FEATURES AND BY INFORMATION SUPPLIED BY SAN DIEGO GAS AND ELECTRIC COMPANY; COX CABLE SAN DIEGO, PACIFIC BELL AND THE CITY OF SAN DIEGO ENGINEERING DEPARTMENT. ADDITIONAL UNDERGROUND UTILITIES EXIST OFFSITE AND ONSITE BUT CANNOT BE LOCATED FROM FIELD CONDITIONS.

GRADING TABULATION

TOTAL AMOUNT OF ON-SITE TO BE GRADED AREA 49.231 AC.; OR 100.0% OF TOTAL PROJECT SITE.
AMOUNT OF CUT (GEOMETRIC): 56,500 CY AND MAXIMUM DEPTH OF CUT: 9 FT
AMOUNT OF FILL (GEOMETRIC): 59,600 CY AND MAXIMUM DEPTH OF FILL: 5 FT
AMOUNT OF IMPORT: 3,100 CY

RETAINING WALLS LENGTH: 0 FT MAXIMUM HEIGHT: 0 FT (MAXIMUM EXPOSED HEIGHT).

NOTE:
NO RECORDED MAP EXISTS WITHIN THE PROJECT BOUNDARY.

NOTES:

1. THE PROPOSED PROJECT WILL COMPLY WITH ALL THE REQUIREMENTS OF THE CURRENT CITY OF SAN DIEGO STORM WATER STANDARDS MANUAL BEFORE A GRADING OR BUILDING PERMIT IS ISSUED. IT IS THE RESPONSIBILITY OF THE OWNER/DESIGNER/APPLICANT TO ENSURE THAT THE CURRENT STORM WATER PERMANENT BMP DESIGN STANDARDS ARE INCORPORATED INTO THE PROJECT.
2. THE SUBDIVIDER SHALL RECORD A DECLARATION OF COVENANTS AND RESERVATION OF EASEMENTS FOR THE SHARED ACCESS EASEMENT. THE DECLARATION OF COVENANTS AND RESERVATION OF EASEMENTS SHALL STATE: SINCE THE MUTUAL ACCESS EASEMENT AGREEMENT IS A PRIVATE AND NOT A PUBLIC ISSUE, THE CITY OF SAN DIEGO IS NOT RESPONSIBLE FOR ANY DISPUTE THAT MIGHT ARISE IN THE FUTURE BETWEEN THE PRIVATE PARTIES.
3. WHEREAS THE MAP PROPOSES THE SUBDIVISION OF A 49.23 ACRE SITE INTO 43 LOTS FOR A NEW ENTERTAINMENT, RESIDENTIAL, AND MIXED-USE DEVELOPMENT. 11 RESIDENTIAL LOTS, 12 MIXED-USE LOTS, 8 PUBLIC SPACE LOTS, 2 PUBLIC PARK LOTS, 8 PRIVATE DRIVE LOTS AND 2 LOTS FOR THE NEW ENTERTAINMENT CENTER.
4. THIS VESTING TENTATIVE MAP IS FOR A PHASED PROJECT AND FINAL MAPS MAY BE RECORDED IN PHASES AND ADJUST, AS NECESSARY. APPLICANT WILL WORK WITH CITY ENGINEER DURING FINAL ENGINEERING TO PROVIDE APPROPRIATE INFRASTRUCTURE TO SUPPORT EACH PROJECT PHASE.

PROPOSED ZONES

BASE ZONE RMX-2 AS MODIFIED BY THE MIDWAY RISING SPECIFIC PLAN

FLOODPLAIN NOTE

100-YEAR FLOODPLAIN AND ZONING INFORMATION PER FEMA MAP 06073C1618G, REVISED 05/16/2012.

BENCHMARK

A FOUND STANDARD CITY OF SAN DIEGO BRASS PLUG IN TOP OF CURB LOCATED AT THE SOUTH CURB RETURN OF KURTZ AND HANCOCK STREETS.

ELEVATION: 10.06' N.G.V.D. 29

TRANSPORTATION AMENITIES

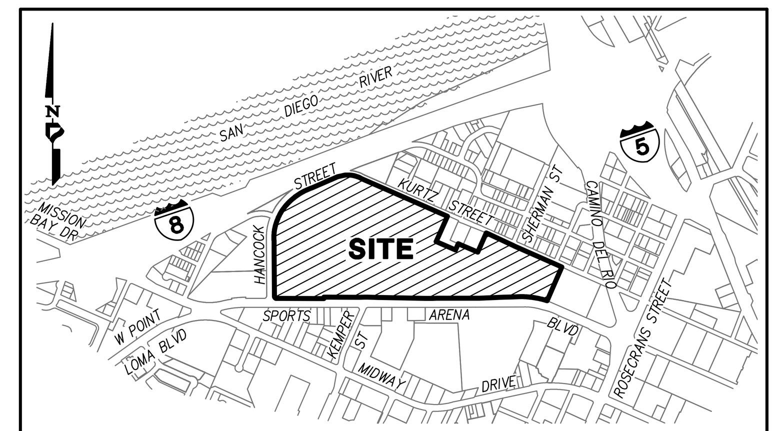
#	Amenity	Amenity Description	Project-Specific Notes	Transportation Amenities Points
1	**Transit and Active Transportation Infrastructure as outlined in Community Plan Mobility Elements**	Design and construct one or more of the following transit improvements on a street adjacent to the development: (a) the addition of pedestrian scale lighting (Section 142.0740), (b) sidewalk widening to 6 feet along property frontage and sidewalk widening to 10 feet near corners of intersection to allow for ADA required widths (this improvement shall be in addition to any improvements or measures otherwise required under other regulations or standards), (c) installation of transit shelters and/or benches. Transit shelters and benches shall be designed to MTS and ADA standards and require an approved agreement with MTS	The project proposes: a. Install a minimum of 6 ft wide sidewalks along the project frontage of Sports Arena Boulevard and Kurtz Street with at least 10 feet of space at the corners of intersections. b. Install transit shelters and benches for the three bus stops along Sports Arena Drive per MTS Design Guide. Transit shelters will be designed to MTS and ADA standards. An approved agreement with MTS will be recorded.	5
2	**Transit and Rideshare Information**	Install and maintain an on-site kiosk or information center with multi-modal wayfinding information and transit information. The kiosk information center shall be located in a prominent location that can easily be seen by residents entering and exiting the development. The kiosk or information center shall be shown on the project plans.	The project proposes an on-site multi-modal wayfinding kiosk in a location that meets the requirements of this amenity.	1
3	**On-Site Bicycle Repair Station**	Install and properly maintain an on-site public bicycle repair station. The bicycle repair station must be located in a well-lit area, near the street frontage and must include, at a minimum, a bike pump, English and metric Allen wrenches, pedal wrench, headset wrench, tire levers, and screwdrivers. The bicycle repair station shall be shown on the project plans.	The project proposes **two** on-site public bicycle repair stations which will meet the requirements of this amenity.	4
4	**Delivery Support**	Provide a secure area for receipt of deliveries that offers at least one of the following: (1) closed lockers, (2) temporary storage for packages, laundry, and other deliveries, or (3) temporary refrigeration for groceries. The secure area shall be shown on the project plans.	The project proposes a secure area for receipt of deliveries which will meet the requirements of this amenity.	1
5	**Outdoor Fitness Circuit**	Construct and maintain an outdoor fitness circuit within the development premises. The outdoor fitness circuit shall be available to the public at least 12 hours a day, 7 days a week and shall provide a minimum of 4 workout stations. The outdoor fitness circuit shall be shown on the project plans.	The project proposes an on-site outdoor fitness circuit which will meet the requirements of this amenity.	2
6	**Co-Working Space**	Provide and maintain a co-working space within the project premises available for resident use. The co-working space shall be at least 500 square feet and shall provide private or semi-private office work spaces. The co-working space shall be shown on the project plans.	The project proposes two co-working spaces which will meet the requirements of this amenity.	4
Minimum Transportation Amenities Points Required				2
Total Transportation Amenities Points				17

Source: City of San Diego Land Development Manual, Appendix Q

VEHICLE MILES TRAVELED REDUCTION MEASURES PER COMPLETE COMMUNITIES: MOBILITY CHOICES

Measure	Project-Specific Notes	Points
Pedestrian 1. Pedestrian scale lighting adjacent to public pedestrian walkways along the entire development frontage.	Pedestrian scale lighting will be provided along the project frontage roadways of Sports Arena Boulevard and Kurtz Street	0.5
Pedestrian 2. Installing pop-outs at adjacent intersections or curb extensions at adjacent mid-block crosswalks. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or San Diego Metropolitan Transit System/North County Transit District may be required.	3 locations: • Sports Arena Boulevard & Frontier Drive (half intersection) • Sports Arena Boulevard & Kemper Street (half intersection) • Frontier Drive mid-block crossing (South) (full intersection)	5
Pedestrian 9. Widening sidewalk within the existing public right-of-way to Street Design Manual standards. The reduction of parkway/landscape buffer to less than the width required by the Street Design Manual standards to widen sidewalk width is not permitted. Requires replacement of existing sidewalk.	Multi-use path along Kurtz Street and Rosecrans Street (approximately 2,200 feet)	1.25
Bicycle 12. Providing on-site bicycle repair station.	Located near Class I path along Sherman Street alignment through site.	1.5
Bicycle 13. Installing new bicycle infrastructure (Class I, II, IV) that is part of the City's planned bikeway network that closes or incrementally closes an existing gap between two existing bikeways.	Class I multi-use paths are proposed for the north side of Sports Arena Boulevard, east side of Frontier Drive, through the project site, and east side of Rosecrans Street that would connect to Class II bike lanes on Pacific Highway and Sports Arena Boulevard (approximately 3,960').	2.25
Transit 19. Providing high cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of shelter, real time bus information monitors.	Provide enhanced amenities at proposed new bus stop on the west side of the Sports Arena Boulevard / Kemper Street intersection, including a shelter. Relocate existing bus stop (ID 13345) and upgrade to a RAPID bus stop per the MTS Designing for Transit Manual (February 2018) including real-time digital display for rapid bus stop and rapid shelter.	2.5
Transit 20. Providing low cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of bench, public art, static schedule and route display, trash receptacle.	Provide system map for local bus stop (ID 13344) on Sports Arena Boulevard.	1
Other 25. Installing a traffic calming measure, such as speed feedback signs, median slow points (chokers), and speed table/raised crosswalk. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or MTS/NCTD may be required.	Raised crossing / intersection on Frontier Drive.	2.5
Minimum VMT Reduction Measure Points Required (Commercial)		**16**
Total VMT Reduction Measure Points (Commercial)		16.5

Measure	Project-Specific Notes	Points
Pedestrian 2. Installing pop-outs at adjacent intersections or curb extensions at adjacent mid-block crosswalks. Installation shall comply with the Street Design Manual Traffic Calming Chapter. Coordination with City Fire-Rescue Department staff and/or San Diego Metropolitan Transit System/North County Transit District may be required.	2 locations: • Kemper Street mid-block crossing (North) (full intersection) • Kemper Street mid-block crossing (South) (full intersection)	5
Bicycle 12. Providing on-site bicycle repair station.	Located near Blocks D1 and D2	1.5
Transit 20. Providing low cost amenities/upgraded features to an existing transit stop (above existing condition), i.e., addition of bench, public art, static schedule and route display, trash receptacle.	Provide system map for local bus stop (new stop) on Sports Arena Boulevard on the west side of Kemper Street.	1
Minimum VMT Reduction Measure Points Required (Entertainment)		**5**
Total VMT Reduction Measure Points (Entertainment)		7.5



VICINITY MAP

NO SCALE

PROJECT DESCRIPTION

THE MIDWAY RISING PROJECT PROPOSES TO IMPLEMENT THE MIDWAY RISING SPECIFIC PLAN AND REDEVELOP THE EXISTING SPORTS AREA PROPERTY WITH A WALKABLE, TRANSIT-CENTRIC, AND MODERN LIVE-WORK-PLAY MIXED-USE NEIGHBORHOOD THAT PROVIDES A DESTINATION THAT OFFERS A MIX OF USES, ACTIVE RETAIL EXPERIENCES, A RANGE OF HOUSING CHOICES AND A VIBRANT PUBLIC REALM. CONTINUOUS OPEN SPACES DRAW PEOPLE INTO THE SITE AND CONNECT ELEMENTS OF THE SITE, THE ENTERTAINMENT CENTER, PARK, SQUARE, PASEOS, HOUSING AND RETAIL. CONNECTION WITH THE COMMUNITY BY MULTI-USE PATHS, WIDE SIDEWALKS, PASEOS AND GREENWAYS, NEW ROADWAYS, BIKE FACILITIES ON SITE AND ENHANCED TRANSIT STOPS ALONG THE SPORTS ARENA BOULEVARD FRONTAGE. PARKS AND OPEN SPACE, PRIVATE AND COMMON OPEN SPACES INTEGRATED WITH RESIDENTIAL BUILDINGS, AND CONTINUOUS TREE CANOPY ON ALL STREETS MAKE MIDWAY RISING A VIBRANT COMMUNITY WITH PEDESTRIAN-SCALED RETAIL THAT FACES AND ACTIVATES FRONTIER DRIVE AND LINKS TO THE ENTERTAINMENT CENTER THROUGH A LIVELY PEDESTRIAN PROMENADE WITH COMMERCIAL SUPPORTING USES.

LEGAL DESCRIPTION

PARCEL 1 (A PORTION OF APN 441-590-04-00):

THOSE PORTIONS OF PUEBLO LOTS 241, 242, 259, 276, 311, 312, 313, 314, 337 AND 338 OF THE PUEBLO LANDS OF SAN DIEGO, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF MADE BY JAMES PASCOE, A COPY OF WHICH SAID MAP WAS FILED IN THE OFFICE OF COUNTY RECORDER OF SAN DIEGO COUNTY, AND KNOWN AS MISCELLANEOUS MAP NO. 36, TOGETHER WITH LOT "A" AND A PORTION OF LOT "B" OF PUEBLO LOT 339, ACCORDING TO PARTITION MAP THEREOF ON FILE IN THE OFFICE OF THE COUNTY CLERK OF SAID COUNTY, IN AN ACTION ENTITLED "STEELE VS. STEELE", SUPERIOR COURT, CASE NO. 5620, TOGETHER WITH MAP OF CASS AND MCELWEE SUBDIVISION, ACCORDING TO MAP THEREOF NO. 1581, FILED IN THE OFFICE OF COUNTY RECORDER OF SAN DIEGO COUNTY, DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT OF INTERSECTION OF THE SOUTHEASTERLY LINE OF PUEBLO LOT 312 WITH THE NORTHERLY LINE OF FRONTIER STREET, (NOW SPORTS ARENA BOULEVARD) AS DESCRIBED IN DEED TO FRONTIER ENTERPRISES, INC., RECORDED MARCH 5, 1941 IN BOOK 1143, PAGE 320 OF OFFICIAL RECORDS OF SAN DIEGO COUNTY; THENCE NORTHEASTERLY ALONG SAID SOUTHEASTERLY LINE TO A POINT OF INTERSECTION WITH A LINE WHICH IS DISTANT 15.00 FEET NORTHERLY, MEASURED AT RIGHT ANGLES TO THE NORTHERLY LINE OF SAID SPORTS ARENA BOULEVARD, BEING THE TRUE POINT OF BEGINNING; THENCE SOUTH 77° 23'46" EAST, 869.92 FEET TO A TANGENT 1,010.93 FOOT RADIUS CURVE, CONCAVE SOUTHWESTERLY; THENCE SOUTHEASTERLY ALONG SAID CURVE THROUGH AN ANGLE OF 15° 07'07" A DISTANCE OF 269.13 FEET TO THE SOUTHEASTERLY LINE OF SAID PUEBLO LOT 337; THENCE ALONG SAID SOUTHEASTERLY LINE NORTH 36° 29'46" EAST 404.64 FEET TO THE MOST EASTERLY CORNER OF SAID PUEBLO LOT 337; THENCE ALONG THE NORTHEASTERLY LINE OF SAID PUEBLO LOT 337 NORTH 53° 26'44" WEST 464.11 FEET TO THE MOST EASTERLY CORNER OF SAID PUEBLO LOT 338; THENCE ALONG THE NORTHEASTERLY LINE OF SAID PUEBLO LOT 338 NORTH 53° 27'34" WEST 466.64 FEET TO THE MOST NORTHERLY CORNER OF SAID PUEBLO LOT 338; THENCE SOUTH 36° 37'26" WEST ALONG THE NORTHWESTERLY LINE OF PUEBLO LOT 338, A DISTANCE OF 233.40 FEET TO THE MOST EASTERLY CORNER OF SAID LOT "A"; THENCE NORTH 53° 27'44" WEST ALONG THE NORTHEASTERLY LINE OF SAID LOT "A", A DISTANCE OF 233.41 FEET TO THE MOST NORTHERLY CORNER OF SAID LOT "A", THENCE SOUTH 36° 33'41" WEST ALONG THE NORTHWESTERLY LINE OF SAID LOT "A", A DISTANCE OF 74.98 FEET TO A POINT DISTANT NORTH 36° 33'41" EAST, 158.40 FEET FROM THE MOST WESTERLY CORNER OF SAID LOT "A", THENCE NORTH 53° 27'19" WEST, 233.43 FEET TO A POINT IN THE NORTHWESTERLY LINE OF PUEBLO LOT 339 DISTANT SOUTH 36° 36'21" WEST, 308.33 FEET FROM THE MOST NORTHERLY CORNER OF SAID PUEBLO LOT 339; THENCE NORTH 36° 36'21" EAST ALONG THE NORTHEASTERLY LINE OF PUEBLO LOT 339, A DISTANCE OF 301.33 FEET TO A LINE WHICH IS PARALLEL WITH AND 7.00 FEET SOUTHWESTERLY OF AND MEASURED AT RIGHT ANGLES TO THE NORTHERLY PROLONGATION OF THE NORTHEASTERLY LINE OF SAID PUEBLO LOT 339; THENCE ALONG SAID PARALLEL LINE NORTH 53° 26'49" WEST, A DISTANCE OF 786.16 FEET TO A POINT IN THE SOUTHEASTERLY LINE OF KURTZ STREET AS DEDICATED BY RESOLUTION NO. 197563 OF THE COUNCIL OF THE CITY OF SAN DIEGO, A COPY OF WHICH WAS RECORDED JULY 30, 1969 AS INSTRUMENT NO. 137836 OF OFFICIAL RECORDS; THENCE ALONG THE BOUNDARY OF SAID KURTZ STREET AS FOLLOWS:

SOUTH 36° 32'31" WEST, A DISTANCE OF 5.00 FEET, NORTH 53° 26'49" WEST, A DISTANCE OF 307.00 FEET TO THE BEGINNING OF A 300.00 FOOT RADIUS CURVE, CONCAVE SOUTHWESTERLY; AND WESTERLY ALONG THE ARC OF SAID CURVE TO AND ALONG THE SOUTHERLY LINE OF HANCOCK STREET DEDICATED BY SAID RESOLUTION, THROUGH A CENTRAL ANGLE OF 39° 03'30" AN ARC LENGTH OF 204.51 FEET; THENCE SOUTH 26° 51'31" WEST, A DISTANCE OF 393.88 FEET; THENCE SOUTH 12° 35'00" WEST, A DISTANCE OF 968.25 FEET TO SAID LINE WHICH IS PARALLEL WITH AND 15.00 FEET NORTHERLY OF THE NORTHERLY LINE OF FRONTIER STREET; THENCE ALONG SAID PARALLEL LINE SOUTH 77° 23'46" EAST, TO THE TRUE POINT OF BEGINNING.

EXCEPTING THEREFROM A PORTION OF SAID LAND, ALL URANIUM, THORIUM, AND ALL OTHER MATERIALS DETERMINED PURSUANT TO SECTION 5(B) (1) OF THE ATOMIC ENERGY ACT OF 1946 (60 STAT. 761), TO BE PECULIARLY ESSENTIAL TO THE PRODUCTION OF FISSIONABLE MATERIAL, CONTAINED IN WHATEVER CONCENTRATION IN DEPOSITS IN THE LANDS COVERED BY THIS INSTRUMENT, TOGETHER WITH THE RIGHT OF THE UNITED STATES THROUGH ITS AUTHORIZED AGENTS OR REPRESENTATIVES AT ANY TIME TO ENTER UPON THE LAND AND PROSPECT FOR, MINE AND REMOVE THE SAME, AS RESERVED FOR THE USE OF THE UNITED STATES, IN A DEED RECORDED JUNE 23, 1954 IN BOOK 5279, PAGE 259 OF OFFICIAL RECORDS.

ALSO EXCEPTING THEREFROM A PORTION OF SAID LAND, ALL URANIUM, THORIUM, AND ALL OTHER MATERIALS DETERMINED PURSUANT TO SECTION 5(B) (1) OF THE ATOMIC ENERGY ACT OF 1946 (60 STAT. 761), TO BE PECULIARLY ESSENTIAL TO THE PRODUCTION OF FISSIONABLE MATERIAL, CONTAINED IN WHATEVER CONCENTRATION IN DEPOSITS IN THE LANDS COVERED BY THIS INSTRUMENT, TOGETHER WITH THE RIGHT OF THE UNITED STATES THROUGH ITS AUTHORIZED AGENTS OR REPRESENTATIVES AT ANY TIME TO ENTER UPON THE LAND AND PROSPECT FOR, MINE AND REMOVE THE SAME, AS RESERVED FOR THE USE OF THE UNITED STATES, IN A DEED RECORDED JANUARY 31, 1955 IN BOOK 5514, PAGE 182 OF OFFICIAL RECORDS.

PARCEL 2 (A PORTION OF APN 441-590-04-00):

ALL THAT PORTION OF PUEBLO LOTS 242, 243, 259 AND 311 OF THE PUEBLO LANDS OF SAN DIEGO, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE MAP THEREOF MADE BY JAMES PASCOE IN 1870; A COPY OF WHICH MAP WAS FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, NOVEMBER 14, 1921, AS MISCELLANEOUS MAP NO. 36, ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST NORTHERLY CORNER OF PUEBLO LOT 276; THENCE SOUTH 53° 17'00" EAST ALONG THE NORTHEASTERLY BOUNDARY LINE OF PUEBLO LOT 276, A DISTANCE OF 93.78 FEET; THENCE LEAVING SAID BOUNDARY LINE OF PUEBLO LOT 276, NORTH 72° 53'15" EAST, A DISTANCE OF 120.70 FEET TO A POINT IN THE ARC OF A 270.00 FOOT RADIUS CURVE, CONCAVE SOUTHERLY, A RADIAL TO SAID POINT BEARS NORTH 13° 11'45" EAST; THENCE NORTHWESTERLY AND WESTERLY THROUGH THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 20° 28'03" A DISTANCE OF 96.45 FEET; THENCE SOUTH 82° 42'42" WEST, A DISTANCE OF 579.30 FEET; THENCE SOUTH 75° 31'30" WEST, 237.21 FEET TO A POINT IN A 300.00 FOOT RADIUS CURVE, CONCAVE SOUTHERLY, A RADIAL TO SAID POINT BEAR NORTH 00° 57'45" EAST; THENCE WESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 03° 28'04" AN ARC LENGTH OF 18.16 FEET TO THE TRUE OF BEGINNING; THENCE CONTINUING ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 06° 41'21" AN ARC LENGTH OF 35.02 FEET TO THE BEGINNING OF A 4767.00 FOOT RADIUS CURVE, CONCAVE SOUTHERLY; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE TO THE BEGINNING OF A 558.00 FOOT RADIUS CURVE, CONCAVE SOUTHEASTERLY, A RADIAL TO SAID POINT BEAR NORTH 14° 26'39" WEST; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 63° 00'02" AN ARC LENGTH OF 613.56 FEET; THENCE SOUTH 12° 33'19" WEST, A DISTANCE OF 126.74 FEET TO A POINT IN THE NORTHEASTERLY BOUNDARY LINE OF PUEBLO LOT 243; THENCE CONTINUING SOUTH 12° 33'19" WEST, A DISTANCE OF 514.24 FEET TO THE BEGINNING OF A 20.00 FOOT RADIUS CURVE, CONCAVE NORTHEASTERLY, A RADIAL TO SAID POINT BEARS NORTH 77° 26'41" WEST; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 89° 57'05" AN ARC LENGTH OF 31.40 FEET; THENCE TANGENT TO SAID CURVE SOUTH 77° 23'46" EAST, 617.83 FEET; THENCE NORTH 12° 35'00" EAST, 968.25 FEET; THENCE NORTH 26° 51'31" EAST, 393.88 FEET TO THE TRUE POINT OF BEGINNING.

EXCEPTING THEREFROM A PORTION OF SAID LAND, ALL URANIUM, THORIUM, AND ALL OTHER MATERIALS DETERMINED PURSUANT TO SECTION 5(B) (1) OF THE ATOMIC ENERGY ACT OF 1946 (60 STAT. 761), TO BE PECULIARLY ESSENTIAL TO THE PRODUCTION OF FISSIONABLE MATERIAL, CONTAINED IN WHATEVER CONCENTRATION IN DEPOSITS IN THE LANDS COVERED BY THIS INSTRUMENT, TOGETHER WITH THE RIGHT OF THE UNITED STATES THROUGH ITS AUTHORIZED AGENTS OR REPRESENTATIVES AT ANY TIME TO ENTER UPON THE LAND AND PROSPECT FOR, MINE AND REMOVE THE SAME, AS RESERVED FOR THE USE OF THE UNITED STATES, IN A DEED RECORDED JANUARY 31, 1955 IN BOOK 5514, PAGE 182 OF OFFICIAL RECORDS.

PARCEL 3 (A PORTION OF APN 441-590-04-00):

THAT PORTION OF PUEBLO LOT 259 OF THE PUEBLO LANDS OF SAN DIEGO, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF MADE BY JAMES PASCOE, A COPY OF WHICH SAID MAP WAS FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY AND KNOWN AS MISCELLANEOUS MAP NO. 36, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE SOUTHERLY LINE OF HANCOCK STREET, AS DESCRIBED IN PARCEL 1 OF RESUBDIVISION OF RESOLUTION NO. 197563 OF THE CITY OF SAN DIEGO, A CERTIFIED COPY OF SAID RESOLUTION RECORDED JULY 30, 1969 AS INSTRUMENT NO. 137836 OF OFFICIAL RECORDS, SAID POINT BEING THE INTERSECTION OF SAID SOUTHERLY LINE WITH THE SOUTHEASTERLY LINE OF SAID PUEBLO LOT 259, THENCE ALONG SAID SOUTHERLY LINE, SOUTH 82° 11' 53" WEST 460.92 FEET (RECORD SOUTH 82° 42' 42" WEST 460.91 FEET) TO POINT "A" OF SAID PARCEL NO. 1, SAID POINT BEING ON THE NORTHEASTERLY LINE OF KURTZ STREET, AS DESCRIBED IN PARCEL NO. 2 OF SAID RESOLUTION NO. 197563 OF OFFICIAL RECORDS; THENCE ALONG SAID NORTHEASTERLY LINE ON A TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 40 FEET THROUGH AN ANGLE OF 136° 07' 53" AN ARC DISTANCE OF 95.04 FEET (RECORD 95.06 FEET); THENCE ALONG THE NORTHEASTERLY LINE OF SAID KURTZ STREET, SOUTH 53° 56' 00" EAST 304.02 FEET TO THE SOUTHEASTERLY LINE OF SAID PUEBLO LOT 259; THENCE ALONG SAID SOUTHEASTERLY LINE, NORTH 36° 08' 53" EAST 388.26 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL 4 (A PORTION OF APN 441-590-04-00):

EXCEPTING THEREFROM A PORTION OF SAID LAND, ALL URANIUM, THORIUM, AND ALL OTHER MATERIALS DETERMINED PURSUANT TO SECTION 5(B) (1) OF THE ATOMIC ENERGY ACT OF 1946 (60 STAT. 761), TO BE PECULIARLY ESSENTIAL TO THE PRODUCTION OF FISSIONABLE MATERIAL, CONTAINED IN WHATEVER CONCENTRATION IN DEPOSITS IN THE LANDS COVERED BY THIS INSTRUMENT, TOGETHER WITH THE RIGHT OF THE UNITED STATES THROUGH ITS AUTHORIZED AGENTS OR REPRESENTATIVES AT ANY TIME TO ENTER UPON THE LAND AND PROSPECT FOR, MINE AND REMOVE THE SAME, AS RESERVED FOR THE USE OF THE UNITED STATES, IN A DEED RECORDED JANUARY 31, 1955 IN BOOK 5514, PAGE 182 OF OFFICIAL RECORDS.

THAT PORTION OF PUEBLO LOT 259, AS SAID PUEBLO LOT IS SHOWN ON THE MAP OF THE PUEBLO LANDS OF SAN DIEGO, MADE BY JAMES PASCOE IN 1870, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, A CERTIFIED COPY OF SAID PASCOE'S MAP IS FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY AS MISCELLANEOUS MAP NO. 36, WHICH LIES NORTHWESTERLY OF THE NORTHWESTERLY LINE OF HANCOCK STREET, NORTHERLY OF THE NORTHERLY LINE OF CHANNEL WAY AS DESCRIBED UNDER PARCELS 1 AND 3, RESPECTIVELY, IN RESOLUTION NO. 197563 ON JULY 24, 1969 BY THE COUNCIL OF THE CITY OF SAN DIEGO, RECORDED JULY 30, 1969 AS INSTRUMENT NO. 137836 OF OFFICIAL RECORDS, AND WHICH LIES SOUTHERLY OF THE SOUTHERLY BOUNDARY OF 11-SD-109, HIGHWAY 109 AS DESCRIBED UNDER PARCEL 2 IN DEED TO THE STATE OF CALIFORNIA, RECORDED MARCH 26, 1968 AS INSTRUMENT NO. 49552 OF OFFICIAL RECORDS.

LEGEND

DESCRIPTION	STANDARD PLAN	SYMBOL
PROJECT BOUNDARY		
PROP. RIGHT OF WAY		
EXIST. FIRE HYDRANT		
PROP. FIRE HYDRANT	(SDW-104, SDW-151, SDW-153)	
PROP. FIRE SERVICE AND BACKFLOW PREVENTER	(SDW-105, SDW-118, SDW-151, SDW-153)	BFP F
PROP. DOMESTIC WATER SERVICE, METER AND BACKFLOW PREVENTER	(SDW-141, SDW-151, SDW-156, WS-04)	MTR BFP W
PROP. MODULAR WETLAND UNIT		MWU
PROP. STORM DRAIN CLEAN-OUT	(D-09, D-10)	
PROP. STORM DRAIN INLET	(SDD-115, SDD-116,	
PROP. STORM DRAIN	(SDD-110)	
PROP. PRIVATE STORM DRAIN		
PROP. SEWER MANHOLE	(SDS-106, SDS-107, SDS-108)	
PROP. SEWER MAIN	(SDS-101, SDS-105, SDS-119)	S
PROP. WATER MAIN	(SDW-110, SDW-151)	W
PROP. STREET LIGHT	(SDE-101)	
PROP. PEDESTRIAN RAMP	(SDG-131, SDG-132, SDG-134, SDG-135, SDG-136, SDG-137, SDG-139	
BIKE BUFFER, HARDSCAPE		
FOUND MONUMENT		
PROP. COMMERCIAL DRIVEWAY	(SDG-160, SDG-163, SDG-164)	
TRUNCATED DOMES (DETECTABLE WARNING)	(SDG-130)	
PROP. PRIVATE BIO-FILTRATION (DETAIL ON SHEET 9)		
BUS STOP SLAB	(SDG-102)	
PROPOSED MODIFICATION OF EXISTING TRAFFIC SIGNAL		

LIST OF ABBREVIATIONS

BFE	BASE FLOOD ELEVATION
BVC	BEGIN VERTICAL CURVE
C/L	CENTERLINE
C&G	CURB AND GUTTER
EOP	EDGE OF PAVEMENT
EVC	END VERTICAL CURVE
EXIST.	EXISTING
FG	FINISH GRADE
FS	FINISHED SURFACE
HP	HIGH POINT
IE	INVERT ELEVATION
LP	LOW POINT
LT.	LEFT
NFM	NO FUCKING MAP
NTS	NOT TO SCALE
PRC	POINT OF REVERSE CURVE
PROP.	PROPOSED
PVI	POINT OF VERTICAL INTERSECTION
R/W	RIGHT OF WAY
RIM	MANHOLE RIM ELEVATION
RCP	REINFORCED CONCRETE PIPE
RT.	RIGHT
SD	STORM DRAIN
TC	TOP OF CURB
TOR	TOP OF RIM

LUMINARIES

TYPE Y-MID - STREET
TYPE Z-MID - STREET
TYPE Y-INT - STREET

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT IN MY PROFESSIONAL OPINION THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITY FOR PROJECT DESIGN.

MARTIN J. JONES, RCE 78492 DATE

REGISTERED PROFESSIONAL ENGINEER
MARTIN J. JONES
No. 78492
CIVIL
STATE OF CALIFORNIA

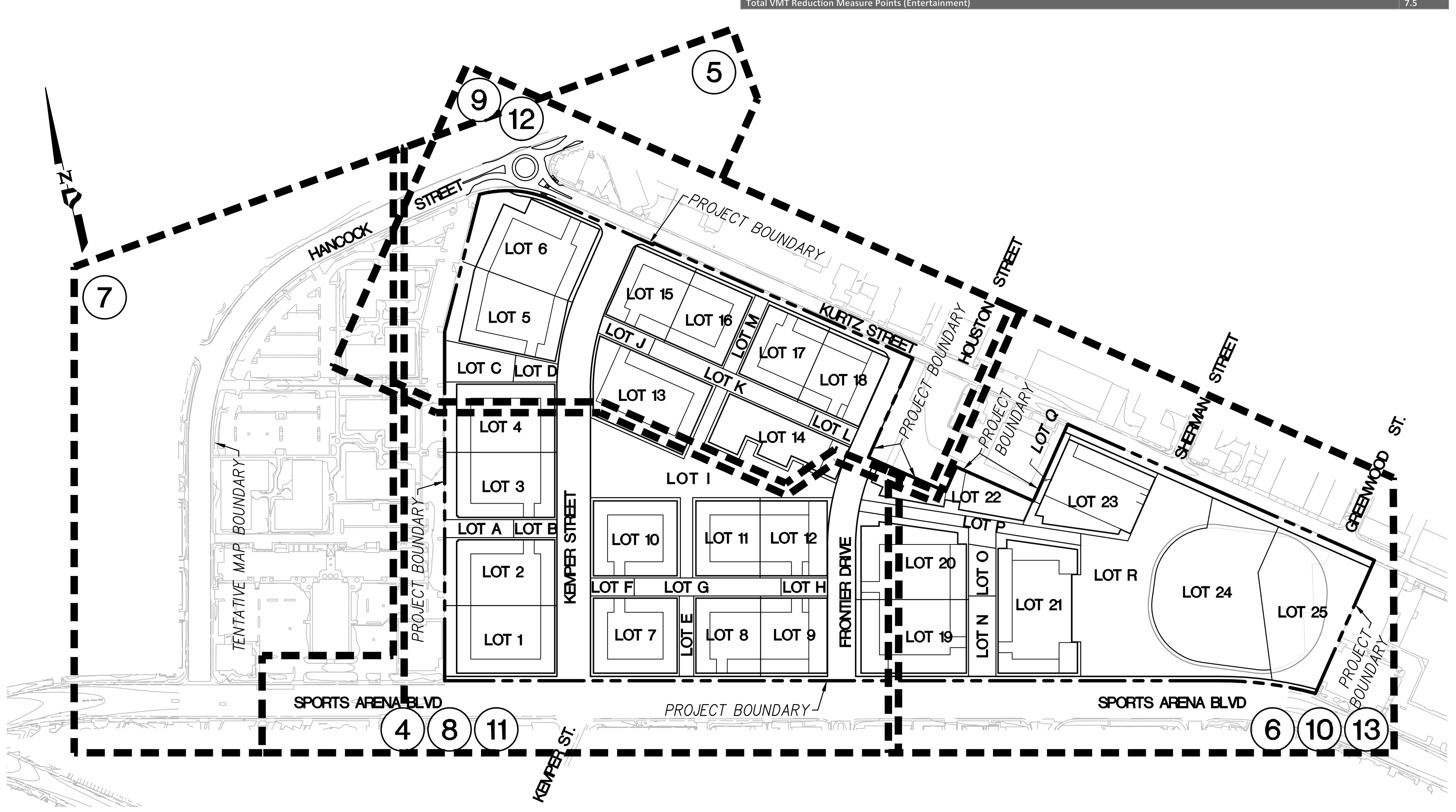
SHEET INDEX

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SHEET 2 TYPICAL STREET CROSS-SECTIONS
SHEET 3 LOT AREA TABLES AND SITE SECTIONS
SHEET 4-7 BOUNDARY, ENCUMBRANCES, & EXISTING CONDITIONS
SHEET 8-10 GRADING, DRAINAGE, & BMP PLAN
SHEET 11-13 LOTS, STREETS, SEWER AND WATER PLAN
SHEET 14 FIRE ACCESS PLAN
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SHEET 23 TRANSPORTATION AMENITIES & MOBILITY CHOICES

PEDESTRIAN CURB RAMP DEVIATION FROM STANDARDS *

1	KEMPER ST. AT SPORTS ARENA BLVD. - SW CORNER: NO CHANGE INSUFIENT R/W (EXIST. RAMP EXCEEDS EXIST. LIMITED R/W)
2	KEMPER ST. AT SPORTS ARENA BLVD. - SE CORNER: 8' WIDE MIN. SINGLE CURB RAMP (EXISIT. LIMITED R/W & PVT ENCROACHMENT)
3	FRONTIER DR. AT SPORTS ARENA BLVD. - SW CORNER: NO CHANGE (EXISIT. RAMP PARTIALLY OUTSIDE OF LIMITED R/W & TRAFFIC CONTROLLER WITHIN SIDEWALK)
4	FRONTIER DR. AT SPORTS ARENA BLVD. - SE CORNER: NO CHANGE (EXISIT. RAMP PARTIALLY OUTSIDE OF LIMITED R/W & ATT MH WITHIN SIDEWALK)
5	EAST DR. AT SPORTS ARENA BLVD. - SW CORNER: NO CHANGE (EXISIT. E-W RAMP PARTIALLY OUTSIDE OF LIMITED R/W & TRAFFIC SIGNAL WITHIN SIDEWALK)
6	EAST DR. AT SPORTS ARENA BLVD. - SE CORNER: NO CHANGE (EXISIT. E-W RAMP PARTIALLY OUTSIDE OF LIMITED R/W & N-S DIRECTIONAL RAMP COMPLIANT)
7	KURTZ ST. AT SHERMAN ST. - NW CORNER: 8' WIDE MIN. SINGLE CURB RAMP (EXISIT. LIMITED R/W & PVT ENCROACHMENT)
8	KURTZ ST. AT SHERMAN ST. - NE CORNER: 8' WIDE MIN. SINGLE CURB RAMP (EXISIT. LIMITED R/W & PVT ENCROACHMENT)
9	KURTZ ST. AT GREENWOOD ST. - NW CORNER: SINGLE E-W CURB RAMP (NO N-S CROSSING PROPOSED)
10	KURTZ ST. AT GREENWOOD ST. - NE CORNER: NO CHANGE (EXIST. OBSTRUCTION BLDG. & UTILITY POLE)
11	KURTZ ST. AT CAMINO DEL RIO WEST - NW CORNER: SINGLE N-S CURB RAMP (EXIST. OBSTRUCTION FH & LIMITED R/W)
12	KURTZ ST. AT CAMINO DEL RIO WEST - NE CORNER: NO CHANGE (EXIST. TRAFFIC SIGNAL, LIMITED R/W, AND SKEW OF STREET)
13	KURTZ ST. AT ROSECRANS ST. - SW CORNER: SINGLE CURB RAMP GREATER THAN 8' (EXIST. SD INLET OBSTRUCTION & DRAINAGE CONVEYANCE)
14	KURTZ ST. AT ROSECRANS ST. - NE CORNER: SINGLE CURB RAMP GREATER THAN 8' (EXIST. SEWER MH OBSTRUCTION & DRAINAGE CONVEYANCE)

* CURB RAMP DEVIATIONS WILL REQUIRE REVIEW AND APPROVAL OF DEVIATION FROM STANDARDS FORMS AT THE MINISTERIAL REVIEW, PRIOR TO OBTAINING A CONSTRUCTION PERMIT. THE CITY ENGINEER MAY REQUIRE ADDITIONAL CURB RAMP REPLACEMENTS BASED ON THE REVIEW OF DEVIATION FROM STANDARDS FORMS.



INDEX MAP

SCALE: 1" = 200'

Prepared By:	
Name:	PROJECT DESIGN CONSULTANTS
Address:	701 B STREET, SUITE 800 SAN DIEGO, CA 92101
Phone #:	(619) 235-6471 Fax #: (619) 234-0349
Project Address:	3500 SPORTS ARENA BLVD SAN DIEGO, CA 92110
Project Name:	MIDWAY RISING TENTATIVE MAP NO. 3258589 LAND USE PLAN NO. 3258590
Sheet Title:	TITLE SHEET

Revision 10:	
Revision 9:	
Revision 8:	
Revision 7:	
Revision 6:	
Revision 5:	
Revision 4:	
Revision 3:	8/1/2024
Revision 2:	5/23/2024
Revision 1:	3/1/2024
Original Date:	10/27/2023

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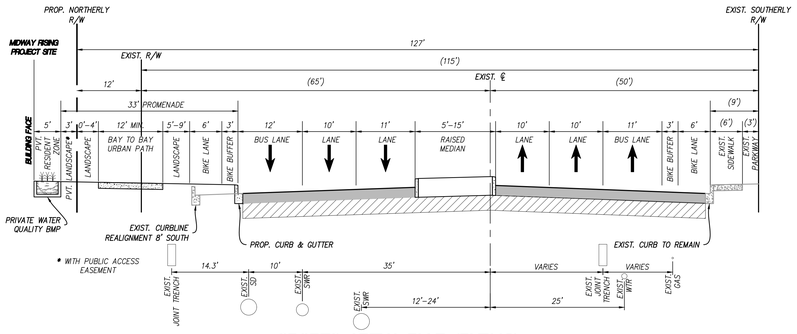
PRJ # 1106734

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

VESTING TENTATIVE MAP FOR MIDWAY RISING

PROJECT DESIGN CONSULTANTS
a BOWMAN company
Planning | Landscape Architecture | Engineering | Survey
701 B Street, Suite 800
San Diego, CA 92101
619.235.6471 Tel
619.234.0349 Fax

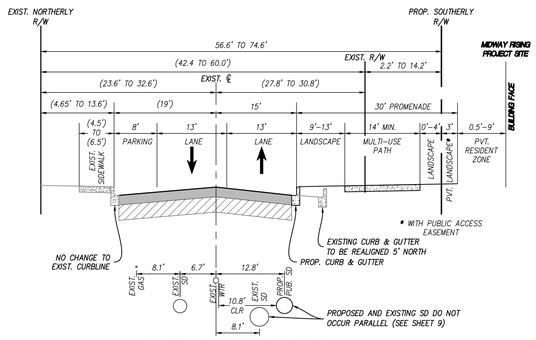
PROJECT ENGINEER: MARTIN J. JONES RCE: 78492
DESIGN BY: GS/MJ/TA DRAWN BY: T. ARISTIDE CHECKED BY: M. JONES



SPORTS ARENA BLVD (PUBLIC)

(NOT TO SCALE)

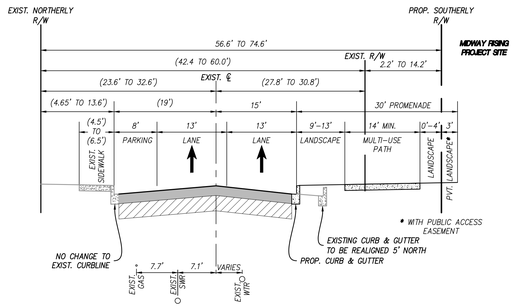
MODIFIED 4-LANE MAJOR ARTERIAL W/TWO BUS ONLY LANES (DESIGN SPEED = 45 MPH)
12' ADDITIONAL RIGHT-OF-WAY



KURTZ STREET (PUBLIC) (1)

(NOT TO SCALE)

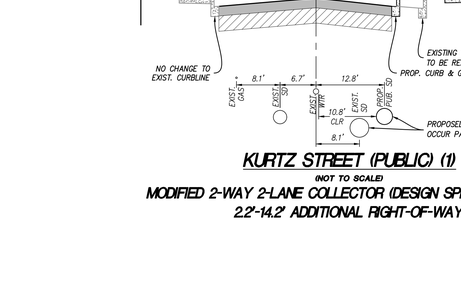
MODIFIED 2-WAY 2-LANE COLLECTOR (DESIGN SPEED = 30 MPH)
2.2'-14.2' ADDITIONAL RIGHT-OF-WAY

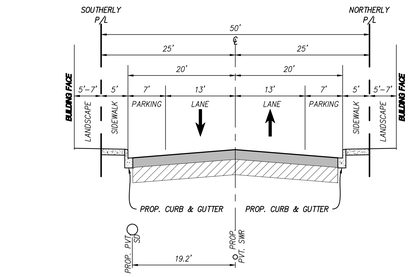


KURTZ STREET (PUBLIC) (2)

(NOT TO SCALE)

MODIFIED 1-WAY 2-LANE COLLECTOR (DESIGN SPEED = 30 MPH)
2.2'-10.2' ADDITIONAL RIGHT-OF-WAY

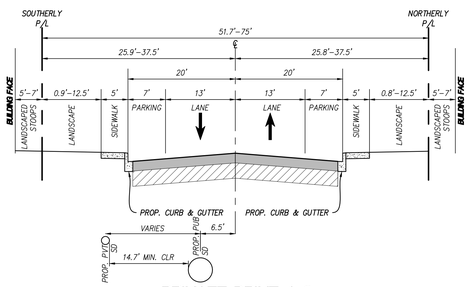




PRIVATE DRIVE A-1

(NOT TO SCALE)

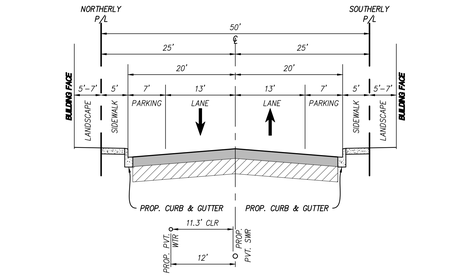
2-WAY STREET



PRIVATE DRIVE A-2

(NOT TO SCALE)

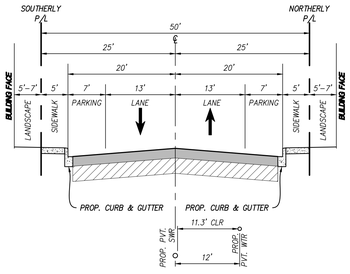
2-WAY STREET



PRIVATE DRIVE B-1

(NOT TO SCALE)

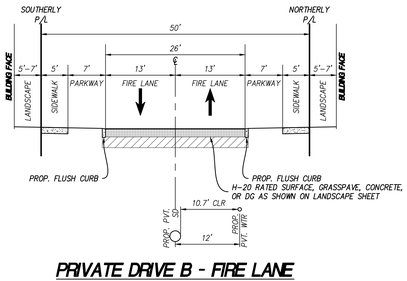
2-WAY STREET



PRIVATE DRIVE B-2

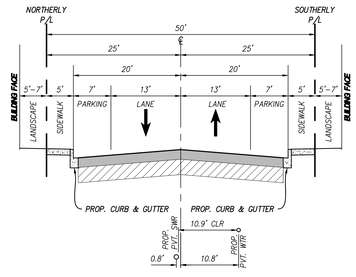
(NOT TO SCALE)

2-WAY STREET



PRIVATE DRIVE B - FIRE LANE

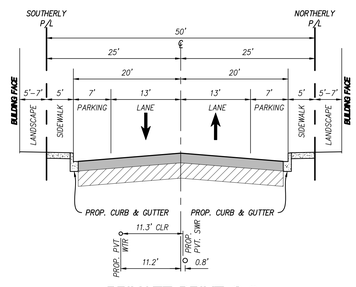
(NOT TO SCALE)



PRIVATE DRIVE C-1

(NOT TO SCALE)

2-WAY STREET



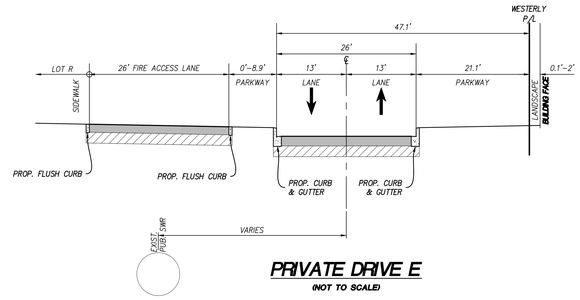
PRIVATE DRIVE C-2

(NOT TO SCALE)

2-WAY STREET

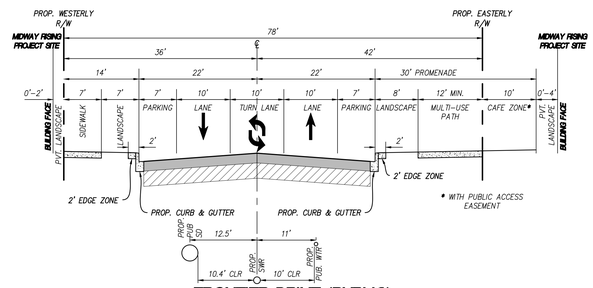
PRIVATE DRIVE C - FIRE LANE

(NOT TO SCALE)



PRIVATE DRIVE E

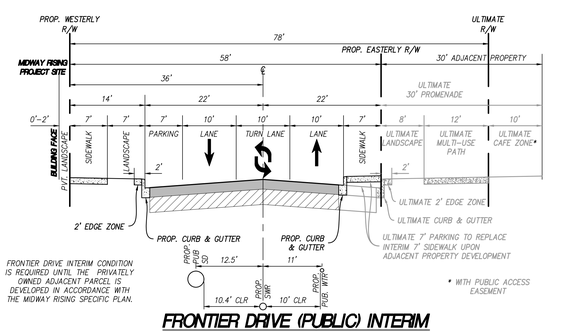
(NOT TO SCALE)



FRONTIER DRIVE (PUBLIC)

(NOT TO SCALE)

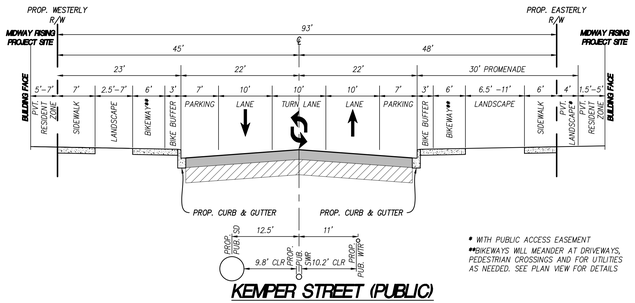
2-LANE COLLECTOR W/CENTER LEFT TURN LANE (DESIGN SPEED = 35MPH)



FRONTIER DRIVE (PUBLIC) INTERIM

(NOT TO SCALE)

2-LANE COLLECTOR W/CENTER LEFT TURN LANE (DESIGN SPEED = 35MPH)



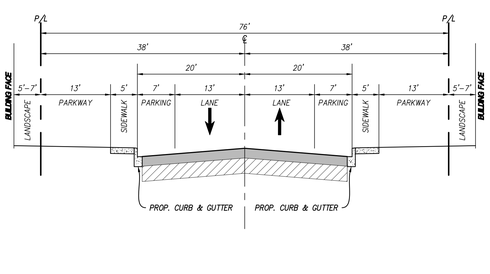
KEMPER STREET (PUBLIC)

(NOT TO SCALE)

2-LANE COLLECTOR W/CENTER LEFT TURN LANE (DESIGN SPEED = 35MPH)

PRIVATE DRIVE B - FIRE LANE

(NOT TO SCALE)



PRIVATE DRIVE D

(NOT TO SCALE)

2-WAY STREET

NOTE:
STORM DRAIN AND SEWER EDGE TO EDGE SEPARATION LESS THAN TEN FEET (10') ON PUBLIC STREETS REQUIRE APPROVED DEVIATION.

VESTING TENTATIVE MAP FOR MIDWAY RISING

PROJECT DESIGN CONSULTANTS
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Project Address:
3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title:
TYPICAL STREET CROSS-SECTIONS

Revision 10:
Revision 9:
Revision 8:
Revision 7:
Revision 6:
Revision 5:
Revision 4:
Revision 3: 8/1/2024
Revision 2: 5/23/2024
Revision 1: 3/1/2024

Original Date: 10/27/2023

Sheet 2 of 23

PRJ # 1106734

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

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LAND USE PARKING REQUIREMENTS

Land Use	Site Area (SF)	Parking Ratio Code Sections	Required Per Code: Min. Parking Ratio	Required Per Code: Parking	Required Per Code: Clean Air / Zero Emission	Required Per Code: *****Loading Zones	Proposed: Parking	Proposed: Clean Air / Zero Emission	Proposed: Loading Zones	Proposed: Accessible	Proposed: Van Accessible
Residential	1,230,100	SDMC 142-05C	* N/A	* 0	N/A	17	4,550	N/A	19	91	12
Commercial	130,000	SDMC 142-05E SDMC 142 - 05F	* N/A	* 0	32	5	390	32	5	8	2
Entertainment Center	191,870	SDMC 141.0622(d)	** N/A	**0	168	2	2,100	168	2	31	6

* Site is located in a Transit Priority Area (TPA) and therefore the minimum required vehicular parking is zero provided that the requirements of Section 142.0528 and 142.0530 of the SDMC are met.

** City of San Diego Municipal code Section 141.0622(d) indicates that off-street parking for sports arenas and stadiums shall be provided at a level sufficient to serve the facility without impacting adjacent or nearby property

*****The number of required loading areas is based on Section 142.1010, Table 142-10B of the SDMC.

ADDITIONAL PARKING REQUIREMENTS

Land Use	EV Capable	EV Ready	EV Chargers	Short Term Bike Parking	Long Term Bike Parking	Motorcylce
Residential	455	1,138	228	0	1,942	426
Commercial	*** 195	N/A	**** 20	20	20	8
Entertainment Center	** 1,050	N/A	**** 105	105	105	42

*** EV Capable ratios are based on Council Policy 900-03 which adds an additonal 30% to the existing 20% per Calgreen requiremetns for a total of 50% for non-residential

**** EV Charger values are based on the original Calgreen 20% EV Capable value and not Council Policy 900-03

NOTE:
PARKING FOR PARKS WILL BE PROVIDED WITHIN THE SHARED ENTERTAINMENT CENTER PARKING AND ON PUBLIC STREETS PROXIMATE TO THE PARKS PER COUNCIL POLICY 500-08 AND PER THE PARKS & RECREATION CONSULTANT'S GUIDE TO PARK DESIGN AND DEVELOPMENT.

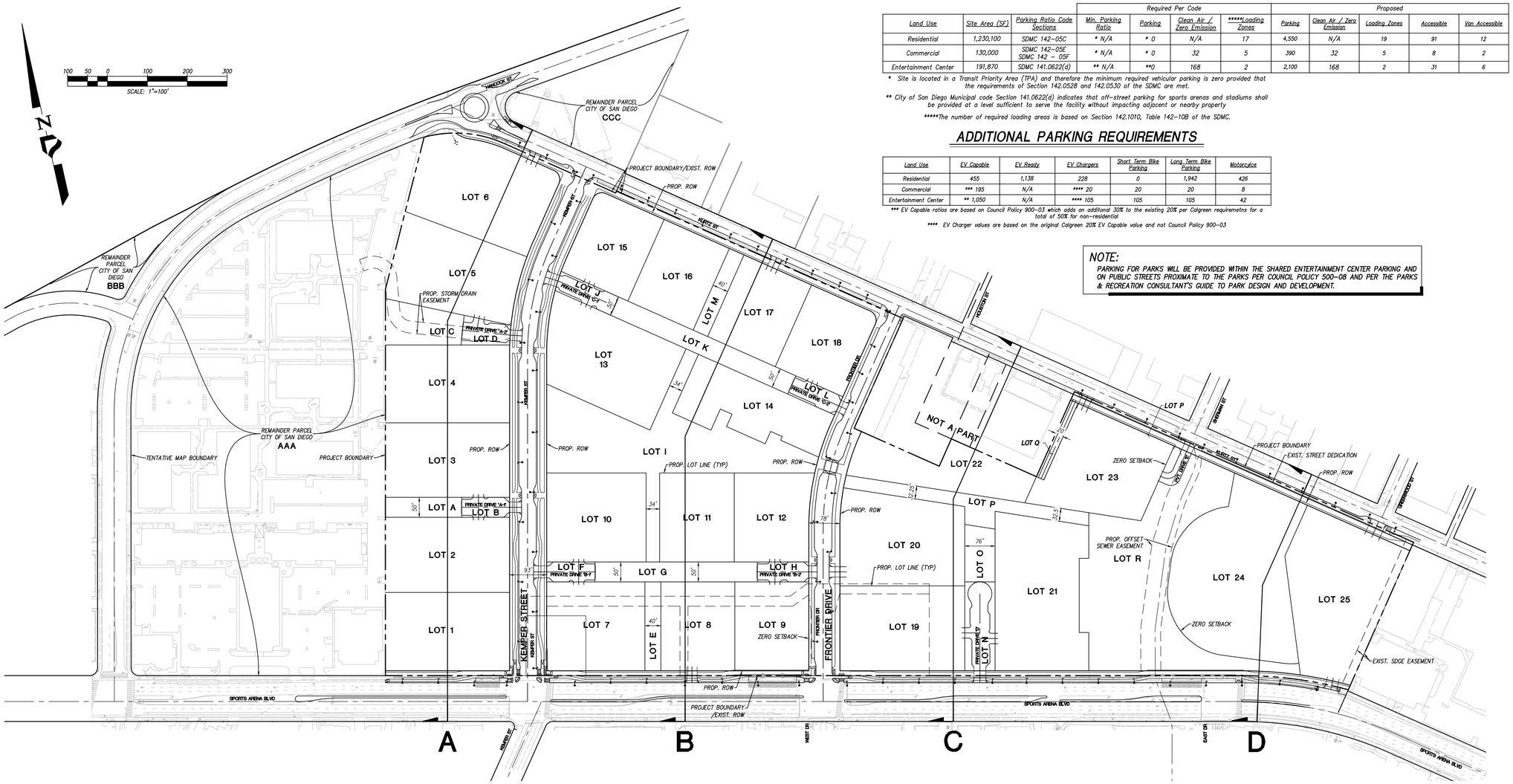
LOT TYPE AND AREAS

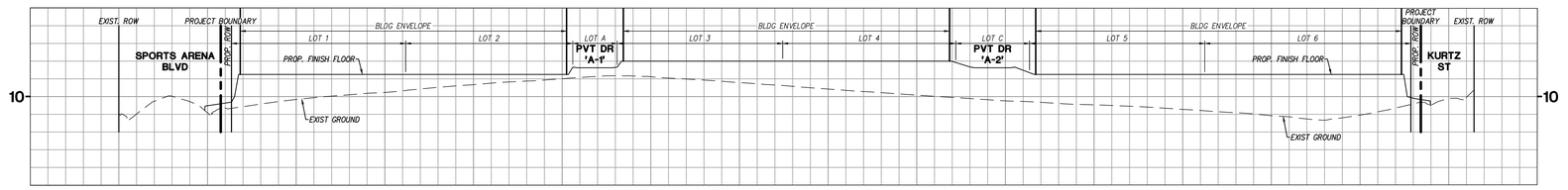
Lot Type		Lot Designator	Area (Ac)
Residential		1	1.40
Residential		2	1.35
Residential		3	1.34
Residential		4	1.40
Residential		5	1.48
Residential		6	1.78
Residential		7	1.26
Mixed-Use		8	0.95
Mixed-Use		9	0.95
Residential		10	1.28
Mixed-Use		11	0.96
Mixed-Use		12	0.97
Residential		13	1.68
Mixed-Use		14	1.14
Residential		15	0.94
Residential		16	0.92
Mixed-Use		17	0.95
Mixed-Use		18	0.95
Mixed-Use		19	1.53
Mixed-Use		20	1.60
Mixed-Use		21	1.96
Mixed-Use		22	0.98
Mixed-Use		23	1.49
Entertainment Center		24	2.67
Entertainment Center		25	2.05
Park	#	A	0.22
PVT - Driveway	#	B	0.14
Park	#	C	0.43
PVT - Driveway	#	D	0.17
Park	#	E	0.20
PVT - Driveway	#	F	0.14
Park		G	0.47
PVT - Driveway	#	H	0.15
Park		I	2.32
PVT - Driveway	#	J	0.18
Park		K	0.56
PVT - Driveway	#	L	0.15
Park	#	M	0.21
PVT - Driveway	#	N	0.39
Park	#	O	0.24
Park		P	0.54
PVT - Driveway	#	Q	0.10
Park		R	2.93
ROW Dedication		KEMPER ST	2.61
ROW Dedication		FRONTIER DR	1.46
ROW Dedication		KURTZ ST	0.99
ROW Dedication		SPORTS ARENA BLVD	0.67
		TOTAL:	49.23

THIS LOT IS LESS THEN THE MINIMUM LOT AREA OF 20,000 SF

LOT SUMMARY

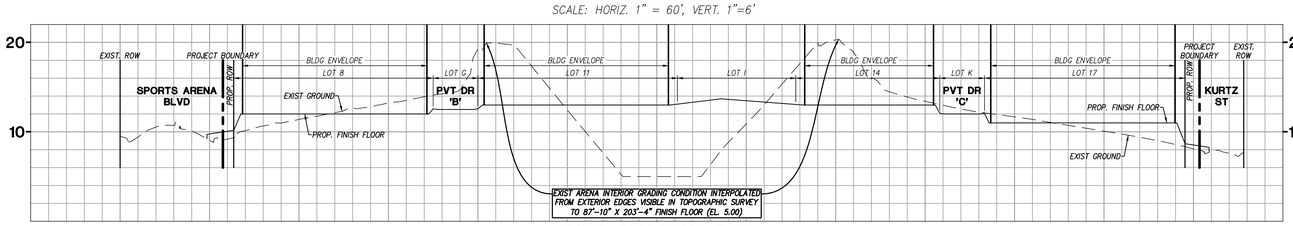
Lot Type	Lot Designator	Area (Ac)
PROJECT BOUNDARY	1-25, A-R, AA, BB, CC, DD	43.49
ROW DEDICATION	KEMPER, FRONTIER, KURTZ, SAB	5.74
REMAINDER PARCEL	AAA	16.97
REMAINDER PARCEL	BBB	0.61
REMAINDER PARCEL	CCC	1.75
	TOTAL:	68.56





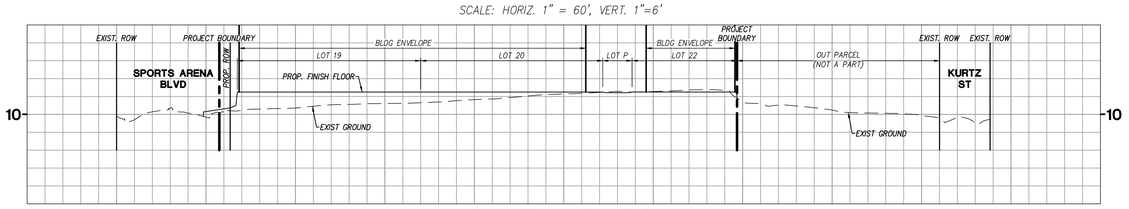
SITE SECTION A-A

SCALE: HORIZ. 1" = 60', VERT. 1"=6'



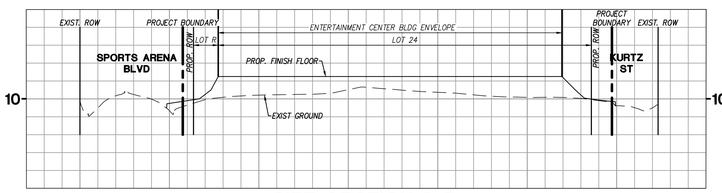
SITE SECTION B-B

SCALE: HORIZ. 1" = 60', VERT. 1"=6'



SITE SECTION C-C

SCALE: HORIZ. 1" = 60', VERT. 1"=6'



SITE SECTION D-D

SCALE: HORIZ. 1" = 60', VERT. 1"=6'

VESTING TENTATIVE MAP FOR
MIDWAY RISING

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DESIGN BY: GS/MJ/TA DRAWN BY: T. ARISTIDE CHECKED BY: M. JONES

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Project Address:
3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title:
LOT AREA TABLES AND SITE SECTIONS

Revision 10:
Revision 9:
Revision 8:
Revision 7:
Revision 6:
Revision 5:
Revision 4:
Revision 3: 8/1/2024
Revision 2: 5/23/2024
Revision 1: 3/1/2024
Original Date: 10/27/2023

Sheet 3 of 23
PRJ # 1106734

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

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SEE SHEET 5

SEE SHEET 5

SEE SHEET 7

SEE SHEET 6

REMAINDER PARCEL 2
PORTION OF APN 441-590-04

PARCEL 1
49.231 ACRES

PECHANGE ARENA
(SAN DIEGO SPORTS ARENA)
3500 SPORTS ARENA BLVD.

INDOOR ARENA

LOT B

R.O.S. 986

MAP 1581

MAP 6417

MAP 6629

SPORTS ARENA BOULEVARD

KEMPER STREET

ACCESS ROAD

PARKING LOT

WALKWAY PATH

SUMMIT GAS 3580
SPORTS ARENA BLVD.
1-STORY STUCCO BUILDING

CAR WASH
1-STORY
STUCCO BLDG.

CHICK-FIL-A
3570 SPORTS ARENA BLVD.
1-STORY
STUCCO BUILDING

CHILI'S GRILL AND BAR
3494 SPORTS ARENA BLVD.
2-STORY
ROCK FACADE
BUILDING

1-STORY METAL STORAGE BUILDING

STORAGE YARD CONTAINERS & MISCELLANEOUS MATERIALS

MECH & ELECT YARD

COMM'L MECH & ELECT YARD

GAS PUMPS

METAL AWNING

PROPANE TANK

ABOVE GROUND GAS LINE

APPROXIMATE AREA OF EXISTING BURN ASH DEPOSIT TO BE REMOVED

15' WIDE RIGHT-OF-WAY PER DOC. 237211 RECORDED DECEMBER 31, 1935 OFFICIAL RECORDS

PROJECT BOUNDARY

CHAINLINK FENCE

GATE

DRIVEWAY

STREET LIGHT

PUB. SD INLET

PUB. SDMH

TRAFFIC SIGNAL HANDHOLE

ELECTRICAL CABINET

METER CABINET

ELECTRICAL HANDHOLE

TRAFFIC SIGNAL CABINET

CMU RAMP

PED. RAMP

FIRE HYDRANT

WATER METER

COMMUNICATION HUSH

SEWER CLEANOUT

PVT. DRAINAGE GRATE

PVT. SD INLET

PVT. SDMH

BACKFLOW PREVENTER

BACKFLOW PREVENTER ENCLOSURE

FIRE SERVICE

WATER MH

SMH

WV

EXISTING LEASE LINE

RAISED PUMP BOX

TRANSFORMER D158898

TRANSFORMER D215067043

TRANSFORMER D215007455

COMM VAULT

ELECTRICAL BOX (EMPTY)

ELECTRICAL METER CABINET

6" STAND PIPE GAS METER

8 FT METER CABINET

SIGNAGE

COMMUNICATION VAULT

STREET LIGHT HANDHOLE

STREET L HANDHOLE

TRANSFORMER D149438

TRAFFIC SIGNAL

UTILITY VAULT

VAULT

ELECTRIC VAULT

P.L. 311

P.L. 312

P.L. 259

P.L. 242

P.L. 241

P.L. 276

P.L. 339

N77°23'52"W

2147.78'

3095.91'

65'

115'

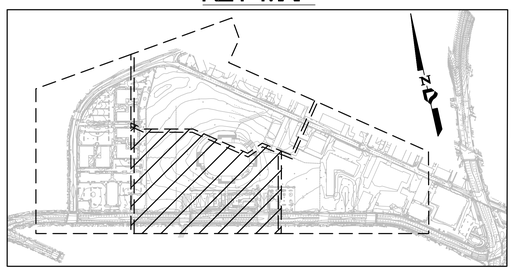
50'

15'

ALTA EASEMENT/ENCUMBRANCES

(48) AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES TO SDG&E, RECORDED NOVEMBER 5, 1974 AS INSTRUMENT NO. 74-293375 OF OFFICIAL RECORDS. TO BE QUITCLAIMED.

KEY MAP



TITLE REPORT NOTE:
THE EXISTING EASEMENTS AND ENCUMBRANCES SHOWN ARE BASED UPON PRELIMINARY REPORT ORDER NO. NHSC-116148A-SD

40 20 0 40 80 120
SCALE: 1"=40'

VESTING TENTATIVE MAP FOR
MIDWAY RISING

PROJECT DESIGN CONSULTANTS
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PROJECT ENGINEER: MARTIN J. JONES RCE: 78492
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Project Address:
3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

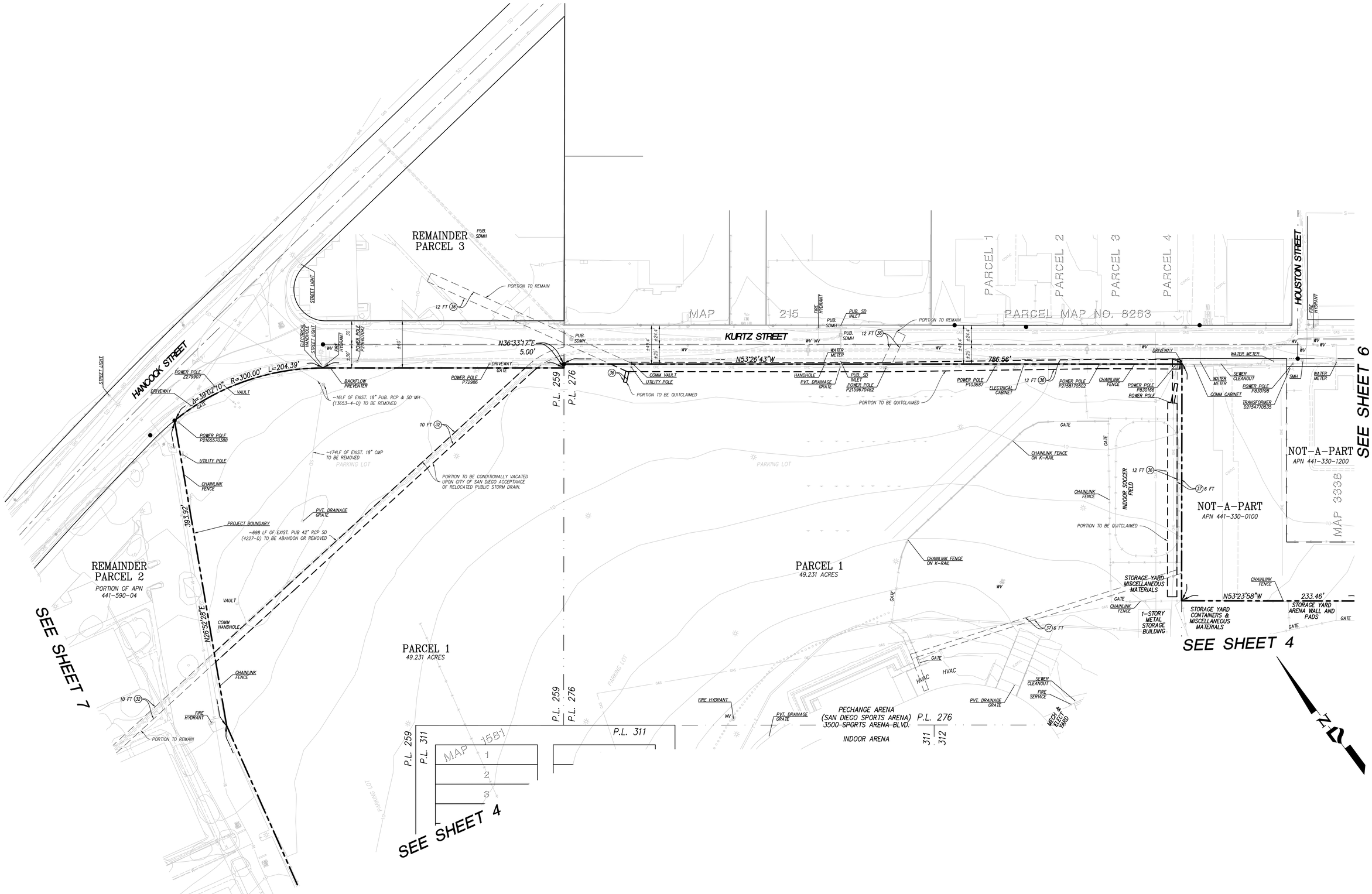
Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title:
BOUNDARY, ENCUMBRANCES, & EXISTING CONDITIONS

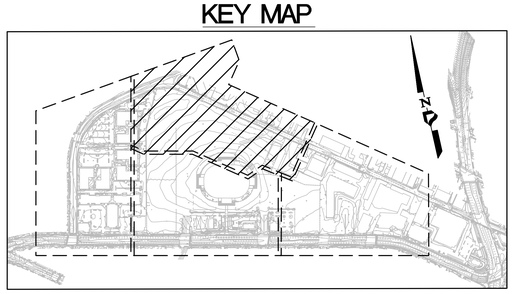
Revision 10:	
Revision 9:	
Revision 8:	
Revision 7:	
Revision 6:	
Revision 5:	
Revision 4:	8/1/2024
Revision 3:	5/23/2024
Revision 2:	3/1/2024
Revision 1:	
Original Date:	10/27/2023
Sheet	4 of 23
PRJ #	1106734

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

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KEY MAP



ALTA EASEMENT/ENCUMBRANCES

(32) AN EASEMENT FOR STORM DRAIN AND APPURTENANCES AS SHOWN BY RESOLUTION NO. 137574 OF THE COUNCIL OF CITY OF SAN DIEGO, PASSED AND ADOPTED JANUARY 31, 1957 IN BOOK 6446, PAGE 240 OF OFFICIAL RECORDS UNDER INSTRUMENT NO. 19239. PORTION TO BE CONDITIONALLY VACATED.

(36) AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES TO SDG&E, RECORDED DECEMBER 16, 1966 AS INSTRUMENT NO. 195998 OF OFFICIAL RECORDS. PORTIONS TO BE QUITCLAIMED.

(37) AN EASEMENT FOR PUBLIC UTILITIES TO SDG&E, INGRESS AND EGRESS AND INCIDENTAL PURPOSES, RECORDED DECEMBER 16, 1966 AS INSTRUMENT NO. 196009 OF OFFICIAL RECORDS. TO BE QUITCLAIMED.

TITLE REPORT NOTE:

THE EXISTING EASEMENTS AND ENCUMBRANCES SHOWN ARE BASED UPON PRELIMINARY REPORT ORDER NO. NHSC-116148A-SD

40 20 0 40 80 120

SCALE: 1"=40'

VESTING TENTATIVE MAP FOR MIDWAY RISING

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3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Revision 10:
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Revision 4:
Revision 3: 8/1/2024
Revision 2: 5/23/2024
Revision 1: 3/1/2024
Original Date: 10/27/2023

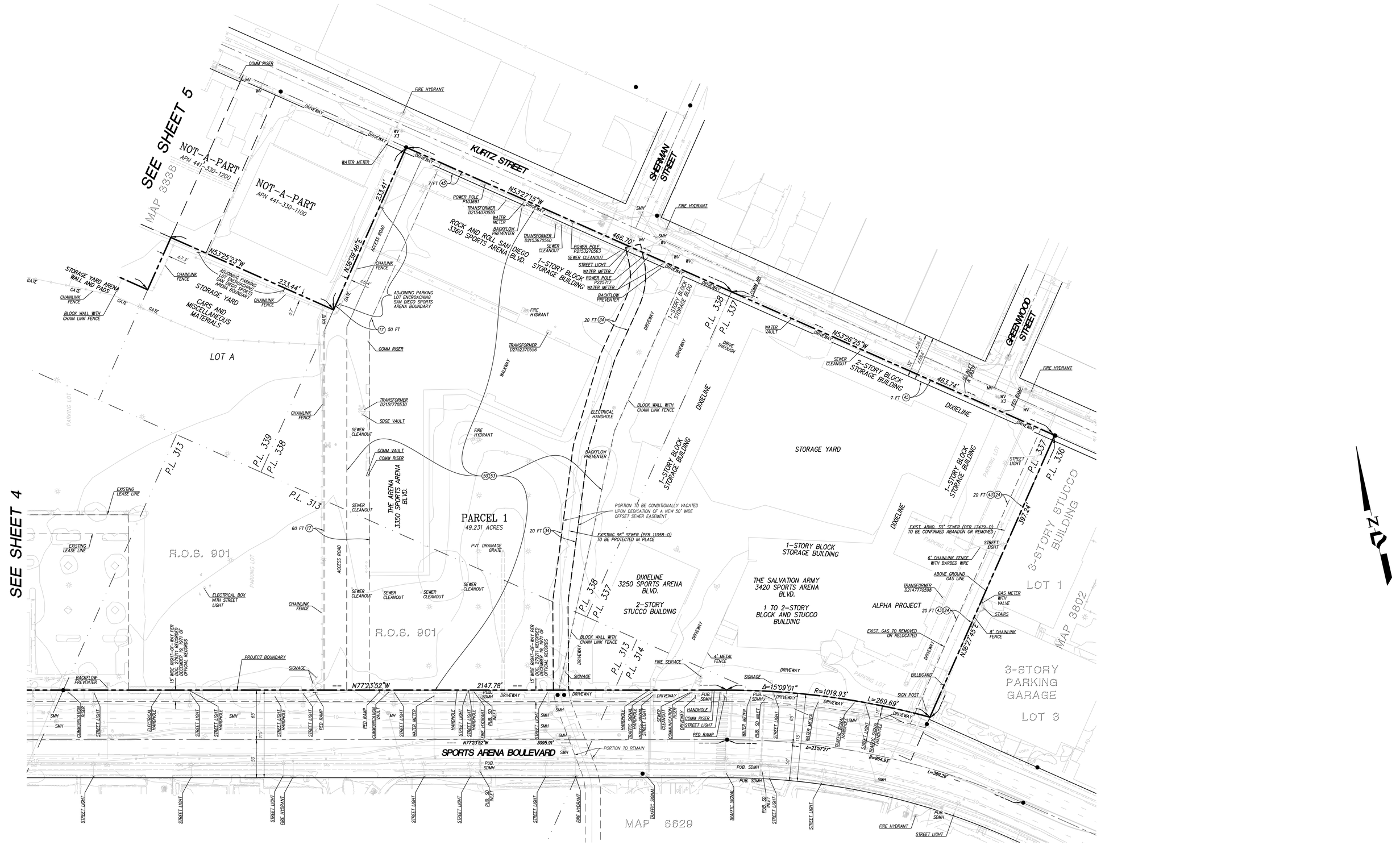
Sheet 5 of 23

PRJ # 1106734

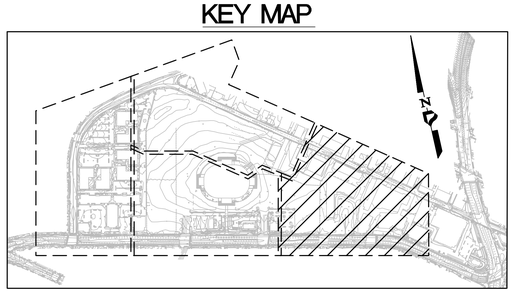
Sheet Title:
BOUNDARY, ENCUMBRANCES, & EXISTING CONDITIONS

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

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KEY MAP



ALTA EASEMENT/ENCUMBRANCES

(24) AN EASEMENT FOR SANITARY SEWER MAIN AND INCIDENTAL PURPOSES TO THE CITY OF SAN DIEGO, A MUNICIPAL CORPORATION, RECORDED MARCH 15, 1944 AS BOOK 1636, PAGE 476 OF OFFICIAL RECORDS. TO BE VACATED.

(34) AN EASEMENT FOR PUBLIC SEWER AND INCIDENTAL PURPOSES TO THE CITY OF SAN DIEGO, RECORDED SEPTEMBER 19, 1961 AS INSTRUMENT NO. 163271 OF OFFICIAL RECORDS. PORTION TO BE CONDITIONALLY VACATED UPON DEDICATION OF A NEW 50' WIDE OFFSET EASEMENT.

(43) AN EASEMENT FOR PUBLIC UTILITIES, INGRESS, EGRESS AND INCIDENTAL PURPOSES TO SDG&E, RECORDED OCTOBER 13, 1970 AS INSTRUMENT NO. 186773 OF OFFICIAL RECORDS. TO BE QUITCLAIMED.

(17) THE TERMS AND PROVISIONS CONTAINED IN THE DOCUMENT ENTITLED "AN EASEMENT FOR ACCESS ROAD, WITH INCIDENTS THERETO, IN THAT CERTAIN GROUND LEASE AGREEMENT" RECORDED AUGUST 6, 1971 AS INSTRUMENT NO. 174410 OF OFFICIAL RECORDS. TO BE QUITCLAIMED.

(45) AN EASEMENT FOR PUBLIC STREET AND INCIDENTAL PURPOSES TO THE CITY OF SAN DIEGO, RECORDED SEPTEMBER 17, 1971 AS INSTRUMENT NO. 211713 OF OFFICIAL RECORDS. TO BE QUITCLAIMED.

(50) AN EASEMENT FOR DISTRIBUTION OF ELECTRICITY AND GAS AND INCIDENTAL PURPOSES TO SDG&E, RECORDED JUNE 21, 1977 AS INSTRUMENT NO. 77-245487 OF OFFICIAL RECORDS. SAID EASEMENT HAS NO SPECIFIC LOCATION SET FORTH AND IS BLANKET IN NATURE. TO BE QUITCLAIMED.

(53) AN EASEMENT FOR TRANSMISSION AND DISTRIBUTION OF GAS AND INCIDENTAL PURPOSES TO SDG&E, RECORDED JULY 21, 1978 AS INSTRUMENT NO. 78-306662 OF OFFICIAL RECORDS. TO BE QUITCLAIMED.

TITLE REPORT NOTE:

THE EXISTING EASEMENTS AND ENCUMBRANCES SHOWN ARE BASED UPON PRELIMINARY REPORT ORDER NO. NHSC-116148A-SD

40 20 0 40 80 120
SCALE: 1"=40'

VESTING TENTATIVE MAP FOR MIDWAY RISING

PROJECT DESIGN CONSULTANTS
a BOWMAN company
Planning | Landscape Architecture | Engineering | Survey
701 B Street, Suite 800
San Diego, CA 92101
619.235.6471 Tel
619.234.0349 Fax

PROJECT ENGINEER: MARTIN J. JONES RCE: 78492
DESIGN BY: GS/MJ/TA DRAWN BY: T. ARISTIDE CHECKED BY: M. JONES

Prepared By:
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Project Address:
3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Revision 10:
Revision 9:
Revision 8:
Revision 7:
Revision 6:
Revision 5:
Revision 4:
Revision 3: 8/1/2024
Revision 2: 5/23/2024
Revision 1: 3/1/2024
Original Date: 10/27/2023

Sheet 6 of 23
PRJ # 1106734

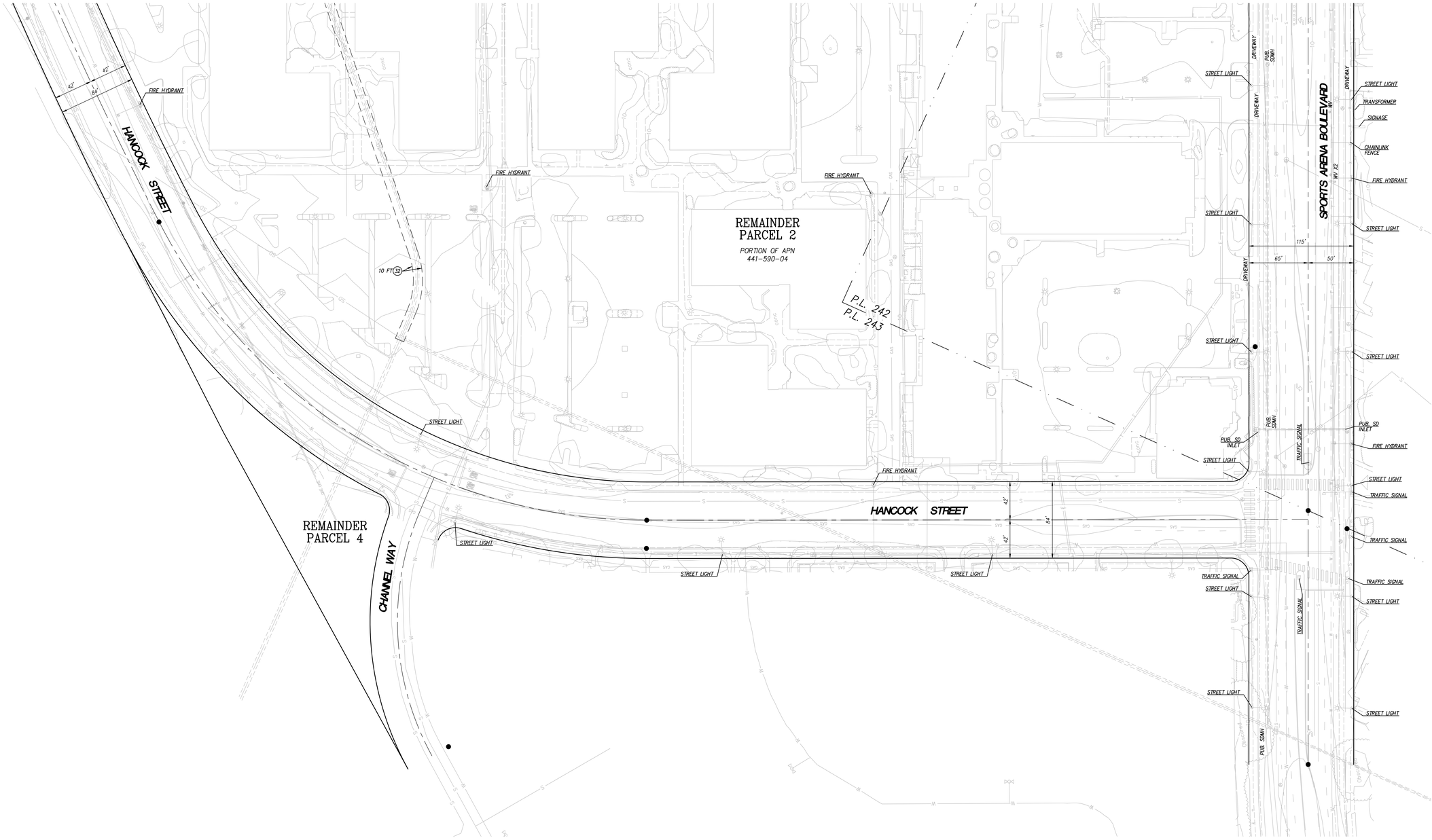
Sheet Title:
BOUNDARY, ENCUMBRANCES, & EXISTING CONDITIONS

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

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SEE SHEET 5

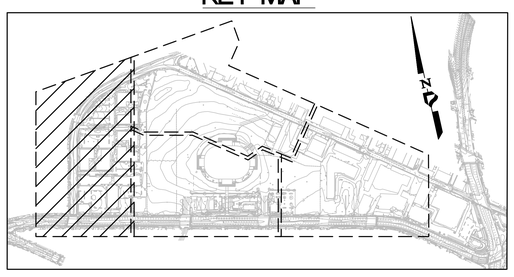
SEE SHEET 4



ALTA EASEMENT/ENCUMBRANCES

(32) AN EASEMENT FOR STORM DRAIN AND APPURTENANCES AS SHOWN BY RESOLUTION NO. 137574 OF THE COUNCIL OF CITY OF SAN DIEGO, PASSED AND ADOPTED JANUARY 31, 1957 IN BOOK 6446, PAGE 240 OF OFFICIAL RECORDS UNDER INSTRUMENT NO. 19239. PORTION TO BE CONDITIONALLY VACATED.

KEY MAP



TITLE REPORT NOTE:

THE EXISTING EASEMENTS AND ENCUMBRANCES SHOWN ARE BASED UPON PRELIMINARY REPORT ORDER NO. NHSC-116148A-SD

40 20 0 40 80 120

SCALE: 1"=40'

VESTING TENTATIVE MAP FOR MIDWAY RISING

PROJECT DESIGN CONSULTANTS
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PROJECT ENGINEER: MARTIN J. JONES RCE: 78492
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Prepared By:
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Project Address:
3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title:
BOUNDARY, ENCUMBRANCES, & EXISTING CONDITIONS

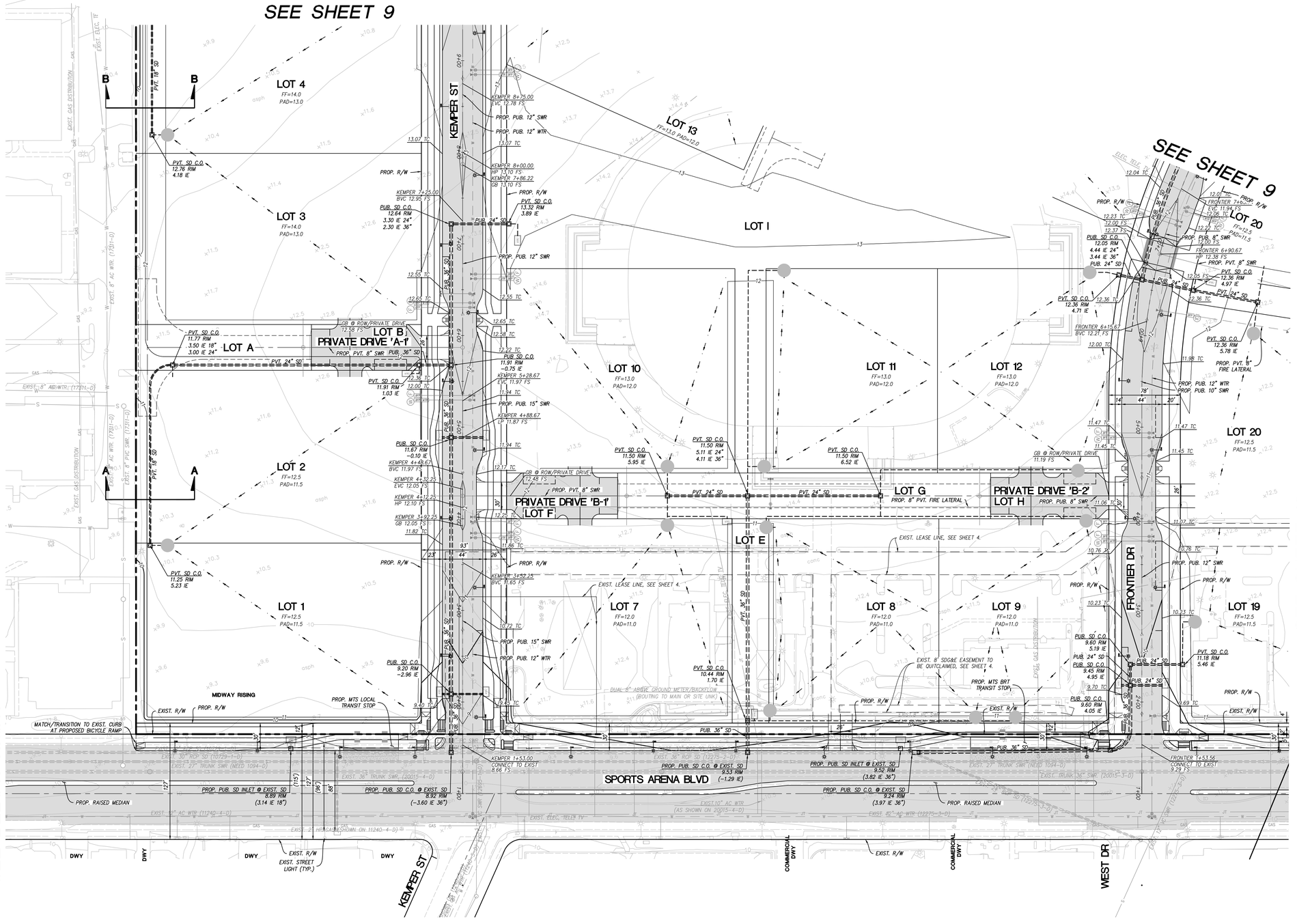
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Revision 9:	
Revision 8:	
Revision 7:	
Revision 6:	
Revision 5:	
Revision 4:	
Revision 3:	8/1/2024
Revision 2:	5/23/2024
Revision 1:	3/1/2024
Original Date:	10/27/2023

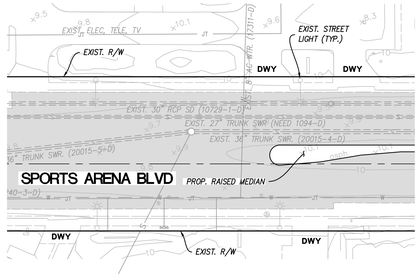
Sheet 7 of 23

PRJ # 1106734

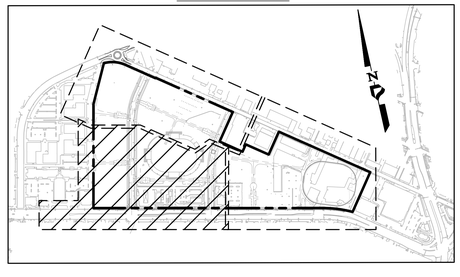
1856-6266 OCS83 COORDINATES
214-1701 LAMBERT COORDINATES

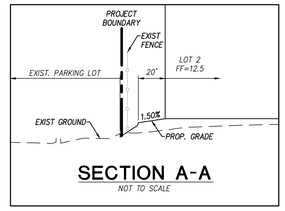
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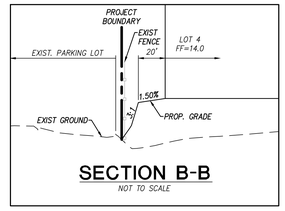


KEY MAP





SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

LEGEND

DESCRIPTION	SYMBOL
PROJECT BOUNDARY	
PROP. RIGHT OF WAY	
EXIST. FIRE HYDRANT	
PROP. FIRE HYDRANT	
PROP. FIRE SERVICE AND BACKFLOW PREVENTER	BFP LL
PROP. DOMESTIC WATER SERVICE, METER AND BACKFLOW PREVENTER	MTR BFP
PROP. MODULAR WETLAND UNIT	MWU
PROP. STORM DRAIN CLEAN-OUT	
PROP. STORM DRAIN INLET	
PROP. STORM DRAIN	
PROP. PRIVATE STORM DRAIN	
PROP. SEWER MANHOLE	
PROP. SEWER MAIN	S
PROP. WATER MAIN	W
PROP. STREET LIGHT	SL
PROP. PEDESTRIAN RAMP	
BIKE BUFFER, HARDSCAPE	
FOUND MONUMENT	
PROP. COMMERCIAL DRIVEWAY	
TRUNCATED DOMES (DETECTABLE WARNING)	
PROP. PRIVATE BIO-FILTRATION (DETAIL ON SHEET 9)	
BUS STOP SLAB	
PROPOSED MODIFICATION OF EXISTING TRAFFIC SIGNAL	

40 20 0 40 80 120
SCALE: 1"=40'

VESTING TENTATIVE MAP FOR MIDWAY RISING

PROJECT DESIGN CONSULTANTS
a BOWMAN company
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619.234.0349 Fax

PROJECT ENGINEER: MARTIN J. JONES RCE: 78492
DESIGN BY: GS/MJ/TA DRAWN BY: T. ARISTIDE CHECKED BY: M. JONES

Sheet Title: **GRADING, DRAINAGE, & BMP PLAN**

Prepared By:
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Address: 701 B STREET, SUITE 800
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Phone #: (619) 235-6471 Fax #: (619) 234-0349

Project Address:
3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

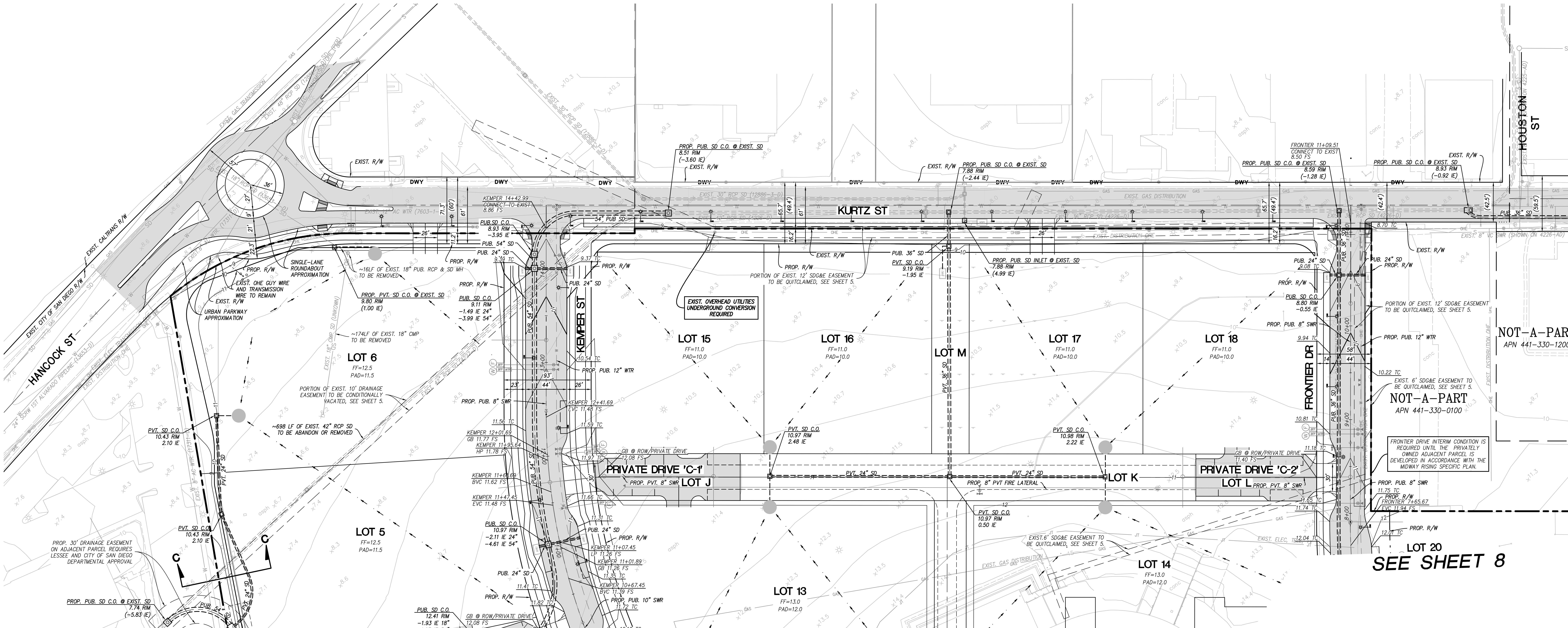
Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

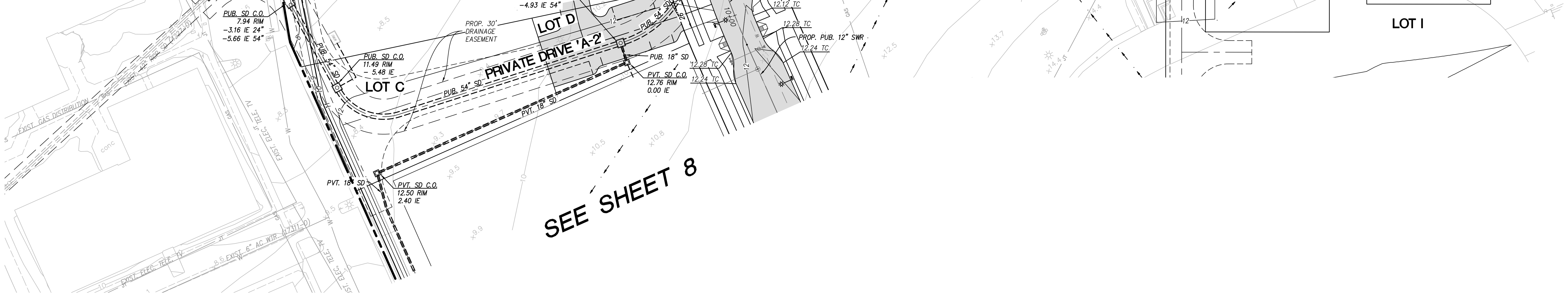
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Revision 9:	
Revision 8:	
Revision 7:	
Revision 6:	
Revision 5:	
Revision 4:	
Revision 3:	8/1/2024
Revision 2:	5/23/2024
Revision 1:	3/1/2024
Original Date:	10/27/2023

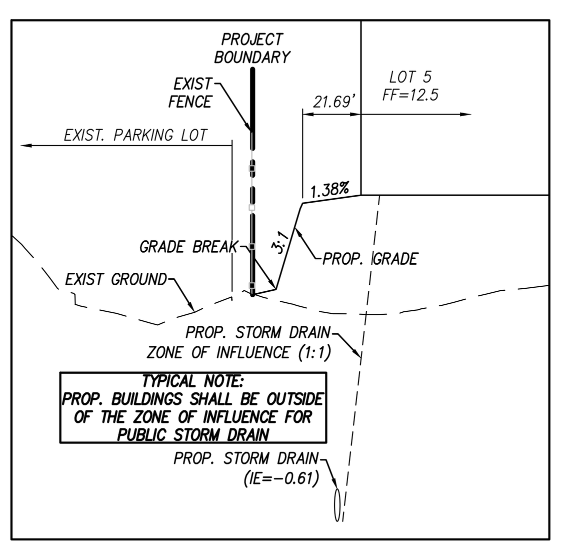
Sheet 8 of 23
PTS #

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

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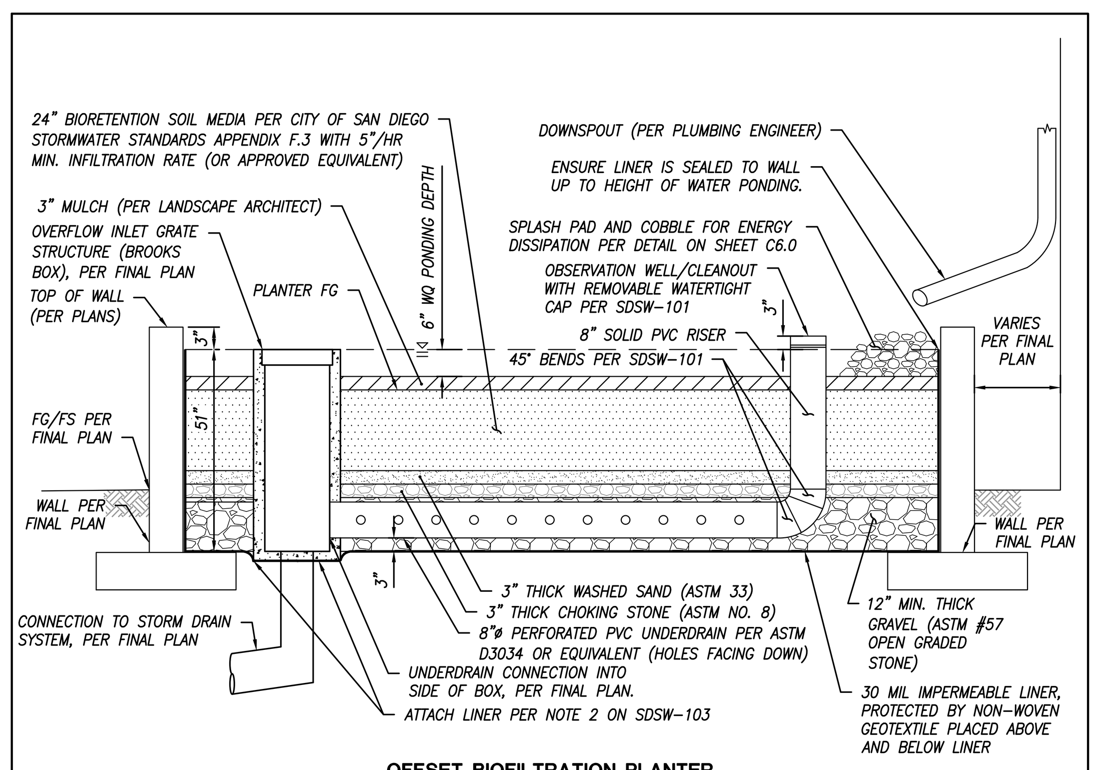


SECTION C-C

NOT TO SCALE

LEGEND

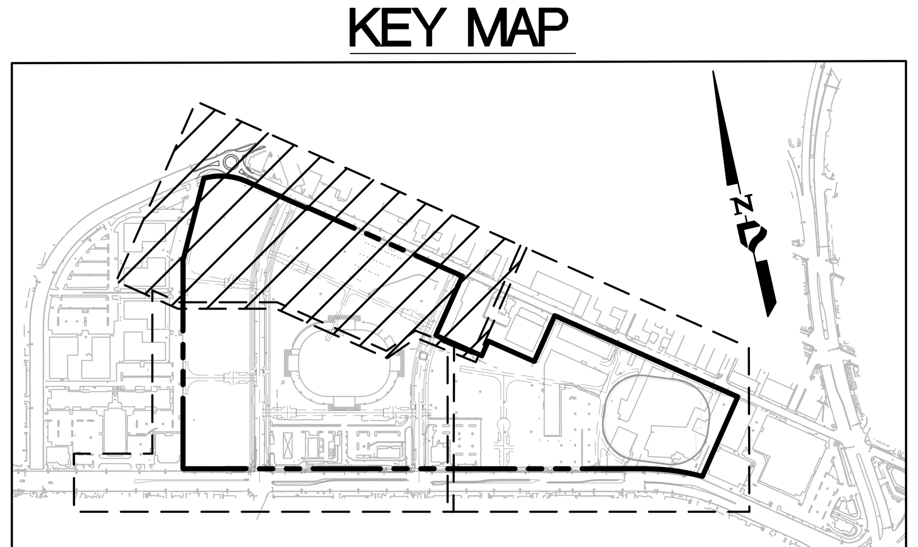
DESCRIPTION	SYMBOL
PROJECT BOUNDARY	
PROP. RIGHT OF WAY	
EXIST. FIRE HYDRANT	
PROP. FIRE HYDRANT	
PROP. FIRE SERVICE AND BACKFLOW PREVENTER	BFP F
PROP. DOMESTIC WATER SERVICE, METER AND BACKFLOW PREVENTER	MTR BFP W
PROP. MODULAR WETLAND UNIT	MWU
PROP. STORM DRAIN CLEAN-OUT	
PROP. STORM DRAIN INLET	
PROP. STORM DRAIN	
PROP. PRIVATE STORM DRAIN	
PROP. SEWER MANHOLE	
PROP. SEWER MAIN	
PROP. WATER MAIN	
PROP. STREET LIGHT	
PROP. PEDESTRIAN RAMP	
BIKE BUFFER, HARDSCAPE	
FOUND MONUMENT	
PROP. COMMERCIAL DRIVEWAY	
TRUNCATED DOMES (DETECTABLE WARNING)	
PROP. PRIVATE BIO-FILTRATION (DETAIL ON SHEET 9)	
BUS STOP SLAB	
PROPOSED MODIFICATION OF EXISTING TRAFFIC SIGNAL	



OFFSET BIOFILTRATION PLANTER TYPICAL CROSS SECTION DETAIL

NOT TO SCALE

KEY MAP



SCALE: 1"=40'

VESTING TENTATIVE MAP FOR MIDWAY RISING

PROJECT DESIGN CONSULTANTS
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701 B Street, Suite 800
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PROJECT ENGINEER: MARTIN J. JONES RCE: 78492
DESIGN BY: GS/MJ/TA DRAWN BY: T. ARISTIDE CHECKED BY: M. JONES

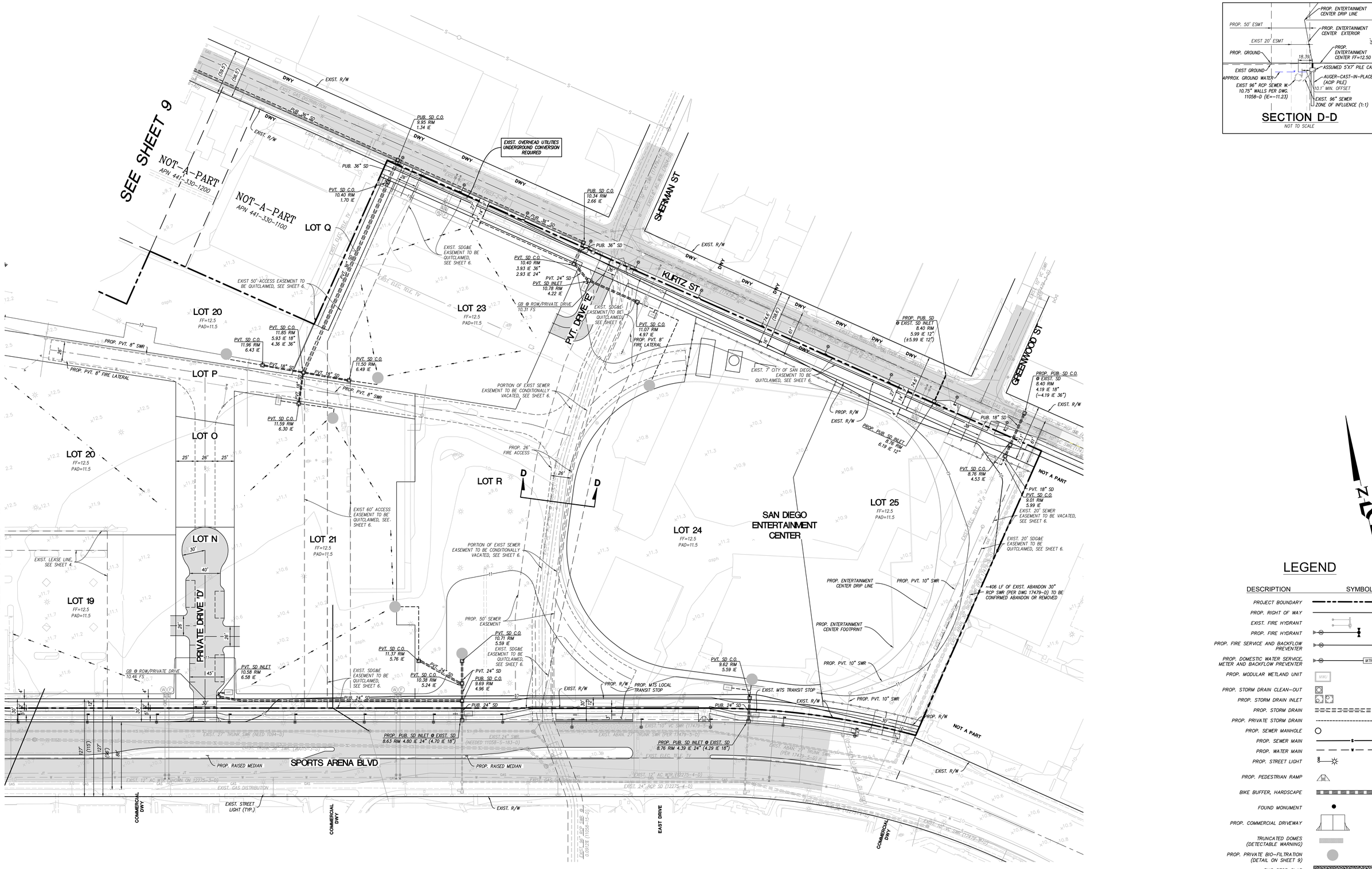
Prepared By:
Name: PROJECT DESIGN CONSULTANTS
Address: 701 B STREET, SUITE 800, SAN DIEGO, CA 92101
Phone #: (619) 235-6471 Fax #: (619) 234-0349
Project Address: 3500 SPORTS ARENA BLVD, SAN DIEGO, CA 92110
Project Name: MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title: GRADING, DRAINAGE, & BMP PLAN

Revision 10:
Revision 9:
Revision 8:
Revision 7:
Revision 6:
Revision 5:
Revision 4:
Revision 3: 8/1/2024
Revision 2: 5/23/2024
Revision 1: 3/1/2024
Original Date: 10/27/2023

Sheet 9 of 23
PTS #

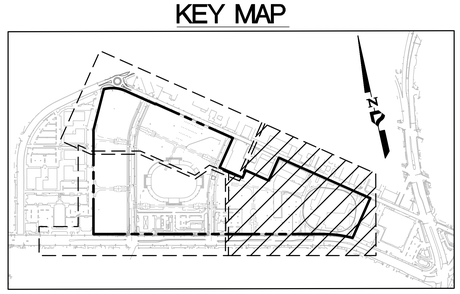
1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES



SECTION D-D

NOT TO SCALE

KEY MAP



LEGEND

DESCRIPTION	SYMBOL
PROJECT BOUNDARY	
PROP. RIGHT OF WAY	
EXIST. FIRE HYDRANT	
PROP. FIRE HYDRANT	
PROP. FIRE SERVICE AND BACKFLOW PREVENTER	BFP
PROP. DOMESTIC WATER SERVICE, METER AND BACKFLOW PREVENTER	MTR BFP
PROP. MODULAR WETLAND UNIT	MWU
PROP. STORM DRAIN CLEAN-OUT	
PROP. STORM DRAIN INLET	
PROP. STORM DRAIN	
PROP. PRIVATE STORM DRAIN	
PROP. SEWER MANHOLE	
PROP. SEWER MAIN	S
PROP. WATER MAIN	W
PROP. STREET LIGHT	
PROP. PEDESTRIAN RAMP	
BIKE BUFFER, HARDSCAPE	
FOUND MONUMENT	
PROP. COMMERCIAL DRIVEWAY	
TRUNCATED DOMES (DETECTABLE WARNING)	
PROP. PRIVATE BIO-FILTRATION (DETAIL ON SHEET 9)	
BUS STOP SLAB	
PROPOSED MODIFICATION OF EXISTING TRAFFIC SIGNAL	

40 20 0 40 80 120

SCALE: 1"=40'

VESTING TENTATIVE MAP FOR MIDWAY RISING

PROJECT DESIGN CONSULTANTS
a BOWMAN company
Planning | Landscape Architecture | Engineering | Survey
701 B Street, Suite 800
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619.235.6471 Tel
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PROJECT ENGINEER: MARTIN J. JONES RCE: 78492
DESIGN BY: GS/MJ/TA DRAWN BY: T. ARISTIDE CHECKED BY: M. JONES

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Project Address:
3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title:
GRADING, DRAINAGE, & BMP PLAN

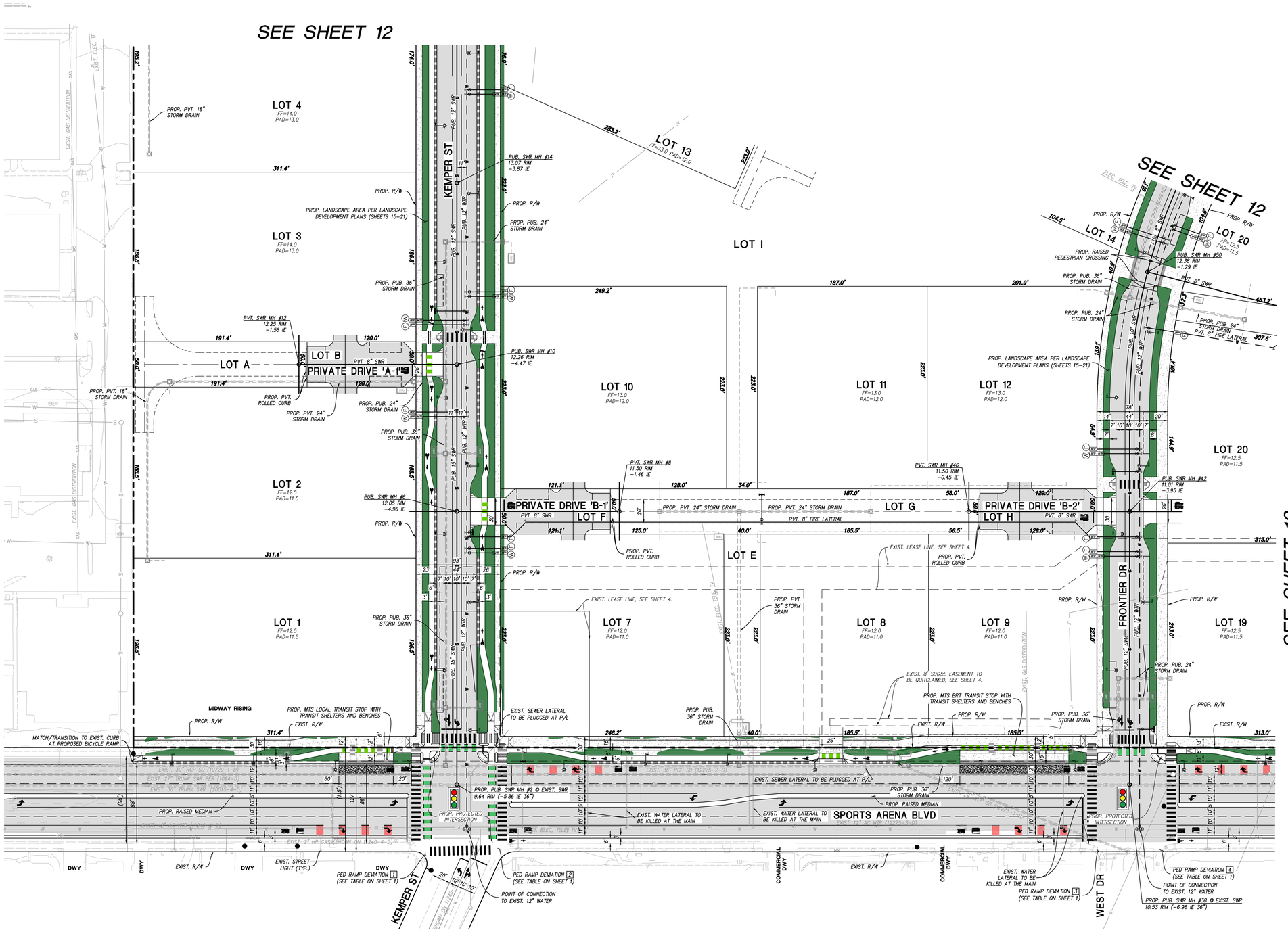
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Revision 9:	
Revision 8:	
Revision 7:	
Revision 6:	
Revision 5:	
Revision 4:	
Revision 3:	8/1/2024
Revision 2:	5/23/2024
Revision 1:	3/1/2024
Original Date:	10/27/2023

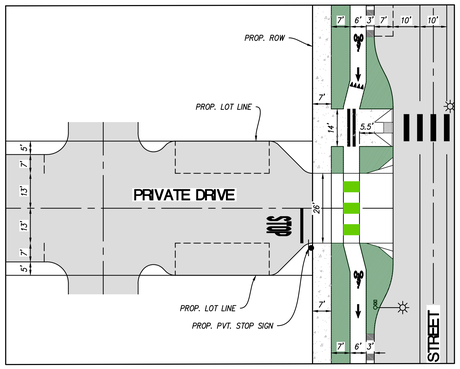
Sheet 10 of 23

PTS #

1856-6266 CCSD83 COORDINATES
214-1701 LAMBERT COORDINATES

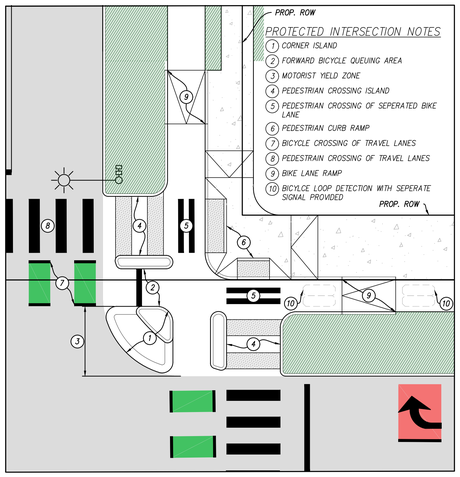
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PRIVATE DRIVE TO RIGHT OF WAY DETAIL (TYP)

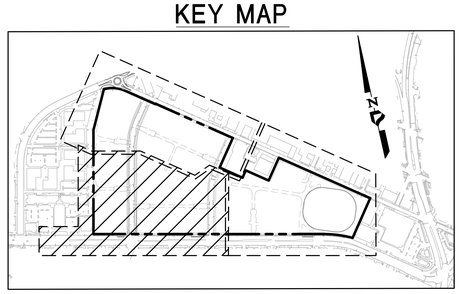
SCALE: 1" = 20'



PROTECTED INTERSECTION DETAIL (TYP)

SCALE: 1" = 10'

KEY MAP



LEGEND

DESCRIPTION	SYMBOL
PROJECT BOUNDARY	
PROP. RIGHT OF WAY	
EXIST. FIRE HYDRANT	
PROP. FIRE HYDRANT	
PROP. FIRE SERVICE AND BACKFLOW PREVENTER	BFP LL
PROP. DOMESTIC WATER SERVICE, METER AND BACKFLOW PREVENTER	MTR BFP
PROP. MODULAR WETLAND UNIT	MWU
PROP. STORM DRAIN CLEAN-OUT	
PROP. STORM DRAIN INLET	
PROP. STORM DRAIN	
PROP. PRIVATE STORM DRAIN	
PROP. SEWER MANHOLE	
PROP. SEWER MAIN	S
PROP. WATER MAIN	W
PROP. STREET LIGHT	
PROP. PEDESTRIAN RAMP	
BIKE BUFFER, HARDSCAPE	
FOUND MONUMENT	
PROP. COMMERCIAL DRIVEWAY	
TRUNCATED DOMES (DETECTABLE WARNING)	
PROP. PRIVATE BIO-FILTRATION (DETAIL ON SHEET 9)	
BUS STOP SLAB	
PROPOSED MODIFICATION OF EXISTING TRAFFIC SIGNAL	

NOTES:

1. ALL EGRESS FROM PRIVATE DRIVEWAYS WILL BE STOP CONTROLLED AT THE PUBLIC RIGHT OF WAY. SEE TYPICAL DETAIL OF PRIVATE DRIVEWAYS TO ROW ON SHEET 11.
2. WATER METER LOCATIONS SHOWN ARE SCHEMATIC. WATER METER TO BE LOCATED IN RIGHT OF WAY OR AN EASEMENT SHALL BE PROVIDED AT FINAL ENGINEERING.
3. GREEN STREET ELEMENTS WILL BE INCORPORATED INTO THE IMPROVEMENT FOR SPORTS ARENA BLVD. INCLUDING A COMBINATION OF DISPERSION, STREET TREES, AND/OR MODULAR WETLAND UNITS.

40 20 0 40 80 120

SCALE: 1"=40'

VESTING TENTATIVE MAP FOR MIDWAY RISING

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PROJECT ENGINEER: MARTIN J. JONES RCE: 78492
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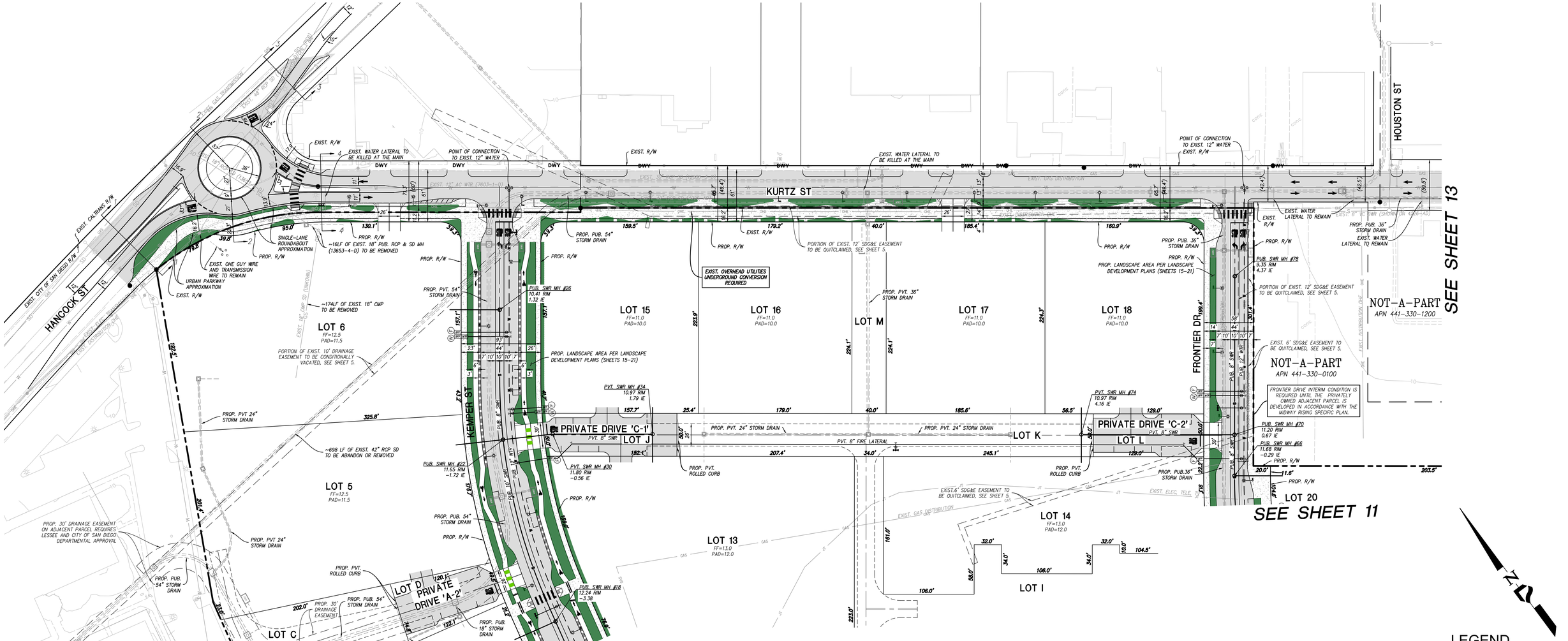
Prepared By:
Name: PROJECT DESIGN CONSULTANTS
Address: 701 B STREET, SUITE 800
SAN DIEGO, CA 92101
Phone #: (619) 235-6471 Fax #: (619) 234-0349
Project Address:
3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title:
LOTS, STREETS, SEWER AND WATER PLAN

Revision 10:	
Revision 9:	
Revision 8:	
Revision 7:	
Revision 6:	
Revision 5:	
Revision 4:	
Revision 3:	8/1/2024
Revision 2:	5/23/2024
Revision 1:	3/1/2024
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Sheet	11 of 23
PTS #	
1856-6266	214-1701
CCS83 COORDINATES	LAMBERT COORDINATES

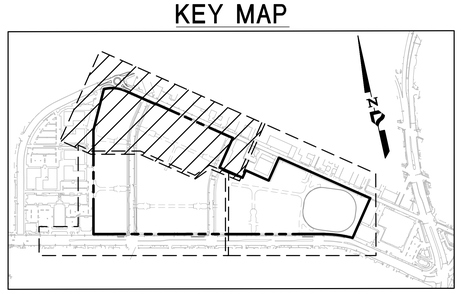
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NOTES:

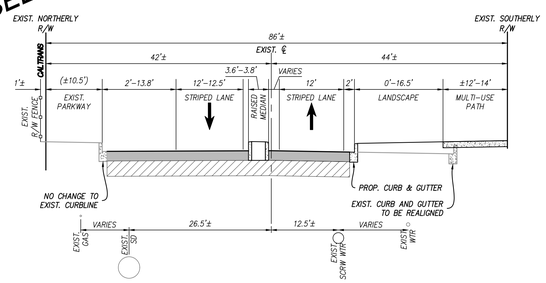
1. ALL EGRESS FROM PRIVATE DRIVEWAYS WILL BE STOP CONTROLLED AT THE PUBLIC RIGHT OF WAY. SEE TYPICAL DETAIL OF PRIVATE DRIVEWAYS TO ROW ON SHEET 11.
2. WATER METER LOCATIONS SHOWN ARE SCHEMATIC. WATER METER TO BE LOCATED IN RIGHT OF WAY OR AN EASEMENT SHALL BE PROVIDED AT FINAL ENGINEERING.
3. GREEN STREET ELEMENTS WILL BE INCORPORATED INTO THE IMPROVEMENT FOR KURTZ STREET AND HANCOCK STREET. INCLUDING A COMBINATION OF DISPERSION, STREET TREES, AND/OR MODULAR WETLAND UNITS.

KEY MAP



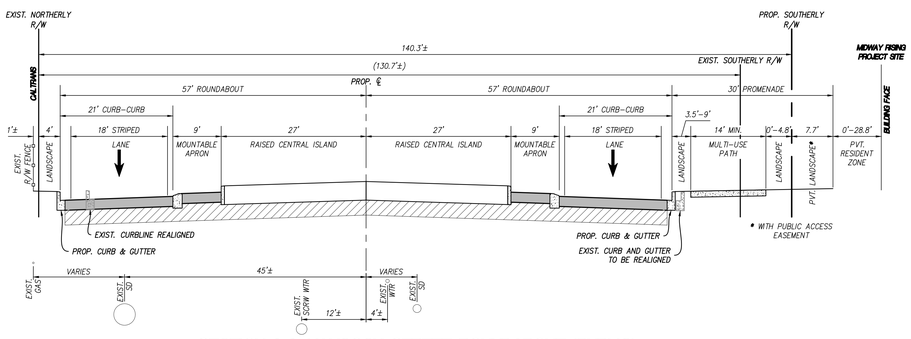
SECTION 1-1: HANCOCK STREET (PUBLIC)

(NOT TO SCALE)



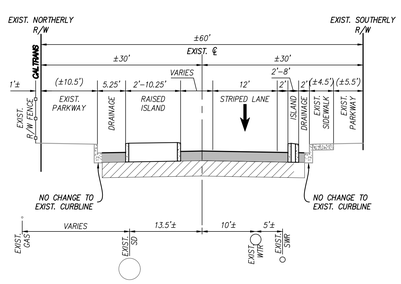
SECTION 2-2: HANCOCK STREET ROUNDABOUT (PUBLIC)

(NOT TO SCALE)



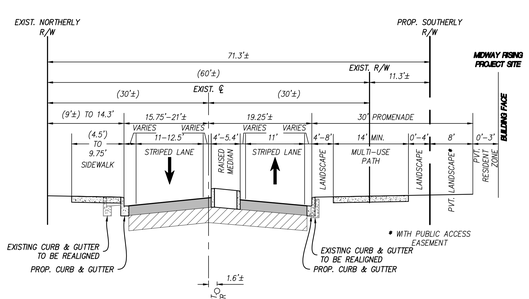
SECTION 3-3: HANCOCK STREET (PUBLIC)

(NOT TO SCALE)



SECTION 4-4: KURTZ STREET (PUBLIC)

(NOT TO SCALE)



LEGEND

DESCRIPTION	SYMBOL
PROJECT BOUNDARY	
PROP. RIGHT OF WAY	
EXIST. FIRE HYDRANT	
PROP. FIRE HYDRANT	
PROP. FIRE SERVICE AND BACKFLOW PREVENTER	BFP LL
PROP. DOMESTIC WATER SERVICE, METER AND BACKFLOW PREVENTER	MTR BFP W
PROP. MODULAR WETLAND UNIT	MWU
PROP. STORM DRAIN CLEAN-OUT	
PROP. STORM DRAIN INLET	
PROP. STORM DRAIN	
PROP. PRIVATE STORM DRAIN	
PROP. SEWER MANHOLE	
PROP. SEWER MAIN	
PROP. WATER MAIN	
PROP. STREET LIGHT	
PROP. PEDESTRIAN RAMP	
BIKE BUFFER, HARDSCAPE	
FOUND MONUMENT	
PROP. COMMERCIAL DRIVEWAY	
TRUNCATED DOMES (DETECTABLE WARNING)	
PROP. PRIVATE BIO-FILTRATION (DETAIL ON SHEET 9)	
BUS STOP SLAB	
PROPOSED MODIFICATION OF EXISTING TRAFFIC SIGNAL	

40 20 0 40 80 120

SCALE: 1"=40'

VESTING TENTATIVE MAP FOR MIDWAY RISING

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a BOWMAN company
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DESIGN BY: GS/MJ/TA DRAWN BY: T. ARISTIDE CHECKED BY: M. JONES

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SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title:
LOTS, STREETS, SEWER AND WATER PLAN

Revision 10:	
Revision 9:	
Revision 8:	
Revision 7:	
Revision 6:	
Revision 5:	
Revision 4:	
Revision 3:	8/1/2024
Revision 2:	5/23/2024
Revision 1:	3/1/2024
Original Date:	10/27/2023

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PTS #

1856-6266 CCSB3 COORDINATES
214-1701 LAMBERT COORDINATES

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SEE SHEET 12

SEE SHEET 11

NOT-A-PART
APN 441-330-1200

NOT-A-PART
APN 441-330-1100

LOT Q

LOT 20
FF=12.5
PAD=11.5

LOT 23
FF=12.5
PAD=11.5

LOT P

LOT O

LOT 20
FF=12.5
PAD=11.5

LOT N

LOT 19
FF=12.5
PAD=11.5

PRIVATE DRIVE 'D'

LOT 21
FF=12.5
PAD=11.5

LOT R

LOT 24
FF=12.5
PAD=11.5

SAN DIEGO ENTERTAINMENT CENTER

LOT 25
FF=12.5
PAD=11.5

SHERMAN ST

KURTZ ST

PVT. DRIVE 'E'

GREENWOOD ST

SPORTS ARENA BLVD

NOT A PART

PROP. PUB. 36" STORM DRAIN

EXIST. R/W

EXIST. WATER LATERAL TO REMAIN

EXIST. GAS DISTRIBUTION

EXIST. WATER LATERAL TO BE KILLED AT THE MAIN

POINT OF CONNECTION TO EXIST. 12" WATER

EXIST. PUB. 96" INTERCEPTOR SEWER PER (11058-15-D)

EXIST. OVERHEAD UTILITIES UNDERGROUND CONVERSION REQUIRED

PED RAMP DEVIATION 7 (SEE TABLE ON SHEET 1)

PROP. PVT. 36" STORM DRAIN

EXIST. SDG&E EASEMENT TO BE QUITCLAIMED, SEE SHEET 6.

EXIST 50' ACCESS EASEMENT TO BE QUITCLAIMED, SEE SHEET 6.

PROP. PUB. 36" STORM DRAIN

PROP. PVT. 24" STORM DRAIN

EXIST. SDG&E EASEMENT TO BE QUITCLAIMED, SEE SHEET 6.

PED RAMP DEVIATION 8 (SEE TABLE ON SHEET 1)

EXIST. WATER LATERAL TO BE KILLED AT THE MAIN

POINT OF CONNECTION TO EXIST. 12" WATER

EXIST. 7' CITY OF SAN DIEGO EASEMENT TO BE QUITCLAIMED, SEE SHEET 6.

PED RAMP DEVIATION 9 (SEE TABLE ON SHEET 1)

POINT OF CONNECTION TO EXIST. 12" WATER

PED RAMP DEVIATION 10 (SEE TABLE ON SHEET 1)

PROP. PUB. 24" STORM DRAIN

EXIST. CAPPED WATER LATERAL TO REMAIN

PROP. ENTERTAINMENT CENTER BACK OF HOUSE GATE WITH FIRE DEPT. KNOX BOX

PROP. PUB. 24" STORM DRAIN

EXIST. WATER LATERAL TO BE KILLED AT THE MAIN

PROP. R/W

EXIST. R/W

PVT. SWR MH #54
11.86 RIM
0.43 IE

PVT. 8" SWR

PVT. 8" FIRE LATERAL

PROP. PVT. 18" STORM DRAIN

PVT. SWR MH #58
11.89 RIM
3.08 IE

PVT. SWR MH #62
11.51 RIM
5.43 IE

PROP. 50' SEWER EASEMENT

PROP. 26' FIRE ACCESS

PROP. PVT. ROLLED CURB

EXIST. LEASE LINE, SEE SHEET 4.

EXIST 60' ACCESS EASEMENT TO BE QUITCLAIMED, SEE SHEET 6.

EXIST. PUB. 96" INTERCEPTOR SEWER PER (11058-15-D)

PORTION OF EXIST SEWER EASEMENT TO BE CONDITIONALLY VACATED, SEE SHEET 6.

PROP. 50' SEWER EASEMENT

EXIST. SDG&E EASEMENT TO BE QUITCLAIMED, SEE SHEET 6.

PROP. LANDSCAPE AREA PER LANDSCAPE DEVELOPMENT PLANS (SHEETS 15-21)

PROP. PVT. 24" STORM DRAIN

EXIST. PUB. SWR MH #98 (-2.43 IE 10")

PROP. MTS LOCAL TRANSIT STOP WITH TRANSIT SHELTERS AND BENCHES

EXIST. MTS TRANSIT STOP

PROP. PVT. ROLLED CURB

EXIST. SEWER LATERAL TO BE PLUGGED AT P/L

EXIST. 27" TRUNK SWR PER (1094-D)

EXIST. 10" VC SWR (11479-5-D)

EXIST. 24" RCP SD (12275-4-D)

EXIST. PUB. SWR MH #102 (-5.84 IE 10")

EXIST. FIRE LATERAL TO BE KILLED AT THE MAIN

PROP. RAISED MEDIAN

EXIST. 12" AC WTR (12275-4-D)

EXIST. 24" RCP SD (12275-3-D)

EXIST. GAS DISTRIBUTION

EXIST. WATER LATERAL TO BE KILLED AT THE MAIN

POINT OF CONNECTION TO EXIST. 12" WATER

EXIST. STREET LIGHT (TYP.)

COMMERCIAL DWY

PED RAMP DEVIATION 5 (SEE TABLE ON SHEET 1)

EAST DRIVE

PED RAMP DEVIATION 6 (SEE TABLE ON SHEET 1)

EXIST. WATER LATERAL TO BE KILLED AT THE MAIN

EXIST. PUB. 96" INTERCEPTOR SEWER PER (11058-15-D)

PROP. PUB. SWR MH #94 @ EXIST. SWR
9.27 RIM (-1.27 IE 10")

PVT. SWR MH #92
10.50 RIM
5.79 IE

EXIST. 20' SEWER EASEMENT TO BE VACATED, SEE SHEET 6.

EXIST. 20' SDG&E EASEMENT TO BE QUITCLAIMED, SEE SHEET 6.

~406 LF OF EXIST. ABANDON 30" RCP SWR (PER DWG 17479-D) TO BE CONFIRMED ABANDON OR REMOVED

PROP. ENTERTAINMENT CENTER DRIP LINE

PROP. ENTERTAINMENT CENTER FOOTPRINT

PVT. SWR MH #90
11.03 RIM
-0.14 IE

PVT. SWR MH #86
11.03 RIM
1.79 IE

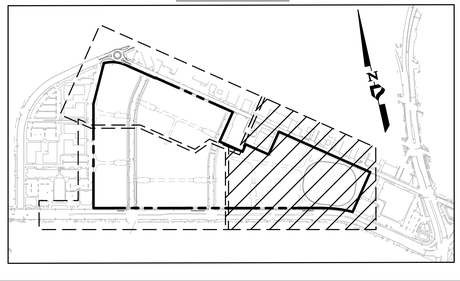
PVT. 10" SWR

PROP. ENTERTAINMENT CENTER BACK OF HOUSE GATE WITH FIRE DEPT. KNOX BOX

EXIST. WATER LATERAL TO BE KILLED AT THE MAIN

PROP. PUB. SWR MH #94 @ EXIST. SWR
9.27 RIM (-1.27 IE 10")

KEY MAP



LEGEND

DESCRIPTION	SYMBOL
PROJECT BOUNDARY	
PROP. RIGHT OF WAY	
EXIST. FIRE HYDRANT	
PROP. FIRE HYDRANT	
PROP. FIRE SERVICE AND BACKFLOW PREVENTER	BFP
PROP. DOMESTIC WATER SERVICE, METER AND BACKFLOW PREVENTER	MTR BFP
PROP. MODULAR WETLAND UNIT	MWU
PROP. STORM DRAIN CLEAN-OUT	
PROP. STORM DRAIN INLET	
PROP. STORM DRAIN	
PROP. PRIVATE STORM DRAIN	
PROP. SEWER MANHOLE	
PROP. SEWER MAIN	
PROP. WATER MAIN	
PROP. STREET LIGHT	
PROP. PEDESTRIAN RAMP	
BIKE BUFFER, HARDSCAPE	
FOUND MONUMENT	
PROP. COMMERCIAL DRIVEWAY	
TRUNCATED DOMES (DETECTABLE WARNING)	
PROP. PRIVATE BIO-FILTRATION (DETAIL ON SHEET 9)	
BUS STOP SLAB	
PROPOSED MODIFICATION OF EXISTING TRAFFIC SIGNAL	

NOTES:

1. ALL EGRESS FROM PRIVATE DRIVEWAYS WILL BE STOP CONTROLLED AT THE PUBLIC RIGHT OF WAY. SEE TYPICAL DETAIL OF PRIVATE DRIVEWAYS TO ROW ON SHEET 11.
2. WATER METER LOCATIONS SHOWN ARE SCHEMATIC. WATER METER TO BE LOCATED IN RIGHT OF WAY OR AN EASEMENT SHALL BE PROVIDED AT FINAL ENGINEERING.
3. GREEN STREET ELEMENTS WILL BE INCORPORATED INTO THE IMPROVEMENT FOR KURTZ STREET AND SPORTS ARENA BLVD. INCLUDING A COMBINATION OF DISPERSION, STREET TREES, AND/OR MODULAR WETLAND UNITS.

40 20 0 40 80 120
SCALE: 1"=40'

VESTING TENTATIVE MAP FOR
MIDWAY RISING

PROJECT DESIGN CONSULTANTS
a BOWMAN company
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Sheet Title:
LOTS, STREETS, SEWER AND WATER PLAN

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3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Revision 10:
Revision 9:
Revision 8:
Revision 7:
Revision 6:
Revision 5:
Revision 4:
Revision 3: 8/1/2024
Revision 2: 5/23/2024
Revision 1: 3/1/2024

Original Date: 10/27/2023

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PTS #

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

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UCFD 107' Aerial Ladder Pierce Arrow XT

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 45.0

LEGEND

- EXISTING PUBLIC FIRE HYDRANT
- PROPOSED PUBLIC FIRE HYDRANT
- XX' PROPOSED HOSE PULL LENGTH
- PROPOSED COMMERCIAL DRIVEWAY
- PROPOSED RED CURB
- PROPOSED EMERGENCY VEHICLE ACCESS
- PROPOSED AERIAL FIRE ACCESS ROAD
- PROPOSED ROOF ACCESS STAIRWELL

100 50 0 100 200 300

SCALE: 1"=100'

VESTING TENTATIVE MAP FOR MIDWAY RISING

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SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title:
FIRE ACCESS PLAN

Revision 10:
Revision 9:
Revision 8:
Revision 7:
Revision 6:
Revision 5:
Revision 4:
Revision 3: 8/1/2024
Revision 2: 5/23/2024
Revision 1: 3/1/2024

Original Date: 10/27/2023

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PRJ # 1106734

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

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LEGEND

DESCRIPTIONS

- PROJECT BOUNDARY
- RIGHT OF WAY
- LOT LINES
- MATCH LINES
- PARK BOUNDARIES
- FIRE LANE
- UTILITY EASEMENT

NOTE:
BOUNDARY OF PARK LAND IS SUBJECT TO CHANGE BASED ON THE TERMS OF THE SPECIFIC PLAN AND FINALIZATION OF THE VTTM

VESTING TENTATIVE MAP FOR
MIDWAY RISING

OJB

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Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title:
LANDSCAPE DEVELOPMENT PLAN

Revision 10:
Revision 9:
Revision 8:
Revision 7:
Revision 6:
Revision 5:
Revision 4:
Revision 3: 8/1/2024
Revision 2: 5/23/2024
Revision 1: 3/1/2024

Original Date: 10/27/2023

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PRJ # 1106734

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

SPORTS ARENA BOULVEARD

Sports Arena Boulevard will undergo improvements to meet the requirements of the Midway Pacific Highway Community Plan (CPU) and city code requirements, with respect to land use, mobility and sustainability. Improvements should include a promenade, which would enhance pedestrian and bicycle experience and connectivity. The promenade may include a 12' wide multi-modal bike and pedestrian path, which would also serve as the Bay-To-Bay Urban Path on Sports Arena Boulevard. The path may meander through the promenade, maintaining a 12' clear path of travel. The path should be composed of standard pedestrian rated concrete, with enhanced paving at plazas and intersections. A double-row of street trees should conform with the CPU street tree requirements for the Bay-to-Bay Urban Path. Planting areas should vary in size and location throughout the Promenade. Additional amenities should be placed within the promenade to activate and enrich the space. Such amenities may include small plazas and seating areas with enhanced paving, stabilized decomposed granite gravel and fixed seating. Pedestrian amenities such as trash and recycling receptacles, etc will be located at a minimum of 1 for every 250 feet of street frontage. Opportunities for public art should be accommodated within the streetscape. For short-term bike parking, bike racks should be provided along Sports Arena Boulevard and dispersed evenly throughout the property. In addition to code required roadway lights (per civil), pedestrian-scaled lighting fixtures should be provided within the promenade to create a safe and walkable environment. Bus stops - local and BRT - would be located on Sports Arena Boulevard, providing essential mobility linkages (per traffic engineers). Shaded and enhanced bus stops are encouraged. To further optimize mobility, an additional 6' wide bike path and a 3' buffer should be provided along the curb.

KURTZ STREET

Kurtz Street should undergo improvements to meet the requirements of the Midway Pacific Highway Community Plan (CPU) and city code requirements, with respect to land use, mobility and sustainability. Improvements should include a promenade on the south side of the street, which would enhance pedestrian and bicycle experience and connectivity. The promenade may include a 12' wide multi-modal bike and pedestrian path. The path may meander through the promenade, maintaining a 12' clear path of travel. The path should be composed of standard pedestrian-rated standard concrete, with enhanced paving at plazas and intersections. Truncated dome pavers will be necessary at all locations where the path meets a driveway or street intersection. Additionally, the promenade would include shade trees in planting areas. Planting areas should vary in size and location. Additional amenities and park features should be placed within the promenade to activate and enrich the space. Such amenities may include small plazas and seating areas with enhanced paving, decomposed granite gravel and fixed seating. Children's play elements, fitness stations, and small lawn areas may be included within the promenade. Opportunities for public art should be accommodated within the streetscape. Bike racks should be provided for short-term bicycle parking in multiple locations. In addition to code required roadway lights (per civil), pedestrian-scaled lighting fixtures should be provided within the promenade to create a safe and walkable environment. Interpretive and wayfinding signage may be provided within the promenade to enhance the walkability and to optimize accessibility through the project site.

FRONTIER DRIVE

Frontier Drive is a new retail-oriented street that would provide connectivity, promote walkability and ease of access for cyclists. Improvements should include a promenade on the east side of the street, which includes a 12' wide multi-modal bike and pedestrian path. All paving along Frontier Drive should consist of enhanced paving with a mix of colored concrete and/or unit pavers. The multi-modal path should be buffered from the street by a generous furnishings zone, which should include a range of park amenities recommended in the CPU, including fixed seating, bike racks and interpretive and wayfinding signage, small decomposed granite plazas, and planting areas. Opportunities for public art should be accommodated within the streetscape. Additionally, the promenade would include shade trees, located in planting areas and in tree grates. A retail frontage zone will be included within the promenade, which should serve as a space for outdoor cafe seating. The streetscape on the west side of Frontier Drive should include a parkway consisting of a 7' clear walkway and a 7' wide furnishing/planting zone. The walkway should be made up of pedestrian-rated enhanced paving, and the furnishings zone should include fixed and movable seating, bike racks, lighting, planting areas and shade trees. For stormwater quality, at-grade water quality treatment features such as modular wetlands should be provided (per civil) within the streetscape. These features may be enhanced with decorative aggregate and boulders to create a visually pleasing streetscape aesthetic. Interpretive and wayfinding signage may be provided within the promenade to optimize accessibility through the project site and create a sense of place.



KEMPER STREET

Kemper Street is a new residential-oriented street that should enhance circulation for pedestrians and cyclists at the community scale. Class IV cycle tracks should be provided on both east and west sides of the street. On the east side of Kemper, this cycle track is buffered from vehicular traffic, within the Promenade. The Promenade should also include a range of park amenities recommended in the CPU, including fixed seating, bike racks and interpretive and wayfinding signage, small decomposed granite plazas, small lawn areas and planting. Opportunities for public art should be accommodated within the streetscape. The pedestrian pathway within the Promenade should be composed of standard pedestrian rated standard concrete, with enhanced paving at plazas and intersections. Additionally, the Promenade should include shade trees in planting areas. Planting areas should vary in size and location. The streetscape on the west side of Frontier Street should include a parkway consisting of a 7' clear walkway and a 7' wide furnishing zone which may include include fixed and movable seating, bike racks, lighting, planting areas and shade trees in planting and in tree grates. The walkway should be made up of pedestrian-rated enhanced paving. For stormwater quality, at-grade water quality treatment features such as modular wetlands should be provided (per civil) within the streetscape.

PASEO GREENS

Paseo Greens are residential-focused park spaces located at the ground level of residential housing blocks. These paseos are planned to accommodate park amenities and enhance connectivity for the residential community. The Paseo Greens should include shade trees, lawn areas, planting, decomposed granite gravel, and pedestrian walkways with enhanced paving. Individually they should vary in character and may have enhancements such as children's play areas, gated dog runs, shade structures and seating areas. Smaller recreational opportunities such as bocce ball, basketball, fitness stations, game tables and movable furnishings should also be considered. Water quality basins will be strategically incorporated within Paseo Green planting areas in an effort to meet stormwater quality regulations. Ground floor units shall have a private patio space surrounded with a low masonry wall or ornamental fencing (not shown) with planting and paving as required. In some instances, fire access lanes are located within the Paseo Greens. The 26' wide fire lanes should be composed of vehicular-rated enhanced paving, Grasspave and/or Gravelpave - drivable surface products that offer a softer alternative to traditional hardscape. These products enable turf grass and stabilized decomposed granite gravel to be placed within the fire lane, creating space for play, seating and activation. Pedestrian walkways of standard concrete allow for walkability through the greens. Ornamental and shade trees should line the walkways to provide visual screening of the residences. Paseo Greens sit adjacent to private drives which contain parallel parking spaces for leasing visitors and for moving truck loading and unloading. Private drives should consist of asphalt paving or concrete (per civil) with standard raised driveway curbs.

PASEO GREENWAYS

Paseo Greenways are usable park spaces that also serve as fire lanes or for emergency access. The 26' wide fire lanes should be composed of vehicular-rated enhanced paving, Grasspave and/or Gravelpave - drivable surface products that offer a softer alternative to traditional hardscape. These products enable turf grass and decomposed granite gravel to be placed within the fire lane, creating flexible spaces for play, seating and activation. Pedestrian walkways of standard concrete allow for walkability through the greenways. Ornamental and shade trees should line the walkways to provide visual screening of the residences. Small seating areas and plazas should be located within the Paseo Greenways. Paved with decomposed granite gravel, they may include amenities such as small play features, fire features, and movable and fixed seating. Ground floor units shall have a private patio space surrounded with a low masonry wall or ornamental fencing (not shown) with planting and paving as required. Residential parking garage access off Frontier and Kemper are located via Private Drives at ends of the Paseo Greenways. Private drives contain parallel parking spaces to accommodate leasing visitors and for moving truck loading and unloading. Private drives should consist of asphalt paving or concrete (per civil) with standard raised driveway curbs. Pedestrian walkways of pedestrian-rated concrete should be implemented on both sides of the private drives.

THE GREEN

The Green is a neighborhood park, composed of park program elements and amenities tailored toward community and residential uses. The park should be welcoming for residents and the public, promoting community cohesion, providing space for children and pets to play, while accommodating events of varying scales. The park may include open multi-use lawns to allow for free-play activities like pick-up soccer and frisbee, movie nights and outdoor yoga classes, or other flexible uses. Children's play areas should be outfitted with play equipment, nature play elements and small water play features. For day-to-day activation, the park may include game tables, swings, and public art to welcome park-goers. Plaza spaces should be provided as central zones to accommodate community events. These plaza spaces may be composed of enhanced paving with public art and/or architectural shade structures. A well-designed public restroom/storage facility with drinking fountains should be provided within the park. A series of wide, generous walkways consisting of pedestrian-rated enhanced paving should be provided along the perimeter of the park, allowing for seamless walkability to residences and park features. A multi-modal path should be provided within the park to allow for bicycles to traverse through The Green. Shade trees should be abundantly located throughout the park to provide shade and an aesthetically pleasing atmosphere. Planting areas should be provided for visual screening where necessary, creating a leisurely park atmosphere. Ground floor units shall have a private patio space surrounded with a masonry wall or ornamental fencing with planted landscape buffers to clearly separate patios from park areas.

THE PLAZA

The Plaza is designed as an experiential restaurant and retail experience, fronted with al fresco dining patios and public plaza amenities. The Plaza acts as a primary pedestrian connector between the Square and the Green - the two largest public parks on site. The Plaza may be made up of pedestrian-rated and vehicular-rated concrete unitized pavers. Small lawn areas and performance spaces may be provided within the Plaza, softened by stabilized decomposed granite seating terraces and cooled by interactive water features. Seating areas for dining and leisure will spill out from beneath architectural canopies, creating a strong indoor-outdoor connection. Retail and lobby entries will be graciously planted to allow for a welcoming entrance. Large shade trees should be liberally placed throughout the Plaza, creating a green and verdant atmosphere. A 26' wide portion of the Plaza that is designated for vehicular fire access will contain only movable furnishings, with no fixed furnishings or trees. Other amenities within the Plaza may include fixed and movable seating, shade structures and bicycle racks, to create a functional, welcoming and vibrant public realm open space.

THE SQUARE

The Square should be a vibrant and highly activated public plaza for outdoor cultural, and community events. The Square is located directly adjacent to the arena, and is scaled to accomodate large quantities of event attendees. Public programming and entertainment opportunities should be accomodated within the Square. The Square should serve as a large, dynamic plaza space composed of pedestrian-rated and vehicle-rated enhanced concrete unit pavers. Lighting, power and event infrastructure should be provided within the Square to power food trucks, outdoor concerts, and other programming activities with electrical needs. Shade structures, performance pavilion and an outdoor performance stage may be provided within the Square. Public art in the form of wall murals, sculptures and interpretive graphics may be included within the Square. An interactive water feature may be provided within the Square to provide interest and foster community. Fixed and moveable seating will be provided in the Square. Planting areas with large shade trees will be strategically located to provide shade, buffer noise, frame and soften views where necessary. A 26' wide fire access lane will be provided through the Square to access the arena and adjacent buildings. The fire access lane may be composed of a combination of vehicular-rated enhanced paving. A gracious bicycle path shall be provided through the Square.

VESTING TENTATIVE MAP FOR
MIDWAY RISING

OJB

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3500 SPORTS ARENA BLVD
SAN DIEGO, CA 92110

Project Name:
MIDWAY RISING
TENTATIVE MAP NO. 3258589
LAND USE PLAN NO. 3258590

Sheet Title:
LANDSCAPE DEVELOPMENT PLAN

Revision 10:
Revision 9:
Revision 8:
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Revision 6:
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Revision 4:
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PRJ # 1106734

1856-6266 CCS83 COORDINATES
214-1701 LAMBERT COORDINATES

PLANTS LEGEND

Native and adaptive plants with one or more of the following characteristics have been selected for consideration: native, drought-tolerance, low maintenance, visual/seasonal interest, habitat generator, pollinators, and growth habits. Plant species for the Midway Rising project may include, but are not limited to, the following:

SHRUBS FOR SCREENING AND HEDGES	SPACING	CONTAINER	HEIGHT	WIDTH
Arbutus unedo 'Compacta' - Dwarf Strawberry Tree	72" o.c.	15 GAL	7'-10'	7'-10'
Acanthus mollis - Bear's Breech	24" o.c.	1 - 5 GAL	3'-5'	2'-3'
Artemesia x 'Powis Castle' - Powis Castle Artemesia	24" o.c.	1 - 5 GAL	2'-4'	4'-6'
Ceanothus thyrsiflorus - Skylark Ceanothus*	36" o.c.	1 - 5 GAL	4'-6'	5'
Heteromeles arbutifolia - Toyon*	72" o.c.	15 GAL	8'-15'	8'
Mahonia nevinii - Nevin's Barberry*	36" o.c.	1 - 5 GAL	10'-15'	10'-15'
Myrica californica - Pacific Wax Myrtle*	72" o.c.	15 GAL	20'-30'	10'-20'
Olea europaea 'Montra' - Little Ollie Olive	30" o.c.	15 GAL	6'-8'	6'-8'
Podocarpus henkelii - Long-leafed Yellowwood	30" o.c.	15 GAL	15'-20'	12'-20'
Philodendron xanadu - Xanadu Philodendron	30" o.c.	1 - 5 GAL	1'-2'	2'-3'
Rhus integrifolia - Lemonade Berry*	72" o.c.	15 GAL	6'-10'	10'-15'
Rhamnus californica 'Eve Case' - Eve Case Coffeeberry*	72" o.c.	15 GAL	3'-6'	4'-6'
Rosmarinus officinalis - Upright Rosemary	36" o.c.	1 - 5 GAL	4'-6'	4'-6'
Westringia fruticosa 'Mundi' - Low Coast Rosemary	60" o.c.	1 - 5 GAL	1'-2'	4'-6'
Westringia fruticosa 'Wynyabbie Gem' - Coast Rosemary	60" o.c.	1 - 5 GAL	6'	10'-12'

SUB-SHRUBS AND PERENNIALS	SPACING	CONTAINER	HEIGHT	WIDTH
Achillea millefolium - Yarrow*	36" o.c.	1 - 5 GAL	2'-3'	2'-3'
Asclepias fascicularis - Narrowleaf Milkweed*	36" o.c.	1 - 5 GAL	3'	3'
Asclepias speciosa - Showy Milkweed*	36" o.c.	1 - 5 GAL	2'-4'	2'-3'
Dudleya edulis - Lady Fingers*	24" o.c.	1 - 5 GAL	0.5'-0.75'	1'
Encelia californica - Canyon Sunflower*	24" o.c.	1 - 5 GAL	3'-5'	3'-5'
Heuchera maxima - Island Alum Root*	36" o.c.	1 - 5 GAL	3'	2'
Mimulus gutttatus- Monkeyflower*	36" o.c.	1 - 5 GAL	2'	2'
Penstemon margarita 'BOP' - Foothill Penstemon*	36" o.c.	1 - 5 GAL	0.5'-0.8'	1'-1.5'
Salvia apiana - White Sage*	36" o.c.	1 - 5 GAL	6'	6'
Salvia clevelandii - Cleveland Sage*	36" o.c.	1 - 5 GAL	3'-5'	5'-8'
Salvia leucantha 'Santa Barbara' - Santa Barbara Sage	36" o.c.	1 - 5 GAL	3'-4'	3'-4'
Salvia mellifera - Black Sage*	36" o.c.	1 - 5 GAL	5'	2'-3'
Solidago californica - California Goldenrod	24" o.c.	1 - 5 GAL	1.5'	5'
Sphaeralcea ambigua - Desert Mallow*	60" o.c.	1 - 5 GAL	3'-5'	2'-4'
Trichostema lanatum - Woolly Blue Curls*	24" o.c.	1 - 5 GAL	3'-5'	3'-5'
Verbena lilacina 'De La Mina' - Lilac Verbena*	36" o.c.	1 - 5 GAL	1'-2'	3'-4'
Viguiera laciniata - San Diego Sunflower*	36" o.c.	1 - 5 GAL	3'	3'

GROUNDCOVERS:	SPACING	CONTAINER	HEIGHT	WIDTH
Acacia redolens 'Low Boy' - Low Boy Bank Catclaw	48" o.c.	1 - 5 GAL	1'-2'	8'-15'
Arctostaphylos Pacific Mist - Pacific Mist Manzanita*	48" o.c.	1 - 5 GAL	2.5'	4'-10'
Baccharis pilularis 'Pigeon Point' - Pigeon Point Coyote Brush*	72" o.c.	1 - 5 GAL	1'-2'	8'-10'
Ceanothus 'Centennial' - Centennial Ceanothus*	48" o.c.	1 - 5 GAL	0.5'-1'	4'-5'
Erigeron g. x 'Wayne Roderick Daisy' - Wayne Roderick Daisy	48" o.c.	1 - 5 GAL	1'	1.5'
Salvia 'Point Sal' - Low Purple Sage'*	12" o.c.	1 - 5 GAL	0.5'-1'	1'-4'
Salvia spathacea - Hummingbird Sage*	12" o.c.	1 - 5 GAL	1'-2'	4 -5'
Salvia sonomensis - Creeping Sage*	12" o.c.	1 - 5 GAL	0.5'-1'	2'-4'
Rosmarinus officinalis 'Prostratus'	24" o.c.	1 - 5 GAL	2'-3'	8'
Senecio mandraliscae - Blue Chalksticks	24" o.c.	1 - 5 GAL	0.5'-1'	1'-2'

BIORETENTION SPECIES+:	SPACING	CONTAINER	HEIGHT	WIDTH
Anemopsis californica - Yerba mansa*	12" o.c.	1 - 5 GAL	1'	1'
Baccharis pilularis 'Pigeon Point' - Pigeon Point Coyote Brush*	72" o.c.	1 - 5 GAL	1'-2'	8'-10'
Carex praegracilis - Clustered Field Sedge*	12" o.c.	1 - 5 GAL	1'	3'
Chondropetalum tectorum - Small Cape Rush	18" o.c.	1 - 5 GAL	3'	3'
Juncus patens- California Grey Rush*	18" o.c.	1 - 5 GAL	2'-3'	2'-3'
Mimulus cardinalis - Scarlet Monkeyflower*	12" o.c.	1 - 5 GAL	1.5'-3'	3'

VINES:	SPACING	CONTAINER	HEIGHT	WIDTH
Bauhinia corymbosa - Phanera Vine	60" o.c.	1 - 5 GAL	9'	9'
Ficus pumila - Fig Vine	60" o.c.	1 - 5 GAL	3'-25'	3'-25'
Hardenbergia vilacea - Purple Vine Lilac	60" o.c.	1 - 5 GAL	6'-8'	6'-8'
Passiflora vitifolia - Passion Flower Vine	60" o.c.	1 - 5 GAL	6'-20'	3'-5'
Petrea volubilis - Queen's Wreath	60" o.c.	1 - 5 GAL	6'-12'	3'-6'
Stephanotis floribunda - Madagascar Jasmine	60" o.c.	1 - 5 GAL	6'-20'	6'-10'
Trachelospermum jasminiodes - Chinese Star Jasmine	60" o.c.	1 - 5 GAL	2'	10'-20'

CACTUS & SUCCULENTS	SPACING	CONTAINER	HEIGHT	WIDTH
Aeonium urbicum - Dinner Plate Aeonium	36" o.c.	1 - 5 GAL	3'	3'
Agave attenuata - Foxtail Agave	24" o.c.	1 - 5 GAL	4'-5'	6'-8'
Agave americana - Century Plant	60" o.c.	1 - 5 GAL	6'-10'	8'-13'
Agave x 'Blue Flame' - Blue Flame Agave	36" o.c.	1 - 5 GAL	3'-5'	3'-5'
Agave x 'Blue Glow' - Blue Glow Agave	36" o.c.	1 - 5 GAL	1'-2'	1'-2'
Agave vilmoriniana - Octopus Agave	48" o.c.	1 - 5 GAL	3'-4'	3'-4'
Aloe barbadensis - Aloe Vera	24" o.c.	1 - 5 GAL	2'-3'	2'-3'
Aloe striata - Coral Aloe	24" o.c.	1 - 5 GAL	2'-3'	1'-2'
Echinocactus grusonii- Golden Barrell Cactus	36" o.c.	1 - 5 GAL	2'-3'	2'
Hesperaloe 'Brakelights' - Red Yucca	36" o.c.	15 GAL	3'	2'-3'
Opuntia santa rita - Santa Rita Pricklypear	36" o.c.	1 - 5 GAL	4'	6'
Sanseveria zeylanica - Bowstring Sanseveria	24" o.c.	1 - 5 GAL	2'-3'	1'
Yucca elephantipes - Soft Tip Yucca	48" o.c.	15 GAL	3'-6'	3'
Yucca whipplei - Chapparral Yucca	48" o.c.	15 GAL	3'	6'

FERNS	SPACING	CONTAINER	HEIGHT	WIDTH
Dryopteris erythrosora - Autumn Fern	24" o.c.	1 - 5 GAL	1'-2'	1'-2'
Microlepia strigosa - Lace Fern	24" o.c.	1 - 5 GAL	2'-3'	2'-3'
Polystichum munitum - Western Sword Fern*	24" o.c.	1 - 5 GAL	2'-3'	2'-4'
Rumohra adiantiformis - Leatherleaf Fern	24" o.c.	1 - 5 GAL	3'	3'

GRASSES AND GRASS-LIKE SPECIES	SPACING	CONTAINER	HEIGHT	WIDTH
Aristida purpurea - Purple Three-Awn	12" o.c.	1 - 5 GAL	2'	2'
Carex divulsa- Berkeley Sedge	12" o.c.	1 - 5 GAL	1'-1.5'	2'
Chondropetalum tectorum - Small Cape Rush	18" o.c.	1 - 5 GAL	3'	3'
Chondropetalum elephantium - Large Cape Rush	48" o.c.	1 - 5 GAL	5'-6'	4'-6'
Dianella revoluta 'Clarity Blue' - Clarity Blue Dianelle	24" o.c.	1 - 5 GAL	1.5'	2'
Hybrid Bermuda - Turf Sod		Sod		
Leymus condensatus - Giant Wildrye*	48" o.c.	1 - 5 GAL	2'-3'	4'-6'
Lomandra longifolia 'Breeze' - Dwarf Mat Rush	30" o.c.	1 - 5 GAL	3'	3'
Muhlenbergia rigens - Deer Grass*	48" o.c.	1 - 5 GAL	2'-3'	2'-3'
Sesleria autumnalis - Autumn Moor Grass	48" o.c.	1 - 5 GAL	1'	1'
Sisyrinchium bellum - Blue Eyed Grass*	48" o.c.	1 - 5 GAL	1'	1'

**California Native species*
+Per City of San Diego Stormwater Standards plant List for Bioretention / Biofiltration BMPs

IRRIGATION NOTES

1. ALL PLANTING AREAS WILL BE IRRIGATED ACCORDING TO HYDROZONES, PLANT TYPE & ENVIRONMENTAL EXPOSURE AND WILL RECEIVE 100% COVERAGE BY MEANS OF AUTOMATICALLY CONTROLLED, ELECTRONICALLY OR SATELLITE OPERATED, UNDERGROUND PIPED PERMANENT SYSTEM.

2. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE CITY OF SAN DIEGO LANDSCAPE ORDINANCE AND CITY OF SAN DIEGO LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS AND ALL REGIONAL STANDARDS FOR LANDSCAPE INSTALLATION AND MAINTENANCE.

3. AN IRRIGATION SYSTEM SHALL BE PROVIDED AS REQUIRED FOR PROPER IRRIGATION DEVELOPMENT AND MAINTENANCE OF THE VEGETATION. THE DESIGN OF THE SYSTEM SHALL PROVIDE ADEQUATE SUPPORT FOR THE VEGETATION SELECTED.

LANDSCAPE NOTES

1. A MINIMUM ROOT ZONE OF 40 SF IN AREA, (TYP. 5X8) SHALL BE PROVIDED FOR ALL TREES. THE MINIMUM DIMENSION FOR THIS AREA SHALL BE 5 FT PER SDMC 142.0403(b)(5).

2. NO TREES OR SHRUBS WHOLE HEIGHT WILL EXCEED 3 FT AT MATURITY SHALL BE INSTALLED OR RETAINED WITHIN 5 FT OF ANY PUBLICLY MAINTAINED WATER FACILITIES OR WITHIN 10 FT OF ANY PUBLICLY MAINTAINED SEWER FACILITIES.

3. MINIMUM TREE SEPARATION DISTANCE

- TRAFFIC SIGNALS/ STOP SIGN	20 FT
- UNDERGROUND UTILITY LINES	5 FT
- SEWER LINES	10 FT
- ABOVE GROUND UTILITY LINES	10 FT
- DRIVEWAY ENTRIES	10 FT
- INTERSECTIONS	25 FT

(INTERSECTING CURB LINES OF TWO STREETS)

4. NO OBSTRUCTION INCLUDING LANDSCAPING OR SOLID WALLS WITHIN THE VISIBILITY TRIANGLE SHALL EXCEED 36' IN HEIGHT.

NOTE:
STREET TREE LOCATION AND QUANTITIES ARE SUBJECT TO CHANGE BASED ON FINAL LOCATIONS OF DRIVEWAYS AND UNDERGROUND UTILITIES. HOWEVER, THE MINIMUM STREET TREE RATE REQUIREMENT ALONG EACH STREET FRONTAGE SHALL BE ACHIEVED.

CLIMATE ACTION PLAN

1.TREES SHALL BE PLACED TO MEET CLIMATE ACTION PLAN REGULATIONS: A MINIMUM 50% OF PEDESTRIAN AREAS IN THE PUBLIC RIGHT-OF-WAY SHALL BE SHADED BY STREET TREES AT 10 YEARS MATURITY.

2. FOR RESILIENT INFRASTRUCTURE AND HEALTHY ECOSYSTEMS - TWO TREES SHALL BE PROVIDED ON THE PREMISES FOR EVERY 5,000 SQ.FT. OF LOT AREA, WITH A MINIMUM OF ONE TREE PER PREMISES



TREES LEGEND

The Tree Species Diagram illustrates varying tree palettes for the Midway Rising community. Native and adaptive trees with the following characteristics have been selected for consideration: abundant shade canopy, drought-tolerance, low maintenance, seasonal interest, and as recommended in the Midway Pacific Highway Community Plan. Tree species for the Midway Rising project may include, but are not limited to, the following:

A — THE GREEN

	QUANTITY	CONTAINER	MATURE HEIGHT	MATURE WIDTH
Chilopsis linearis - Desert Willow*	187 TOTAL	24" Box	10'-30'	6'-25'
Quercus spp. - Oak species*		60" Box	25'-80'	25'-60'
Platanus racemosa - California Sycamore*		60" Box	40'-50'	30'-45'
Pinus torreyana - Torrey Pine*		60" Box	50'	20'-25'
Tabebuia chrysotricha - Golden Trumpet Tree		24" Box	25'-35'	25'-35'
Tristania conferta - Brisbane Box		36" Box	30'-45'	25'

B — THE SQUARE & THE PLAZA

	QUANTITY	CONTAINER	MATURE HEIGHT	MATURE WIDTH
Tristania conferta - Brisbane Box	183 TOTAL	36" Box	30'-45'	25'
Quercus spp. - Oak species*		60" Box	25'-80'	25'-60'
Platanus mexicana - Mexican Sycamore*		60" Box	60'	60'
Platanus racemosa - California Sycamore*		60" Box	40'-50'	30'-45'
Tipu tipuana - Tipu Tree		36" Box	25'-50'	25'-50'
Ulmus parvifolia 'Drake' - Drake Elm		24" Box	35'-45'	35'-50'
Tabebuia chrysotricha - Golden Trumpet Tree		24" Box	25'-35'	25'-35'

C — PASEOS AND RESIDENTIAL BUFFER

	QUANTITY	CONTAINER	MATURE HEIGHT	MATURE WIDTH
Chilopsis linearis - Desert Willow*	400 TOTAL	24" Box	10'-30'	6'-25'
Laurus nobilis - Bay Laurel		36" Box	20'-30'	10'-25'
Platanus racemosa - California Sycamore*		60" Box	40'-50'	30'-45'
Pinus torreyana - Torrey Pine*		60" Box	50'	20'-25'
Prosopis chilensis - Chilean Mesquite		24" Box	35'	35'
Tabebuia chrysotricha - Golden Trumpet Tree		24" Box	25'-35'	25'-35'
Arbutus x Marina- Marina Strawberry Tree		36" Box	50'-60'	40'-50'

D — PROMENADES

	QUANTITY	CONTAINER	MATURE HEIGHT	MATURE WIDTH
Arbutus x 'Marina' - Marina Strawberry Tree	305 TOTAL	36" Box min.	50'-60'	40'-50'
Platanus racemosa - California Sycamore*		36" Box min.	40'-50'	30'-45'
Quercus spp. - Oak species*		48" Box min.	25'-80'	25'-60'
Tabebuia chrysotricha - Golden Trumpet Tree		24" Box	25'-35'	25'-35'
Tipu tipuana - Tipu Tree		36" Box min.	25'-50'	25'-50'
Tristania conferta - Brisbane Box		36" Box min.	30'-45'	25'
Ulmus parvifolia 'Drake' - Drake Elm		36" Box min.	35'-45'	35'-50'

ON-SITE TREES	QUANTITY PROVIDED	QUANTITY REQUIRED PER CLIMATE ACTION PLAN REGULATIONS
	1,075 TOTAL	858 TOTAL

E — SPORTS ARENA BOULEVARD ROW

	QUANTITY	CONTAINER	MATURE HEIGHT	MATURE WIDTH
Arbutus x Marina - Marina Strawberry Tree	95 TOTAL	36" Box min.	50'-60'	40'-50'
Platanus mexicana - Mexican Sycamore*		36" Box min.	60'	60'
Platanus racemosa - California Sycamore*		36" Box min.	40'-50'	30'-45'
Pinus torreyana - Torrey Pine*		36" Box min.	50'	20'-25'
Quercus spp. - Oak species*		48" Box min.	25'-80'	25'-60'
Tipu tipuana - Tipu Tree		36" Box min.	25'-50'	25'-50'
Tristania conferta - Brisbane Box		36" Box min.	30'-45'	25'
Ulmus parvifolia 'Drake' - Drake Elm		36" Box min.	35'-45'	35'-50'

F — KEMPER STREET ROW

	QUANTITY	CONTAINER	MATURE HEIGHT	MATURE WIDTH
Tristania conferta - Brisbane Box	113 TOTAL	36" Box	30'-45'	25'
Quercus spp. - Oak species*		60" Box	25'-80'	25'-60'
Platanus mexicana - Mexican Sycamore*		60" Box	60'	60'
Platanus racemosa - California Sycamore*		60" Box	40'-50'	30'-45'
Tipu tipuana - Tipu Tree		36" Box	25'-50'	25'-50'
Arbutus x 'Marina' - Marina Strawberry Tree		36" Box	50'-60'	40'-50'
Ulmus parvifolia 'Drake' - Drake Elm		24" Box	35'-45'	35'-50'

G — KURTZ STREET ROW

	QUANTITY	CONTAINER	MATURE HEIGHT	MATURE WIDTH
Tristania conferta - Brisbane Box	94 TOTAL	36" Box	30'-45'	25'
Quercus spp. - Oak species*		60" Box	25'-80'	25'-60'
Platanus mexicana - Mexican Sycamore*		60" Box	60'	60'
Platanus racemosa - California Sycamore*		60" Box	40'-50'	30'-45'
Tipu tipuana - Tipu Tree		36" Box	25'-50'	25'-50'
Arbutus menzesii - Pacific Madrone*		36" Box	50'-60'	40'-50'
Ulmus parvifolia 'Drake' - Drake Elm		24" Box	35'-45'	35'-50'
Pinus torreyana - Torrey Pine*		60" Box	50'	20'-25'

H — FRONTIER DRIVE (RETAIL STREET) ROW

	QUANTITY	CONTAINER	MATURE HEIGHT	MATURE WIDTH
Ulmus parvifolia 'Drake' - Drake Elm	53 TOTAL	24" Box	35'-45'	35'-50'
Tabebuia chrysotricha - Golden Trumpet Tree		24" Box	25'-35'	25'-35'
Tristania conferta - Brisbane Box		36" Box	30'-45'	25'
Platanus mexicana - Mexican Sycamore*		60" Box	60'	60'
Tipu tipuana - Tipu Tree		36" Box	25'-50'	25'-50'

STREET TREES IN ROW	QUANTITY PROVIDED
	355 TOTAL

VESTING TENTATIVE MAP FOR MIDWAY RISING

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HARDSCAPE LEGEND

- ASPHALT
- STANDARD & ENHANCED PAVING
- DECOMPOSED GRANITE

PARKS & PUBLIC SPACE LEGEND

1. MULTI-USE LAWN
2. RESIDENTIAL AMENITY AREA
   - DOG PARK
   - PLAYGROUND
   - FITNESS
3. FIXED GATHERING AREA
   - VARIETY OF FIXED & MOVABLE SEATING
   - GAMES
   - HAMMOCKS
   - FITNESS
   - BBQ
4. FLEXIBLE GATHERING AREA
   - MOVABLE SEATING
   - GAMES
5. PRIVATE RESIDENTIAL PATIOS
6. SHADE STRUCTURE

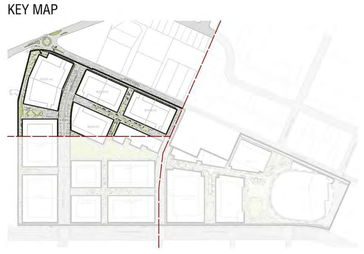
AMENITIES LEGEND

A. CHILDREN'S PLAY AREA
B. PUBLIC RESTROOM
C. DOG PARK
D. EVENT LAWN WEST
E. EVENT LAWN EAST
F. INTERACTIVE WATER FEATURE
G. BASKETBALL COURT
H. GATHERING AREA
   - VARIETY OF FIXED & MOVABLE SEATING
   - GAMES
   - HAMMOCKS
   - FITNESS
J. DINING PATIO / CAFE ZONE
K. MOVEABLE SEATING
L. SHADE/EVENT PAVILION
M. FOOD TRUCK COURT
N. FOOD & BEVERAGE KOSK
P. THE SQUARE EVENT LAWN
Q. PLAZA
R. BUS RAPID TRASIT STOP
S. LOCAL BUS STOP
T. SHORT-TERM BIKE PARKING: TOTAL QTY- 140
U. PEDESTRIAN AMENITIES: 1 PER EACH 250 FEET OF STREET FRONTAGE
   - TRASH RECEPTACLE AND RECYLING CONTAINER
   - FIXED AND MOVABLE SEATING
   - PEDESTRIAN-SCALED LIGHTING
   - PUBLIC ARTWORK
   - COMMUNITY WAYFINDING SIGNS

PEDESTRIAN ROUTE FROM PUBLIC RIGHT-OF-WAY TO BUILDING ENTRY

PARK BOUNDARIES

KEY MAP



LEGEND

DESCRIPTIONS

- PROJECT BOUNDARY
- RIGHT OF WAY
- LOT LINES
- MATCH LINES
- PARK BOUNDARIES
- FIRE LANE
- UTILITY EASEMENT

NOTE:
BOUNDARY OF PARK LAND IS SUBJECT TO CHANGE BASED ON THE TERMS OF THE SPECIFIC PLAN AND FINALIZATION OF THE VTTM

0' 20' 40'

N

VESTING TENTATIVE MAP FOR MIDWAY RISING

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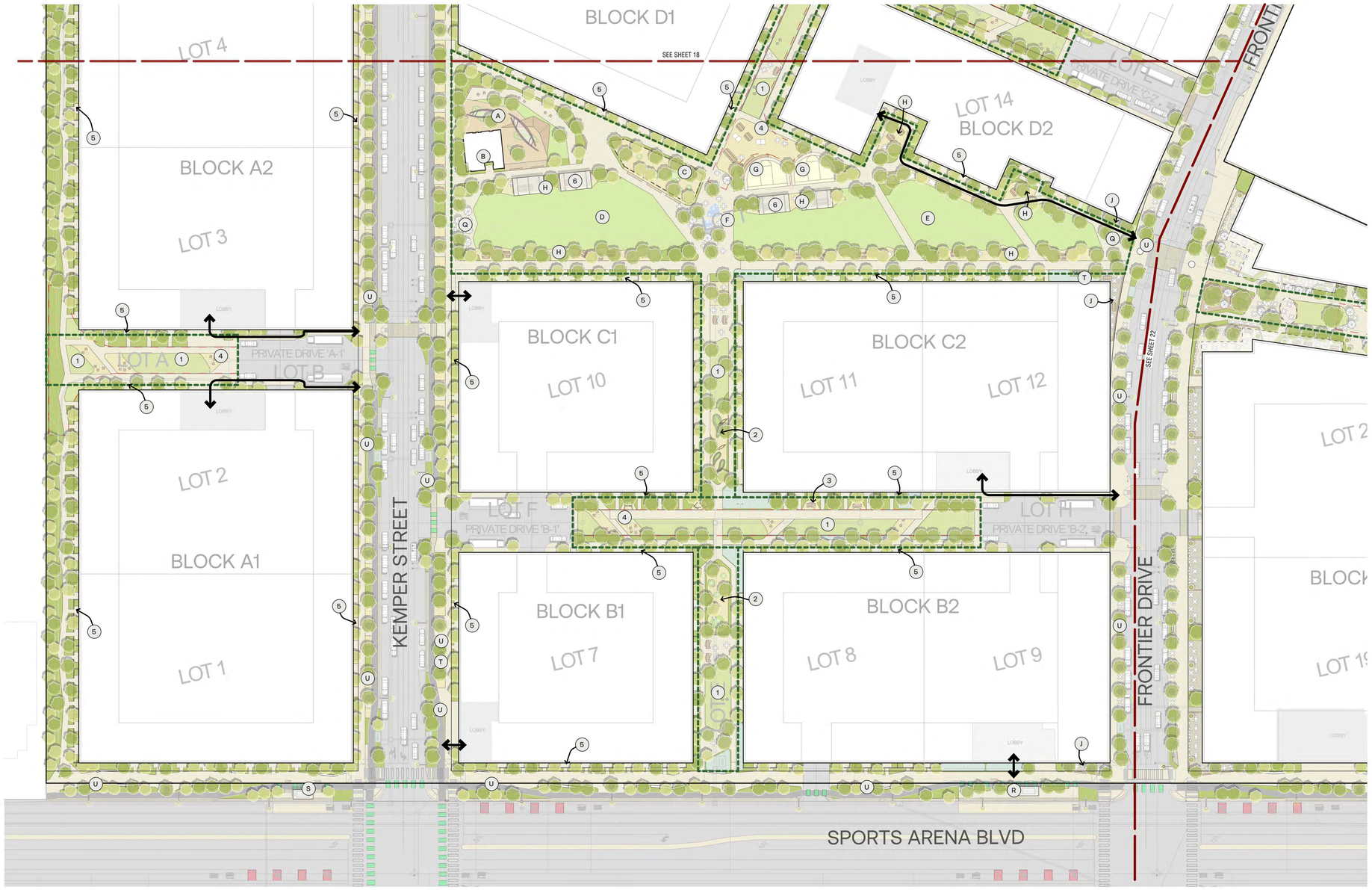
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HARDSCAPE LEGEND

- ASPHALT
- STANDARD & ENHANCED PAVING
- DECOMPOSED GRANITE

PARKS & PUBLIC SPACE LEGEND

(1) MULTI-USE LAWN
(2) RESIDENTIAL AMENITY AREA
- DOG PARK
- PLAYGROUND
- FITNESS

(3) FIXED GATHERING AREA
- VARIETY OF FIXED & MOVABLE SEATING
- GAMES
- HAMMOCKS
- FITNESS
- BBQ

(4) FLEXIBLE GATHERING AREA
- MOVABLE SEATING
- GAMES

(5) PRIVATE RESIDENTIAL PATIOS
(6) SHADE STRUCTURE

AMENITIES LEGEND

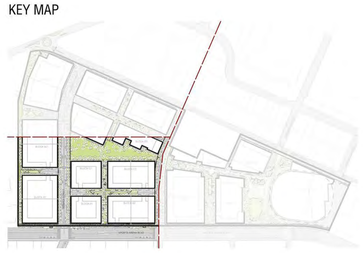
(A) CHILDREN'S PLAY AREA
(B) PUBLIC RESTROOM
(C) DOG PARK
(D) EVENT LAWN WEST
(E) EVENT LAWN EAST
(F) INTERACTIVE WATER FEATURE
(G) BASKETBALL COURT
(H) GATHERING AREA
- VARIETY OF FIXED & MOVABLE SEATING
- GAMES
- HAMMOCKS
- FITNESS

(J) DINING PATIO / CAFE ZONE
(K) MOVEABLE SEATING
(L) SHADE/EVENT PAVILION
(M) FOOD TRUCK COURT
(N) FOOD & BEVERAGE KOSK
(P) THE SQUARE EVENT LAWN
(Q) PLAZA
(R) BUS RAPID TRASIT STOP
(S) LOCAL BUS STOP
(T) SHORT-TERM BIKE PARKING: TOTAL QTY- 140
(U) PEDESTRIAN AMENITIES: 1 PER EACH 250 FEET OF STREET FRONTAGE
- TRASH RECEPTACLE AND RECYLING CONTAINER
- FIXED AND MOVABLE SEATING
- PEDESTRIAN-SCALED LIGHTING
- PUBLIC ARTWORK
- COMMUNITY WAYFINDING SIGNS

PEDESTRIAN ROUTE FROM PUBLIC RIGHT-OF-WAY TO BUILDING ENTRY

PARK BOUNDARIES

KEY MAP



LEGEND

DESCRIPTIONS

PROJECT BOUNDARY
RIGHT OF WAY
LOT LINES
MATCH LINES
PARK BOUNDARIES
FIRE LANE
UTILITY EASEMENT

NOTE:
BOUNDARY OF PARK LAND IS SUBJECT TO CHANGE BASED ON THE TERMS OF THE SPECIFIC PLAN AND FINALIZATION OF THE VTTM

0 20 40

N

VESTING TENTATIVE MAP FOR MIDWAY RISING

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HARDSCAPE LEGEND

- ASPHALT
- STANDARD & ENHANCED PAVING
- DECOMPOSED GRANITE

PARKS & PUBLIC SPACE LEGEND

1. MULTI-USE LAWN
2. RESIDENTIAL AMENITY AREA
   - DOG PARK
   - PLAYGROUND
   - FITNESS
3. FIXED GATHERING AREA
   - VARIETY OF FIXED & MOVABLE SEATING
   - GAMES
   - HAMMOCKS
   - FITNESS
   - BBQ
4. FLEXIBLE GATHERING AREA
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   - GAMES
5. PRIVATE RESIDENTIAL PATIOS
6. SHADE STRUCTURE

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M. FOOD TRUCK COURT
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P. THE SQUARE EVENT LAWN
Q. PLAZA
R. BUS RAPID TRASIT STOP
S. LOCAL BUS STOP
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   - PEDESTRIAN-SCALED LIGHTING
   - PUBLIC ARTWORK
   - COMMUNITY WAYFINDING SIGNS

↔ PEDESTRIAN ROUTE FROM PUBLIC RIGHT-OF-WAY TO BUILDING ENTRY

PARK BOUNDARIES

0' 20' 40'

N

KEY MAP



LEGEND

DESCRIPTIONS

- PROJECT BOUNDARY
- RIGHT OF WAY
- LOT LINES
- MATCH LINES
- PARK BOUNDARIES
- FIRE LANE
- UTILITY EASEMENT

NOTE:
BOUNDARY OF PARK LAND IS SUBJECT TO CHANGE BASED ON THE TERMS OF THE SPECIFIC PLAN AND FINALIZATION OF THE VTTM

VESTING TENTATIVE MAP FOR
MIDWAY RISING

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1856-6266 CCS83 COORDINATES
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LANDSCAPE CALCULATIONS

		TOTAL AREA	PLANTING AREA REQUIRED	PLANTING AREA PROVIDED	PLANTING POINTS REQUIRED	PLANTING POINTS PROVIDED	% OF POINTS PROVIDED BY TREES
SY	STREET YARD	66,866 SF	50% OF TOTAL AREA = 33,433 SF	35,399 SF	.05 POINTS PER SF OF TOTAL AREA=3,343	12,118	51.3%
RY	REMAINING YARD / COMMON OPEN SPACE 10' OFFSET - RESIDENTIAL STRUCTURES	113,895 SF	30% OF TOTAL AREA = 34,169 SF	36,493 SF	.05 POINTS PER SF OF TOTAL AREA=5,695	13,054	51.9%
VUA	VEHICULAR USE AREA (OUTSIDE OF SY)	178,166 SF	3% OF TOTAL AREA = 5,345 SF	6,751 SF	.05 POINTS PER SF OF TOTAL AREA= 8908	9,058	88.3%
VUA	VEHICULAR USE AREA (INSIDE OF SY)	6,660 SF	5% OF TOTAL AREA = 333 SF	1551 SF	.03 POINTS PER SF OF TOTAL AREA=200	449	53.4%

PROPOSED SHRUB	1 GALLON	1 POINT EACH
	5 GALLON	2 POINTS EACH
	15 GALLON OR LARGER	10 POINTS EACH
PROPOSED TREE	24 INCH BOX	20 POINTS EACH
	36 INCH BOX	50 POINTS EACH
	48 INCH BOX OR LARGER	100 POINTS EACH

PER SECTION 142.0409 OF THE SD MUNICIPAL CODE REQUIRES "ONE 24-INCH BOX TREE FOR EVERY 30 FEET OF STREET FRONTAGE"

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package

Project Name: Midway Rising

Project Address: 3500 Sports Arena Drive, San Diego, CA 92110

Reference Evapotranspiration (ETo) 46.5 **In./Yr.** **Residential Project?** Yes

Hydrozone # / Planting Description[a]	Plant Factor	Irrigation Method[b]	Irrigation Efficiency (IE)[c]	ETAF (PF / IE)	Landscape Area (Sq. Ft.)	ETAF x Area	Estimated Total Water Use (ETWU)[d]
Regular Landscape Areas							
1.. Low Water Use Plantings	0.20	Drip	0.90	0.22	205,769	45,269	1,305,105
2. Moderate Water Use Plantings	0.50	Drip	0.90	0.56	10,192	5,708	164,562
3.. Moderate Water Use Turf	0.60	Overhead	0.60	1.00	68,423	68,423	1,972,635
			Totals:		284,384	119,400	
					Estimated Total Water Use (ETWU) Total:		3,442,302
					Maximum Applied Water Allowance (MAWA)[e]:		8,198,791

[a] Hydrozone # / Planting Description
E.g.
1.) Front Lawn
2.) Low Water Use Plantings
3.) Medium Water Use Plantings

[b] Irrigation Method
Overhead Spray of
Drip

[c] Irrigation Efficiency
0.60 for Spray
0.90 for Drip

[d] *ETWU (Annual Gallons Required)* = *ETo x 0.62 x ETAF x Area*
Where 0.62 is a conversion factor that converts acre-inches/acre/year to gallons/square foot/year.

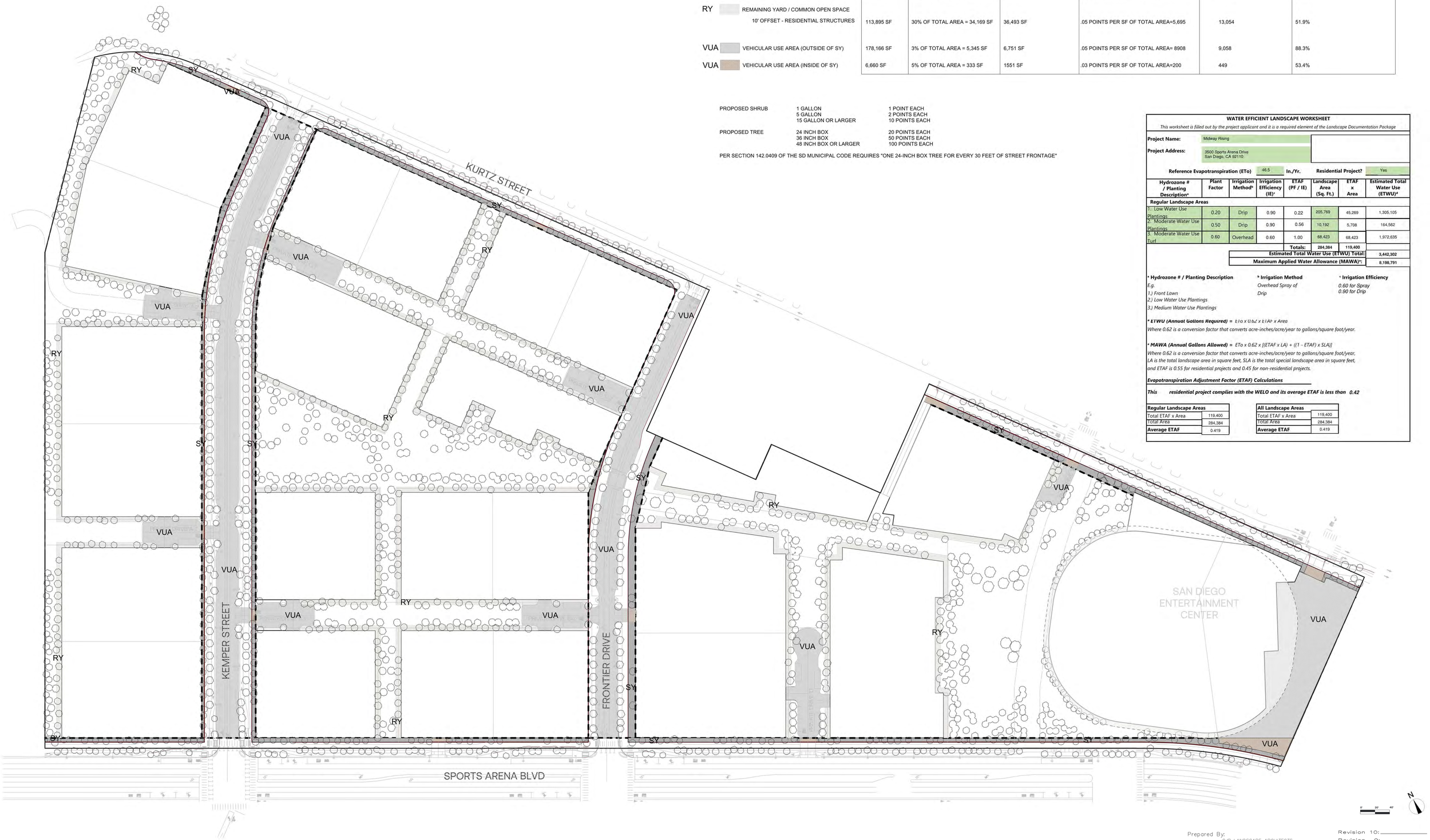
[e] *MAWA (Annual Gallons Allowed)* = *ETo x 0.62 x [(ETAF x LA) + ((1 - ETAF) x SLA)]*
Where 0.62 is a conversion factor that converts acre-inches/acre/year to gallons/square foot/year,
LA is the total landscape area in square feet, SLA is the total special landscape area in square feet,
and ETAF is 0.55 for residential projects and 0.45 for non-residential projects.

Evapotranspiration Adjustment Factor (ETAF) Calculations

This residential project complies with the WELO and its average ETAF is less than 0.42

Regular Landscape Areas	
Total ETAF x Area	119,400
Total Area	284,384
Average ETAF	0.419

All Landscape Areas	
Total ETAF x Area	119,400
Total Area	284,384
Average ETAF	0.419



VESTING TENTATIVE MAP FOR
MIDWAY RISING

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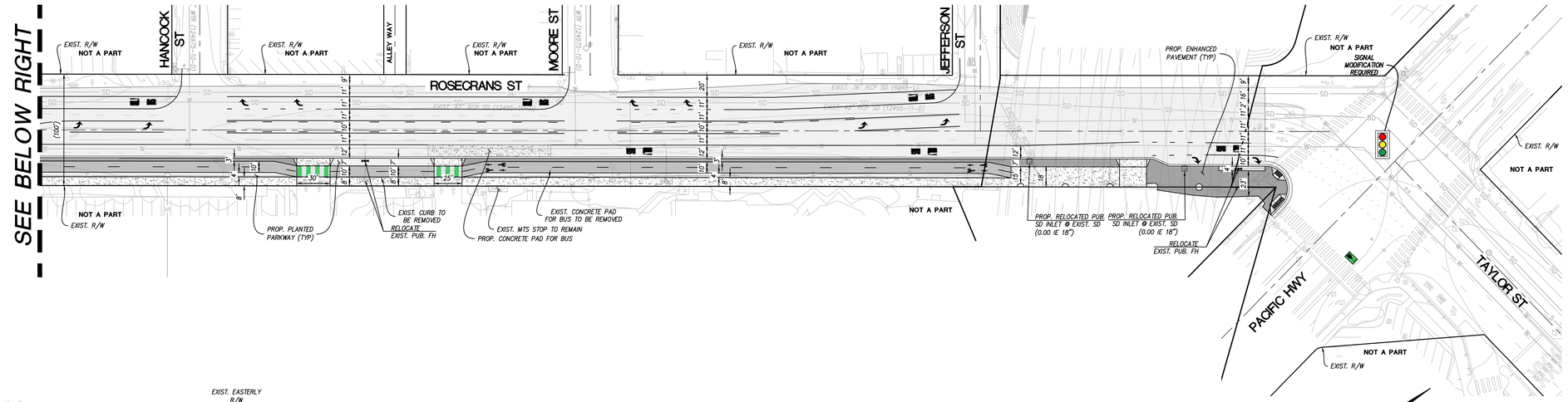
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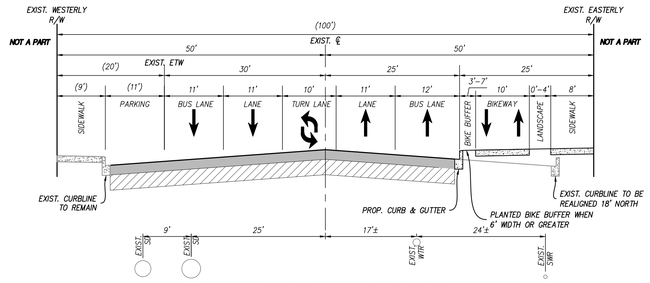
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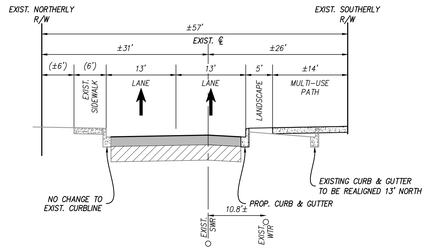




ROSECRANS STREET (PUBLIC) OFF-SITE

(NOT TO SCALE)

2-LANE MAJOR ARTERIAL W/2-BUS ONLY LANES & CENTER LEFT TURN LANE (DESIGN SPEED = 35MPH)



KURTZ STREET (PUBLIC) OFF-SITE (1)

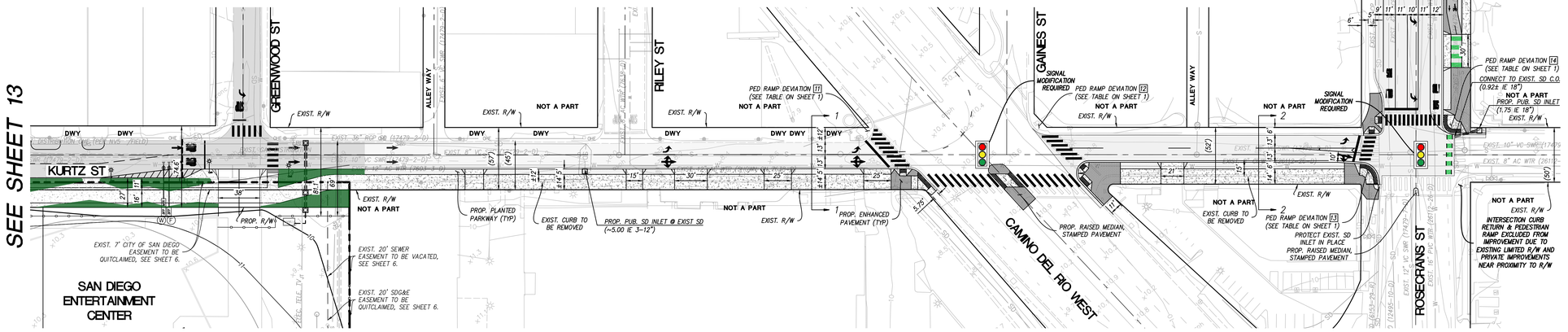
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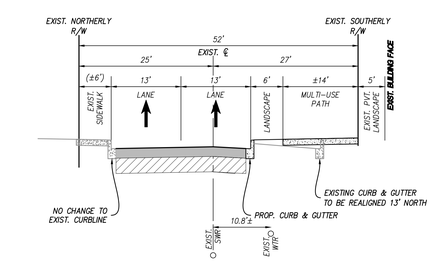
MODIFIED 1-WAY 2-LANE COLLECTOR (DESIGN SPEED = 30 MPH)

NOTE:

1. GREEN STREET ELEMENTS WILL BE INCORPORATED INTO THE IMPROVEMENT FOR KURTZ STREET AND ROSECRANS STREET. INCLUDING A COMBINATION OF DISPERSION, STREET TREES, AND/OR MODULAR WETLAND UNITS.

SEE ABOVE LEFT



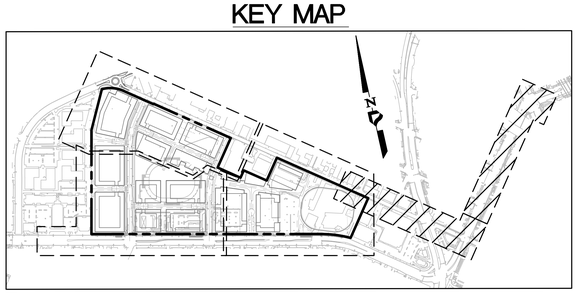


KURTZ STREET (PUBLIC) OFF-SITE (2)

(NOT TO SCALE)

MODIFIED 1-WAY 2-LANE COLLECTOR (DESIGN SPEED = 30 MPH)

KEY MAP



LEGEND

DESCRIPTION	SYMBOL
PROJECT BOUNDARY	
PROP. RIGHT OF WAY	
EXIST. FIRE HYDRANT	
PROP. FIRE HYDRANT	
PROP. FIRE SERVICE AND BACKFLOW PREVENTER	BFP LL
PROP. DOMESTIC WATER SERVICE, METER AND BACKFLOW PREVENTER	MTR BFP W
PROP. MODULAR WETLAND UNIT	MWU
PROP. STORM DRAIN CLEAN-OUT	
PROP. STORM DRAIN INLET	
PROP. STORM DRAIN	
PROP. PRIVATE STORM DRAIN	
PROP. SEWER MANHOLE	
PROP. SEWER MAIN	
PROP. WATER MAIN	
PROP. STREET LIGHT	
PROP. PEDESTRIAN RAMP	
BIKE BUFFER, HARDSCAPE	
FOUND MONUMENT	
PROP. COMMERCIAL DRIVEWAY	
TRUNCATED DOMES (DETECTABLE WARNING)	
PROP. PRIVATE BIO-FILTRATION (DETAIL ON SHEET 9)	
BUS STOP SLAB	
PROPOSED MODIFICATION OF EXISTING TRAFFIC SIGNAL	

40 20 0 40 80 120

SCALE: 1"=40'

VESTING TENTATIVE MAP FOR MIDWAY RISING

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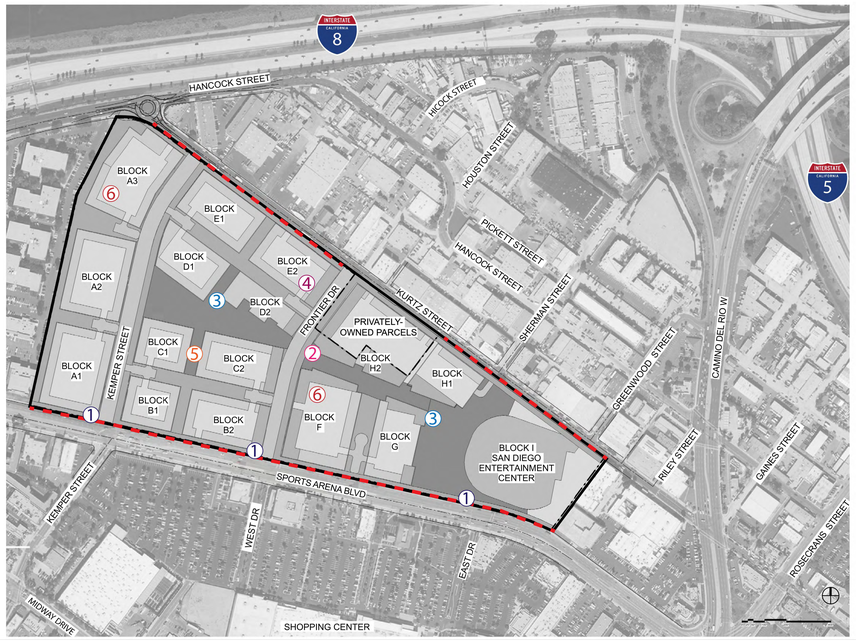
TRANSPORTATION AMENITIES

THE LOCATIONS OF TRANSPORTATION AMENITIES SHOWN ARE SCHEMATIC IN NATURE AND SUBJECT TO CHANGE WITH THE FINAL PROJECT DESIGN

LEGEND

1. TRANSIT SHELTERS AND BENCHES (TRANSIT AND ACTIVE TRANSPORTATION INFRASTRUCTURE)
2. MULTI-MODAL WAYFINDING KIOSK (TRANSIT AND RIDESHARE INFORMATION)
3. BICYCLE REPAIR STATION (ON-SITE BICYCLE REPAIR STATION)
4. SECURE PACKAGE AREA (DELIVERY SUPPORT)
5. OUTDOOR FITNESS CIRCUIT
6. CO-WORKING SPACE

6FT SIDEWALKS WITH 10FT OF SPACE AT INTERSECTIONS (TRANSIT AND ACTIVE TRANSPORTATION INFRASTRUCTURE)

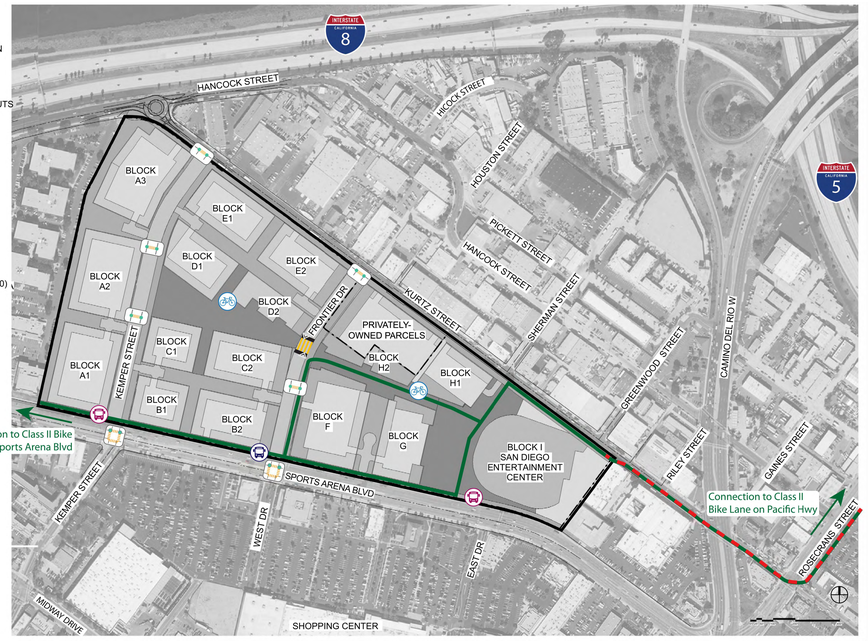


VEHICLE MILES TRAVELED REDUCTION MEASURES PER COMPLETE COMMUNITIES: MOBILITY CHOICES

THE LOCATIONS OF MOBILITY CHOICES SHOWN ARE SCHEMATIC IN NATURE AND SUBJECT TO CHANGE WITH THE FINAL PROJECT DESIGN

LEGEND

- BULBOUTS ADDED TO INTERSECTION (VMT REDUCTION MEASURE #2)
- PROTECTED INTERSECTION (VMT REDUCTION MEASURE #2)
- MID-BLOCK CROSSING WITH BULBOUTS (VMT REDUCTION MEASURE #2)
- SIDEWALK WIDENING (VMT REDUCTION MEASURE #9)
- BICYCLE REPAIR STATION (VMT REDUCTION MEASURE #12)
- CLASS I BIKE PATH (VMT REDUCTION MEASURE #13)
- REAL-TIME DISPLAY ADDED TO BUS RAPID TRANSIT STOP (VMT REDUCTION MEASURE #19)
- SYSTEM MAP ADDED TO LOCAL BUS STOP (VMT REDUCTION MEASURE #20)
- RAISED CROSSWALK (VMT REDUCTION MEASURE #25)



VESTING TENTATIVE MAP FOR MIDWAY RISING

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Appendix B

Midway Pacific Highway Community Plan Amendment

MIDWAY RISING

Community Plan Amendment

PRJ #: 1106734



AUGUST 2024 | VERSION 4

Prepared By:

Kimley»Horn

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1 INTRODUCTION

The Midway Rising Project proposes to modify the transportation network that was modeled in the 2018 Midway Pacific Highway Community Plan (September 2018). Therefore, a Community Plan Amendment (CPA) and analysis to evaluate any potential operational effects within the study area in the Horizon Year (2050) due to the Project's proposed modifications in addition to those identified in the Community Plan transportation analyses was prepared. This document was prepared as the transportation analysis that evaluates the Midway Rising project's proposed changes to the Community Plan with respect to the roadway network.

1.1 PROJECT DESCRIPTION

The proposed Midway Rising development is located at 3220, 3240, 3250, and 3500 Sports Arena Boulevard and 3467, 3487, and 3495 Kurtz Street (privately-owned parcels), in the City of San Diego, CA. The approximately 47.8-acre (52.07 acres total including privately-owned parcels) Midway Rising project site is located within the Midway-Pacific Highway community of the City of San Diego, and is bordered by Kurtz Street to the northeast, Sports Arena Boulevard to the southwest, Hancock Street to the northwest, and commercial development to the southeast.

LAND USES

The project proposes to demolish the existing 16,000-seat San Diego Sports Arena and all commercial buildings on site, and construct the following uses:

- **Entertainment**
  - New 16,000-seat Entertainment Center
  - 3,500-seat theater (to be located within the privately-owned parcels area)
- **Residential**
  - 4,627 multi-family dwelling units, including:
    - 2,627 market-rate units
    - 2,000 affordable units, including:
      - 1,538 units ≤ 50% Area Median Income (AMI)
      - 462 units between 50%-80% AMI
- **Commercial**
  - 140,000 square-feet of commercial, including
    - 60,000 square-feet retail
    - 40,000 square-feet quality restaurant
    - 40,000 square-feet high-turnover sit-down restaurant

Construction of the project is proposed to occur in two phases:

- Phase 1 consists of the project site east of Frontier Drive with the exception of the privately-owned parcels, including construction of the proposed Frontier Drive, to be completed in 2030. During the construction of Phase 1, the existing San Diego Sports Arena and existing commercial uses west of Frontier Drive will remain operational.
- Phase 2 construction includes the remainder of the project site west of Frontier Drive plus the privately-owned parcels, to be completed by 2035.

SITE ACCESS

The proposed project site will provide vehicle access via 11 access points, including four along Sports Arena Boulevard and seven on Kurtz Street. Four access points will be intersections formed with the proposed Kemper Street and Frontier Drive roadways, and the remaining seven access points will be driveways into parking structures. The project will provide multimodal facilities within the project study area that will improve mobility within the site and to and from the Old Town Transit Center.

1.2 ANALYSIS SCENARIOS

The CPA analyzed the following scenarios:

- ***Existing (2023):*** Represents the traffic conditions of the existing street network, lane geometry, and signal timing, as of December 2023, and traffic volumes observed on a weekday, event day in 2023.
- ***Horizon Year (2050) Baseline (CP Scenario):*** The CP scenario represents the Horizon Year (2050) Baseline scenario per the Midway-Pacific Highway Community Plan. The roadway network is based on the Midway-Pacific Highway Community Plan Baseline scenario land use inputs for 2035, which is not anticipated to change by Year 2050. The traffic volumes were developed using the 2050 SANDAG (ABM2+ version 14.3.0) travel demand model, which includes the buildout scenario based on the Midway-Pacific Highway Community Plan EIR transportation analysis. Note that the Community Plan buildout scenario does not include the continuation of the San Diego Sports Arena and therefore reflects a non-event day scenario.
- ***Horizon Year (2050) Plus Full Project Buildout (CPA Scenario):*** The CPA scenario represents the Horizon Year (2050) Plus Project Buildout scenario. The roadway network includes the roadway changes proposed for the Midway Rising project. Traffic volumes were developed using the 2050 SANDAG (ABM2+ version 14.3.0) travel demand model, including the Midway Rising Project Buildout land use inputs. The CPA scenario includes the Midway Rising Project Buildout land use inputs for the proposed Entertainment Center under an event-day and non-event day.

1.3 STUDY PERIODS

The CPA analyzed the following two study periods, which are consistent with the 2018 Community Plan:

- Commuter AM Peak: 7:00 AM to 10:00 AM (reflective of the existing study area weekday commuter peak period)
- Commuter PM Peak: 4:00 PM to 6:00 PM

The two peak periods above were analyzed for all proposed land uses under the three analysis scenarios defined in the previous section.

The Horizon Year (2050) Baseline (CP Scenario) reflects the Midway Pacific Highway Community Plan buildout, which assumes the highest density land use alternative, and assumes the demolition of the existing San Diego Sports Arena. Therefore, the CP Scenario weekday analysis is reflective of a ‘non-event day’. However, the project will include the Entertainment Center and theater uses; therefore, analysis was run for event day and non-event day under the Horizon Year (2050) Plus Full Project Buildout (CPA Scenario).

2 MIDWAY-PACIFIC HIGHWAY COMMUNITY PLAN

2.1 CP RECOMMENDATIONS

The CP includes a network of planned roadways and associated pedestrian facilities, multi-use paths, and bicycle facilities. Three new north-south running roadways within the site between Sports Arena Boulevard and Kurtz Street were planned in the CP street network:

- Kemper Street (extended north from its current terminus with Sports Arena Boulevard)
- Frontier Drive
- Greenwood Street (extended south from its current terminus with Kurtz Street)

The CP also provides conceptual intersection design for improvements at the following four intersections located within the study area:

- Hancock Street and Sports Arena Boulevard (*CP Figure 3-8*)
- Kemper Street and Sports Arena Boulevard (*CP Figure 3-8*)
- Midway Drive and Sports Arena Boulevard / West Point Loma Boulevard (*CP Figure 3-14*)
- Camino del Rio West / Rosecrans Street and Sports Arena Boulevard (*CP Figure 3-15)*

Excerpts from the Midway Pacific-Highway Community Plan referenced above are provided in **Appendix A**.

2.2 PROJECT RECOMMENDATIONS FOR THE CPA

The following modifications to the Midway-Pacific Highway Community Plan were analyzed for the 2050 Midway Rising Project Buildout (CPA scenario):

Roadway Segments:

- **Kurtz Street** (between Hancock Street and Sherman Street): Convert from a 2-lane one-way (southeast-bound) collector to a 2-lane (two-way) collector with one lane in each direction.
- **Rosecrans Street** (between Midway Drive and Pacific Highway): Dedicate one lane in each direction for Business Access and Transit ("BAT") lane. Proposed BAT lane will be accessible for passenger vehicles making a right turn at an intersection or driveway.
- **Sports Arena Boulevard** (between Midway Drive / W Point Loma Boulevard and Rosecrans St): Dedicate one lane in each direction for BAT lane. Proposed BAT lane will be accessible for passenger vehicles making a right turn at an intersection or driveway.
- **Greenwood Street** (between Kurtz Street and Sports Arena Boulevard): The project does not propose to construct this segment as planned in the Community Plan. Note that bicycles and pedestrians will still be able to connect between Kurtz Street and Sports Arena Boulevard as an "extension" of Sherman Street.

Intersections:

- **Intersection #2 – Midway Drive and Sports Arena Boulevard / West Point Loma Boulevard**: In addition to the improvements identified in *Figure 3-14* of the CP, the Midway Rising project proposes removal of the small channelized portions to accommodate an additional left-turn lane on the southeastbound and northwestbound approaches of Sports Arena Boulevard and Midway Drive, as well as removal of 174 feet of the existing median on W. Point Loma Boulevard to accommodate an additional through lane on the eastbound approach.
- **Intersection #4 – Kemper Street and Sports Arena Boulevard**: *Figure 3-8* of the CP proposes an exclusive left turn and right turn lane on the southbound approach of Kemper Street at Sports Arena Boulevard. The Midway Rising project proposes only a through lane and an exclusive right turn lane.
- **Intersection #11 – Hancock and Kurtz Street**: Construct a single-lane roundabout at this intersection instead of a traffic signal.
- **Intersection #18 – Kurtz Street and Camino del Rio West**: Elimination of eastbound exclusive right turn lane to accommodate a proposed multi-use path along Kurtz Street.
- **Intersection #19 – Camino del Rio West / Rosecrans Street and Sports Arena Boulevard**: In addition to the improvements identified in *Figure 3-15* of the CP, the Midway Rising project proposes the following modifications to the southeastbound approach as compared to the CP design concept:
  - Convert through lane to shared through-left turn lane
  - Replace second through lane to a bus-only through movement lane
  - Separate shared through-right lane to an exclusive through lane and right turn lane

Table 2-1 summarizes the recommended CP street classification modifications versus the project proposed modifications

Figure 2-1 illustrates the proposed CPA modifications for the Midway Rising project and **Figure 2-2** the proposed cross-sections for the roadways adjacent to the project site.

Table 2-1. Existing and Planned (CP and CPA) Vehicular System

Road Name	Extents	Existing Street Classification[1]	Community Plan Ultimate Street Classification[2]	Community Plan Amendment Ultimate Street Classification	Midway Rising Project Recommendation
Sports Arena Boulevard	I-8 WB Off-Ramp to I-8 EB On Ramp	6-lane prime arterial	6-lane prime arterial	No change from CP	6-lane prime arterial
	I-8 EB On Ramp to Midway Drive	5-lane major arterial	6-lane major arterial	No change from CP	No change from Existing Classification Project does not trigger improvements
	Midway Drive to Hancock Street	5-lane collector with a center left turn lane	6-lane major arterial	4-lane major arterial (with two bus only lanes)	No change from Existing Classification Project does not trigger improvements; project does not intend to implement CPA classification change
	Hancock Street to Kemper Street	5-lane collector with a center left turn lane	6-lane major arterial	4-lane major arterial (with two bus only lanes)	4-lane major arterial (with two bus only lanes)
	Kemper Street to West Drive	5-lane major arterial	6-lane major arterial	4-lane major arterial (with two bus only lanes)	4-lane major arterial (with two bus only lanes)
	West Drive to Rosecrans Street	6-lane major arterial	6-lane major arterial	4-lane major arterial (with two bus only lanes)	4-lane major arterial (with two bus only lanes)
	Rosecrans Street to Pacific Highway	2-lane collector	2-lane collector with a center left turn lane	No change from CP	No change from Existing Classification Project does not trigger improvements
Rosecrans Street	Camino Del Rio/Sports Arena Boulevard to Pacific Highway	4-lane collector with a center left turn lane	4-lane major arterial	2-lane major arterial (with two bus only lanes)	2-lane collector (with two bus only lanes) Project does not trigger improvements; project does not intend to implement CPA classification change
	Sports Arena Boulevard to Midway Drive	6-lane major arterial	6-lane prime arterial	No change from CP recommendation	No change from Existing Classification Project does not trigger improvements
Midway Drive	Kemper Street to Rosecrans Street	4-lane collector with a center left turn lane	4-lane collector with a center left turn lane	No change from CP recommendation	4-lane collector with a center left turn lane
Hancock Street	Sports Arena Boulevard to Channel Way	2-lane collector	4-lane collector	No change from CP recommendation	4-lane collector
	Channel Way to Kurtz Street	2-lane collector with a center left turn lane	4-lane collector	No change from CP recommendation	4-lane collector
	Kurtz Street to Greenwood Street	2-lane collector (one-way north-westbound)	3-lane major arterial (one-way)	No change from CP recommendation	No change from Existing Classification Project does not trigger improvements
	Greenwood Street to Camino del Rio West	2-lane collector (one-way north-westbound)	3-lane major arterial (one-way)	No change from CP recommendation	2-lane collector (one-way north-westbound) Project does not trigger improvements
Kurtz Street	Hancock Street to Frontier Drive	2-lane collector (one-way south-eastbound)	2-lane collector (one-way southeast-bound)	2-lane collector	2-lane collector
	Frontier Drive to Sherman Street	2-lane collector (one-way south-eastbound)	2-lane collector (one-way southeast-bound)	2-lane collector	2-lane collector
	Sherman Street to Camino del Rio West	2-lane collector (one-way south-eastbound)	2-lane collector (one-way south-eastbound)	No change from CP recommendation	2-lane collector (one-way south-eastbound)
Camino Del Rio W	Greenwood Street to Kurtz Street	6-lane prime arterial	6-lane prime arterial	No change from CP recommendation	6-lane prime arterial
Greenwood Street	Kurtz Street to Sports Arena Boulevard	Does not exist	2-lane collector	Segment of Greenwood Street would not be constructed	*(No new roadway)*
Kemper Street	Sports Arena Boulevard to Kurtz Street	Does not exist	2-lane collector with a center left turn lane	No change from CP recommendation	2-lane collector with a center left turn lane
Frontier Drive	Sports Arena Boulevard to Kurtz Street	Does not exist	2-lane collector with a center left turn lane	No change from CP recommendation	2-lane collector with a center left turn lane

Notes:
[1]Based on Figure 3-5 Existing (2017) Street Classifications in the Midway Pacific Highway Community Plan, except at the following location:
- Hancock St b/w Sports Arena Blvd & Channel Wy – Lane geometry changes since adoption of Community Plan

[2]Based on Figure 3-6 Planned Street Classifications in the Midway Pacific Highway Community Plan.

Figure 2-1. Community Plan Amendment - Ultimate Roadway Classifications

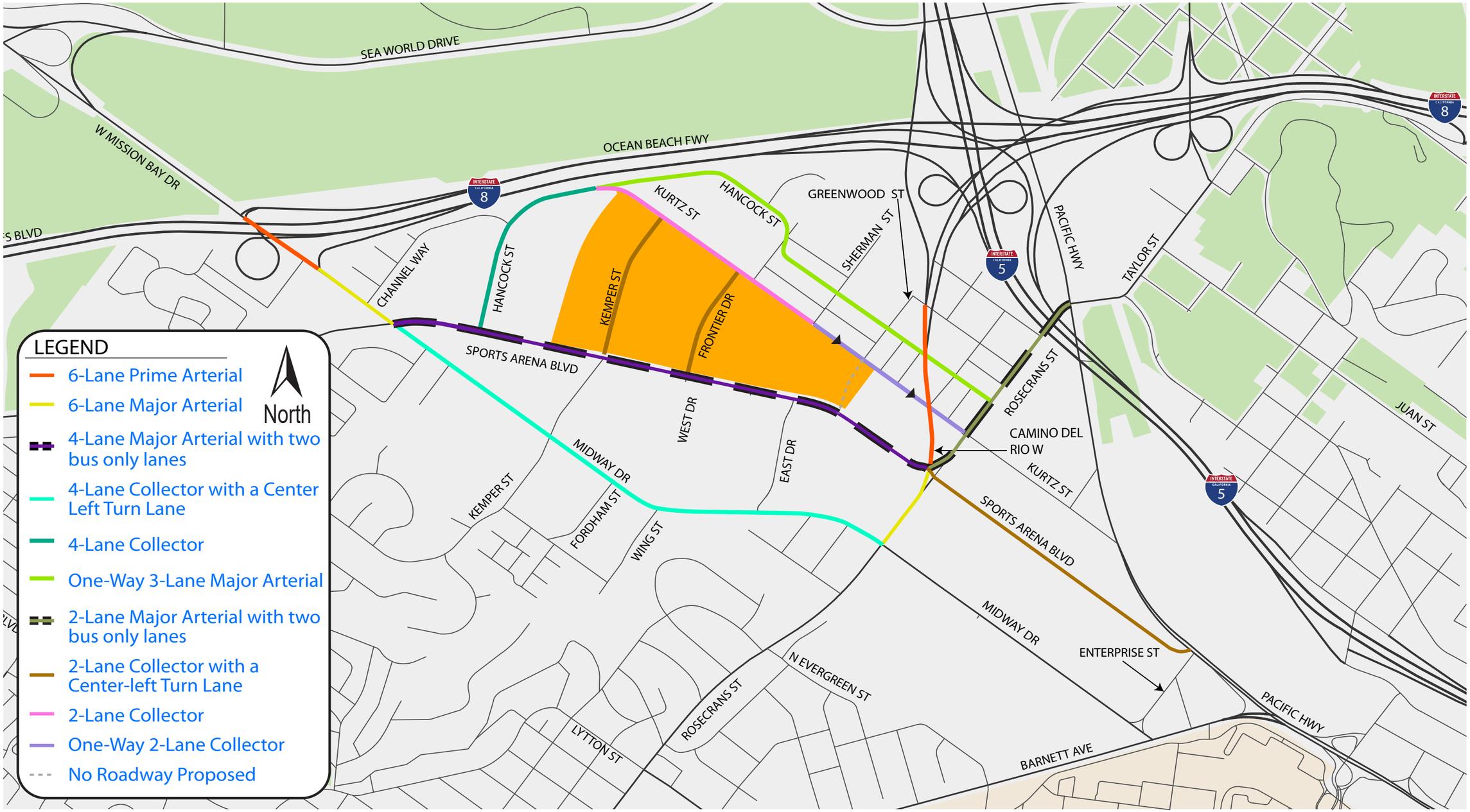
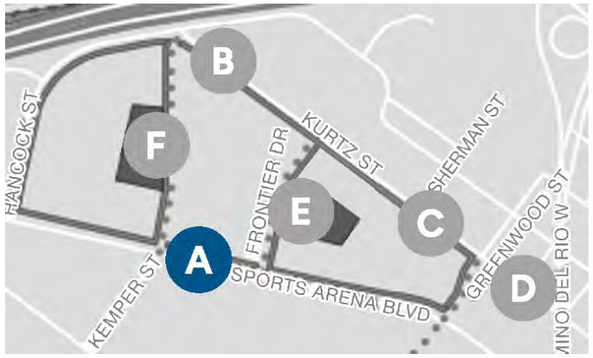


Figure 2-2. Project Frontage Roadways - Proposed Cross Sections (Cross Section A - Sports Arena Boulevard)



EXISTING

(A) Sports Arena Boulevard



PROPOSED

PROJECT SITE

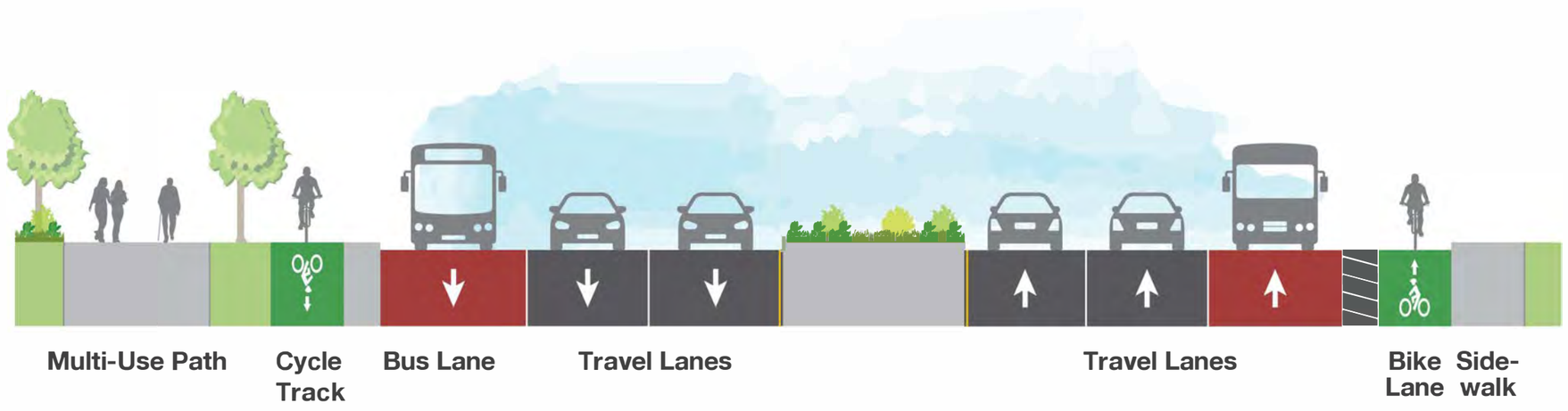
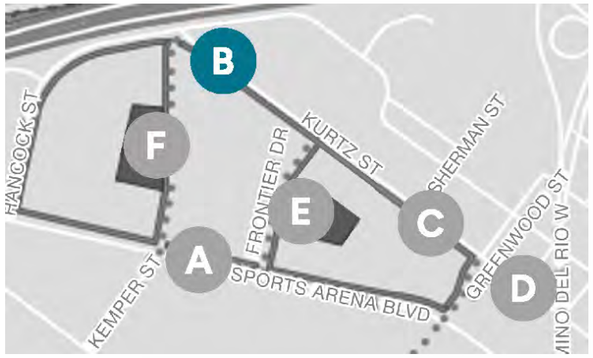
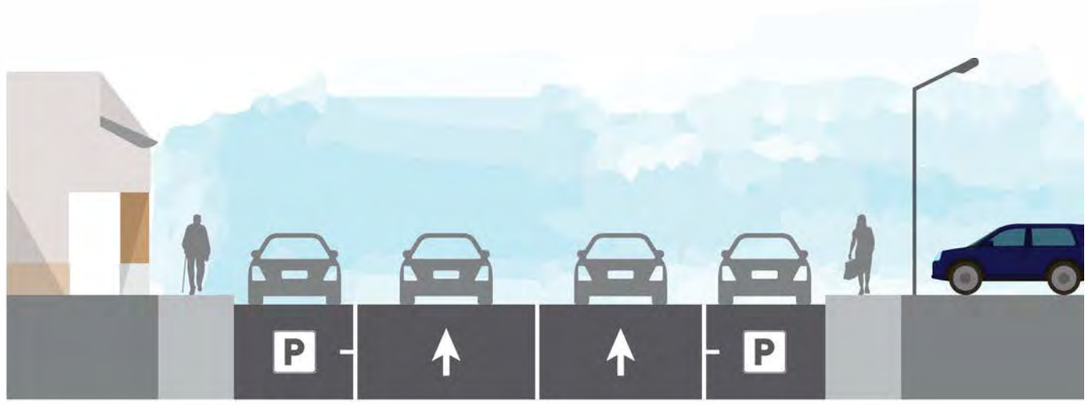


Figure 2-2. Project Frontage Roadways - Proposed Cross Sections (Cross Section B - Kurtz St)



EXISTING

(B) Kurtz Street 1



Sidewalk **Travel Lanes** **Sidewalk**

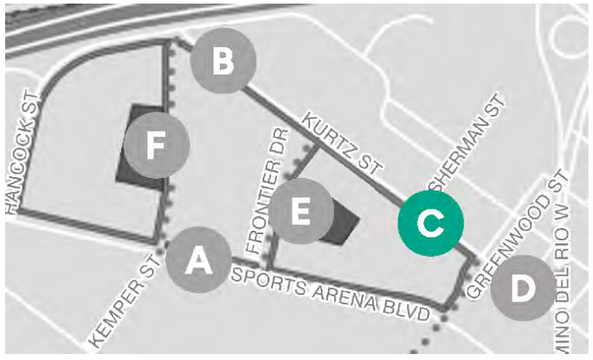
PROPOSED



Sidewalk **Travel Lanes** **Multi-Use Path**

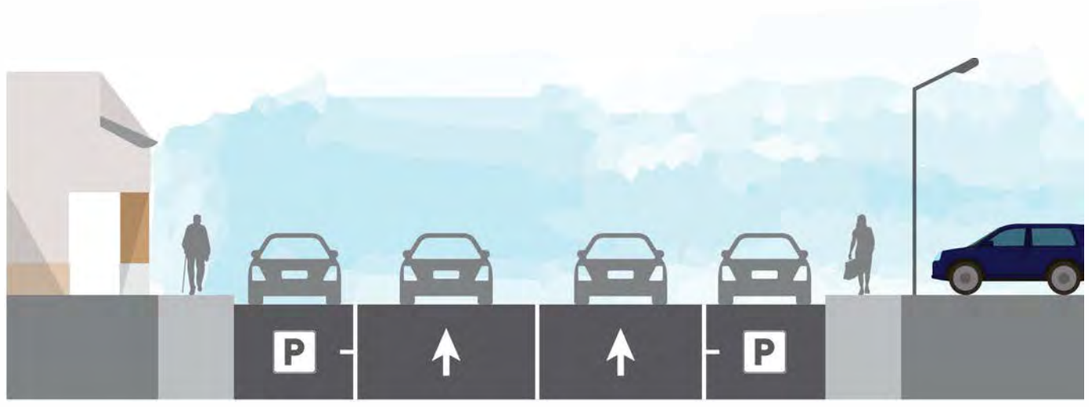
PROJECT SITE

Figure 2-2. Project Frontage Roadways - Proposed Cross Sections (Cross Section C - Kurtz St)



EXISTING

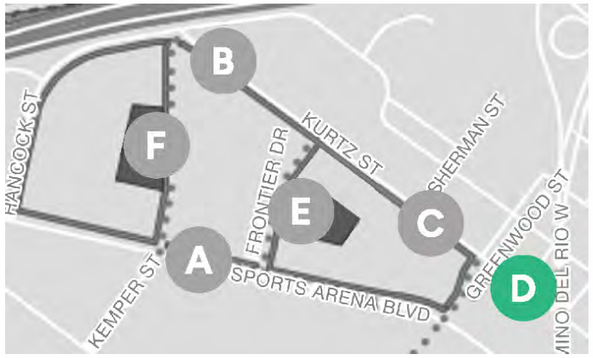
(C) Kurtz Street 2



PROPOSED

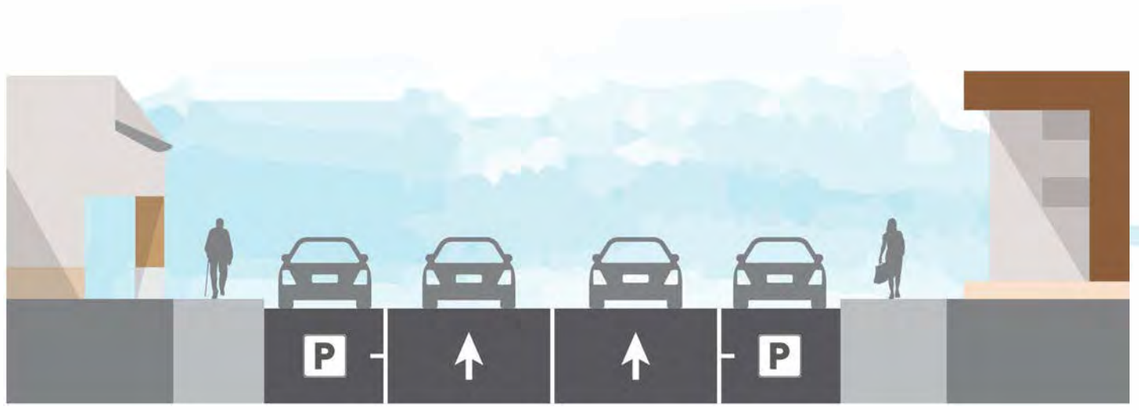


Figure 2-2. Project Frontage Roadways - Proposed Cross Sections (Cross Section D - Kurtz St)



EXISTING

(D) Kurtz Street 3



PROPOSED

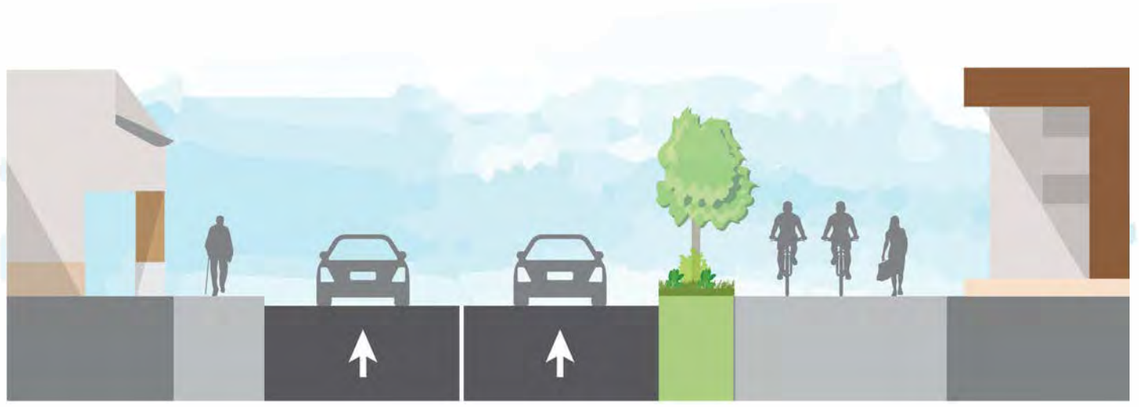
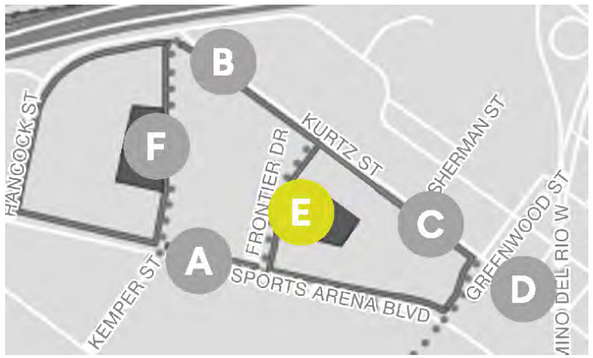
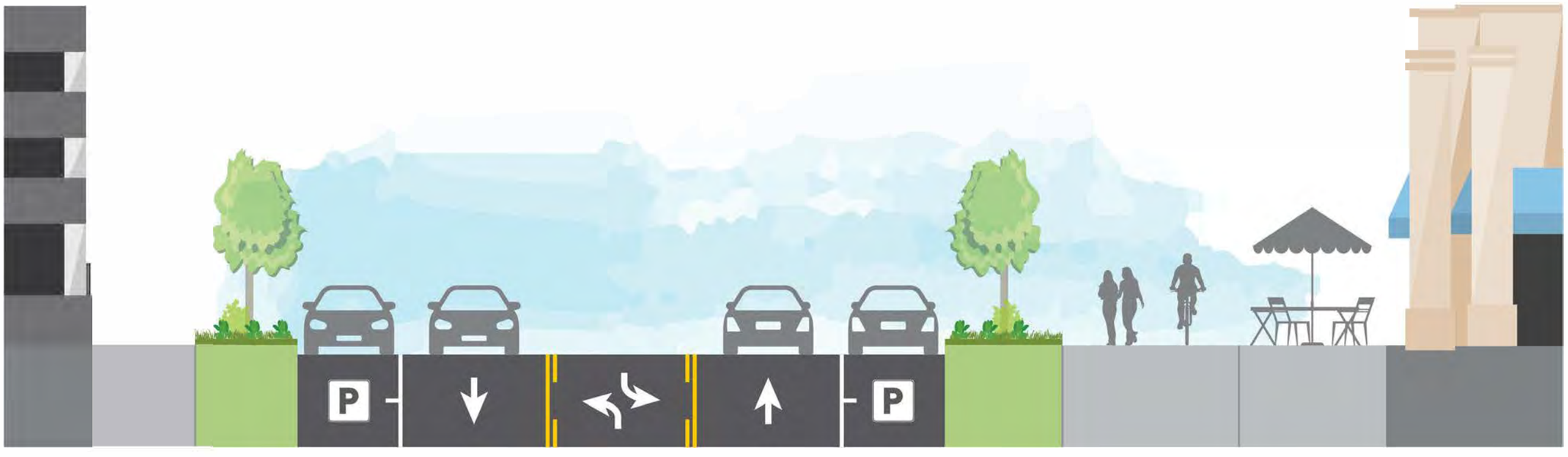


Figure 2-2. Project Frontage Roadways - Proposed Cross Sections (Cross Section E - Frontier Drive)



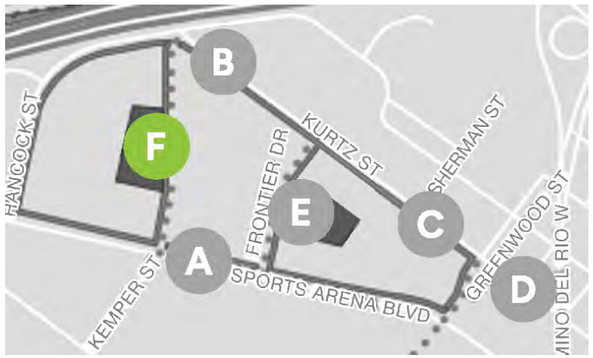
(E) Frontier Drive



Sidewalk **Travel Lanes** **Multi-Use Path**

PROPOSED

Figure 2-2. Project Frontage Roadways - Proposed Cross Sections (Cross Section F - Kemper Street)



(F) Kemper Street



PROPOSED

3 METHODOLOGY

The following section describes the methodology used to identify the study area and analyze study area conditions, and determine any potential project effects.

3.1 STUDY AREA

The study area for the CPA transportation analysis was determined based on the roadway volumes and travel patterns that would be expected to be modified as a result of the proposed roadway changes. The modifications are not anticipated to change the number of vehicles accessing the site from a regional perspective. Instead, the modifications are anticipated to change local travel behavior in how vehicular traffic will access the site. Therefore, intersections were selected along corridors with roadway modifications, except for Midway Drive, where it is anticipated that vehicles may choose to use Midway Drive instead of Sports Arena Boulevard due to the reduction in general purpose travel lanes on Sports Arena Boulevard. Additionally, the West Mission Bay Drive and I-8 Westbound Off-Ramp intersection and the Pacific Highway and Rosecrans Street / Taylor Street intersections were included. All study roadway segments analyzed in the LMA were included for evaluation in the CPA.

The resulting study area includes 21 intersections shown in **Figure 3-1**. The intersections identified for evaluation are summarized in **Table 3-1**. The intersection numbers in **Table 3-1** are consistent with the LMA study area, which contains additional study intersections missing from the list below. The roadway segments identified for evaluation are summarized in **Table 3-2**.

Table 3-1. Study Intersections

#	Location	Existing Control	Jurisdiction
1	West Mission Bay Drive / Sports Arena Boulevard & I-8 Westbound Off-Ramp	Signal	Caltrans
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	Signal	City of San Diego
3	Sports Arena Boulevard & Hancock Street / Commercial Dwy 1	Signal	City of San Diego
4	Sports Arena Boulevard & Kemper Street	Signal	City of San Diego
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	Signal	City of San Diego
6	Sports Arena Boulevard & Target Driveway	One-Way Stop	City of San Diego
7	Sports Arena Boulevard & East Drive	Signal	City of San Diego
8	Midway Drive & Kemper Street	Signal	City of San Diego
9	Midway Drive & East Drive / Commercial Dwy 2	Signal	City of San Diego
11	Kurtz Street & Hancock Street	One-Way Stop	City of San Diego
12	Kurtz Street & Sherman Street (& Future H1 Driveway 2)	All-Way Stop	City of San Diego
13	Kurtz Street & Greenwood Street	One-Way Stop	City of San Diego
14	Hancock Street & Sherman Street	All-Way Stop	City of San Diego
15	Hancock Street & Greenwood Street	Two-Way Stop	City of San Diego
17	Camino Del Rio West & Hancock Street	Signal	City of San Diego
18	Camino Del Rio West & Kurtz Street	Signal	City of San Diego
19	Camino Del Rio West & Sports Arena Boulevard / Rosecrans Street	Signal	City of San Diego
20	Rosecrans Street & Midway Drive	Signal	City of San Diego

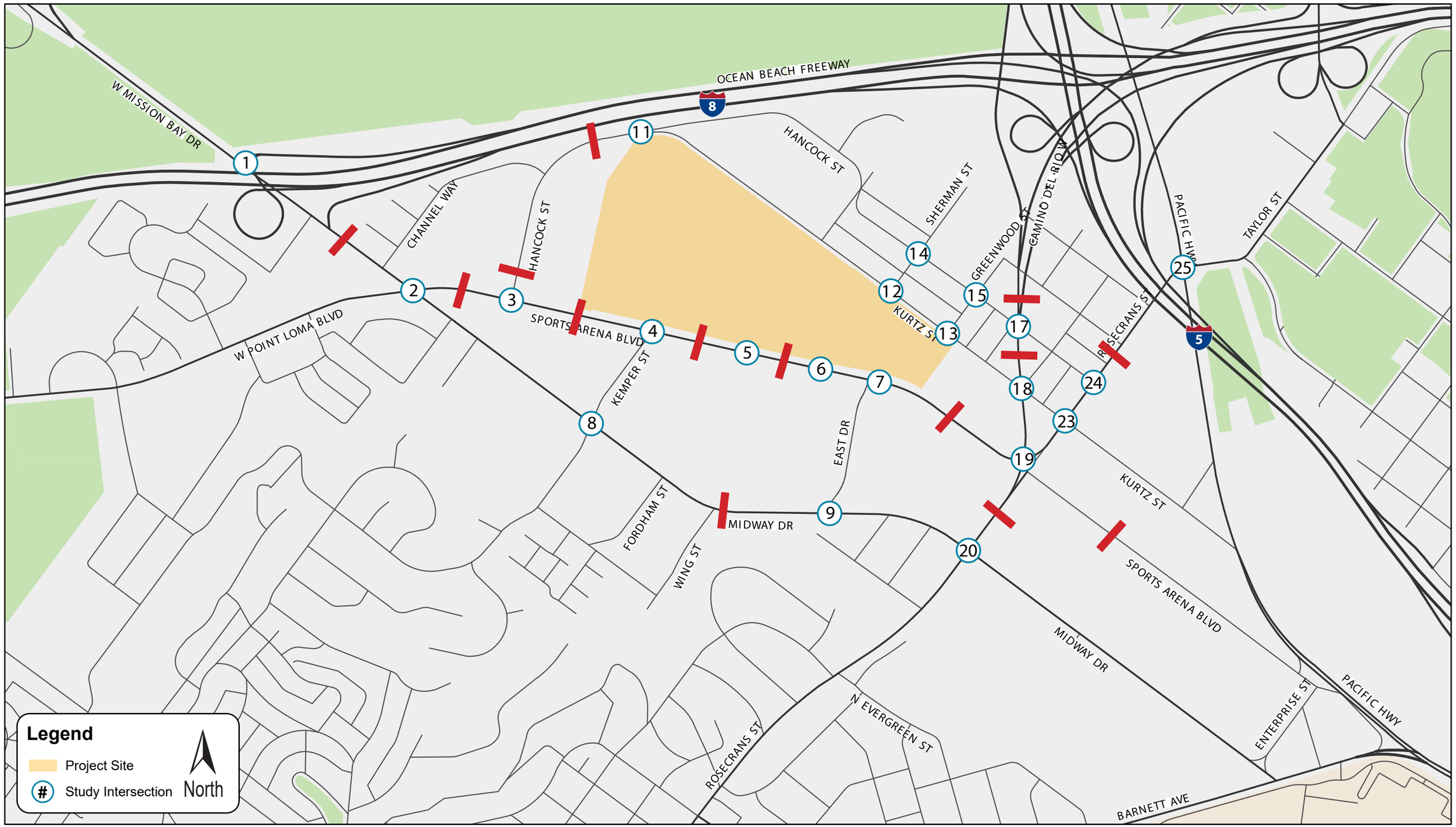
#	Location	Existing Control	Jurisdiction
23	Rosecrans Street & Kurtz Street	Signal	City of San Diego
24	Rosecrans Street & Hancock Street	Uncontrolled	City of San Diego
25	Pacific Highway & Rosecrans Street / Taylor Street	Signal	City of San Diego

Table 3-2. Study Roadway Segments

ID	Roadway	Extents
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp
2		I-8 EB On Ramp to W Point Loma Boulevard
3		W Point Loma Boulevard to Hancock Street
4		Hancock Street to Kemper Street
5		Kemper Street to Frontier Drive
6		Frontier Drive to East Drive
7		East Drive to Camino Del Rio West
8		Rosecrans Street to Pacific Highway
9	Camino Del Rio West	North of Greenwood Street
10		Greenwood Street to Hancock Street
11		Hancock Street to Kurtz Street
12	Rosecrans Street	Camino del Rio to Pacific Highway
13		Sports Arena Boulevard to Midway Drive
14	Midway Drive	Kemper Street to Rosecrans Street
15	Kurtz Street	Kemper Street to Frontier Drive
16		Frontier Drive to Greenwood Street
17		Greenwood Street to Camino del Rio West
18	Hancock Street	Sports Arena Boulevard to Channel Way
19		Channel Way to Kurtz St
20		Kurtz Street to Greenwood Street
21		Greenwood Street to Camino Del Rio West
22	*Frontier Drive (Plus Project scenario Only)	Sports Arena Boulevard to Kurtz Street
23	*Kemper Street (Plus Project scenario Only)	Sports Arena Boulevard to Kurtz Street

***Project will construct these roadways as planned in the Midway-Pacific Highway Community Plan (2018)**

Figure 3-1. Community Plan Amendment Study Area



3.2 ANALYSIS PROCESS

Intersection operations were evaluated using Synchro 11 (Trafficware) and SIDRA software (for the proposed roundabout at Hancock Street/Kurtz Street). The Highway Capacity Manual (HCM), published by the Transportation Research Board, establishes procedures to evaluate facilities and rate their ability to process traffic volumes. The terminology "level of service" is used to provide a qualitative evaluation based on certain quantitative calculations, which are related to average delays.

LEVEL OF SERVICE ANALYSIS

3.2.1.1 Level of Service for Intersections

Level of service (LOS) for intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and loss of travel time. The LOS reported for signalized intersections is the average control delay per vehicle for the peak 15-minute period within the hour analyzed. The average control delay includes initial deceleration delay, queue move-up time, and final acceleration time in addition to the stop delay. LOS for unsignalized intersections is determined by the computed or measured control delay and is defined for each movement. At all-way stop-controlled intersections, the delay reported is the average control delay of all movements at the intersection. At one-way or two-way stop-controlled intersections, the delay reported represents the worst movement which is typically the left-turn from the minor street approach. **Table 3-3** describes the criteria for the various levels of service designations for signalized and unsignalized intersections.

Table 3-3. LOS Criteria for Intersections

LOS	Control Delay (sec/veh)		Description
	Signalized Intersections (a)	Unsignalized Intersections (b)	
A	≤10.0	≤10.0	Operations with very low delay and most vehicles do not stop.
B	>10.0 and ≤20.0	>10.0 and ≤15.0	Operations with good progression but with some restricted movement.
C	>20.0 and ≤35.0	>15.0 and ≤25.0	Operations where a significant number of vehicles are stopping with some backup and light congestion.
D	>35.0 and ≤55.0	>25.0 and ≤35.0	Operations where congestion is noticeable, longer delays occur, and many vehicles stop. The proportion of vehicles not stopping declines
E	>55.0 and ≤80.0	>35.0 and ≤50.0	Operations where there is significant delay, extensive queuing, and poor progression.
F	>80.0	>50.0	Operations that is unacceptable to most drivers, when the arrival rates exceed the capacity of the intersection.

Source:
(a) 6th Edition Highway Capacity Manual, Chapter 19, Page 16, Exhibit 19-8; 2000 Edition Highway Capacity Manual, Chapter 16, Page 2
(b) 6th Edition Highway Capacity Manual, Chapter 20, Page 6, Exhibit 20-2; 2000 Edition Highway Capacity Manual, Chapter 17, Page 2 and 32

Synchro 11 software was used to analyze the intersection level of service operations for both signalized and unsignalized intersections. The intersection analysis uses the methodologies outlined in HCM 6th Edition except where limitations to HCM 6th edition methodology was present such as a fifth leg, clustered

intersections, custom phasing, or exclusive pedestrian phasing. For these intersections, HCM 2000 methodology was used.

- ***Peak-hour factor (PHF)*** – PHFs collected in field were assigned per approach under existing conditions, and default value of 0.92 PHF assigned at all approaches under future conditions per the City's Transportation Study Manual (TSM).
- ***Saturation flow rate*** – Typical saturation flow rate of 1,900 vehicles per hour per lane.
- ***Signal timing*** - Existing signal timings were modeled for the signalized intersection under the existing scenario. Signal timing was optimized for each future scenario, as is typical when analyzing horizon year conditions and when implementing roadway changes. Signal timing sheets for the signalized study intersections are provided in **Appendix B.**

3.2.1.2 Level of Service for Roundabouts (SIDRA)

Levels-of-service (LOS) for roundabouts in this evaluation were determined using methods defined in the *Highway Capacity Manual (HCM), 6th Edition* and SIDRA (Version 9.1) traffic analysis software. The HCM roundabout intersection procedures define LOS as a function of average control delay for the intersection as a whole. Roundabout control is analyzed using unsignalized criteria.

3.2.1.3 Thresholds for Project Effects at Intersections

Intersections were considered to exhibit project effects if the following changes to LOS were calculated in Plus Project scenarios when compared to LOS results in Base scenarios. **Table 3-4** defines transportation effects for City of San Diego intersections for when project improvements should be provided.

Table 3-4. Project Effect Criteria for Intersections

Intersection Control	Within ½ mile path of travel of a Major Transit Stop	Outside ½ mile path of travel of a Major Transit Stop
Signalized/All-Way Stop/Roundabout	Project causes intersection to degrade to LOS F, OR Project adds traffic to intersection already at LOS F	Project causes intersection to degrade to LOS E or F, OR Project adds traffic to intersection already at LOS E or F
Side-Street Stop	Project causes the worst movement to degrade to LOS F, OR Project adds traffic to the worst movement already at LOS F	Project causes the worst movement to degrade to LOS E or F, OR Project adds traffic to the worst movement already at LOS E or F

Source: City of San Diego Transportation Study Manual (2022)

3.2.1.4 Level of Service for Roadway Segments

Table 3-5 summarizes the roadway level of service criteria based on classification and average daily traffic (ADT) from the TSM.

Table 3-5. Roadway Segment Level of Service Thresholds for City of San Diego Roadway Segments

Street Classification	General Purpose Lanes	Level of Service				
		A	B	C	D	E
Expressway	8 lanes	40,000	56,000	80,000	93,500	107,000
Expressway	7 lanes	35,000	49,000	70,000	82,000	93,500
Expressway	6 lanes	30,000	42,000	60,000	70,000	80,000
Prime Arterial	8 lanes	35,000	50,000	70,000	75,000	80,000
Prime Arterial	7 lanes	30,000	42,500	60,000	65,000	70,000
Prime Arterial	6 lanes	25,000	35,000	50,000	55,000	60,000
Prime Arterial	5 lanes	20,000	28,000	40,000	45,000	50,000
Prime Arterial	4 lanes	17,500	24,500	35,000	40,000	45,000
Major Arterial	7 lanes	22,500	31,500	45,000	50,000	55,000
Major Arterial	6 lanes	20,000	28,000	40,000	45,000	50,000
Major Arterial	5 lanes	17,500	24,500	35,000	40,000	45,000
Major Arterial	4 lanes	15,000	21,000	30,000	35,000	40,000
Major Arterial** ***(with flex lanes)	4 lanes	15,000	21,000	30,000	35,000	40,000
Major Arterial	3 lanes	11,250	15,750	22,500	26,250	30,000
Major Arterial	2 lanes	7,500	10,500	15,000	17,500	20,000
Major Arterial** ***(with flex lanes)	2 lanes	7,500	10,500	15,000	17,500	20,000
Major Arterial ***(one-way)***	3 lanes	12,500	16,500	22,500	25,000	27,500
Major Arterial ***(one-way)***	2 lanes	10,000	13,000	17,500	20,000	22,500
Collector ***(with two-way left turn lane)***	5 lanes	12,500	17,500	25,000	30,750	37,500
Collector ***(with two-way left turn lane)***	4 lanes	10,000	14,000	20,000	25,000	30,000
Collector ***(with two-way left turn lane)***	3 lanes	7,500	10,500	15,000	18,750	22,500
Collector ***(with two-way left turn lane)***	2 lanes	5,000	7,000	10,000	13,000	15,000
Collector** ***(with flex lanes)	2 lanes	5,000	7,000	10,000	13,000	15,000
Collector ***(without two-way left turn lane)***	4 lanes	5,000	7,000	10,000	13,000	15,000
Collector ***(without two-way left turn lane)***	3 lanes	4,000	5,000	7,500	10,000	11,000
Collector ***(without two-way left turn lane)***	2 lanes	2,500	3,500	5,000	6,500	8,000
Collector ***(with no fronting property)***	2 lanes	4,000	5,500	7,500	9,000	10,000
Collector ***(one-way)***	3 lanes	11,000	14,000	19,000	22,500	26,000
Collector ***(one-way)***	2 lanes	7,500	9,500	12,500	15,000	17,500
Collector ***(one-way)***	1 lane	2,500	3,500	5,000	6,500	7,500
Sub-Collector ***(Single-family)***	2 lanes	--	--	2,200	--	--

Source: City of San Diego Transportation Study Manual (September 2022)
***LOS Criteria provided by City of San Diego Sustainability and Mobility Department staff**

3.2.1.5 Thresholds for Project Effects for Roadway Segments

Roadway segments were considered to exhibit project effects if the following LOS changes were observed in Plus Project scenarios when compared to results in Base scenarios. **Table 3-6** defines the criteria for project effects for roadway segments per the TSM and whether the project should implement the improvement or contribute a fair share towards the improvement.

Table 3-6. Project Effect Criteria for Roadway Segments

Roadway Type	Complete implementation of Improvement per the Community Plan	Fair Share of Improvement per the Community Plan
Roadways with improvements identified in the community plan	Project adds >50% of total daily vehicle trips on segment	Project adds ≤50% of total daily vehicle trips on segment
Planned new circulation element roadways	Project adds >50% of total daily vehicle trips on segment	Project adds ≤50% of total daily vehicle trips on segment

Source: City of San Diego Transportation Study Manual (2022)

QUEUE ANALYSIS

SimTraffic software included in Synchro 11 was used to analyze the 95th percentile queues at the turn lanes for signalized intersections. The 95th percentile queue is the maximum queue length under 95th percentile traffic volumes, and thus will rarely be exceeded. The 95th percentile queue lengths reported represent an average of five SimTraffic runs.

3.3 TRAVEL DEMAND MODELING

ROADWAY NETWORK

As part of the 2018 Midway Pacific Highway Community Plan, the roadway network was modeled using a previous version of the SANDAG traffic forecast model (SANDAG Series 12 Future Year Forecast model). This model was based on origin-destination travel forecasting. Since 2018, SANDAG has transitioned to an activity-based model (ABM) and is currently utilizing the Series 14, ABM2+, Base Year 2016, version 14.3.0.

Per the City's TSM, future traffic forecasts must utilize the latest available regional activity-based demand model (SANDAG Series 14 ABM2+ version 14.3.0—updated and released July 12, 2022). The Horizon Year (2050) Base (CP Scenario) and the Horizon Year (2050) Plus Full Project Buildout (CPA Scenario) utilized the SANDAG Series 14 ABM2+ version 14.3.0 and was run in-house by Kimley-Horn.

HORIZON YEAR (2050) TRAFFIC VOLUMES

The land use inputs from the Series 14, 2035 travel demand model, which includes the Midway Pacific Highway Community Plan buildout, were incorporated into the Series 14, 2050 travel demand model to develop Horizon Year (2050) CP scenario volumes. More detail is provided in Section 5.3 of this report.

The land use inputs were updated to reflect the proposed Midway Rising project land uses, and input into the 2050 travel demand model to develop Horizon Year (2050) CPA scenario volumes. More detail is provided in Section 6.2 of this report.

The VMT report for the Midway Rising project is provided in **Appendix C**, which includes more details on the model, and summarizes the land use inputs for each scenario.

The Horizon Year (2050) CP scenario forecasted roadway segment volumes were determined by calculating a growth rate between the 2016 Baseline and the 2050 Baseline SANDAG model volumes and applying that growth rate to the 2023 existing roadway segment counts taken on a non-event day. The Horizon Year (2050) CPA scenario forecasted roadway segment volumes were determined by calculating a growth rate between the 2016 Baseline and the 2050 With Project SANDAG model volumes and applying that growth rate to the 2023 existing roadway segment counts taken on an event day and a non-event day.

The Horizon Year (2050) turning movement counts were calculated using an iterative method (turn32) to measure growth between 2023 roadway segment ADT counts for a non-event day and 2050 roadway segment forecasted ADTs, and applying that growth to the existing 2023 turning movement counts for a non-event day. This methodology was used to develop turning movement volumes for the Horizon Year (2050) CP and CPA scenarios for a non-event day. The same methodology was used to develop turning movement volumes for the Horizon Year (2050) CPA scenario for an event-day but based on a growth rate between 2023 roadway segment ADT counts for an event day and 2050 roadway segment forecasted ADTs, and applying that growth to the existing 2023 turning movement counts for an event day.

4 EXISTING CONDITIONS

This section summarizes the existing roadway circulation network, daily and peak-hour traffic volumes, and operations at the study intersections and roadway segments.

4.1 ROADWAY NETWORK

The roadways along the project frontages include Sports Arena Boulevard to the south and Kurtz Street to the north. Surrounding roadways nearby the project site include Sports Arena Boulevard, Kurtz Street, Hancock Street, Kemper Street, Camino Del Rio West, Rosecrans Street, W Point Loma Boulevard, and Midway Drive.

Table 4-1 provides a description of existing roadway network of the study area, as of December 2023. The planned roadway classifications are provided in the Midway-Pacific Highway Community Plan (2018). **Figure 4-1** illustrates the existing study intersection geometrics under existing (2023) conditions.

4.2 TRAFFIC VOLUMES

Driveway and peak hour intersection counts were collected by National Data and Surveying Services (NDS) during a high-capacity concert at the San Diego Sports Arena to obtain event-day, existing (2023) traffic volumes. These counts were collected on Thursday, September 21, 2023, during the Luis Miguel concert during the commuter AM and PM peak periods. Additionally, 24-hour roadway segment counts were collected for eight days between Saturday, January 7, 2023 and Saturday, January 14, 2023 at the study segments. The weekday event day (San Diego Gulls) occurred on Wednesday, January 11th, 2023. These counts were used to analyze existing (2023) conditions in the study area and develop the existing site trip generation.

Appendix D contains the existing traffic count data.

4.3 INTERSECTION LEVEL OF SERVICE ANALYSIS

The existing (2023) intersection analysis was performed based on existing lane geometries and traffic controls observed, and data collected during the Commuter AM and Commuter PM peak hours on weekday event-day. **Figure 4-2** illustrates the existing traffic volumes at the study intersections.

Table 4-2 displays the LOS analysis results for the study intersections under existing conditions.

Under existing conditions, all study intersections operate at LOS D or better during the commuter AM and PM peak hours, except the following:

- Intersection #2 – Sports Arena Blvd / Midway Dr / W Point Loma Blvd (PM: LOS E)
- Intersection #6 – Sports Arena Blvd / Target Dwy / Existing VIP Access (PM: LOS E)
- Intersection #17 – Camino del Rio W / Hancock St (AM: LOS F; PM: LOS F)
- Intersection #20 – Rosecrans St / Midway Dr (AM: LOS E; PM: LOS E)

Appendix E contains the intersection LOS calculation worksheets for existing conditions.

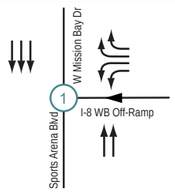
Table 4-1. Existing Roadway Network

Roadway	From	To	No. Lanes	Median Type	Sidewalks	Bike Facilities	Transit Route	Posted Speed Limit	Existing Roadway Class.[1]	Planned Roadway Class.[2]
Sports Arena Boulevard	I-8 WB Off-Ramp	Rosecrans St	5-6 Lanes	Painted/ Raised	B/S (non-contiguous) 6 ft wide	Class II/ Class II Buffered	8 & 9	35 MPH	5-Lane Major Arterial	6-Lane Major Arterial
	Rosecrans St	Barnett Ave	2 Lanes	None	B/S (non-contiguous) 6 ft wide	None	None	25 MPH	2-Lane Collector	2-Lane Collector with CLTL
Kurtz Street	Hancock St	Camino Del Rio W.	2 Lanes (EB only)	None	B/S (non-contiguous) 5 ft wide	None	None	30 MPH	2-Lane Collector (one-way)	2-Lane Collector (one-way)
Hancock Street	Sports Arena Blvd	Kurtz St	2 Lanes	CLTL	B/S (non-contiguous) 5-6 ft wide	None	None	25-30 MPH	2-Lane Collector with CLTL	4-Lane Collector
	Kurtz St	Camino Del Rio W.	2 Lanes (WB only)	None	B/S (non-contiguous) 4-10 ft wide	None	None	25 MPH	2-Lane Collector (one-way)	3-Lane Major Arterial (one-way)
Kemper Street	Sports Arena Blvd	Leland St	2-4 Lanes	CLTL	B/S (both contiguous & non-contiguous) 4-10 ft wide	Class III	None	25 MPH	2-Lane Collector with CLTL	4-Lane Collector
Camino Del Rio West	I-8 WB/I-5 SB Off-Ramps	Sports Arena Blvd	3-4 SB / 3 NB	Raised	B/S (non-contiguous) 4.5-6 ft wide	None	None	35 MPH	6-Lane Prime Arterial	6-Lane Prime Arterial
Rosecrans Street	Pacific Hwy	Sports Arena Blvd	2 SB / 2-3 NB	Raised/ CLTL	B/S (both contiguous & non-contiguous) 5-9 ft wide	None	8, 9, 28, & 35	30 MPH	4-Lane Collector with CLTL	6-Lane Prime Arterial
	Sports Arena Blvd	Lytton St	3 SB / 3 NB	Raised	B/S (non-contiguous) 5-15 ft wide	Class II (SB Buffered) / Class III SB	28 & 35	40 MPH	6-Lane Major Arterial	6-Lane Prime Arterial

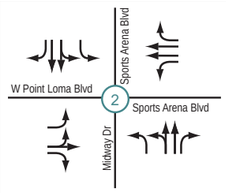
Notes:
[1]Existing roadway classifications based on Figure 3-5 in the Midway Pacific Highway Community Plan.
[2]Planned roadway classifications based on Figure 3-6 in the Midway Pacific Highway Community Plan.
CLTLL – Center Left-Turn Lane median.
W/O – West of
B/S – both sides

Figure 4-1. Existing Intersection Geometries

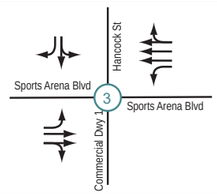
W Mission Bay Dr/Sports Arena Blvd and Intersate 8 WB Off Ramp



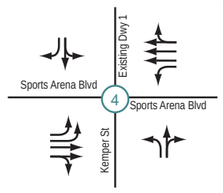
Sports Arena Blvd and W Point Loma Blvd and Midway Dr



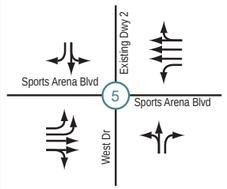
Sports Arena Blvd and Hancock St/Commercial Dwy 1



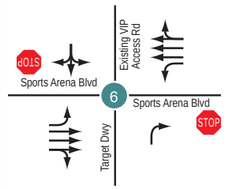
Sports Arena Blvd and Kemper St/Existing Dwy 1



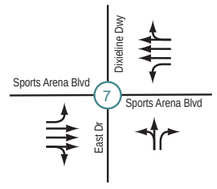
Sports Arena Blvd and West Dr/Existing Dwy 2



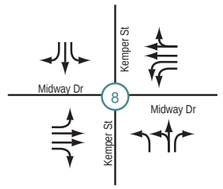
Sports Arena Blvd and Target Dwy



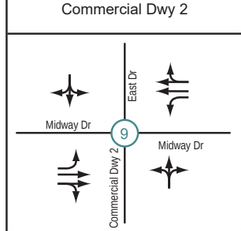
Sports Arena Blvd and East Dr/Commercial Dwy 3



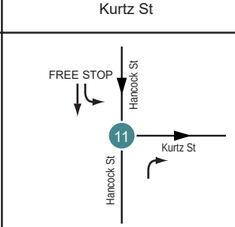
Midway Dr and Kemper St



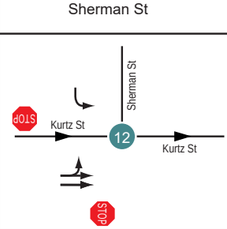
Midway Dr and East Dr/Commercial Dwy 2



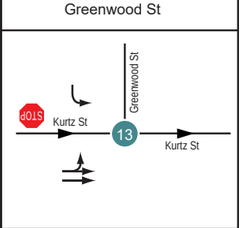
Hancock St and Kurtz St



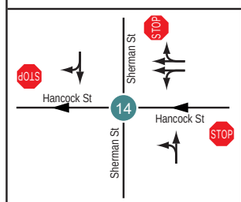
Kurtz St and Sherman St



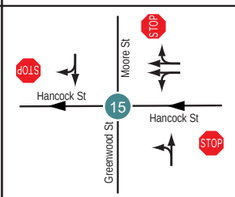
Kurtz St and Greenwood St



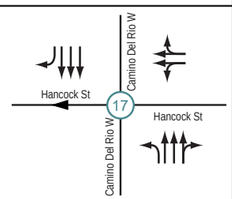
Hancock St and Sherman St



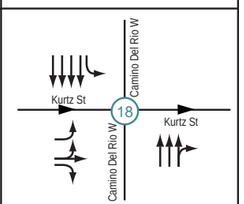
Hancock St and Greenwood St/Moore St



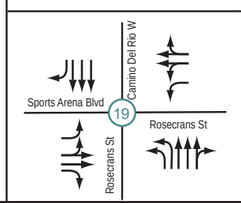
Camino Del Rio W and Hancock St



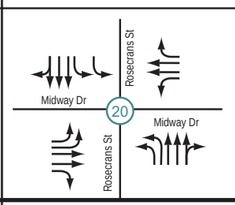
Camino Del Rio W and Kurtz St



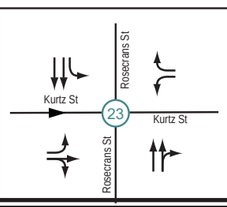
Sports Arena Blvd and Rosecrans St and Camino Del Rio W



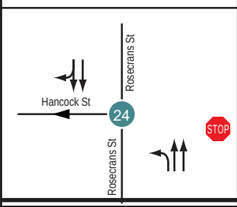
Rosecrans St and Midway Dr



Rosecrans St and Kurtz St



Rosecrans St and Hancock St



Pacific Hwy and Rosecrans St/Taylor St

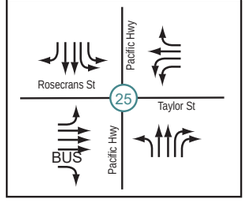


Figure 4-2a. Existing (2023) Conditions Traffic Volumes

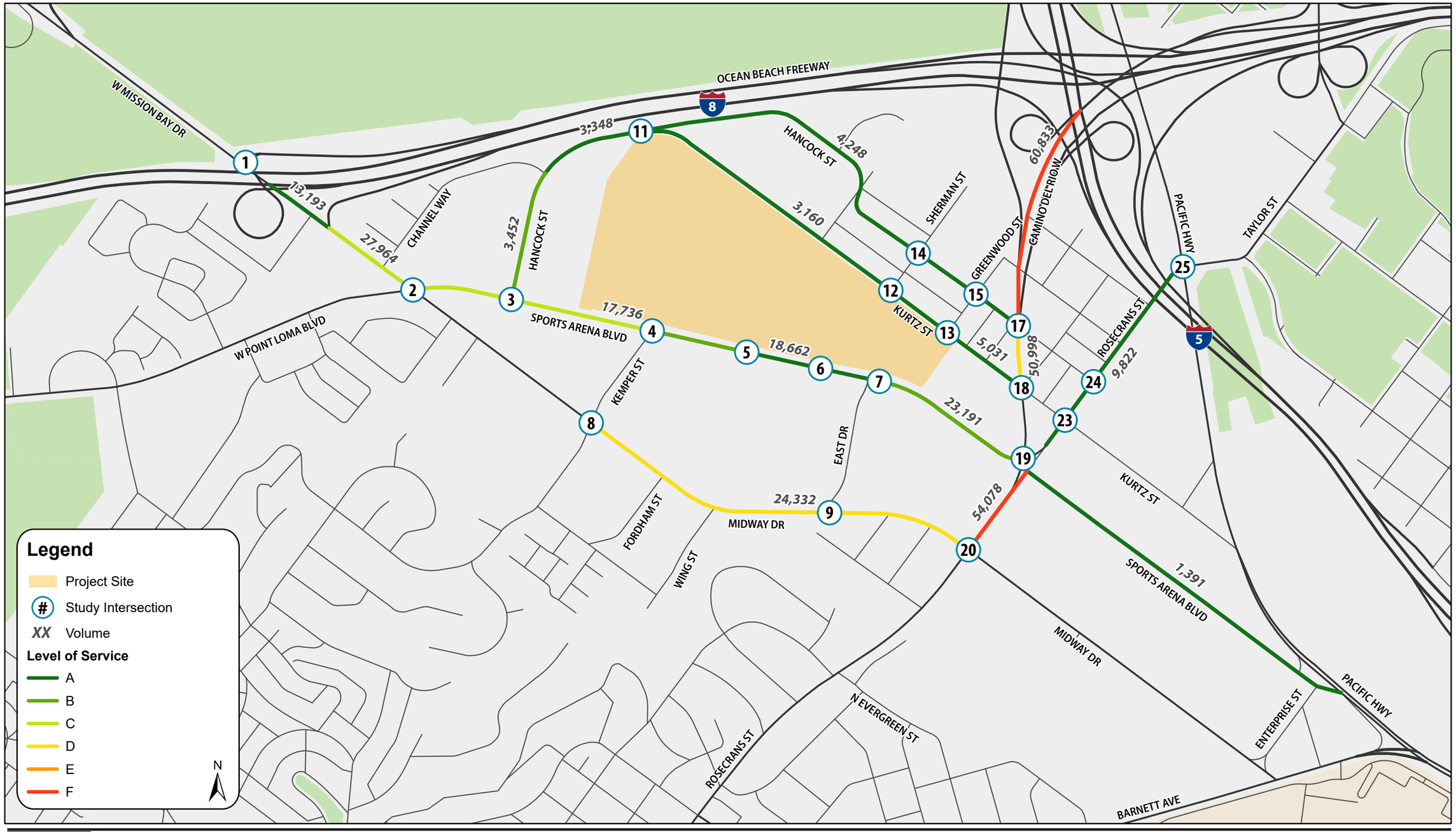


Figure 4-2b. Existing (2023) Conditions Traffic Volumes

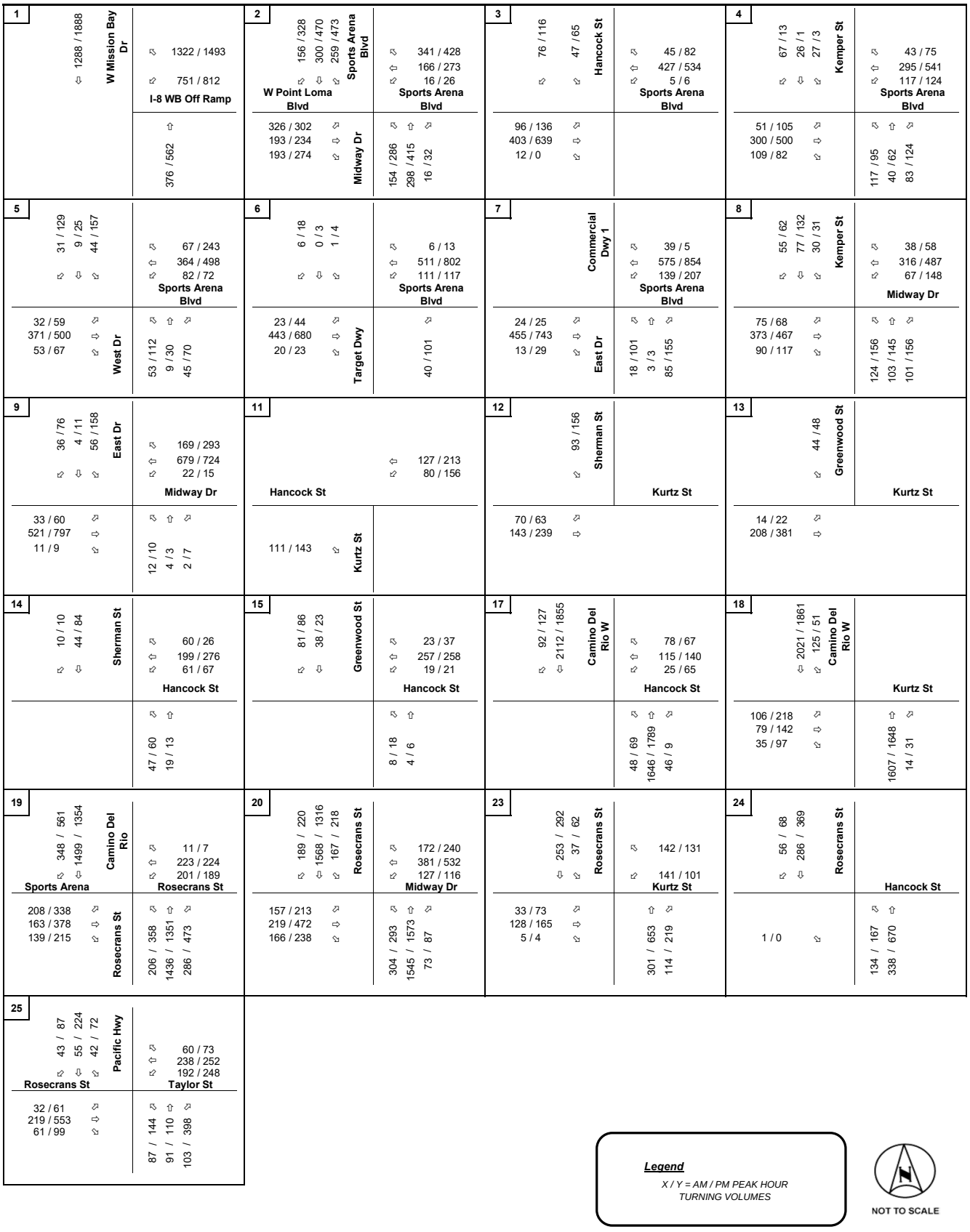


Table 4-2. Existing Conditions Intersection LOS Summary

#	INTERSECTION	TRAFFIC CONTROL	HCM EDITION	PEAK HOUR	Existing (2023) Conditions	
					DELAY (a)	LOS (b)
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	Signal	**HCM 2000**	Weekday AM	18.3	B
				Weekday Commuter PM	23.7	C
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	Signal	HCM 6th	Weekday AM	29.4	C
				Weekday Commuter PM	61.2	**E**
3	Commercial Dwy 1/Hancock St & Sports Arena Blvd	Signal	HCM 6th	Weekday AM	8.6	A
				Weekday Commuter PM	16.7	B
4	Kemper St/Existing Dwy 1 & Sports Arena Blvd	Signal	HCM 6th	Weekday AM	13.3	B
				Weekday Commuter PM	20.0	C
5	West Dr/Existing Dwy 2 & Sports Arena Blvd	Signal	HCM 6th	Weekday AM	13.8	B
				Weekday Commuter PM	28.4	C
6	Target Dwy/Existing VIP Access Rd & Sports Arena Blvd	Two-Way Stop	HCM 6th	Weekday AM	13.3	B
				Worst Mvmt	*SB*	
				Weekday Commuter PM	45.3	**E**
				Worst Mvmt	*SB*	
7	East Dr/Commercial Dwy 3 & Sports Arena Blvd	Signal	HCM 6th	Weekday AM	9.3	A
				Weekday Commuter PM	21.0	C
8	Kemper St & Midway Dr	Signal	HCM 6th	Weekday AM	19.6	B
				Weekday Commuter PM	37.4	D
9	Commercial Dwy 2/East Dr & Midway Dr	Signal	HCM 6th	Weekday AM	9.7	A
				Weekday Commuter PM	14.2	B
11	Kurtz St & Hancock St	Two-Way Stop	HCM 6th	Weekday AM	9.9	A
				Worst Mvmt	*SB*	
				Weekday Commuter PM	11.1	B
				Worst Mvmt	*SB*	
12	Kurtz St & Sherman St	All-Way Stop	HCM 6th	Weekday AM	8.8	A
				Weekday Commuter PM	9.8	A
13	Kurtz St & Greenwood St	Two-Way Stop	HCM 6th	Weekday AM	9.7	A
				Worst Mvmt	*SB*	
				Weekday Commuter PM	10.8	B
				Worst Mvmt	*SB*	
14	Sherman St & Hancock St	All-Way Stop	HCM 6th	Weekday AM	8.9	A
				Weekday Commuter PM	9.9	A
15	Greenwood St & Hancock St	All-Way Stop	HCM 6th	Weekday AM	8.8	A
				Weekday Commuter PM	8.7	A
17	Camino Del Rio W & Hancock St	Signal	HCM 6th	Weekday AM	149.7	**F**
				Weekday Commuter PM	ECL	**F**
18	Camino Del Rio W & Kurtz St	Signal	HCM 6th	Weekday AM	5.4	A
				Weekday Commuter PM	8.8	A
19	Rosecrans St & Sports Arena Blvd & Camino Del Rio W	Signal	**HCM 2000**	Weekday AM	32.6	C
				Weekday Commuter PM	43.1	D
20	Rosecrans St & Midway Dr	Signal	HCM 6th	Weekday AM	63.6	**E**
				Weekday Commuter PM	60.4	**E**
23	Rosecrans St & Kurtz St	Signal	**HCM 2000**	Weekday AM	18.0	B
				Weekday Commuter PM	21.4	C
24	Rosecrans St & Hancock St	One-Way Stop	HCM 6th	Weekday AM	9.5	A
				Worst Mvmt	*SE*	
				Weekday Commuter PM	10.1	B
				Worst Mvmt	*SE*	
25	Pacific Hwy & Rosecrans St/Taylor St	Signal	HCM 6th	Weekday AM	22.0	C
				Weekday Commuter PM	28.2	C

Notes:

Bold values indicate intersections operating at LOS E or F.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition* and *2000 Edition* and performed using Synchro 11.0

4.4 QUEUEING ANALYSIS

Table 4-3 summarizes the 95th percentile queues under existing conditions. The 95th percentile queue lengths reported represent an average of five SimTraffic runs.

Appendix F contains the 95th percentile queue worksheets for existing conditions. Under existing conditions, queues exceed the existing available storage length at:

- 4 intersections in the Commuter AM peak
- 10 intersections in the Commuter PM peak

4.5 ROADWAY SEGMENT ANALYSIS

The existing (2023) conditions roadway segment analysis was performed based on existing roadway geometries and 24-hour roadway segment counts collected on a weekday event day (Wednesday, January 11th, 2023).

Table 4-4Error! Reference source not found. summarizes the roadway segment LOS analysis at the study segments under existing conditions.

Under existing (2023) conditions, all roadway segments operate at LOS D or better on a weekday event day except the following:

- Camino del Rio West north of Greenwood Street (LOS F)
- Camino del Rio West between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)

Table 4-3. Existing Conditions Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	1800'	AM	276	No
				PM	2,835	**Yes**
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360'	AM	185	No
				PM	528	**Yes**
		WBL	150'	AM	<25	No
				PM	43	No
		NBL	230'	AM	80	No
				PM	102	No
3	Sports Arena Boulevard & Hancock Street	EBL	160'	AM	68	No
				PM	153	No
		WBL	100'	AM	<25	No
				PM	<25	No
4	Sports Arena Boulevard & Kemper Street	EBL	440'	AM	57	No
				PM	83	No
		WBL	175'	AM	90	No
				PM	145	No
		NBL	100'	AM	89	No
				PM	120	**Yes**
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330'	AM	30	No
				PM	56	No
		WBL	175'	AM	85	No
				PM	117	No
6	Sports Arena Boulevard & Target Driveway	EBL	150'	AM	29	No
				PM	46	No
		WBL	125'	AM	57	No
				PM	76	No
7	Sports Arena Boulevard & East Driveway	EBL	125'	AM	42	No
				PM	67	No
		WBL	125'	AM	110	No
				PM	210	**Yes**
		NBR	100'	AM	56	No
				PM	131	**Yes**
8	Midway Drive & Kemper Street	EBL	320'	AM	85	No
				PM	102	No
		EBR	150'	AM	52	No
				PM	66	No
		NBL	90'	AM	85	No
				PM	191	**Yes**
		SBL	100'	AM	46	No
				PM	87	No
		SBR	115'	AM	50	No
				PM	96	No
9	Midway Drive & East Drive	EBL	90'	AM	<25	No
				PM	72	No
		WBL	100'	AM	37	No
				PM	55	No
17	Camino Del Rio West & Hancock Street	NBL	100'	AM	65	No
				PM	153	**Yes**
		I-5 SB Off-Ramp	3500'	AM	486	No
				PM	459	No
		I-8 WB Off-Ramp	3700'	AM	732	No
				PM	619	No
		SBR	130'	AM	246	**Yes**
				PM	130	No

Table 4-3. Existing Conditions Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
18	Camino Del Rio West & Kurtz Street	EBR	200'	AM	39	No
				PM	320	**Yes**
		SBL	100'	AM	206	**Yes**
				PM	190	**Yes**
19	Camino Del Rio West & Sports Arena Boulevard	EBR	300'	AM	144	No
				PM	228	No
		WBL	-	AM	175	No
				PM	163	No
20	Rosecrans Street & Midway Drive	EBL	100'	AM	121	**Yes**
				PM	202	**Yes**
		EBR	240'	AM	128	No
				PM	203	No
		WBL	250'	AM	231	No
				PM	274	**Yes**
		WBR	180'	AM	162	No
				PM	315	**Yes**
		NBL	280'	AM	233	No
				PM	248	No
		SBL	320'	AM	225	No
				PM	219	No
23	Rosecrans Street & Kurtz Street	WBR	70'	AM	116	**Yes**
				PM	131	**Yes**
		SBL	100'	AM	50	No
				PM	63	No
24	Rosecrans Street & Hancock Street	NBL	120'	AM	55	No
				PM	117	No
25	Pacific Highway & Rosecrans Street	EBL	120'	AM	32	No
				PM	78	No
		EBR	100'	AM	47	No
				PM	102	**Yes**
		WBL	150'	AM	111	No
				PM	180	**Yes**
		NBL	150'	AM	96	No
				PM	171	**Yes**

Table 4-4. Existing Conditions Roadway Segment Analysis Summary

ID	Roadway Segment	Extents	Existing Conditions Volumes				
			Functional Classification[1]	Weekday Event-Day			
				LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]
1	Sports Arena Boulevard	I-8 WB Off Ramp to I-8 EB On-Ramp	5 Lane Prime Arterial	50,000	13,193	0.264	A
2		I-8 EB On Ramp to W Point Loma Boulevard	5 Lane Major Arterial	45,000	27,964	0.621	C
3		W Point Loma Boulevard to Hancock Street	5 Lane Collector (with two-way left-turn Lane)	37,500	17,736	0.473	C
4		Hancock Street to Kemper Street	5 Lane Collector (with two-way left-turn Lane)	37,500	17,736	0.473	C
5		Kemper Street to Frontier Drive	5 Lane Major Arterial	45,000	17,736	0.394	B
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	18,662	0.373	A
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	23,191	0.464	B
8		Rosecrans Street to Pacific Highway	2 Lane Collector (without two-way left-turn lane)	8,000	1,391	0.174	A
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	60,833	1.014	**F**
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	60,833	1.014	**F**
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	50,998	0.850	D
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Collector (with two-way left-turn Lane)	30,000	9,822	0.327	A
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	54,078	1.082	**F**
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	24,332	0.811	D
15	Kurtz Street	Kemper Street to Frontier Drive	2 Lane Collector (one-way)	17,500	3,160	0.181	A
16	Kurtz Street	Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	3,160	0.181	A
17	Kurtz Street	Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	5,031	0.287	A
18	Hancock Street	Sports Arena Boulevard to Channel Way	2 Lane Collector (without two-way left-turn lane)	8,000	3,452	0.432	B
19	Hancock Street	Channel Way to Kurtz St	2 Lane Collector (with two-way left-turn Lane)	15,000	3,348	0.223	A
20	Hancock Street	Kurtz Street to Greenwood Street	2 Lane Collector (one-way)	17,500	4,248	0.243	A
21	Hancock Street	Greenwood Street to Camino Del Rio West	2 Lane Collector (one-way)	17,500	4,248	0.243	A
Future Roadway Segments							
22	*Frontier Drive (Future Conditions Only)	Greenwood Street to Camino Del Rio West	-	-	-	-	-
23	*Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	-	-	-	-	-

Notes:

[1]Functional Classification based on the Midway Pacific Highway Community Plan.

[2]LOS E Capacity provided by City of San Diego staff.

[3]ADT - Average Daily Traffic.

[4]V/C Ratio - Volume-to-capacity ratio.

[5]LOS - Level of Service.

5 2050 MIDWAY PACIFIC HIGHWAY COMMUNITY PLAN BASELINE

This section summarizes the Horizon Year (2050) Baseline (CP) scenario per the Midway Pacific Highway Community Plan. This scenario establishes a baseline to compare against the Horizon Year (2050) Plus Full Project Buildout (CPA) scenario. Year 2050 was selected as it is the current horizon year of the SANDAG Series 14 ABM2+ model.

5.1 SIGNAL OPTIMIZATION

It is assumed that signal optimization will occur at all signalized intersections within the study area due to the increase in vehicle volumes and new travel patterns that will require signal optimization to properly serve each approach. Optimization would include:

- Optimized cycle lengths
- Optimized phase splits
- Optimized corridor offsets for coordinated corridors (Sports Arena Blvd, Rosecrans Street, Camino del Rio West)
- Optimized lead/lag left turn phasing

5.2 ROADWAY NETWORK CHANGES

The roadway network in the Horizon Year (2050) Baseline (CP) scenario is based on the planned street classifications in the Midway-Pacific Highway Community Plan (2018), included in **Appendix G**. **Figure 5-1** illustrates the Horizon Year (2050) Baseline (CP) scenario intersection geometries.

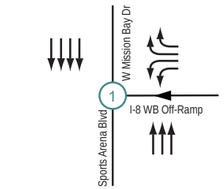
5.3 TRAFFIC VOLUMES

Intersection volumes were developed for the Horizon Year (2050) Baseline (CP) using 2023 roadway segment volumes and 2050 forecasted roadway segment volumes as described in Section 3.3 of this report. The SANDAG 2050 Baseline model used for forecasting volumes includes the land uses associated with the CP buildout, which does not include the continuation of the San Diego Sports Arena. It is important to note that the SANDAG model is not able to incorporate a few minor roadway segments (Greenwood Street extension, Kemper Street extension, and Frontier Drive) that are proposed in the CPU or that will be modified by the CPA (Greenwood Street). Thus, ADTs for these roadway segments were supplemented by 2035 daily roadway segment traffic volumes from the CP Preferred Plan scenario (Figure 6-2 of the Midway-Pacific Highway and Old Town Mobility Report).

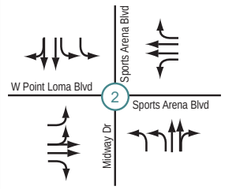
Figure 5-2 illustrates the resulting Horizon Year (2050) Baseline (CP) scenario traffic volumes.

Figure 5-1. Horizon Year (2050) Baseline (CP) Scenario Intersection Geometries

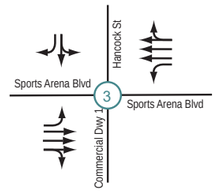
W Mission Bay Dr/Sports Arena Blvd and Intersate 8 WB Off Ramp



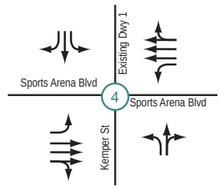
Sports Arena Blvd and W Point Loma Blvd and Midway Dr



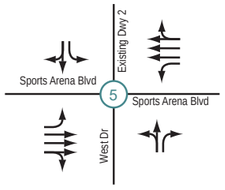
Sports Arena Blvd and Hancock St/Commercial Dwy 1



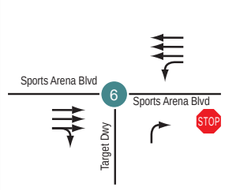
Sports Arena Blvd and Kemper St/Existing Dwy 1



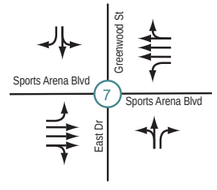
Sports Arena Blvd and West Dr/Existing Dwy 2



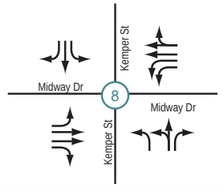
Sports Arena Blvd and Target Dwy



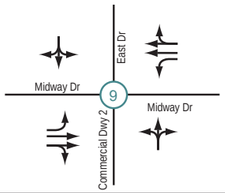
Sports Arena Blvd and East Dr/Greenwood St



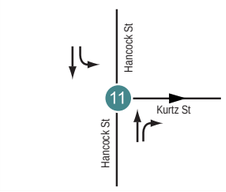
Midway Dr and Kemper St



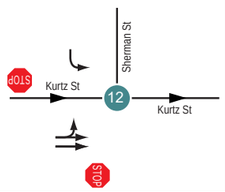
Midway Dr and East Dr/ Commercial Dwy 2



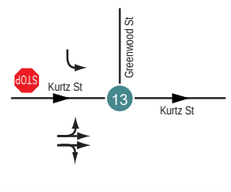
Hancock St and Kurtz St



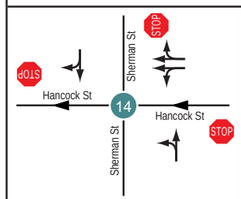
Kurtz St and Sherman St



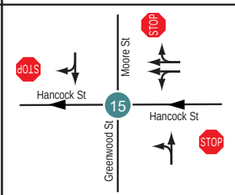
Kurtz St and Greenwood St



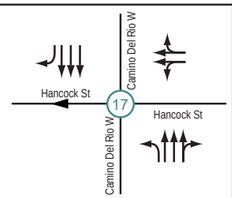
Hancock St and Sherman St



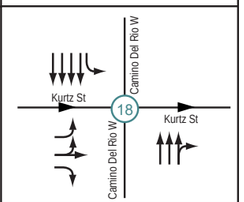
Hancock St and Greenwood St/Moore St



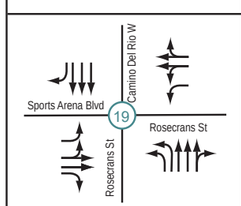
Camino Del Rio W and Hancock St



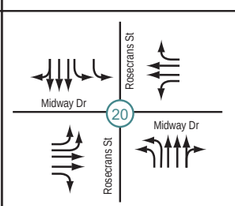
Camino Del Rio W and Kurtz St



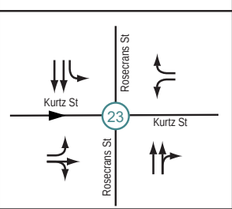
Sports Arena Blvd and Rosecrans St and Camino Del Rio W



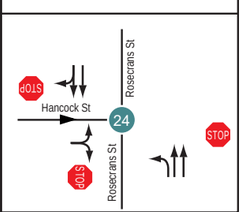
Rosecrans St and Midway Dr



Rosecrans St and Kurtz St



Rosecrans St and Hancock St



Pacific Hwy and Rosecrans St/Taylor St

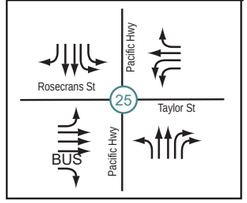


Figure 5-2a. Horizon Year (2050) Baseline (CP) Scenario Traffic Volumes

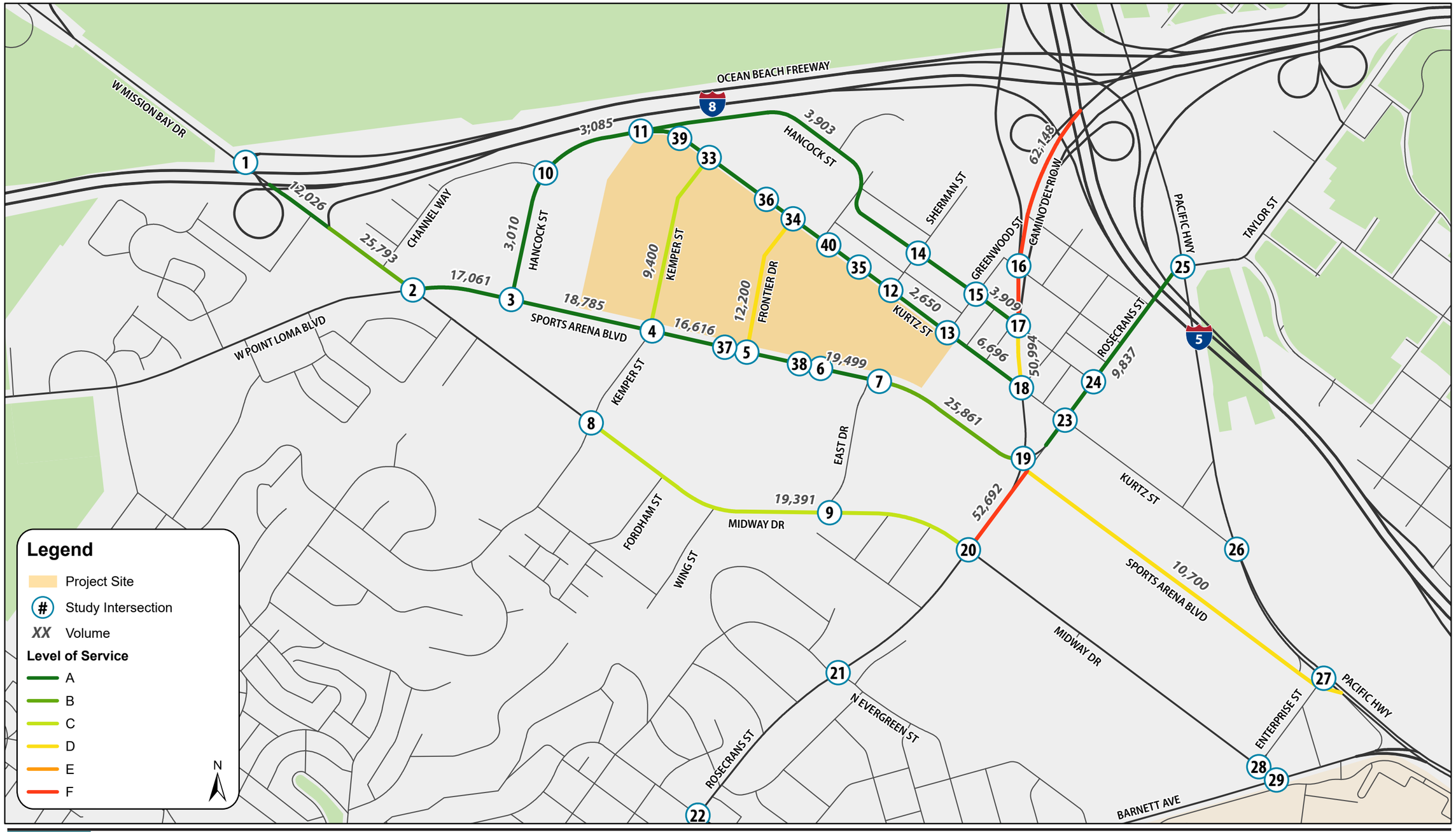
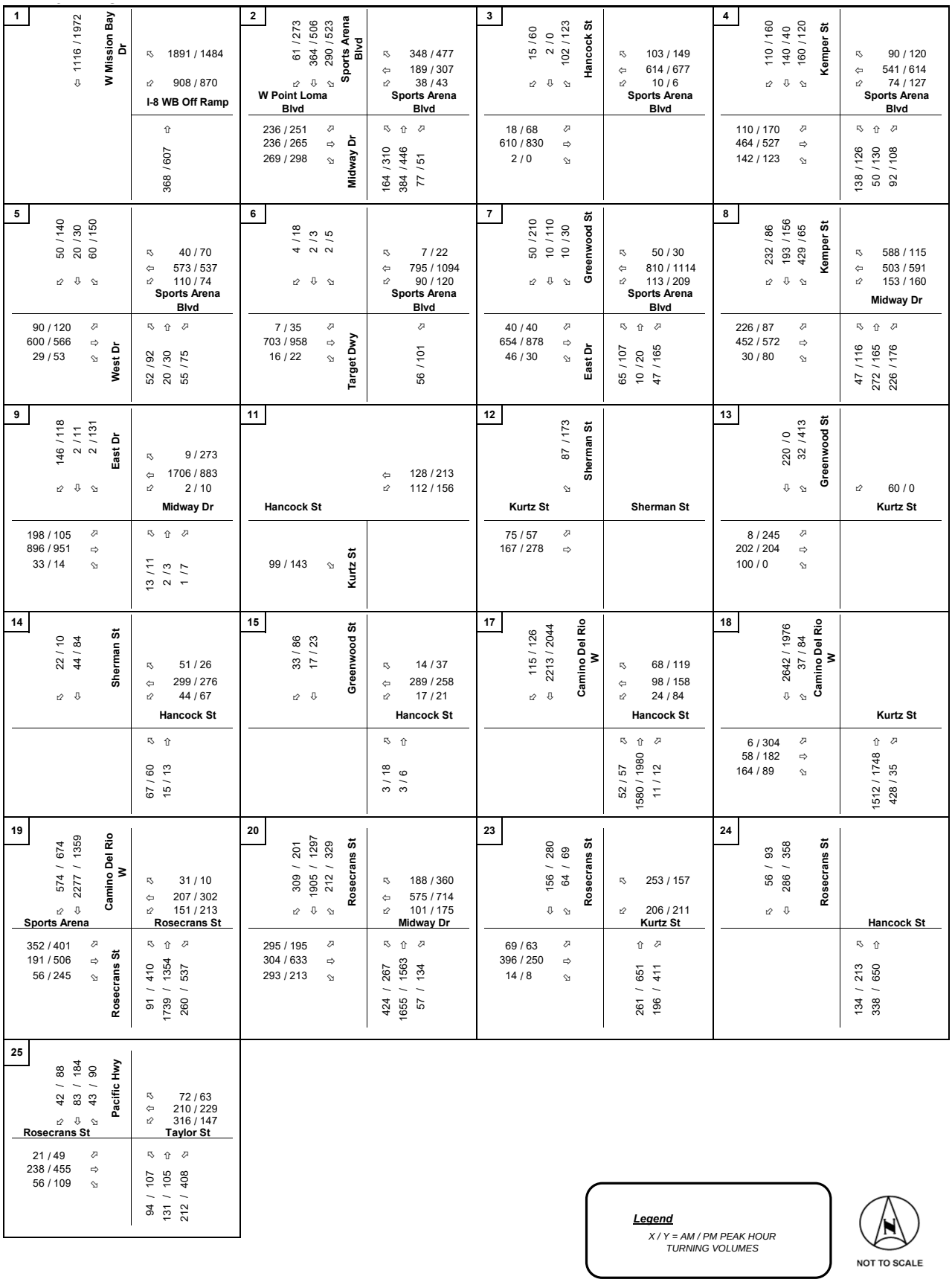


Figure 5-2b. Horizon Year (2050) Baseline (CP) Scenario Traffic Volumes



5.4 INTERSECTION ANALYSIS

Table 5-1 displays the LOS analysis results for the study intersections under the Horizon Year (2050) Baseline (CP) scenario.

Under the Horizon Year (2050) Baseline (CP) scenario, all study intersections are anticipated to operate at LOS D or better during the commuter AM and PM peak hours except the following:

- Intersection #2 – Sports Arena Blvd / Midway Dr / W Point Loma Blvd (PM: LOS E)
- Intersection #4 – Sports Arena Blvd / Kemper St (PM: LOS E)
- Intersection #13 – Greenwood St / Kurtz St (PM: LOS F)
- Intersection #19 – Rosecrans St / Sports Arena Blvd / Camino Del Rio W (PM: LOS E)
- Intersection #20 – Rosecrans St / Midway Dr (PM: LOS E)

Appendix H contains the intersection LOS calculation worksheets for the CP scenario.

5.5 QUEUEING ANALYSIS

Table 5-2 displays the 95th percentile queues for the study intersections under the Horizon Year (2050) Baseline (CP) scenario. The 95th percentile queue lengths reported represent an average of five SimTraffic runs. **Appendix I** contains the 95th percentile queue worksheets from SimTraffic for this scenario. Under the CP scenario, queues are anticipated to exceed the existing available storage length at:

- 10 intersections in the Commuter AM peak hour
- 6 intersections in the Commuter PM peak hour

5.6 ROADWAY SEGMENT ANALYSIS

The Horizon Year (2050) Baseline (CP) scenario roadway segment analysis was performed based on planned roadway geometries from the Midway Pacific Highway Community Plan Base for 2035, and expected roadway segment counts for year 2050 on a typical weekday. **Table 5-3** summarizes the roadway volumes LOS analysis at the study segments under Horizon Year (2050) Baseline (CP) scenario.

Under the Horizon Year (2050) Baseline (CP) scenario, all roadway segments are anticipated to operate at LOS D or better on a typical weekday except the following:

- Camino del Rio West north of Greenwood Street (LOS F)
- Camino del Rio West between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)

Table 5-1. Horizon Year (2050) Baseline (CP) Scenario Intersection LOS Summary

#	INTERSECTION	TRAFFIC CONTROL	HCM EDITION	PEAK HOUR	Horizon Year (2050) Midway-Pacific Highway Communuity Plan Baseline (CP) Scenario	
					DELAY (a)	LOS (b)
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	Signal	**HCM 2000**	Weekday AM	17.6	B
				Weekday Commuter PM	24.4	C
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	Signal	HCM 6th	Weekday AM	43.0	D
				Weekday Commuter PM	80.8	**F**
3	Commercial Dwy 1/Hancock St & Sports Arena Blvd	Signal	HCM 6th	Weekday AM	26.1	C
				Weekday Commuter PM	20.5	C
4	4: Kemper St & Sports Arena Blvd	Signal	HCM 6th	Weekday AM	50.8	D
				Weekday Commuter PM	75.0	**E**
5	5: West Dr/Frontier Dr & Sports Arena Blvd	Signal	HCM 6th	Weekday AM	30.7	C
				Weekday Commuter PM	39.0	D
6	6: Target Dwy & Sports Arena Blvd	One-Way Stop	HCM 6th	Weekday AM	13.3	B
				Worst Mvmt	*WBL*	
				Weekday Commuter PM	17.6	C
				Worst Mvmt	*WBL*	
7	7: East Dr/Greenwood St & Sports Arena Blvd	Signal	HCM 6th	Weekday AM	14.1	B
				Weekday Commuter PM	24.5	C
8	Kemper St & Midway Dr	Signal	HCM 6th	Weekday AM	24.2	C
				Weekday Commuter PM	46.1	D
9	Commercial Dwy 2/East Dr & Midway Dr	Signal	HCM 6th	Weekday AM	14.2	B
				Weekday Commuter PM	31.1	C
11	Kurtz St & Hancock St	Signal	HCM 6th	Weekday AM	0.3	A
				Weekday Commuter PM	0.5	A
		Roundabout	SIDRA	Weekday AM	3.7	A
				Weekday Commuter PM	4.0	A
12	Sherman St & Kurtz St	All-Way Stop	HCM 6th	Weekday AM	8.5	A
				Weekday Commuter PM	9.3	A
13	Greenwood St & Kurtz St	All-Way Stop	HCM 6th	Weekday AM	10.4	B
				Weekday Commuter PM	108.7	**F**
14	Sherman St & Hancock St	All-Way Stop	HCM 6th	Weekday AM	8.8	A
				Weekday Commuter PM	9.5	A
15	Greenwood St & Hancock St	All-Way Stop	HCM 6th	Weekday AM	8.7	A
				Weekday Commuter PM	8.6	A
17	Camino Del Rio W & Hancock St	Signal	HCM 6th	Weekday AM	22.5	C
				Weekday Commuter PM	14.0	B
18	Camino Del Rio W & Kurtz St	Signal	HCM 6th	Weekday AM	8.1	A
				Weekday Commuter PM	17.2	B
19	Rosecrans St & Sports Arena Blvd & Camino Del Rio W	Signal	**HCM 2000**	Weekday AM	28.8	C
				Weekday Commuter PM	78.4	**E**
20	Rosecrans St & Midway Dr	Signal	HCM 6th	Weekday AM	38.6	D
				Weekday Commuter PM	62.6	**E**
23	Rosecrans St & Kurtz St	Signal	**HCM 2000**	Weekday AM	29.0	C
				Weekday Commuter PM	54.9	D
24	Rosecrans St & Hancock St	One-Way Stop	HCM 6th	Weekday AM	9.6	A
				Worst Mvmt	*SE*	
				Weekday Commuter PM	10.0	B
				Worst Mvmt	*SE*	
25	Pacific Hwy & Rosecrans St/Taylor St	Signal	HCM 6th	Weekday AM	26.0	C
				Weekday Commuter PM	29.1	C

Notes:

Bold values indicate intersections operating at LOS E or F.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.

(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition* and *2000 Edition* and performed using Synchro 11.0

Table 5-2. Horizon Year (2050) Baseline (CP) Scenario Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	1800	AM	694	No
				PM	318	No
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360	AM	209	No
				PM	189	No
		WBL	150	AM	38	No
				PM	<25	No
		NBL	230	AM	184	No
				PM	93	No
3	Sports Arena Boulevard & Hancock Street	EBL	160	AM	146	No
				PM	108	No
		WBL	100	AM	<25	No
				PM	26	No
4	Sports Arena Boulevard & Kemper Street	EBL	440	AM	439	No
				PM	144	No
		WBL	175	AM	139	No
				PM	149	No
		NBL	100	AM	124	**Yes**
				PM	118	**Yes**
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330	AM	158	No
				PM	126	No
		WBL	175	AM	104	No
				PM	104	No
6	Sports Arena Boulevard & Target Driveway	EBL	-	AM	<25	No
				PM	<25	No
		WBL	125	AM	44	No
				PM	56	No
7	Sports Arena Boulevard & East Driveway	EBL	125	AM	78	No
				PM	58	No
		WBL	125	AM	231	**Yes**
				PM	142	**Yes**
		NBR	100	AM	99	No
				PM	61	No
8	Midway Drive & Kemper Street	EBL	320	AM	440	**Yes**
				PM	104	No
		EBR	150	AM	138	No
				PM	56	No
		NBL	90	AM	204	**Yes**
				PM	126	**Yes**
		SBL	100	AM	153	**Yes**
				PM	49	No
		SBR	115	AM	149	**Yes**
				PM	55	No
9	Midway Drive & East Drive	EBL	90	AM	144	**Yes**
				PM	61	No
		WBL	100	AM	<25	No
				PM	<25	No
17	Camino Del Rio West & Hancock Street	NBL	100	AM	40	No
				PM	55	No
		I-5 SB Off-Ramp	3500	AM	56	No
				PM	76	No
		I-8 WB Off-Ramp	3700	AM	56	No
				PM	76	No
		SBR	130	AM	56	No
				PM	76	No

Table 5-2. Horizon Year (2050) Baseline (CP) Scenario Queue Summary

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
18	Camino Del Rio West & Kurtz Street	EBR	200	AM	324	**Yes**
				PM	72	No
		SBL	100	AM	221	**Yes**
				PM	195	**Yes**
19	Camino Del Rio West & Sports Arena Boulevard	EBR	300	AM	464	**Yes**
				PM	229	No
		WBL	180	AM	185	**Yes**
				PM	154	No
20	Rosecrans Street & Midway Drive	EBL	100	AM	191	**Yes**
				PM	129	**Yes**
		EBR	240	AM	322	**Yes**
				PM	114	No
		WBL	250	AM	250	No
				PM	305	**Yes**
		WBR	180	AM	282	**Yes**
				PM	161	No
		NBL	280	AM	509	**Yes**
				PM	310	**Yes**
		SBL	320	AM	254	No
				PM	210	No
23	Rosecrans Street & Kurtz Street	WBR	70	AM	191	**Yes**
				PM	163	**Yes**
		SBL	100	AM	117	**Yes**
				PM	74	No
24	Rosecrans Street & Hancock Street	NBL	120	AM	149	**Yes**
				PM	69	No
25	Pacific Highway & Rosecrans Street	EBL	120	AM	54	No
				PM	29	No
		EBR	100	AM	106	**Yes**
				PM	50	No
		WBL	150	AM	133	No
				PM	134	No
		NBL	150	AM	250	**Yes**
				PM	109	No

Table 5-3. Horizon Year (2050) Baseline (CP) Scenario Roadway Segment Analysis Summary

ID	Roadway Segment	Extents	Horizon Year (2050) Baseline (CP)				
			Ultimate Classification[1]	LOS E Capacity[2]	Weekday		
					ADT[3]	V/C Ratio[4]	LOS[5]
1	Sports Arena Boulevard	N of I-8 EB On Ramp	6 Lane Prime Arterial	60,000	12,026	0.200	A
2		I-8 EB On Ramp to W Point Loma Boulevard	6 Lane Major Arterial	50,000	25,793	0.516	B
3		W Point Loma Boulevard to Hancock Street	6 Lane Major Arterial	50,000	17,061	0.341	A
4		Hancock Street to Kemper Street	6 Lane Major Arterial	50,000	18,785	0.376	A
5		Kemper Street to Frontier Drive	6 Lane Major Arterial	50,000	16,616	0.332	A
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	19,499	0.390	A
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	25,861	0.517	B
8		Rosecrans Street to Pacific Highway	2 Lane Collector (with two-way left-turn Lane)	15,000	10,700	0.713	D
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	62,148	1.036	**F**
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	62,148	1.036	**F**
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	50,994	0.850	D
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Major Arterial	40,000	9,837	0.246	A
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	52,692	1.054	**F**
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	19,391	0.646	C
15	Kurtz Street	Hancock Street to Frontier Drive	2 Lane Collector (one-way)	17,500	2,650	0.151	A
16		Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	2,650	0.151	A
17		Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	6,696	0.383	A
18	Hancock Street	Sports Arena Boulevard to Channel Way	4 Lane Collector (without two-way left-turn Lane)	15,000	3,010	0.201	A
19		Channel Way to Kurtz St	4 Lane Collector (without two-way left-turn Lane)	15,000	3,085	0.206	A
20		Kurtz Street to Greenwood Street	3 Lane Major Arterial (one-way)	27,500	3,903	0.142	A
21		Greenwood Street to Camino Del Rio West	3 Lane Major Arterial (one-way)	27,500	3,909	0.142	A
22	Frontier Drive (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	2 Lane Collector (with two-way left-turn Lane)	15,000	12,200	0.813	D
23	Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	2 Lane Collector (with two-way left-turn Lane)	15,000	9,400	0.627	C

Notes:

[1]Ultimate Classification based on the Midway Pacific Highway Community Plan - Preferred Plan.

[2]LOS E Capacity provided by City of San Diego staff.

[3]ADT - Average Daily Traffic.

[4]V/C Ratio - Volume-to-capacity ratio.

[5]LOS - Level of Service.

6 HORIZON YEAR (2050) PLUS FULL PROJECT BUILDOUT

This section summarizes the Horizon Year (2050) Plus Full Project Buildout (CPA) scenario (event and non-event day), which is compared against the Horizon Year (2050) Baseline (CP) scenario.

6.1 ROADWAY NETWORK CHANGES

The roadway network in the CPA scenario represents the Horizon Year (2050) Baseline (CP) scenario roadway geometry with the roadway segment and intersection modifications proposed by the Midway Rising project described below:

Roadway Segments:

- **Kurtz Street** (between Hancock Street and Sherman Street): convert from a two-lane one-way (southeast-bound) collector to a two-way collector with one lane in each direction.
- **Rosecrans Street** (between Midway Drive and Pacific Highway): dedicate one lane in each direction for Business Access and Transit ("BAT") lane. The project does not trigger improvements, and thus construction of the median to implement CPA classification change to a major arterial between Camino Del Rio/Sports Arena Boulevard and Pacific Highway is not considered. The segment between Camino Del Rio/Sports Arena Boulevard and Pacific Highway is instead analyzed as a collector with two BAT lanes.
- **Sports Arena Boulevard** (between Midway Drive / W Point Loma Boulevard and Rosecrans St): dedicate one lane in each direction for BAT lane.
- **Greenwood Street** (between Kurtz Street and Sports Arena Boulevard): Not proposed to be constructed as planned in the Community Plan. Note that bicycles and pedestrians will still be able to travel between Kurtz Street and Sports Arena Boulevard on a north-south running Class I path to be constructed in the general location of the planned Sherman Street extension.

Intersections:

- **Intersection #2 – Midway Drive and Sports Arena Boulevard / West Point Loma Boulevard**: In addition to the improvements identified in *Figure 3-14* of the CP, the Midway Rising project proposes removal of the small channelized portions to accommodate an additional left-turn lane on the southeastbound and northwestbound approaches of Sports Arena Boulevard and Midway Drive, as well as removal of 174 feet of the existing median on W. Point Loma Boulevard to accommodate an additional through lane on the eastbound approach.
- **Intersection #4 – Kemper Street and Sports Arena Boulevard**: *Figure 3-8* of the CP proposes an exclusive left turn and right turn lane on the southbound approach of Kemper Street at Sports Arena Boulevard. The Midway Rising project proposes only a through lane and an exclusive right turn lane.
- **Intersection #18 – Kurtz Street and Camino del Rio West intersection**: Elimination of eastbound exclusive right turn lane to accommodate a proposed multi-use path along Kurtz Street.

- **Intersection #11 – Hancock Street and Kurtz Street intersection**: Construct a single-lane roundabout at this intersection instead of a traffic signal.
- **Intersection #19 – Camino del Rio West / Rosecrans Street and Sports Arena Boulevard**: In addition to the improvements identified in the CP, the Midway Rising project proposes the following modifications to the southeastbound approach as compared to the CP design concept:
    - Convert through lane to shared through-left turn lane
    - Replace second through lane to a bus-only through movement pocket
    - Separate shared through-right lane to an exclusive through lane and right turn lane by reconfiguring turn lane

Figure 6-1 illustrates the CPA scenario intersection geometries.

6.2 TRAFFIC VOLUMES

Intersection volumes were developed for the Horizon Year (2050) Plus Full Project Buildout (CPA) using 2023 roadway segment volumes and 2050 forecasted roadway segment volumes as described in Section 3.3 of this report. The SANDAG 2050 With Project model used for forecasting volumes includes the land uses associated with the Midway Rising project. It is important to note that the SANDAG model is not able to incorporate the internal roadway segments (Greenwood Street extension, Kemper Street extension, and Frontier Drive) that are proposed in the CPU and will be modified by the CPA. Thus, ADTs for these roadway segments were supplemented by Opening Year (2035) Plus Project Phase 2 Buildout daily roadway segment traffic volumes. **Figure 6-2 and 6-3** illustrate the resulting Horizon Year (2050) Plus Full Project Buildout (CPA) scenario traffic volumes for an event day and a non-event day, respectively.

6.3 INTERSECTION LEVEL OF SERVICE ANALYSIS

Table 6-1 displays the LOS analysis results for the study intersections under Horizon Year (2050) Plus Full Project Buildout (CPA) scenario, event day and non-event day. The results for the Horizon Year (2050) Baseline (CP) scenario are also included in the table to identify project transportation effects. Under the Horizon Year (2050) Plus Full Project Buildout (CPA) scenario, all study intersections are expected to operate at LOS D or better except the following:

Event day:

- Intersection #2 – Midway Dr / W Point Loma Blvd / Sports Arena Blvd (AM: LOS E; PM: LOS E)
- Intersection #19 – Rosecrans St / Sports Arena Blvd / Camino Del Rio W (PM: LOS E)

Non-event day:

- Intersection #2 – Midway Dr / W Point Loma Blvd / Sports Arena Blvd (AM: LOS E; PM: LOS E)
- Intersection #19 – Rosecrans St / Sports Arena Blvd / Camino Del Rio W (PM: LOS F)

Appendix J contains the intersection LOS calculation worksheets for the Horizon Year (2050) Plus Full Project Buildout (CPA) Event Day scenario. **Appendix K** contains the intersection LOS calculation worksheets for the Horizon Year (2050) Plus Full Project Buildout (CPA) Non-event Day scenario.

The Midway Rising project causes operational effects at both of the intersections listed above (Intersection #2 and #19). Project effects and potential improvements are discussed further in Section 6.6.

Figure 6-1. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Intersection Geometries

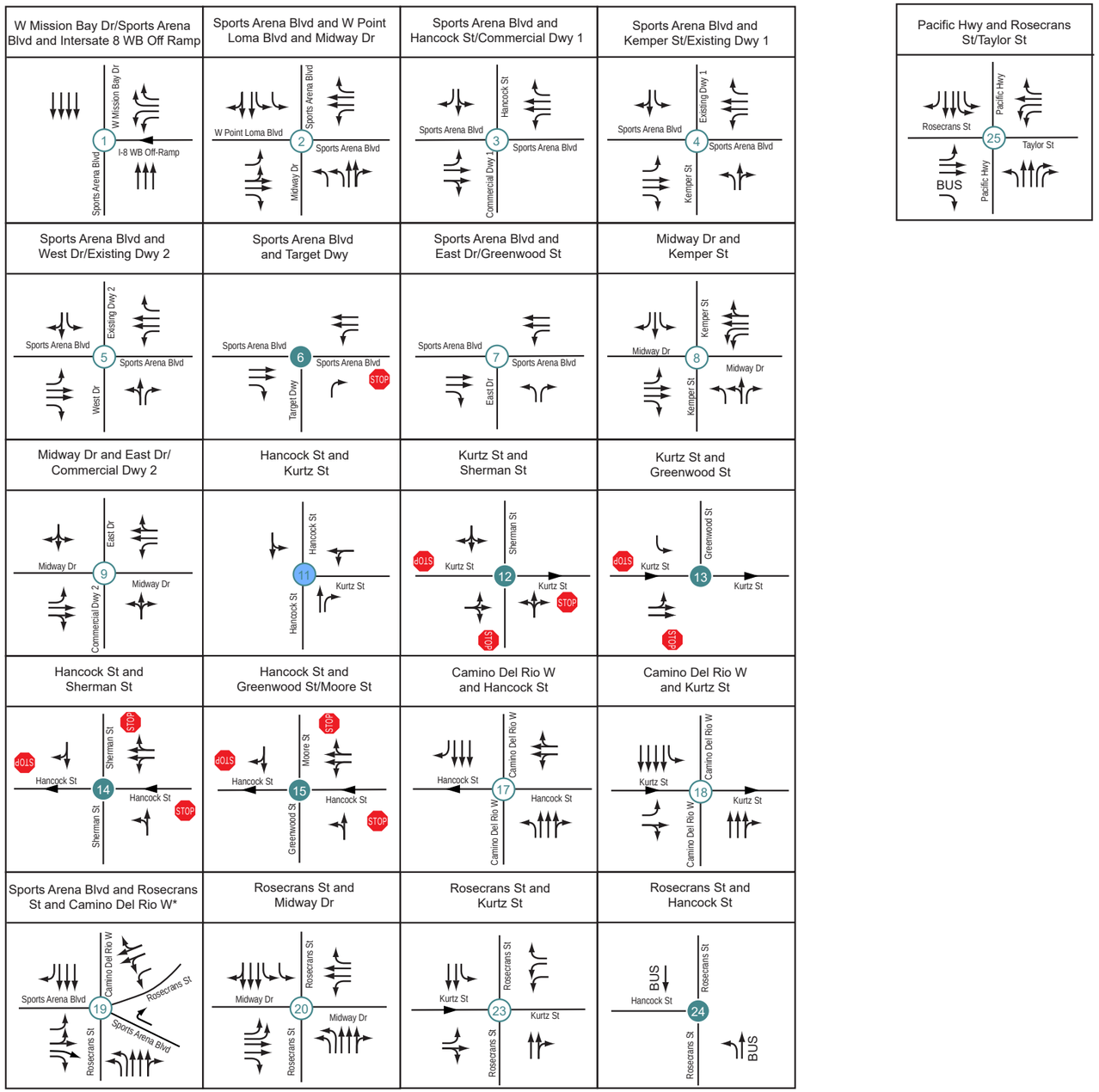


Figure 6-2a. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Traffic Volumes - Event Day

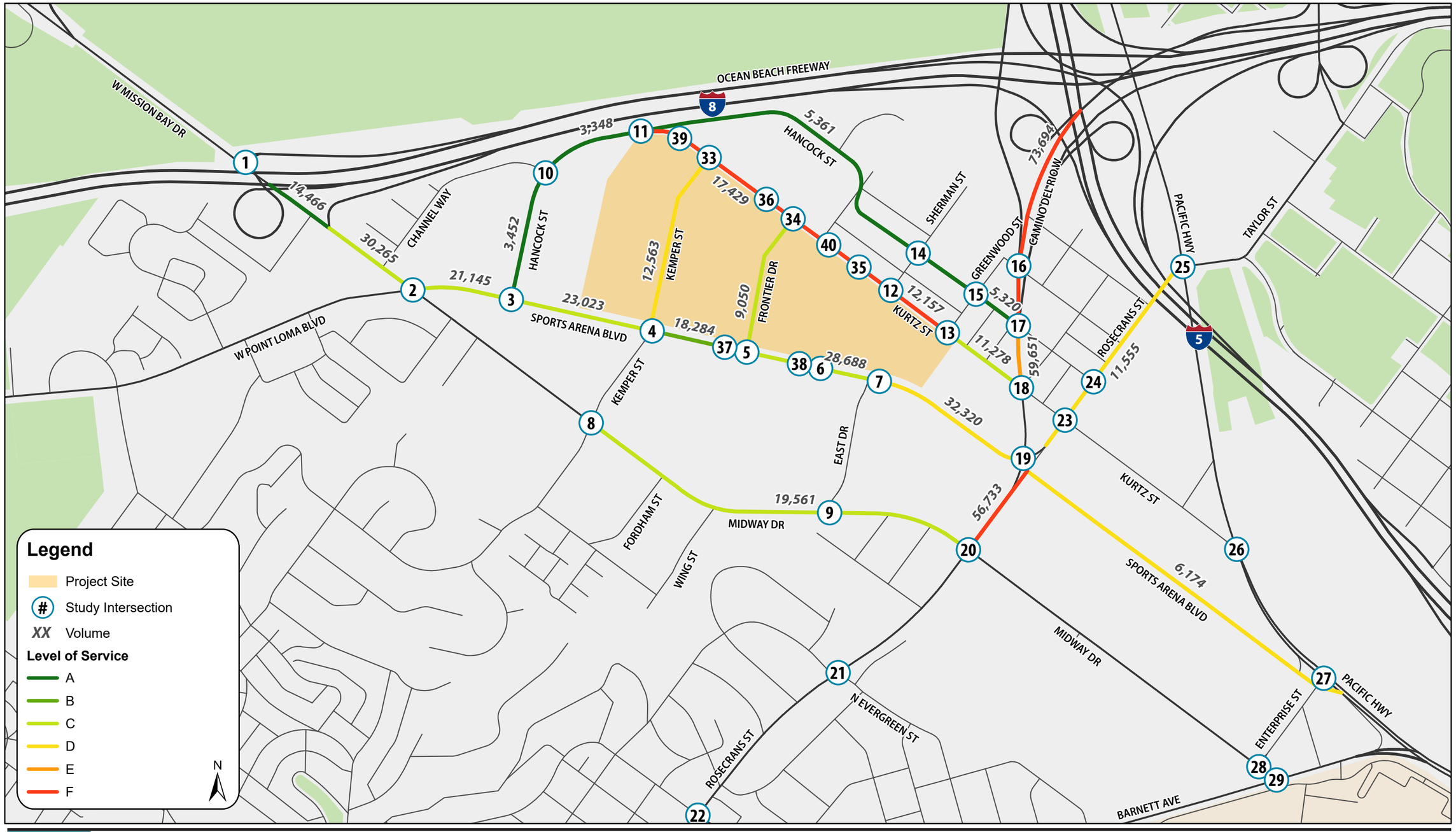


Figure 6-2b. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Traffic Volumes - Event Day

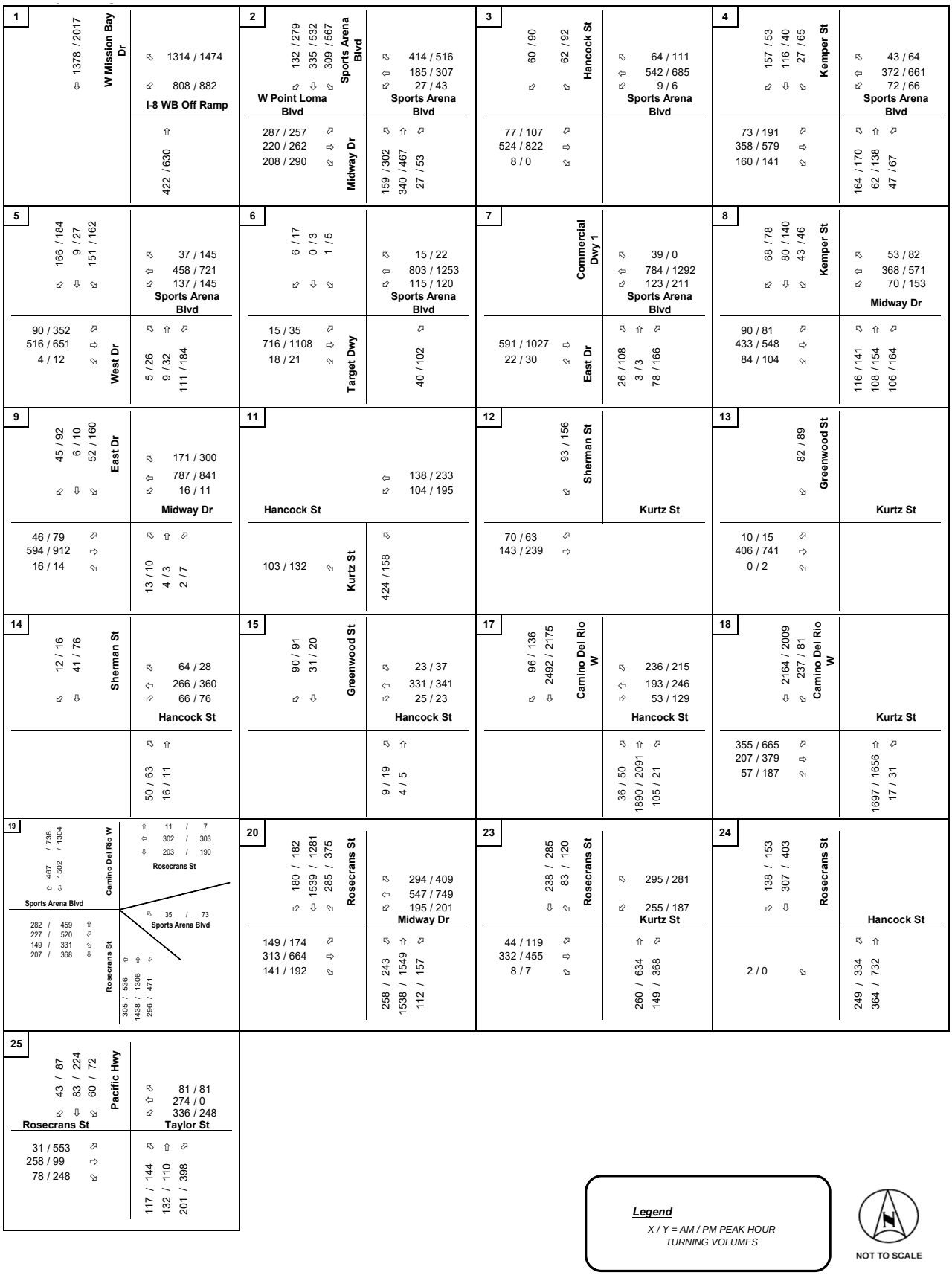


Figure 6-3a. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Traffic Volumes - Non-Event Day

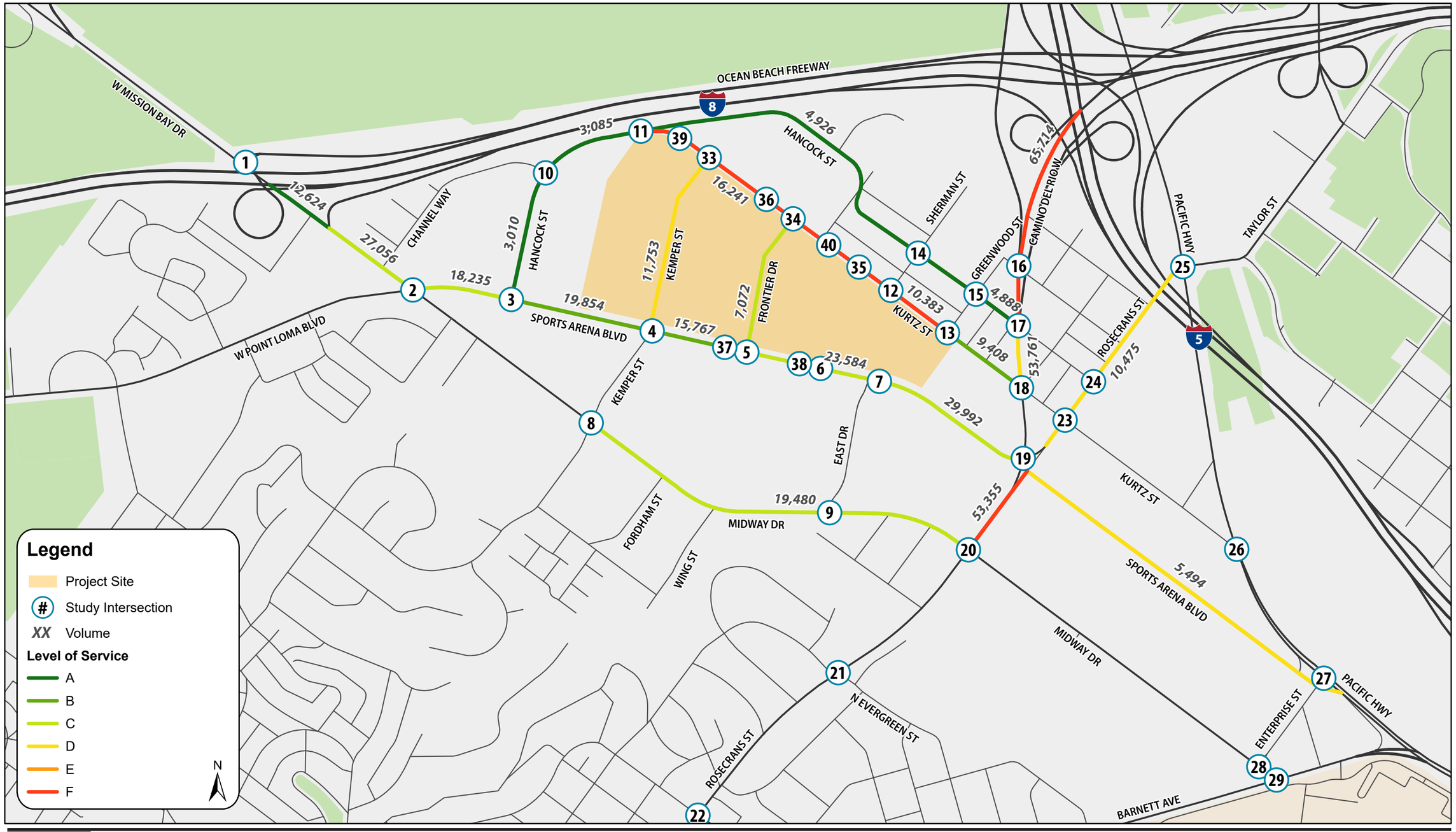


Figure 6-3b. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Traffic Volumes - Non-Event Day

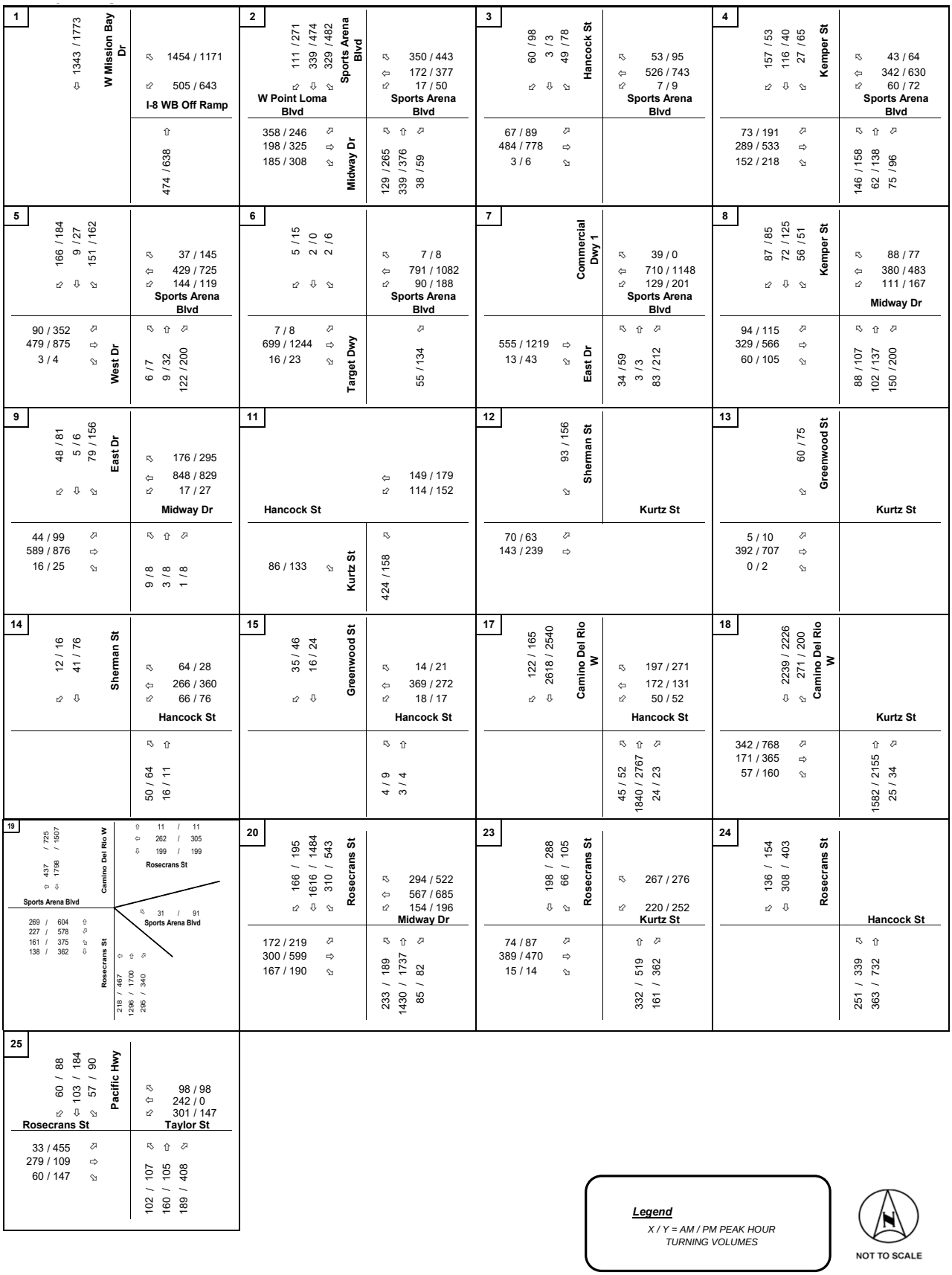


Table 6-1. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Intersection LOS Summary

#	INTERSECTION	HCM EDITION	PEAK HOUR	Horizon Year (2050) Midway-Pacific Highway Community Plan Baseline (CP) Scenario			Horizon Year (2050) Plus Full Project Buildout (CPA) Traffic Control	Horizon Year (2050) Plus Full Project Buildout (CPA) Event Day Scenario			Horizon Year (2050) Plus Full Project Buildout (CPA) Non-Event Day Scenario		
				TRAFFIC CONTROL	DELAY (a)	LOS (b)	TRAFFIC CONTROL	DELAY (a)	LOS (b)	Project Effect (Y/N?)	DELAY (a)	LOS (b)	Project Effect (Y/N?)
1	Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp	**HCM 2000**	Weekday AM	Signal	17.6	B	Signal	17.3	B	N	18.1	B	N
			Weekday Commuter PM		24.4	C		23.9	C	N	19.7	B	N
2	Midway Dr & W Point Loma Blvd & Sports Arena Blvd	HCM 6th	Weekday AM	Signal	43.0	D	Signal	61.2	**E**	Y	57.2	**E**	Y
			Weekday Commuter PM		80.8	**F**		64.5	**E**	N	59.7	**E**	N
3	Commercial Dwy 1/Hancock St & Sports Arena Blvd	HCM 6th	Weekday AM	Signal	26.1	C	Signal	31.8	C	N	32.0	C	N
			Weekday Commuter PM		20.5	C		25.7	C	N	15.7	B	N
4	Kemper St & Sports Arena Blvd	HCM 6th	Weekday AM	Signal	50.8	D	Signal	22.4	C	N	22.2	C	N
			Weekday Commuter PM		75.0	**E**		32.8	C	N	28.3	C	N
5	West Dr/Frontier Dr & Sports Arena Blvd	HCM 6th	Weekday AM	Signal	30.7	C	Signal	31.8	C	N	33.2	C	N
			Weekday Commuter PM		39.0	D		53.5	D	N	53.2	D	N
6	Target Dwy & Sports Arena Blvd	HCM 6th	Weekday AM	Two-Way Stop	13.3	B	One-Way Stop	11.5	B	N	11.6	B	N
			Worst Mvmt		*WBL*			*NBR*		N	*NBR*		N
			Weekday Commuter PM		17.6	C		16.8	C	N	20.8	C	N
			Worst Mvmt		*WBL*			*NBR*		N	*NBR*		N
7	East Dr/Greenwood St & Sports Arena Blvd	HCM 6th	Weekday AM	Signal	14.1	B	Signal	7.2	A	N	7.7	A	N
			Weekday Commuter PM		24.5	C		15.9	B	N	16.2	B	N
8	Kemper St & Midway Dr	HCM 6th	Weekday AM	Signal	24.2	C	Signal	30.5	C	N	35.3	D	N
			Weekday Commuter PM		46.1	D		42.8	D	N	40.6	D	N
9	Commercial Dwy 2/East Dr & Midway Dr	HCM 6th	Weekday AM	Signal	14.2	B	Signal	7.5	A	N	8.3	A	N
			Weekday Commuter PM		31.1	C		21.9	C	N	22.7	C	N
11	Kurtz St & Hancock St	HCM 6th	Weekday AM	Signal	0.3	A	Signal	11.5	B	N	11.6	A	N
			Weekday Commuter PM		0.5	A		10.4	B	N	9.8	A	N
			Weekday AM	Roundabout	3.7	A	Roundabout	5.4	A	N	5.6	A	N
			Weekday Commuter PM		4.0	A		5.9	A	N	5.0	A	N
12	Sherman St & Kurtz St	HCM 6th	Weekday AM	All-Way Stop	8.5	A	All-Way Stop	8.7	A	N	8.7	A	N
			Weekday Commuter PM		9.3	A		10.1	B	N	10.1	B	N
13	Greenwood St & Kurtz St	HCM 6th	Weekday AM	All-Way Stop	10.4	B	All-Way Stop	9.7	A	N	9.5	A	N
			Weekday Commuter PM		108.7	**F**		15.3	C	N	14.2	B	N
14	Sherman St & Hancock St	HCM 6th	Weekday AM	All-Way Stop	8.8	A	All-Way Stop	9.3	A	N	9.3	A	N
			Weekday Commuter PM		9.5	A		10.2	B	N	10.2	B	N
15	Greenwood St & Hancock St	HCM 6th	Weekday AM	All-Way Stop	8.7	A	All-Way Stop	9.2	A	N	9.0	A	N
			Weekday Commuter PM		8.6	A		9.3	A	N	8.5	A	N
17	Camino Del Rio W & Hancock St	HCM 6th	Weekday AM	Signal	22.5	C	Signal	50.7	D	N	33.1	C	N
			Weekday Commuter PM		14.0	B		23.4	C	N	33.2	C	N
18	Camino Del Rio W & Kurtz St	HCM 6th	Weekday AM	Signal	8.1	A	Signal	21.5	C	N	20.8	C	N
			Weekday Commuter PM		17.2	B		37.2	D	N	46.4	D	N
19	Rosecrans St & Sports Arena Blvd & Camino Del Rio W	**HCM 2000**	Weekday AM	Signal	28.8	C	Signal	42.0	D	N	44.4	D	N
			Weekday Commuter PM		78.4	**E**		73.2	**E**	N	96.9	**F**	Y
20	Rosecrans St & Midway Dr	HCM 6th	Weekday AM	Signal	38.6	D	Signal	48.2	D	N	44.9	D	N
			Weekday Commuter PM		62.6	**E**		54.6	D	N	53.9	D	N
23	Rosecrans St & Kurtz St	**HCM 2000**	Weekday AM	Signal	29.0	C	Signal	36.6	D	N	39.0	D	N
			Weekday Commuter PM		54.9	D		53.4	D	N	52.6	D	N
24	Rosecrans St & Hancock St	HCM 6th	Weekday AM	One-Way Stop	9.6	A	One-Way Stop	9.6	A	N	9.6	A	N
			Worst Mvmt		*EBR*			*NBL*			*NBL*		
			Weekday Commuter PM		10.0	B		11.3	B	N	11.4	B	N
			Worst Mvmt		*EBR*			*NBL*			*NBL*		
25	Pacific Hwy & Rosecrans St/Taylor St	HCM 6th	Weekday AM	Signal	26.0	C	Signal	45.8	D	N	41.4	D	N
			Weekday Commuter PM		29.1	C		39.4	D	N	35.4	D	N

Notes:
Bold values indicate intersections operating at LOS E or F.
ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
(a) Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the *Highway Capacity Manual 6th Edition* and 2000 Edition. LOS calculations are performed using Synchro 11.0 and SIDRA 9.1.

INTERSECTION LOS COMPARISON FOR PROPOSED ROUNDABOUT

The Midway Rising project proposes to provide a single-lane roundabout at the intersection of Hancock Street / Kurtz Street rather than a traffic signal, which was modeled in the Midway-Pacific Highway Community Plan. The roundabout is intended to improve operational flow for the project as well as the rest of the community as redevelopment continues to occur to the northeast of Kurtz Street.

Table 6-2 summarizes a comparison between the level of service observed for the roundabout proposed under the Midway Rising project as compared to the signal proposed under the Midway Pacific-Highway Community Plan. **Table 6-2** shows that both proposed controls would be expected to operate at LOS D or better, but the roundabout may operate with a lower average delay than the signal control.

Table 6-2. Intersection LOS Analysis Comparison for Proposed Roundabout at Hancock St / Kurtz Street

Peak Hour	Intersection Control	Analysis Method	Horizon Year (2050) Baseline (CP)		Horizon Year (2050) Plus Full Project Buildout (CPA) – Event Day		Horizon Year (2050) Plus Full Project Buildout (CPA) - Non-Event Day	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
AM	Roundabout	SIDRA (HCM 6th)	3.7	A	5.4	A	5.6	A
	Signalized	Synchro (HCM 6th)	0.3	A	11.5	B	11.6	B
PM	Roundabout	SIDRA (HCM 6th)	4.0	A	5.9	A	5.0	A
	Signalized	Synchro (HCM 6th)	0.5	A	10.4	**B**	9.8	A

6.4 QUEUEING ANALYSIS

Table 6-3 and **Table 6-4** display the 95th percentile queues under Horizon Year (2050) Plus Full Project Buildout (CPA) scenario for an event day and a non-event day, respectively. The 95th percentile queue lengths reported represent an average of five SimTraffic runs. **Appendix L** and **Appendix M** contain the 95th percentile queue worksheets for the Horizon Year (2050) Plus Full Project Buildout (CPA) Event Day scenario and the Horizon Year (2050) Plus Full Project Buildout (CPA) Non-Event Day scenario, respectively. Under the two Horizon Year (2050) Plus Full Project Buildout (CPA) scenarios, queues are expected to exceed the existing available storage length at:

Event Day:

- 5 intersections in the Commuter AM peak hour
- 12 intersections in the Commuter PM peak hour

Non-event Day:

- 5 intersections in the Commuter AM peak hour
- 11 intersections in the Commuter PM peak hour

Table 6-3. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Queue Summary - Event Day

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	1800	AM	374	No
				PM	426	No
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360	AM	136	No
				PM	207	No
		WBL	150	AM	25	No
				PM	99	No
		NBL	230	AM	186	No
				PM	362	**Yes**
3	Sports Arena Boulevard & Hancock Street	EBL	350	AM	80	No
				PM	150	No
		WBL	100	AM	<25	No
				PM	<25	No
4	Sports Arena Boulevard & Kemper Street	EBL	440	AM	105	No
				PM	632	**Yes**
		WBL	175	AM	102	No
				PM	113	No
		NBL	100	AM	162	**Yes**
				PM	144	**Yes**
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330	AM	116	No
				PM	183	No
		WBL	175	AM	145	No
				PM	146	No
6	Sports Arena Boulevard & Target Driveway	EBL	-	AM	<25	No
				PM	<25	No
		WBL	125	AM	61	No
				PM	75	No
7	Sports Arena Boulevard & East Driveway	EBL	-	AM	<25	No
				PM	<25	No
		WBL	125	AM	110	No
				PM	167	**Yes**
		NBR	100	AM	59	No
				PM	112	**Yes**
8	Midway Drive & Kemper Street	EBL	320	AM	133	No
				PM	160	No
		EBR	150	AM	106	No
				PM	164	**Yes**
		NBL	90	AM	143	**Yes**
				PM	173	**Yes**
		SBL	100	AM	78	No
				PM	106	**Yes**
		SBR	115	AM	61	No
				PM	108	No
9	Midway Drive & East Drive	EBL	90	AM	34	No
				PM	123	**Yes**
		WBL	100	AM	51	No
				PM	81	No
17	Camino Del Rio West & Hancock Street	NBL	100	AM	52	No
				PM	63	No
		I-5 SB Off-Ramp	3500	AM	75	No
				PM	139	No
		I-8 WB Off-Ramp	3700	AM	75	No
				PM	139	No
		SBR	130	AM	75	No
				PM	139	**Yes**

Table 6-3. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Queue Summary - Event Day

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
18	Camino Del Rio West & Kurtz Street	EBR	-	AM	<25	No
				PM	<25	No
		SBL	100	AM	199	**Yes**
				PM	209	**Yes**
19	Camino Del Rio West & Sports Arena Boulevard	EBR	-	AM	210	No
				PM	1241	No
		WBL	180	AM	182	**Yes**
				PM	310	**Yes**
20	Rosecrans Street & Midway Drive	EBL	100	AM	160	**Yes**
				PM	209	**Yes**
		EBR	240	AM	131	No
				PM	318	**Yes**
		WBL	250	AM	290	**Yes**
				PM	346	**Yes**
		WBR	180	AM	295	**Yes**
				PM	306	**Yes**
		NBL	280	AM	352	**Yes**
				PM	457	**Yes**
		SBL	320	AM	383	**Yes**
				PM	194	No
23	Rosecrans Street & Kurtz Street	WBR	-	AM	409	No
				PM	500	No
		SBL	100	AM	89	No
				PM	191	**Yes**
24	Rosecrans Street & Hancock Street	NBL	120	AM	85	No
				PM	158	**Yes**
25	Pacific Highway & Rosecrans Street	EBL	120	AM	40	No
				PM	121	**Yes**
		EBR	100	AM	53	No
				PM	185	**Yes**
		WBL	150	AM	128	No
				PM	114	No
		NBL	150	AM	141	No
				PM	264	**Yes**

Table 6-4. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Queue Summary - Non-Event Day

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
1	West Mission Bay Drive & I-8 Westbound Off-Ramp	I-8 WB Off-Ramp	1800	AM	455	No
				PM	348	No
2	Sports Arena Boulevard & Midway Drive & West Point Loma Boulevard	EBL	360	AM	126	No
				PM	229	No
		WBL	150	AM	<25	No
				PM	151	**Yes**
		NBL	230	AM	144	No
				PM	215	No
3	Sports Arena Boulevard & Hancock Street	EBL	350	AM	69	No
				PM	184	No
		WBL	100	AM	<25	No
				PM	44	No
4	Sports Arena Boulevard & Kemper Street	EBL	440	AM	116	No
				PM	623	**Yes**
		WBL	175	AM	92	No
				PM	114	No
		NBL	100	AM	162	**Yes**
				PM	153	**Yes**
5	Sports Arena Boulevard & West Drive / Proposed Frontier Drive	EBL	330	AM	128	No
				PM	183	No
		WBL	175	AM	150	No
				PM	150	No
6	Sports Arena Boulevard & Target Driveway	EBL	-	AM	<25	No
				PM	<25	No
		WBL	125	AM	51	No
				PM	104	No
7	Sports Arena Boulevard & East Driveway	EBL	-	AM	<25	No
				PM	<25	No
		WBL	125	AM	116	No
				PM	159	**Yes**
		NBR	100	AM	58	No
				PM	160	**Yes**
8	Midway Drive & Kemper Street	EBL	320	AM	155	No
				PM	269	No
		EBR	150	AM	52	No
				PM	194	**Yes**
		NBL	90	AM	124	**Yes**
				PM	137	**Yes**
		SBL	100	AM	83	No
				PM	82	No
		SBR	115	AM	81	No
				PM	68	No
9	Midway Drive & East Drive	EBL	90	AM	45	No
				PM	154	**Yes**
		WBL	100	AM	53	No
				PM	85	No
17	Camino Del Rio West & Hancock Street	NBL	100	AM	74	No
				PM	59	No
		I-5 SB Off-Ramp	3500	AM	78	No
				PM	72	No
		I-8 WB Off-Ramp	3700	AM	78	No
				PM	72	No
		SBR	130	AM	78	No
				PM	72	No

Table 6-4. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Queue Summary - Non-Event Day

#	Intersection	Movement	Storage Length/Link Distance (ft)	Peak Hour	95th Percentile Queue (ft)	Exceeds Storage Length?
18	Camino Del Rio West & Kurtz Street	EBR	-	AM	<25	No
				PM	<25	No
		SBL	100	AM	191	**Yes**
				PM	181	**Yes**
19	Camino Del Rio West & Sports Arena Boulevard	EBR	-	AM	391	No
				PM	1310	No
		WBL	180	AM	194	**Yes**
				PM	273	**Yes**
20	Rosecrans Street & Midway Drive	EBL	100	AM	174	**Yes**
				PM	204	**Yes**
		EBR	240	AM	110	No
				PM	362	**Yes**
		WBL	250	AM	262	**Yes**
				PM	309	**Yes**
		WBR	180	AM	288	**Yes**
				PM	279	**Yes**
		NBL	280	AM	341	**Yes**
				PM	484	**Yes**
		SBL	320	AM	301	No
				PM	243	No
23	Rosecrans Street & Kurtz Street	WBR	-	AM	434	No
				PM	630	No
		SBL	100	AM	64	No
				PM	166	**Yes**
24	Rosecrans Street & Hancock Street	NBL	120	AM	89	No
				PM	127	**Yes**
25	Pacific Highway & Rosecrans Street	EBL	120	AM	59	No
				PM	78	No
		EBR	100	AM	58	No
				PM	129	**Yes**
		WBL	150	AM	127	No
				PM	126	No
		NBL	150	AM	126	No
				PM	257	**Yes**

QUEUE ANALYSIS COMPARISON FOR PROPOSED ROUNDABOUT

The Midway Rising project proposes to provide a single-lane roundabout at the intersection of Hancock Street and Kurtz Street rather than a traffic signal, as modeled in the Midway-Pacific Highway Community Plan. **Table 6-5** summarizes a comparison between the queue lengths anticipated for the roundabout proposed under the Midway Rising project as compared to the traffic signal planned in the Midway Pacific-Highway Community Plan. The table shows that the Midway Rising project's proposed roundabout control would be expected to have lower queue lengths than the traffic signal control proposed in the Midway Pacific-Highway Community Plan.

Table 6-5. Horizon Year (2050) Baseline (CPA) Scenario Queue Analysis Summary for Proposed Roundabout at Hancock St / Kurtz Street

Peak Hour	Intersection Control	Analysis Method	Horizon Year (2050) Baseline (CP) 95th Percentile Queue (ft)	Horizon Year (2050) Plus Full Project Buildout (CPA) 95th Percentile Queue (ft) – Event Day	Horizon Year (2050) Plus Full Project Buildout (CPA) 95th Percentile Queue (ft) – Non-Event Day
AM	Roundabout	SIDRA (HCM 6th)	11	38	43
	Signalized	Synchro (HCM 6th)	0	102	105
PM	Roundabout	SIDRA (HCM 6th)	17	64	45
	Signalized	Synchro (HCM 6th)	0	137	131

6.5 ROADWAY SEGMENT ANALYSIS

The Horizon Year (2050) Plus Full Project Buildout (CPA) scenario roadway segment analysis was performed based on proposed roadway geometries and 2050 expected roadway segment volumes. **Table 6-6** summarizes the roadway segment LOS analysis at the study segments under CPA scenario for a weekday event day and non-event day.

Under the Horizon Year (2050) Plus Full Project Buildout (CPA) scenario, all roadway segments are expected to operate at LOS D or better except the following:

Weekday Event Day

- Camino del Rio West North of Greenwood Street (LOS F)
- Camino del Rio West between Greenwood Street and Hancock Street (LOS F)
- Camino del Rio West between Hancock Street and Kurtz Street (LOS E)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Kurtz Street between Hancock Street and Frontier Drive (LOS F)
- Kurtz Street between Frontier Drive and Sherman Street (LOS F)

Weekday Non-Event Day

- Camino del Rio West North of Greenwood Street (LOS F)
- Camino del Rio West between Greenwood Street and Hancock Street (LOS F)
- Rosecrans Street between Sports Arena Boulevard and Midway Drive (LOS F)
- Kurtz Street between Hancock Street and Frontier Drive (LOS F)
- Kurtz Street between Frontier Drive and Sherman Street (LOS F)

The Midway Rising project would be expected to cause an operational effect at all roadway segments listed above. Project effects for roadway segments are discussed further in Section 6.6.

6.6 PROJECT EFFECTS

Based on the transportation analysis discussed in the previous sections, the Midway Rising project's proposed changes to the Midway Pacific-Highway Community Plan would result in project transportation effects at intersections along Sports Arena Boulevard and roadway segments along Sports Arena Boulevard, Rosecrans Street, and Kurtz Street.

PROJECT EFFECTS ON INTERSECTION LEVEL OF SERVICE

The project is expected to cause a transportation effect at the following two intersections in the Horizon Year (2050) Plus Full Project Buildout (CPA) scenario:

- **Intersection #2: Midway Drive and Point Loma Boulevard/Sports Arena Boulevard** – Although the intersection would operate at LOS E under the Horizon Year (2050) CP scenario, the Midway Rising project traffic volumes cause the overall intersection delay to increase by more than one second under the Horizon Year (2050) Plus Full Project Buildout (CPA) scenario. The worst observed movement is the westbound right turn in the AM peak hour and the northbound right turn in the PM peak hour; however, all movements would operate at LOS E or F during both peak hours.
- **Intersection #19**: **Rosecrans St / Sports Arena Blvd & Camino Del Rio W** – Although the intersection would operate at LOS E under the Horizon Year (2050) CP scenario, the Midway Rising project traffic volumes cause the overall intersection delay to increase by more than one second under the Horizon Year (2050) Plus Full Project Buildout (CPA) scenario. The worst observed movement is the northbound left turn in the PM peak hour.

PROJECT EFFECTS ON ROADWAY LEVEL OF SERVICE

The project is expected to cause a transportation effect at the following seven roadway segments in the Horizon Year (2050) Plus Full Project Buildout (CPA) scenario:

- **Camino del Rio West, North of Greenwood Street** (LOS F) – The Midway Rising project adds traffic to an LOS F segment, resulting in a project effect.
- **Camino del Rio West, between Greenwood Street and Hancock Street** (LOS F) – The Midway Rising project adds traffic to an LOS F segment, resulting in a project effect.

- **Camino del Rio West, between Hancock Street and Kurtz Street** (LOS F) – The Midway Rising project adds traffic to an LOS F segment, resulting in a project effect.
- **Rosecrans Street, between Sports Arena Boulevard and Midway Drive** (LOS f) – The Midway Rising project adds traffic to an LOS F segment, resulting in a project effect.
- **Kurtz Street, between Frontier Drive and Sherman Street** (LOS F) – The Midway Rising CPA proposes to convert this segment from a 2-lane, one-way collector to a 2-lane, two-way collector, resulting in a change in LOS from D to F, and thus a project effect.
- **Kurtz Street, between Hancock Street and Frontier Drive** (LOS F) – The Midway Rising project adds traffic to an LOS F segment, resulting in a project effect.

Table 6-6. Horizon Year (2050) Plus Full Project Buildout (CPA) Scenario Roadway Segment Analysis Summary

ID	Roadway Segment	Extents	Horizon Year (2050) Baseline (CP)					Horizon Year (2050) Plus Full Project Buildout (CPA)								
					Weekday					Weekday Event Day				Weekday Non-Event Day			
			Ultimate Classification[1]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	With Project Classification[6]	LOS E Capacity[2]	ADT[3]	V/C Ratio[4]	LOS[5]	Project Effect (Y/N?)	ADT[3]	V/C Ratio[4]	LOS[5]	Project Effect (Y/N?)
1	Sports Arena Boulevard	N of I-8 EB On Ramp	6 Lane Prime Arterial	60,000	12,026	0.200	A	6 Lane Prime Arterial	60,000	14,466	0.241	A	N	12,624	0.210	A	N
2		I-8 EB On Ramp to W Point Loma Boulevard	6 Lane Major Arterial	50,000	25,793	0.516	B	5 Lane Major Arterial	45,000	30,265	0.673	C	N	27,056	0.601	C	N
3		W Point Loma Boulevard to Hancock Street	6 Lane Major Arterial	50,000	17,061	0.341	A	5 Lane Collector (with two-way left-turn Lane)	37,500	21,145	0.564	C	N	18,235	0.486	C	N
4		Hancock Street to Kemper Street	6 Lane Major Arterial	50,000	18,785	0.376	A	4 Lane Major Arterial (with 2 flexible lanes)	40,000	23,023	0.576	C	N	19,854	0.496	B	N
5		Kemper Street to Frontier Drive	6 Lane Major Arterial	50,000	16,616	0.332	A	4 Lane Major Arterial (with 2 flexible lanes)	40,000	18,284	0.457	B	N	15,767	0.394	B	N
6		Frontier Drive to East Drive	6 Lane Major Arterial	50,000	19,499	0.390	A	4 Lane Major Arterial (with 2 flexible lanes)	40,000	28,688	0.717	C	N	23,584	0.590	C	N
7		East Drive to Camino Del Rio West	6 Lane Major Arterial	50,000	25,861	0.517	B	4 Lane Major Arterial (with 2 flexible lanes)	40,000	32,320	0.808	D	N	29,992	0.750	C	N
8		Rosecrans Street to Pacific Highway	2 Lane Collector (with two-way left-turn Lane)	15,000	10,700	0.713	D	2 Lane Collector (without two-way left-turn lane)	8,000	6,174	0.772	D	N	5,494	0.687	D	N
9	Camino Del Rio West	North of Greenwood Street	6 Lane Prime Arterial	60,000	62,148	1.036	**F**	6 Lane Prime Arterial	60,000	73,694	1.228	**F**	Y	65,714	1.095	**F**	Y
10		Greenwood Street to Hancock Street	6 Lane Prime Arterial	60,000	62,148	1.036	**F**	6 Lane Prime Arterial	60,000	73,694	1.228	**F**	Y	65,714	1.095	**F**	Y
11		Hancock Street to Kurtz Street	6 Lane Prime Arterial	60,000	50,994	0.850	D	6 Lane Prime Arterial	60,000	59,651	0.994	**E**	Y	53,761	0.896	D	N
12	Rosecrans Street	Camino del Rio to Pacific Highway	4 Lane Major Arterial	40,000	9,837	0.246	A	2 Lane Collector (with 2 flexible lanes)	15,000	11,555	0.770	D	N	10,475	0.698	D	N
13		Sports Arena Boulevard to Midway Drive	6 Lane Major Arterial	50,000	52,692	1.054	**F**	6 Lane Major Arterial	50,000	56,733	1.135	**F**	Y	53,355	1.067	**F**	Y
14	Midway Drive	Kemper Street to Rosecrans Street	4 Lane Collector (with two-way left-turn Lane)	30,000	19,391	0.646	C	4 Lane Collector (with two-way left-turn Lane)	30,000	19,561	0.652	C	N	19,480	0.649	C	N
15	Kurtz Street	Hancock Street to Frontier Drive	2 Lane Collector (one-way)	17,500	2,650	0.151	A	2 Lane Collector (without two-way left-turn lane)	8,000	17,429	2.179	**F**	Y	16,241	2.030	**F**	Y
16		Frontier Drive to Sherman Street	2 Lane Collector (one-way)	17,500	2,650	0.151	A	2 Lane Collector (without two-way left-turn lane)	8,000	12,157	1.520	**F**	Y	10,383	1.298	**F**	Y
17		Sherman Street to Camino del Rio West	2 Lane Collector (one-way)	17,500	6,696	0.383	A	2 Lane Collector (one-way)	17,500	11,278	0.644	C	N	9,408	0.538	B	N
18	Hancock Street	Sports Arena Boulevard to Channel Way	4 Lane Collector (without two-way left-turn Lane)	15,000	3,010	0.201	A	4 Lane Collector (without two-way left-turn Lane)	15,000	3,452	0.230	A	N	3,010	0.201	A	N
19		Channel Way to Kurtz St	4 Lane Collector (without two-way left-turn Lane)	15,000	3,085	0.206	A	4 Lane Collector (without two-way left-turn Lane)	15,000	3,348	0.223	A	N	3,085	0.206	A	N
20		Kurtz Street to Greenwood Street	3 Lane Major Arterial (one-way)	27,500	3,903	0.142	A	3 Lane Major Arterial (one-way)	27,500	5,361	0.195	A	N	4,926	0.179	A	N
21		Greenwood Street to Camino Del Rio West	3 Lane Major Arterial (one-way)	27,500	3,909	0.142	A	3 Lane Major Arterial (one-way)	27,500	5,320	0.193	A	N	4,888	0.178	A	N
22	Frontier Drive (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	2 Lane Collector (with two-way left-turn Lane)	15,000	12,200	0.813	D	2 Lane Collector (with two-way left-turn Lane)	15,000	9,050	0.603	C	N	7,072	0.471	C	N
23	Kemper Street (Future Conditions Only)	Sports Arena Boulevard to Kurtz Street	2 Lane Collector (with two-way left-turn Lane)	15,000	9,400	0.627	C	2 Lane Collector (with two-way left-turn Lane)	15,000	12,563	0.838	D	N	11,753	0.784	D	N

Notes:

[1]Ultimate Classification based on the Midway Pacific Highway Community Plan - Preferred Plan.

[2]LOS E Capacity provided by City of San Diego staff. LOS E capacity of Segment 12 under WP Conditions is based on a 2-lane Collector with two-way left-turn lane as the project wouldn't construct the median for a Major Arterial on Rosecrans St because there is not a project effect, and instead proposes a 2-lane Collector with flex lanes.

[3]ADT - Average Daily Traffic.

[4]V/C Ratio - Volume-to-capacity ratio.

[5]LOS - Level of Service.

[6]With Project Classification based on roadway classifications proposed by the Midway Rising Project.

[7]Due to limitations of the SANDAG ABM 2+ model, manual calculations were used to develop ADTs to reflect geometry modifications at intersection #19

[8]Due to limitations of the SANDAG ABM 2+ model, the 2050 Base and With Project ADTs reflect the 2035 Base and With Project ADTs, respectively, as these roadways were unable to be modeled accurately.

7 CONCLUSIONS AND PROJECT IMPROVEMENTS

7.1 INTERSECTION CONCLUSIONS AND PROJECT IMPROVEMENTS

The project is expected to cause a transportation effect at two study intersections in the Midway-Pacific Highway community under the Horizon Year (2050) Plus Full Project Buildout (CPA) scenario.

Table 7-1 summarizes the Midway Rising CPA transportation network improvements to address project effects on study area intersections.

7.2 ROADWAY SEGMENT CONCLUSIONS

Although the CPA scenario identified the project would be expected to cause transportation effects along six roadway segments, improvements are not recommended due to limited right-of-way and prioritization of safety of all roadway users, not only vehicles. Consistent with the Midway-Pacific Highway Community Plan, the Midway Rising project intends to promote and enhance multi-modal travel by constructing improvements that would leverage the project's proximity to the Old Town Transit Center, located between 0.7- and 1-mile walking distance from the site. The project will provide shuttle services and multi-modal paths and connections to the Transit Center as envisioned in the CP to enable and achieve vehicle trip reductions through multi-modal services.

Table 7-2 describes the project improvements which address the identified project effects on roadway segments.

Table 7-1. Horizon Year (2050) CPA Scenario Intersection Improvements

ID	Location	2050 CPA Considered Improvement	Improved Recommendation
2	Midway Drive and Point Loma Boulevard/Sports Arena Boulevard	**Improvements:** - Signal timing optimization - Reduce roadway width in northeast corner to convert westbound channelized right turn lane to an exclusive right turn lane per CP. - Provide overlap phase for westbound right turn movement. Requires signal modification. - Remove small, channelized portions of northbound and southbound right turn movements. Right-most lanes will be shared through-right instead. - Separate southbound shared through/left turn lane into exclusive left turn and exclusive through lane. Southbound approach to include 2 left turn lanes, 2 through lanes, and 1 right turn lane. Requires signal modification. - Separate northbound shared through/left turn lane into exclusive left turn and exclusive through lane. Northbound approach to include 2 left turn lanes, 1 through lanes, and 1 shared through/right turn lane. - Widen eastbound approach by 6' to construct additional through lane. Eastbound approach to include 1 left turn lane, 1 shared left/through lane, 1 through lane, and 1 right turn lane. - Modify northbound and southbound signal timing to protected left turn phasing instead of split phasing. **Results:** Maintain LOS E during both peaks.	**Midway Rising will improve this intersection to the extent feasible by incorporating the imporvements described.** *The intersection cannot be improved to LOS D or better without diminishing pedestrian and bicycle safety or conflicting with the Community Plan's visions for multimodal improvements. Removal of the westbound channelized free right turn lane as proposed in the CP prevents this intersection from being able to improve to LOS D or better. Removal of the free right turn would also decrease pedestrian safety. There is not enough right-of-way to further widen the intersection due to the adjacent residential and commercial land uses, the skew of the intersection, and the proposed multimodal improvements on all approaches to the intersection (including bus only lanes).*
19	Rosecrans St/Sports Arena Blvd & Camino Del Rio W	**Improvements**: - Convert channelized right turn lane to exclusive right turn lane per CP. - Remove northbound "channelized" right turn and ancillary intersection per CP. - Allow through movement from eastbound Sports Arena Boulevard to Sports Arena Boulevard per CP. - Modify eastbound approach to include 1 left turn lane, 1 shared left/through lane, 1 right turn lane to Sports Arena Boulevard, and 1 right turn lane to Camino del Rio W. Requires traffic signal modification. **Results**: Improves overall delay and queuing at the intersection, but does not improve the intersection operations to LOS D or better	**Midway Rising will improve this intersection to the extent feasible by incorporating the imporvements described.** *The intersection cannot be improved to LOS D or better without widening the approaches to the intersection with additional turn lanes, and potentially diminishing pedestrian and bicycle safety or conflicting with the Community Plan's visions for multimodal improvements.*

Table 7-2. Horizon Year (2050) CPA Scenario Roadway Improvements

ID	Location	Potential Improvement	Improved Recommendation
9	Camino del Rio West, North of Greenwood Street	**Improves roadway segment operations to LOS D or better:** - Widening the roadway to a 8 Lane Prime Arterial improves roadway segment operations	**Midway Rising will <u>not</u> improve this roadway segment <u>beyond</u> the planned classification per the Community Plan.** Widening the roadway past 6 lanes is inconsistent with the Midway-Pacific Highway Preferred Plan and is infeasible due to limited right-of-way and the nearby freeway access points to and from I-8 to the east and 1-5 to the north. This segment of roadway is built to its planned classification per the Community Plan, and any increase in capacity above the ultimate classification could induce VMT which does not align with City or state climate action goals. *Thus, the Midway Rising project does not recommend vehicle capacity improvements on this segment.*
10	Camino del Rio West, between Greenwood Street and Hancock Street	**Improves roadway segment operations to LOS D or better:** - Widening the roadway to an 8 Lane Prime Arterial improves roadway segment operations	**Midway Rising will <u>not</u> improve this roadway segment <u>beyond</u> the planned classification per the Community Plan.** Widening the roadway past 6 lanes is inconsistent with the Midway-Pacific Highway Preferred Plan and infeasible due to limited right-of-way. The Midway Rising project proposes multimodal improvements along Kurtz Street, including a Class I multi-use path and improved pedestrian access between Camino Del Rio West and the proposed project site. This path intends to increase pedestrian and bicycle access to and from the Old Town Transit Center and encourage the use of alternative transportation, as is the vision of the Midway Pacific-Highway Community Plan. This segment of roadway is built to its planned classification per the Community Plan, and any increase in capacity above the ultimate condition could induce VMT which does not align with City or state climate action goals. *Thus, the Midway Rising project does not recommend vehicle capacity improvements on this segment.*
11	Camino del Rio West, between Hancock Street and Kurtz Street	**Improves roadway segment operations to LOS D or better:** - Widening the roadway to an 8 Lane Prime Arterial improves roadway segment operations	**Midway Rising will <u>not</u> improve this roadway segment <u>beyond</u> the planned classification per the Community Plan.** Widening the roadway is infeasible due to limited right-of-way caused by surrounding commercial land uses. This segment of roadway is built out to its ultimate condition per the Community Plan, and any increase in capacity above the ultimate condition could induce VMT which does not align with City or state climate action goals. *Thus, the Midway Rising project does not recommend vehicle capacity improvements on this segment.*
13	Rosecrans Street, between Sports Arena Blvd and Midway Drive	**Improves roadway segment operations to LOS D or better**: - Widening the roadway to an 8 Lane Prime Arterial improves roadway segment operations	**Midway Rising will <u>not</u> improve this roadway segment <u>beyond</u> the planned classification per the Community Plan.** Widening the roadway is infeasible due to limited right-of-way caused by surrounding commercial land uses. This segment of roadway is built out to its ultimate condition per the Community Plan, and any increase in capacity above the ultimate condition could induce VMT which does not align with City or state climate action goals. *Thus, the Midway Rising project does not recommend vehicle capacity improvements on this segment.*
15	Kurtz Street, between Hancock Street and Frontier Drive	**Improves roadway segment operations to LOS D or better**: - Widening the roadway to a 4 Lane Collector with two-way left-turn lane improves roadway segment operations, but is infeasible due to fronting land uses that are not part of the project site on both sides of Kurtz Street	**Midway Rising will <u>not</u> improve this roadway segment**. Midway Rising proposes multimodal improvements along Kurtz Street, including a Class I multi-use path and improved pedestrian facilities, intended to increase pedestrian and bicycle activity along Kurtz Street by providing safe access between the site and high-frequency transit services at Old Town Transit Center, Rosecrans Street, and Sports Arena Boulevard. Although widening the roadway would improve vehicular LOS, this would reduce the multimodal improvements along this segment that connect to high-frequency transit services. *Thus, the Midway Rising project does not recommend vehicle capacity improvements on this segment.*
16	Kurtz Street, between Frontier Drive and Sherman Street	**Improves roadway segment operations to LOS D or better:** - Widening the roadway to a 4 Lane Collector with two-way left-turn lane improves roadway segment operations, but is infeasible due to fronting land uses that are not part of the project site on both sides of Kurtz Street	**Midway Rising will <u>not</u> improve this roadway segment.** Midway Rising proposes multimodal improvements along Kurtz Street, including a Class I multi-use path and improved pedestrian facilities, intended to increase pedestrian and bicycle activity along Kurtz Street by providing safe access between the site and high-frequency transit services at Old Town Transit Center, Rosecrans Street, and Sports Arena Boulevard. Although widening the roadway would improve vehicular LOS, this would reduce the multimodal improvements along this segment that connect to high-frequency transit services. *Thus, the Midway Rising project does not recommend vehicle capacity improvements on this segment.*

Appendix C

Midway-Pacific Highway CP Excerpts

FIGURE 3-1: PLANNED PEDESTRIAN FACILITIES

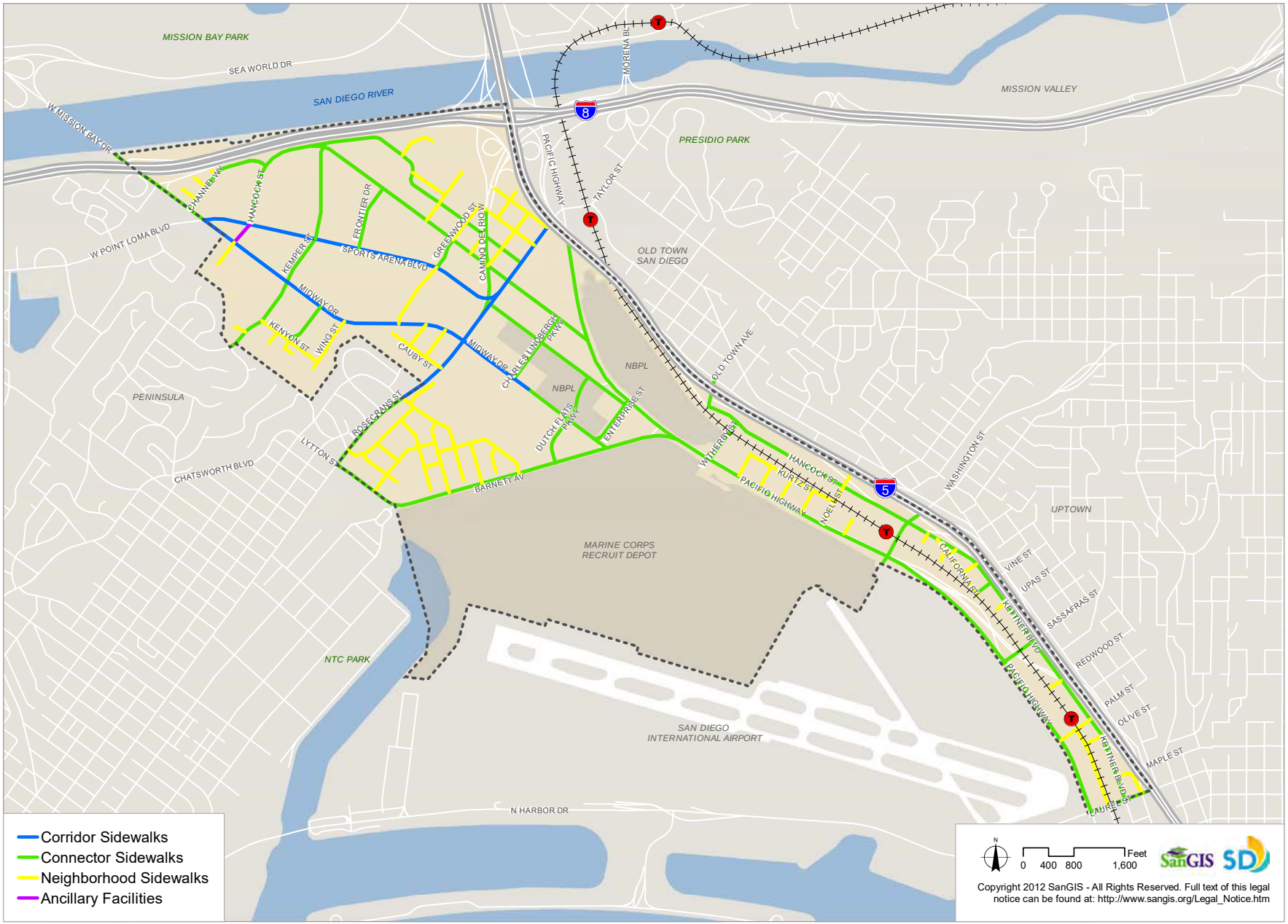


FIGURE 3-2: MULTI-USE URBAN PATH SYSTEM

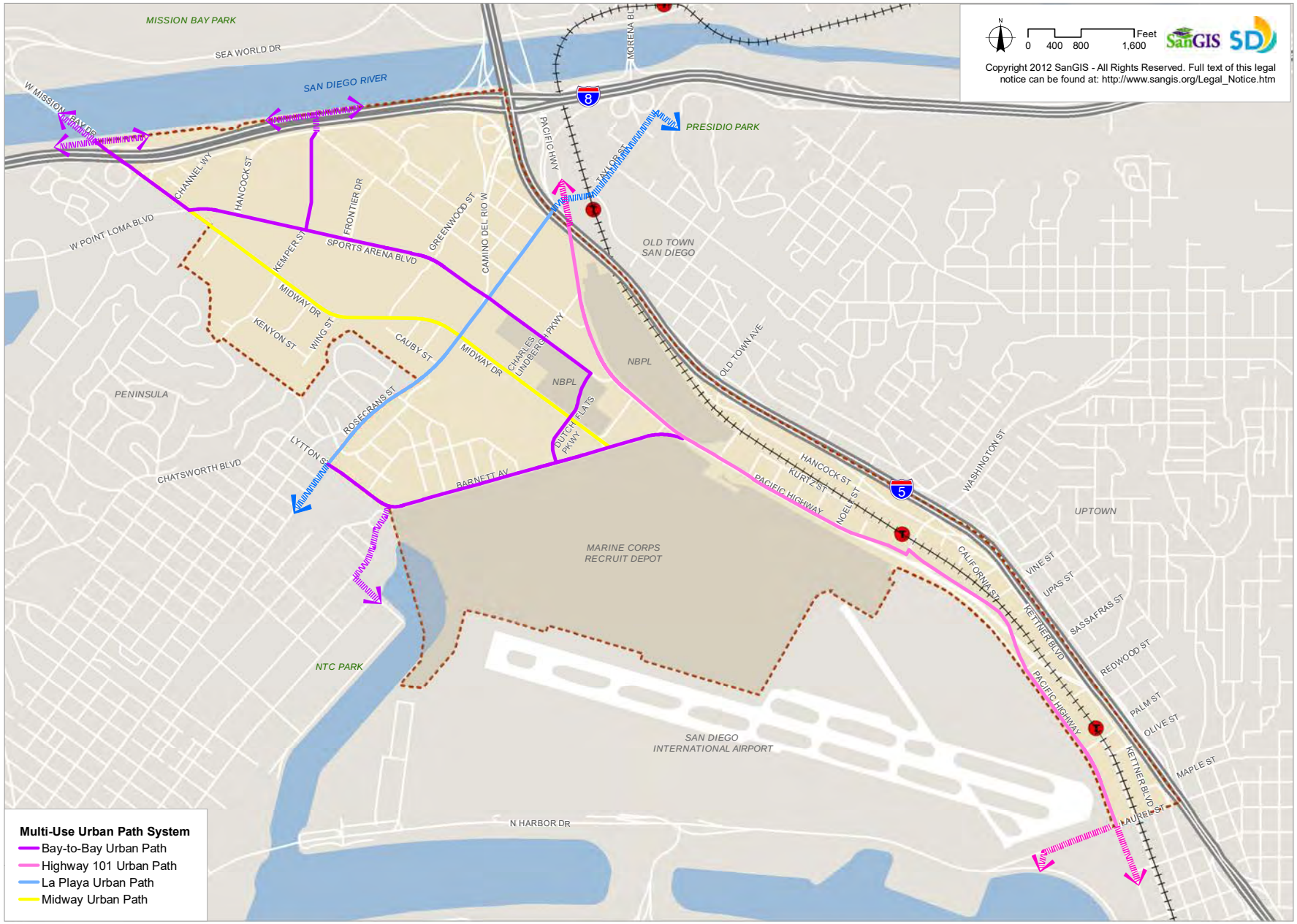


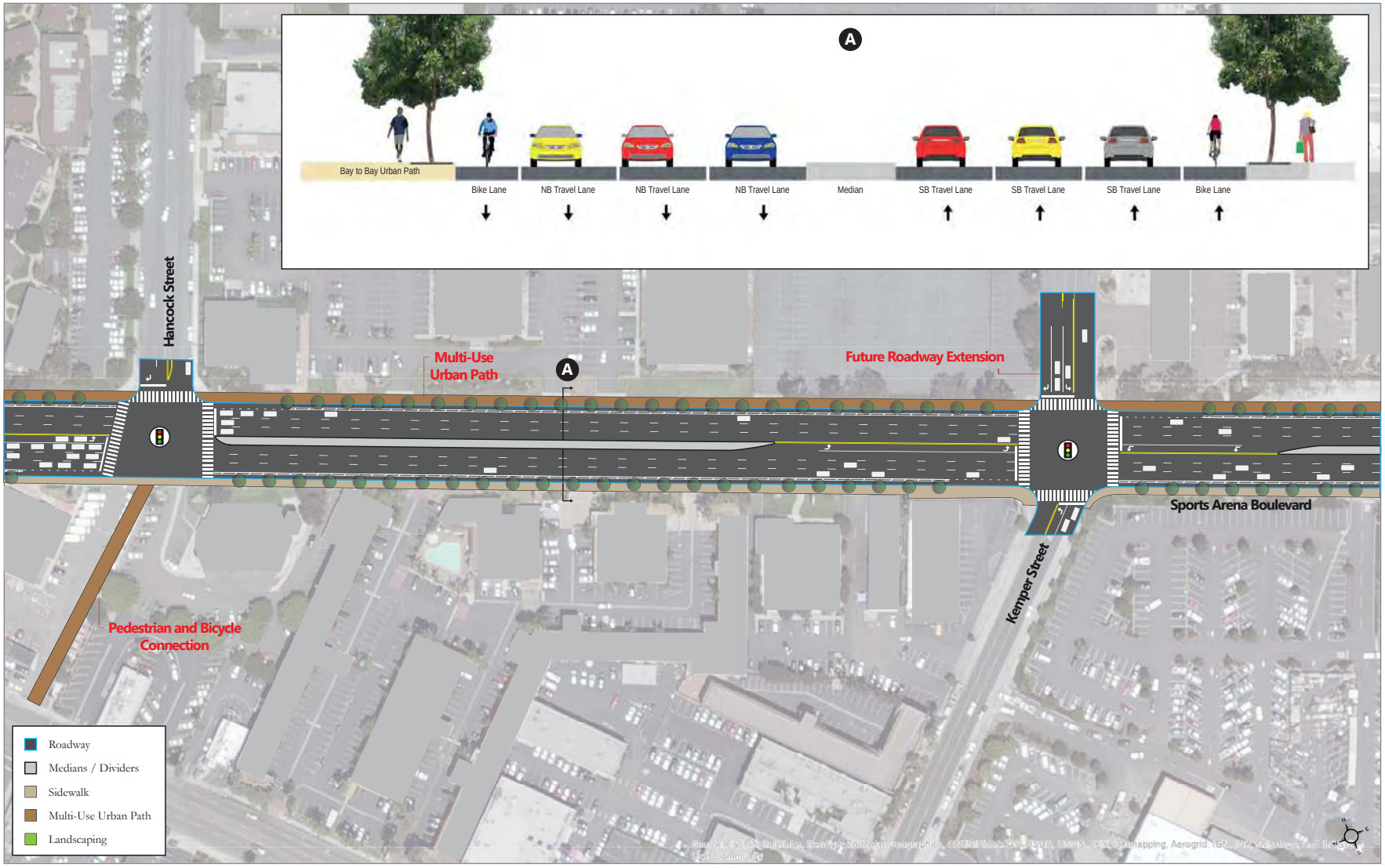
FIGURE 3-3: EXISTING AND PLANNED BICYCLE FACILITIES



FIGURE 3-6: PLANNED STREET CLASSIFICATIONS

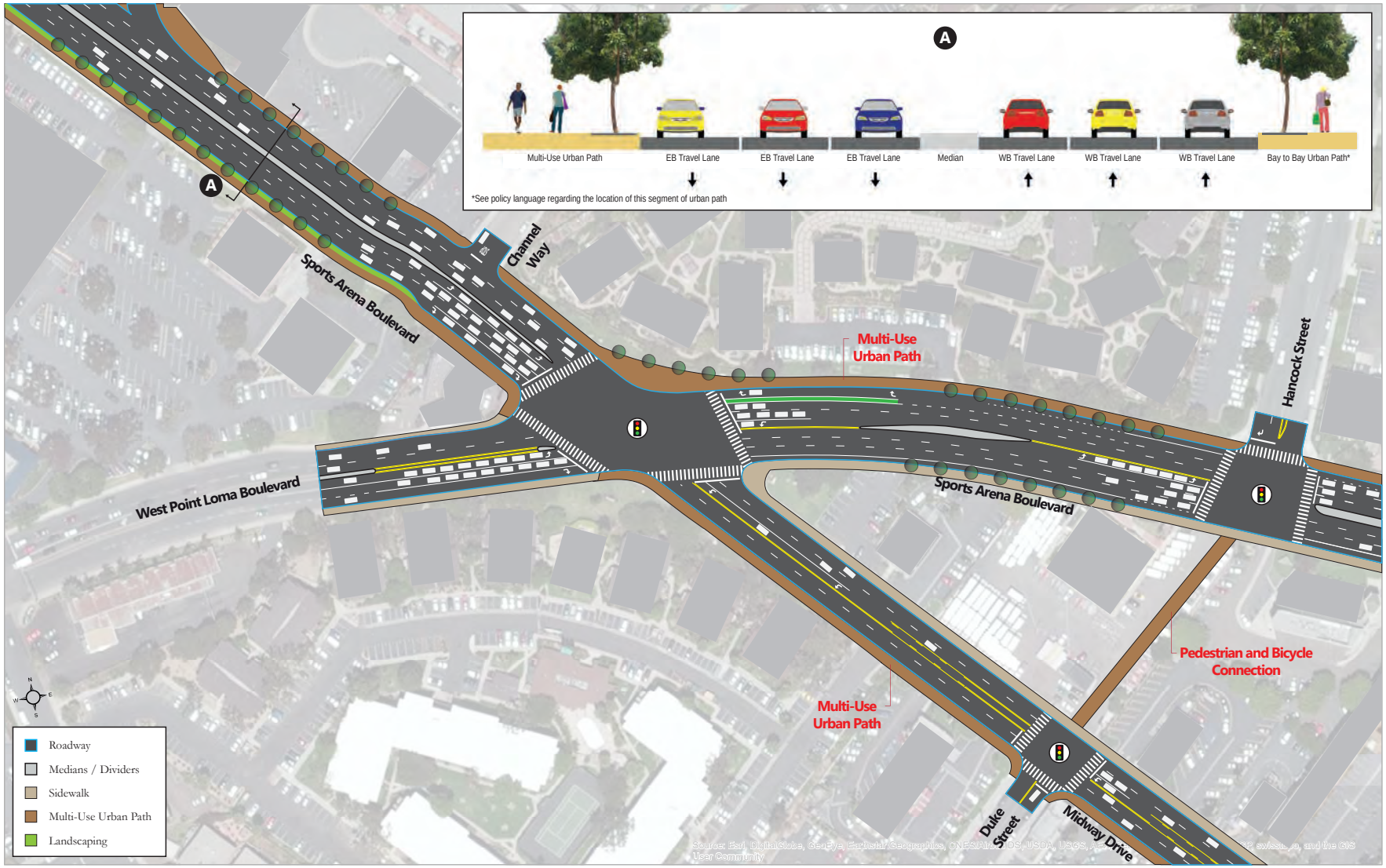


FIGURE 3-8: SPORTS ARENA BOULEVARD IMPROVEMENTS



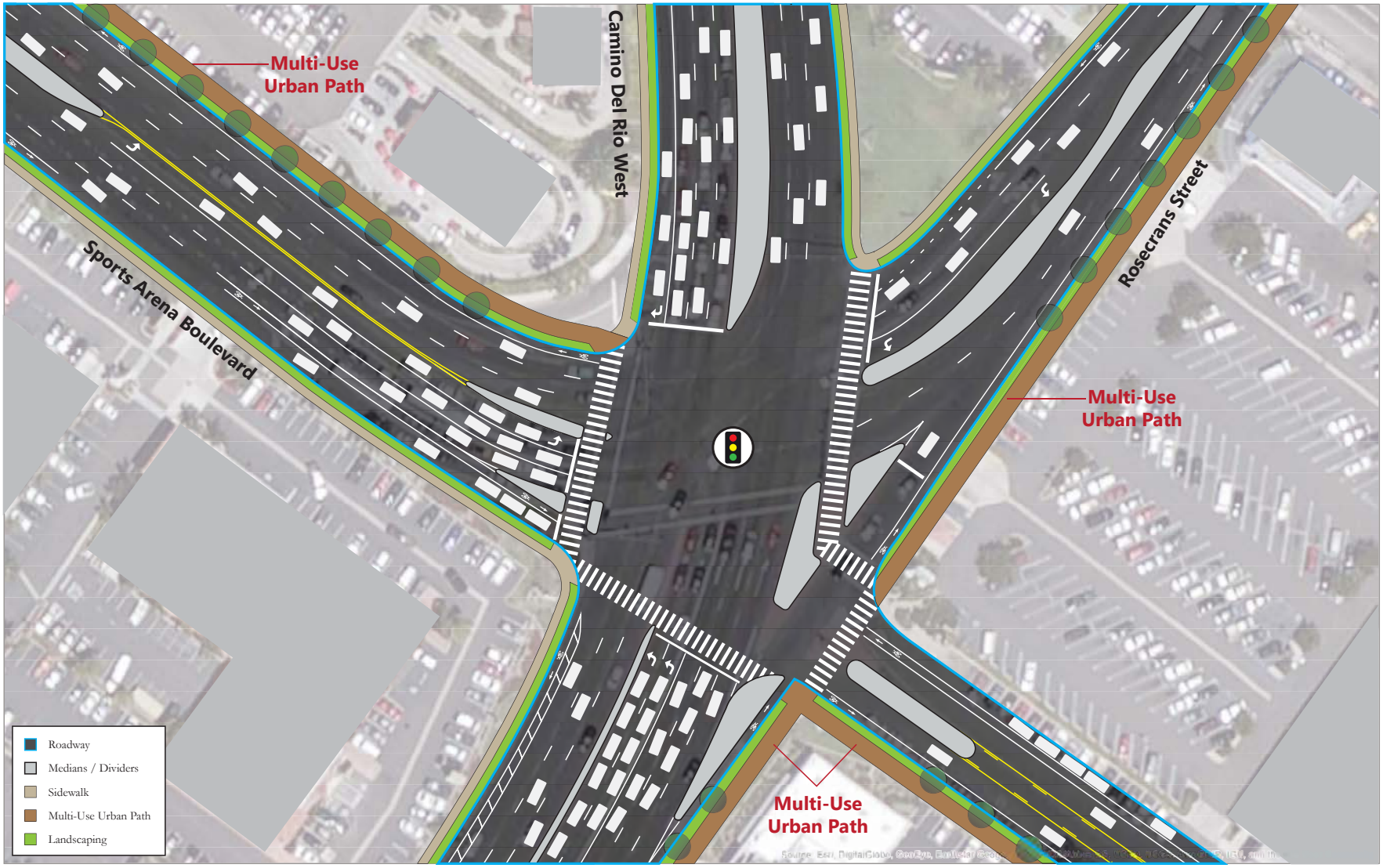
This graphic is for conceptual purposes only. Further engineering study would be required at the project level prior to implementation.

FIGURE 3-14: SPORTS ARENA BOULEVARD / W. POINT LOMA BOULEVARD / MIDWAY DRIVE INTERSECTION IMPROVEMENTS



This graphic is for conceptual purposes only. Further engineering study would be required at the project level prior to implementation.

FIGURE 3-15: SPORTS ARENA BOULEVARD / ROSECRANS STREET / CAMINO DEL RIO WEST INTERSECTION IMPROVEMENTS



This graphic is for conceptual purposes only. Further engineering study would be required at the project level prior to implementation.

Appendix D

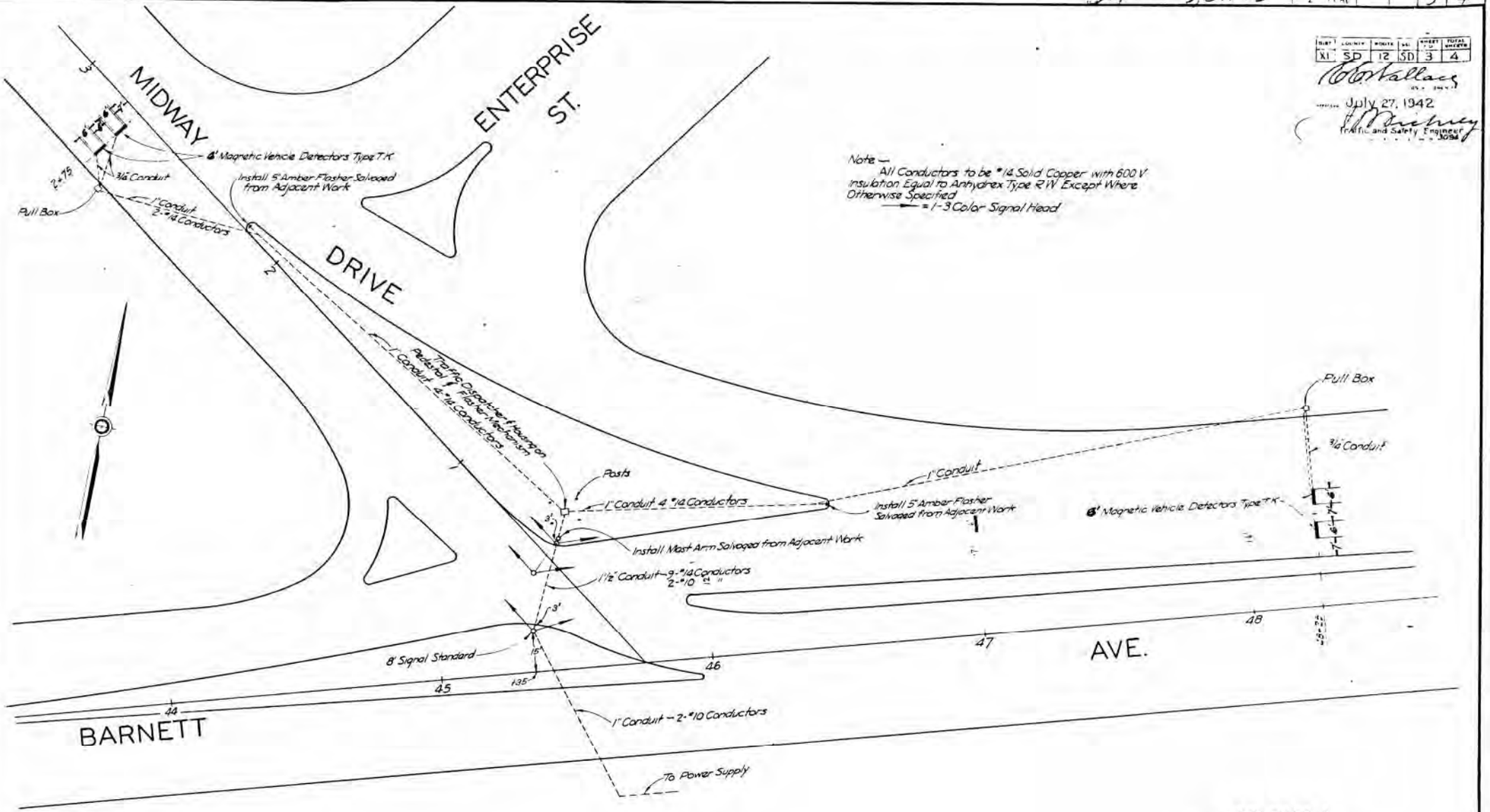
Signal Timing Sheets

DH 1941, Ch 13

DIST	COUNTY	ROUTE	SEC	SHEET NO	TOTAL SHEETS
XI	SD	12	SD	3	4

July 27, 1942

Traffic and Safety Engineer



Note —
All Conductors to be #14 Solid Copper with 600 V. Insulation Equal to Anhydrex Type RW Except Where Otherwise Specified
→ = 1-3 Color Signal Head

AS BUILT

REDUCED PLAN
USE SCALE BELOW
4" ON ORIGINAL SCALE

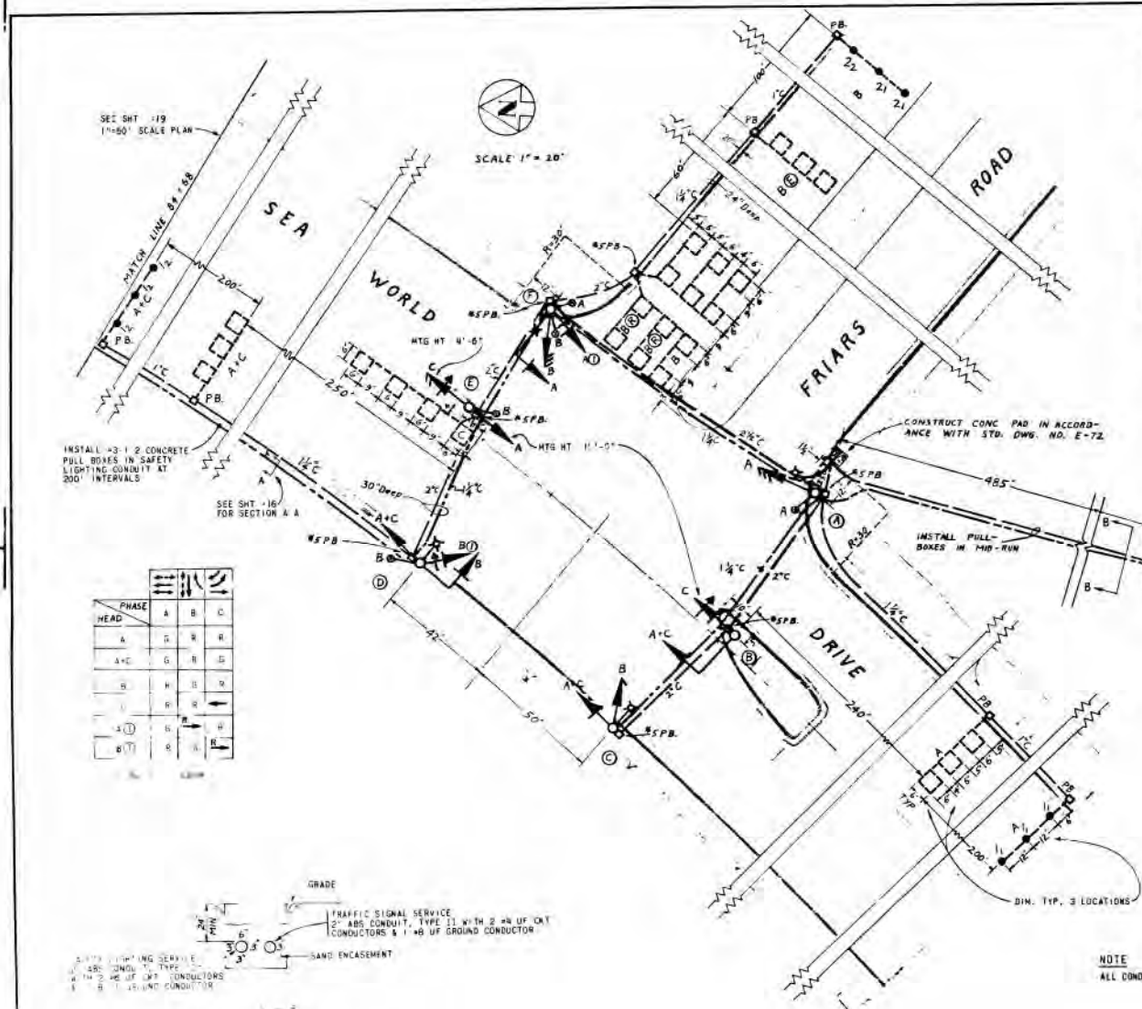
MICROFILMED
JUN 27 1963

ELECTRICAL INSTALLATION

BARNETT AVE & MIDWAY DRIVE

SCALE 1"=20'

14-1-1-1



EQUIPMENT SCHEDULE

LOCATION	STD DWG OR TYPE	FINISH	BASE	POLES WITH ANCHOR BOLTS (SIZE & SPACE BOLTS FOR EQUIPMENT FURNISHED) SHAFT LGTH	SHAFT MATERIAL	MAST ARM LIGHTING LGTH	MAST ARM LIGHTING MTG HT	MAST ARM SIGNAL LGTH	MAST ARM SIGNAL MTG HT	25 & 1-237 PSM SECTION	SIGNAL HEADS STD DWGS E-76 THRU E-80, E-81			LOUVERS
A	XVII	GALV	ANCHOR	28'6"	7 GA STL	12'	32'-3"			1	1-300- (RYG)			3-8" (RYG)
B	XVI	"	"	18'	11 GA STL			18'	23'-3"	1	2-300- (RYG)+B*	SPECIAL HEAD**		
C	XVII	"	"	28'6"	7 GA STL	12'	32'-3"			1	4-300-2 (RYG)+B* FOR 12"			1-8" (G)
D	XVII*	"	"	28'6"	7 GA STL	12'	32'-3"	15'	22'-3"	1	2-300- (RYG) +B*	5-100- (RYG) (RYGGA)	B*	
E	E-83	PRIME	"	9'9"	11 GA STL					1	1-300- (RYG)	2-200- (RYGA)		2-8" (RY)
F	XVII	GALV	"	28'6"	7 GA STL	12'	32'-3"	18'	23'-3"	2	2-300- (RYG) +B*	5-150- (RYG) (RYGGA)	B*	3-8" (RYG)
G	XV	"	BRK AWAY TRANS	28'6"	11 GA STL	15'	34'-5"							
H	XV	"	"	28'6"	11 GA STL	15'	34'-5"							
I	XV	"	"	28'6"	11 GA STL	15'	34'-5"							
J	XV	GALV	"	28'6"	11 GA STL	15'	34'-5"							

LUMINAIRE - 9 400 WATT MERCURY VAPOR WITH INTEGRAL, CONSTANT WATTAGE BALLAST 230/480 VOLT MULTIPLE, INTEGRAL PHOTOELECTRIC CONTROL RECEPTACLE AND RECEPTACLE SHORTING CAP ***

CONTROLLER - MODULAR SOLID STATE CONTROLLER IN AN "8" CABINET WITH THE FOLLOWING ITEMS: 3 TYPE XIII PHASE TIMING MODULES, 7 INDUCTIVE LOOP DETECTOR UNITS AND 2 MAGNETOMETER DETECTORS. REFER TO JOB SPECIFICATIONS FOR CONTROLLER FUNCTIONS

* MODIFY MAST ARM POSITIONS AS SHOWN ON PLANS

** HEAD SHALL BE A 3M BRAND, CAT NO. M 123 C-304 WITH BACKPLATE AND VISORS MOUNTED IN A 2600 SIGNAL MOUNTING (MOUNTING SHALL BE DEEP ENOUGH TO ALLOW THE BACK OF THE SIGNAL HEAD TO OPEN 180°)

*** TRANSFORMER BASES SHALL BE OF THE BREAKAWAY TYPE AS SHOWN ON STD DWGS E-85 & E 86

STANDARDS TYPE XV, XVI, XVII SHALL BE AS SHOWN ON CALIFORNIA STATE DIVISION OF HIGHWAYS STANDARD PLANS.

NOTE 1 LUMINAIRES TO BE INSTALLED ON THIS CONTRACT ON A 480 VOLT MULTIPLE CIRCUIT WITH RECEPTACLE SHORTING CAP INSTALLED CIRCUIT TO BE SWITCHED BY UTILITY COMPANY

2 LUMINAIRES SHALL BE WIRED SO THAT IN THE FUTURE THEY CAN BE CONNECTED FOR A 240 VOLT CIRCUIT AND INDIVIDUALLY SWITCHED BY CHANGING THE INPUT CONNECTIONS TO THE BALLAST AND INSTALLING A PHOTOELECTRIC CELL.

NOTES

1 SEE SHEET #1 FOR WORK TO BE DONE SCHEDULE AND SPECIFICATIONS

2 SAFETY LIGHTING CONDUIT IN PAVED AREAS SHALL BE RIGID STEEL

3 ALL ELBOWS AND RISERS IN THE ABS CONDUIT SYSTEM SHALL BE RIGID STEEL GALV. THIS INCLUDES ELBOWS AND RISERS IN STANDARD FOUNDATIONS, PULL BOXES AND ON SERVICE POLES

NOTE
ALL CONDUIT 24" DEEP IN TRENCH

APPROVALS

ENVIRONMENTAL	TRAFFIC ENGINEERING
PARKING	ELECTRICAL
PUBLIC WORKS	FIELD ENGR.
RECREATION	PARKS AND SQUARES
UTILITIES	INSPECTION
	PAVEMENTS
STRUCTURAL	PLANS
TRAFFIC	SIDEWALKS
WATER	STREET ACTIONS

UE-731-5

SEA WORLD DRIVE

CONSTRUCTION OF TRAFFIC SIGNAL AND SAFETY LIGHTING SYSTEMS ON SEA WORLD DRIVE AND FRIARS ROAD

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 18 OF 21 SHEETS

E.T. Mayer 8-6-69
CITY ENGINEER DATE

DESCRIPTION	BY	APPROVED	DATE	PLANS
ORIGINAL	Trivel			
AS BUILT	F.B.		4-5-71	

CONTRACTOR PEARY ELECT. DATE STARTED 10-15-69
INSPECTOR HILTON DATE COMPLETED 1-29-71

W.O. & JOB NO. 90152

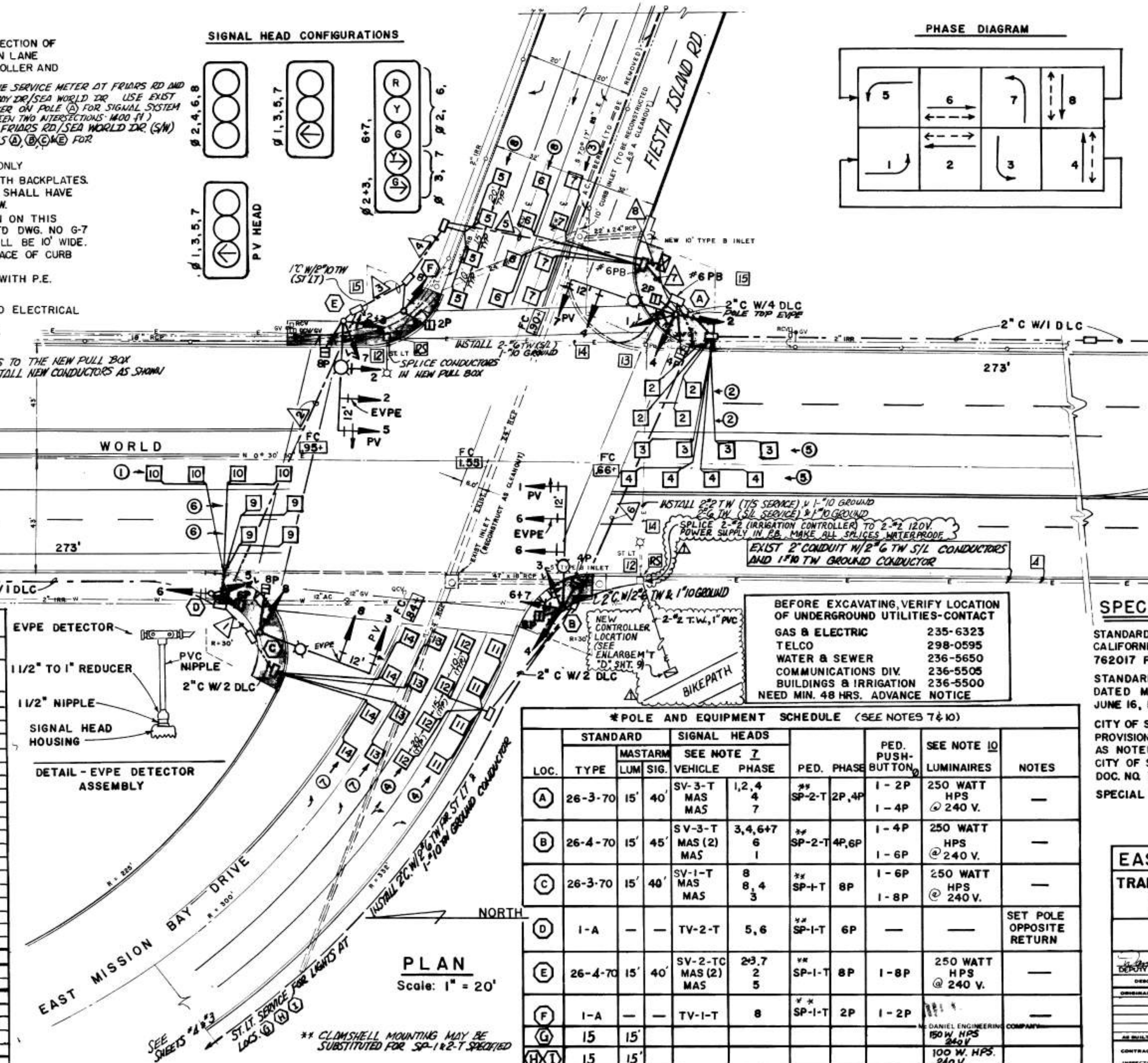
13352-18-D

AS BUILT

NOTES

1. ALL PULLBOXES SHALL BE NO 5 UNLESS NOTED OTHERWISE.
2. ALL DETECTOR LOOPS SHALL BE 6'X6' WITH 10' SPACING IN DIRECTION OF TRAVEL UNLESS NOTED OTHERWISE ALL LOOPS CENTERED IN LANE
3. CONTRACTOR SHALL INSTALL "CITY FURNISHED" TYPE 170 CONTROLLER AND MODEL 332 CABINET
4. [4] *INSTALL 2 #2 TW SIGNAL SERVICE & 1-#10 GROUND CONDUCTORS FROM THE SERVICE METER AT FRIARS RD AND SEA WORLD DR (S/W CORNER) TO THE CONTROLLER AT E MISSION BAY DR/SEA WORLD DR USE EXIST CONDUIT PER SECTION 86-2.09B INSTALL 1P-50 AMP CIRCUIT BREAKER ON POLE (A) FOR SIGNAL SYSTEM AT E MISSION BAY DR/SEA WORLD DRIVE (APPROX DISTANCE BETWEEN TWO INTERSECTIONS 1400 ft)*
   S D G & E SERVICE POINT, FOR SIGNALS AND LIGHTING IS AT *FRIARS RD/SEA WORLD DR (S/W)*
5. INSTALL EMERGENCY VEHICLE PREEMPTION *DETECTORS AT LOCS (A), (B), (C) & (E) FOR PHASES 4+7, 1+6, 3+8 AND 2+5 RESPECTIVELY*
6. SIGNING AND STRIPING BY OTHERS, SHOWN FOR REFERENCE ONLY
7. ALL VEHICLE SIGNAL INDICATIONS SHALL BE 12" DIAMETER WITH BACKPLATES. FAR LEFT, LEFT TURN INDICATIONS FOR PHASES 1,3,5 & 7 SHALL HAVE LOUVERED RED AND YELLOW SECTIONS, AND GREEN ARROW.
8. CONSTRUCT PEDESTRIAN RAMPS AND SIDEWALKS AS SHOWN ON THIS PLAN AND PER DETAILS SHOWN ON CITY OF SAN DIEGO STD DWG. NO G-7 AND SDG-101 P.C.C. SHALL BE 3 1/2" THICK SIDEWALKS SHALL BE 10' WIDE.
9. ALL SIGNAL STANDARDS SHALL BE INSTALLED 9'-0" FROM FACE OF CURB TO CENTERLINE OF POLE.
10. LUMINAIRES SHALL HAVE CONSTANT WATTAGE BALLASTS WITH P.E. CONTROLS WITH CUTOFF FIXTURES.
11. DELIVER SALVAGED EQUIPMENT TO COMMUNICATIONS AND ELECTRICAL DIVISION, 20TH & B ST, 236-5505
12. [12] *REMOVE AND SALVAGE EXIST SAFETY LIGHTS AND INSTALL #5 PULL BOX TO COMPLETE EXIST. 240 V ST LT CIRCUIT*

[13] *REMOVE EXIST PULL BOX AND EXTEND EXIST 1 1/2" CONDUITS TO THE NEW PULL BOX*
[14] *PULL OUT EXIST. #6 TW SAFETY LTG CONDUCTORS AND INSTALL NEW CONDUCTORS AS SHOWN*
[15] *CAUTION! REPLACE IRRIGATION SYSTEM IF DISTURBED.*
[16] *AT LOC (J), REMOVE AND SALVAGE EXIST LIGHT*



BEFORE EXCAVATING, VERIFY LOCATION OF UNDERGROUND UTILITIES-CONTACT

GAS & ELECTRIC	235-6323
TELCO	298-0595
WATER & SEWER	236-5650
COMMUNICATIONS DIV.	236-5505
BUILDINGS & IRRIGATION	236-5500

NEED MIN. 48 HRS. ADVANCE NOTICE

DETECTOR ASSIGNMENT TABLE

DET.	PHASE	INPUT FILE CONNECTION
1	2	I2 D&E
2	2	I2 J&K
3	5	J1 D&E
4	5	J1 J&K
5	8	J6 D&E
6	8	J6 J&K
7	3	I5 D&E
8	6	J2 D&E
9	6	J2 J&K
10	1	I1 D&E
11	4	I6 D&E
12	4	I6 J&K
13	7	J5 D&E
14	7	J5 J&K
PPB	2	I 12 D&E COMMON
PPB	4	I12 J&K "
PPB	6	I 13 D&E "
PPB	8	I 13 J&K "
EVPE A	2+5	J 12 D&E "
EVPE B	1+6	J12 J&K

CONDUCTOR SCHEDULE

AWG SIZE	ø CIRCUIT	2" (1)	2 1/2" (2)	3" (3)	3" (4)	3" (5)	3" (6)	3" (7)	2-3" (8)
#14	1 VEHICLE SIGNALS	2	2	2	2	2	3	3	5
	2 " "			3	3	3		3	6
	3 " "	3	3	3	3	3	3	3	6
	4 " "	3	3	3	3	3	3	3	3
	5 " "		3	3	3	3		2	5
	6 " "		3	3	3	3	3	3	6
	7 " "			3	3	3	2	3	6
	8 " "	3	3	3	3	3			3
	2 PED. SIGNALS				2	2		2	4
	4 " "						2	2	2
	6 " "		2	2	2	2	2	2	4
	8 " "	2	2	2	2	2			2
	2 PED. PUSHBUTTON				1	1		1	2
	4 " "						1	1	1
	6 " "	1	1	1	1	1	1	1	2
	8 " "	1	1	1	1	1			1
	PPB COMMON	1	1	1	1	1	1	1	1
#14	SPARES	3	3	3	3	3	3	3	6
	TOTAL	19	27	33	36	36	24	33	65
	LIGHTING	2	2	2	2	2	2	2	
#10	SIGNAL NEUTRAL	1	1	1	1	1	1	2	2
	TOTAL	3	3	3	3	3	3	4	2
#2	SERVICE CONDUCTORS							2	2
2#12	LOOP DETEC. CABLES	2	5	5	5	6	2	6	14
4#18	EVPE CABLES (TYPE B)		1	2	2	2	1	2	4

*POLE AND EQUIPMENT SCHEDULE (SEE NOTES 7 & 10)

LOC.	STANDARD TYPE	MASTARM LUM	MASTARM SIG.	SIGNAL HEADS (SEE NOTE 7) VEHICLE	PHASE	PED.	PHASE	PED. PUSH-BUTTON ø	LUMINAIRES (SEE NOTE 10)	NOTES
(A)	26-3-70	15'	40'	SV-3-T MAS MAS	1,2,4 4 7	** SP-2-T	2P,4P	1-2P 1-4P	250 WATT HPS @ 240 V.	—
(B)	26-4-70	15'	45'	SV-3-T MAS (2) MAS	3,4,6+7 6 1	** SP-2-T	4P,6P	1-4P 1-6P	250 WATT HPS @ 240 V.	—
(C)	26-3-70	15'	40'	SV-1-T MAS MAS	8 8,4 3	** SP-1-T	8P	1-6P 1-8P	250 WATT HPS @ 240 V.	—
(D)	1-A	—	—	TV-2-T	5,6	** SP-1-T	6P	—	—	SET POLE OPPOSITE RETURN
(E)	26-4-70	15'	40'	SV-2-TC MAS (2) MAS	2+3,7 2 5	** SP-1-T	8P	1-8P	250 WATT HPS @ 240 V.	—
(F)	1-A	—	—	TV-1-T	8	** SP-1-T	2P	1-2P		—
(G)	15	15'							150 W HPS 240 V	
(H)(I)	15	15'							100 W. HPS. 240 V.	

McDANIEL ENGINEERING COMPANY

SPECIFICATIONS

STANDARD SPECIFICATIONS OF STATE OF CALIFORNIA, DATED JAN., 1978, DOC. NO. 762017 FILED DEC. 5, 1977

STANDARD PLANS OF STATE OF CALIF. DATED MAR. 1977, DOC. NO. 759651 FILED JUNE 16, 1977.

CITY OF SAN DIEGO STANDARD SPECIAL PROVISIONS, DOC. NO. 758403, FILED 2-25-77 AS NOTED.

CITY OF SAN DIEGO STANDARD DRAWINGS, DOC. NO. 758672, FILED MARCH, 1977.

SPECIAL SPECIFICATIONS NO. ________

EAST MISSION BAY DRIVE
TRAFFIC SIGNALS & SAFETY LIGHTING AT SEA WORLD DRIVE

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 7 OF 14 SHEETS

W.O. NO. 122263

DEPUTY CHIEF ENGINEER — DATE 4-11-80
DIVISION HEAD — 4/11/80
APPROVALS
PROJECT OFFICER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL				
AS BUILT	P.E.			

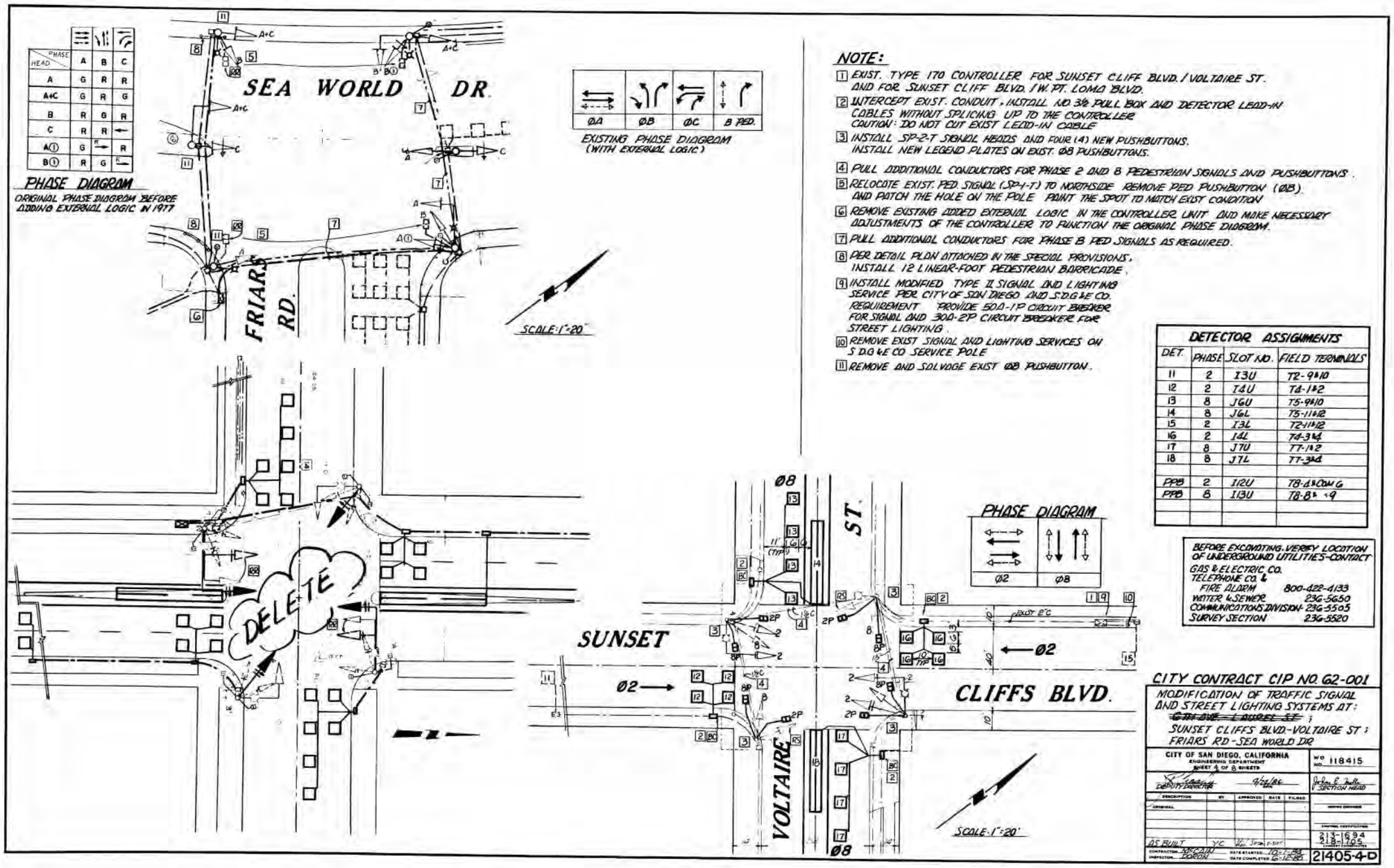
CONTROL CERTIFICATION
219-1704
LAMBERT COORDINATES

CONTRACTOR T.B. PENICK — DATE STARTED 10-6-80
INSPECTOR N. BASULIS — DATE COMPLETED 4-6-81

19078-7-D

AS BUILT

RELOCATION OF IRRIGATION CONTROLLER
ELECTRICAL HOOKUP TO CONTROLLER



PHASE / HEAD	A	B	C
A	G	R	R
A+C	G	R	G
B	R	G	R
C	R	R	←
A①	G	→	R
B①	R	G	←

NOTE:

1. EXIST. TYPE 170 CONTROLLER FOR SUNSET CLIFF BLVD. / VOLTAIRE ST. AND FOR SUNSET CLIFF BLVD. / W. PT. LOMA BLVD.
2. INTERCEPT EXIST. CONDUIT, INSTALL NO 3½ PULL BOX AND DETECTOR LEAD-IN CABLES WITHOUT SPLICING UP TO THE CONTROLLER CAUTION: DO NOT CUT EXIST LEAD-IN CABLE
3. INSTALL SP-2-T SIGNAL HEADS AND FOUR (4) NEW PUSHBUTTONS. INSTALL NEW LEGEND PLATES ON EXIST. Ø8 PUSHBUTTONS.
4. PULL ADDITIONAL CONDUCTORS FOR PHASE 2 AND 8 PEDESTRIAN SIGNALS AND PUSHBUTTONS.
5. RELOCATE EXIST. PED. SIGNAL (SP-1-T) TO NORTHSIDE REMOVE PED PUSHBUTTON (Ø8). AND PATCH THE HOLE ON THE POLE PAINT THE SPOT TO MATCH EXIST CONDITION
6. REMOVE EXISTING ADDED EXTERNAL LOGIC IN THE CONTROLLER UNIT AND MAKE NECESSARY ADJUSTMENTS OF THE CONTROLLER TO FUNCTION THE ORIGINAL PHASE DIAGRAM.
7. PULL ADDITIONAL CONDUCTORS FOR PHASE B PED SIGNALS AS REQUIRED.
8. PER DETAIL PLAN ATTACHED IN THE SPECIAL PROVISIONS, INSTALL 12 LINEAR-FOOT PEDESTRIAN BARRICADE.
9. INSTALL MODIFIED TYPE II SIGNAL AND LIGHTING SERVICE PER CITY OF SAN DIEGO AND S.D.G.&E CO. REQUIREMENT PROVIDE 50A-1P CIRCUIT BREAKER FOR SIGNAL AND 30A-2P CIRCUIT BREAKER FOR STREET LIGHTING.
10. REMOVE EXIST SIGNAL AND LIGHTING SERVICES ON S.D.G.&E CO SERVICE POLE
11. REMOVE AND SALVAGE EXIST Ø8 PUSHBUTTON.

DETECTOR ASSIGNMENTS

DET.	PHASE	SLOT NO.	FIELD TERMINALS
11	2	I3U	T2-9&10
12	2	I4U	T4-1&2
13	8	J6U	T5-9&10
14	8	J6L	T5-11&12
15	2	I3L	T2-11&12
16	2	I4L	T4-3&4
17	8	J7U	T7-1&2
18	8	J7L	T7-3&4
PPB	2	I12U	T8-4&COM G
PPB	8	I13U	T8-8&COM G

BEFORE EXCAVATING, VERIFY LOCATION OF UNDERGROUND UTILITIES-CONTACT

GAS & ELECTRIC CO.	
TELEPHONE CO. & FIRE ALARM	800-422-4133
WATER & SEWER	236-5650
COMMUNICATIONS DIVISION	236-5505
SURVEY SECTION	236-5520

CITY CONTRACT CIP NO. 62-001

MODIFICATION OF TRAFFIC SIGNAL AND STREET LIGHTING SYSTEMS AT:
~~CATALINA BLVD. & ST.~~;
SUNSET CLIFFS BLVD-VOLTAIRE ST;
FRIARS RD-SEA WORLD DR

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 4 OF 8 SHEETS

WO NO. 118415

DEPUTY DIRECTOR — 4/12/84 DATE — Wm. E. Wells, TRAFFIC ENGINEERING SECTION HEAD

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL				
AS BUILT	YC			

CONTRACTOR MCCAIN — DATE STARTED 10-7-85
INSPECTOR TORON — DATE COMPLETED 6-12-86

213-1694
518-905
1-18-1-25

21405-4-D

22

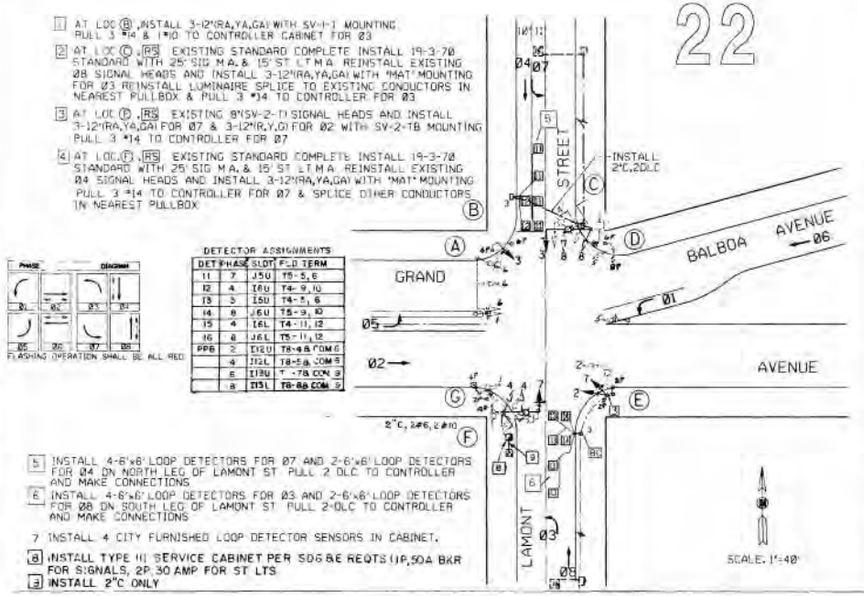
1. AT LOC Ⓑ, INSTALL 3-12"(RA,YA,GA) WITH SV-1-T MOUNTING PULL 3 #14 & #10 TO CONTROLLER CABINET FOR Ø3
2. AT LOC Ⓒ, RS EXISTING STANDARD COMPLETE INSTALL 19-3-70 STANDARD WITH 25' SIG M.A. & 15' ST. LT M.A. REINSTALL EXISTING Ø8 SIGNAL HEADS AND INSTALL 3-12"(RA,YA,GA) WITH "MAT" MOUNTING FOR Ø3 REINSTALL LUMINAIRE SPLICE TO EXISTING CONDUCTORS IN NEAREST PULLBOX & PULL 3 #14 TO CONTROLLER FOR Ø3
3. AT LOC Ⓕ, RS EXISTING 8"(SV-2-T) SIGNAL HEADS AND INSTALL 3-12"(RA,YA,GA) FOR Ø7 & 3-12"(R,Y,G) FOR Ø2 WITH SV-2-TB MOUNTING PULL 3 #14 TO CONTROLLER FOR Ø7
4. AT LOC Ⓕ, RS EXISTING STANDARD COMPLETE INSTALL 19-3-70 STANDARD WITH 25' SIG M.A. & 15' ST. LT M.A. REINSTALL EXISTING Ø4 SIGNAL HEADS AND INSTALL 3-12"(RA,YA,GA) WITH "MAT" MOUNTING PULL 3 #14 TO CONTROLLER FOR Ø7 & SPLICE OTHER CONDUCTORS IN NEAREST PULLBOX

PHASE	DIAGRAM		
Ø1	Ø2	Ø3	Ø4
Ø5	Ø6	Ø7	Ø8

FLASHING OPERATION SHALL BE ALL RED

DETECTOR ASSIGNMENTS

DET	PHASE	SLOT	FLD TERM
11	7	J5U	T5-5,6
12	4	I6U	T4-9,10
13	3	I5U	T4-7,8
14	8	J6U	T5-9,10
15	4	I6L	T4-11,12
16	8	J6L	T5-11,12
PPB	2	I12U	T8-4& COM 6
	4	J12L	T8-5& COM 5
	6	I13U	T -7& CON 3
	8	I15L	T8-8& COM 9



5. INSTALL 4-6'x6' LOOP DETECTORS FOR Ø7 AND 2-6'x6' LOOP DETECTORS FOR Ø4 ON NORTH LEG OF LAMONT ST. PULL 2 DLC TO CONTROLLER AND MAKE CONNECTIONS
6. INSTALL 4-6'x6' LOOP DETECTORS FOR Ø3 AND 2-6'x6' LOOP DETECTORS FOR Ø8 ON SOUTH LEG OF LAMONT ST. PULL 2-DLC TO CONTROLLER AND MAKE CONNECTIONS
7. INSTALL 4 CITY FURNISHED LOOP DETECTOR SENSORS IN CABINET.
8. INSTALL TYPE III SERVICE CABINET PER SDG 8E REQTS (1P, 50A BKR FOR SIGNALS, 2P, 30 AMP FOR ST LTS
9. INSTALL 2"C ONLY

23



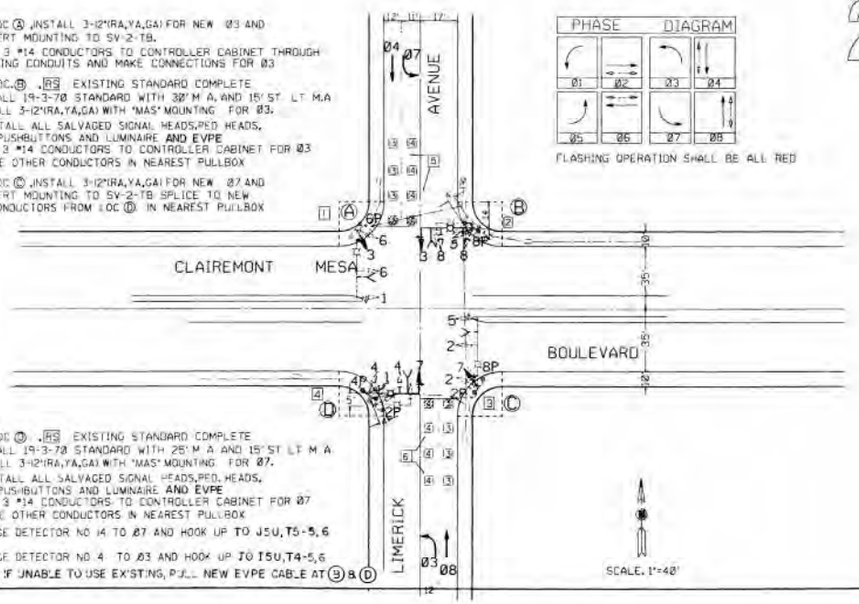
1. ON SOUTHWEST LEG OF SEA WORLD DR., AB EXISTING DETECTORS AND INSTALL 6 NEW 6'x6' LOOP DETECTORS AS SHOWN
2. ON NORTHWEST LEG OF SEA WORLD DR., AB EXISTING DETECTORS AND INSTALL 14-6'x6' LOOP DETECTORS AS SHOWN INSTALL NEW CITY FURNISHED NEMA LOOP DETECTOR SENSOR AND WIRING HARNESS FOR LEFT TURN PHASE.

24

1. AT LOC Ⓐ, INSTALL 3-12"(RA,YA,GA) FOR NEW Ø3 AND CONVERT MOUNTING TO SV-2-TB. PULL 3 #14 CONDUCTORS TO CONTROLLER CABINET THROUGH EXISTING CONDUITS AND MAKE CONNECTIONS FOR Ø3
2. AT LOC. Ⓑ, RS EXISTING STANDARD COMPLETE INSTALL 19-3-70 STANDARD WITH 30' M.A. AND 15' ST. LT. M.A. INSTALL 3-12"(RA,YA,GA) WITH "MAS" MOUNTING FOR Ø3. REINSTALL ALL SALVAGED SIGNAL HEADS, PED HEADS, PED PUSHBUTTONS AND LUMINAIRE AND EVPE PULL 3 #14 CONDUCTORS TO CONTROLLER CABINET FOR Ø3 SPLICE OTHER CONDUCTORS IN NEAREST PULLBOX
3. AT LOC Ⓒ, INSTALL 3-12"(RA,YA,GA) FOR NEW Ø7 AND CONVERT MOUNTING TO SV-2-TB SPLICE TO NEW Ø7 CONDUCTORS FROM LOC Ⓓ IN NEAREST PULLBOX

PHASE	DIAGRAM		
Ø1	Ø2	Ø3	Ø4
Ø5	Ø6	Ø7	Ø8

FLASHING OPERATION SHALL BE ALL RED



4. AT LOC Ⓓ, RS EXISTING STANDARD COMPLETE INSTALL 19-3-70 STANDARD WITH 25' M.A. AND 15' ST. LT. M.A. INSTALL 3-12"(RA,YA,GA) WITH "MAS" MOUNTING FOR Ø7. REINSTALL ALL SALVAGED SIGNAL HEADS, PED. HEADS, PED PUSHBUTTONS AND LUMINAIRE AND EVPE PULL 3 #14 CONDUCTORS TO CONTROLLER CABINET FOR Ø7 SPLICE OTHER CONDUCTORS IN NEAREST PULLBOX
5. CHANGE DETECTOR NO 14 TO Ø7 AND HOOK UP TO J5U, T5-5,6
6. CHANGE DETECTOR NO 4 TO Ø3 AND HOOK UP TO I5U, T4-5,6

NOTE: IF UNABLE TO USE EXISTING, PULL NEW EVPE CABLE AT Ⓓ & Ⓓ

SPECIFICATION NO. 6236
CITY CONTRACT, CIP No. 67[illegible]

PLAN FOR THE MODIFICATION OF TRAFFIC SIGNALS AND STREET LIGHTING AND INSTALLATION OF FLASHING BEACONS AT VARIOUS LOCATIONS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND [illegible]
11-1-57

CONTRACTOR MUST NOTIFY THE BELOW LISTED AGENCY AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION

UNDERGROUND SERVICE ALERT (USA) 1 800-422-4133

4-12-57
C. SHIRKEY

DESCRIPTION
DES. NAME
DRAWING
AS BUILT
CONTRACTOR
INSPECTOR
DATE COMPLETED

26403-10-D

INTERSECTION: BARNETT AVE @ MIDWAY AVE

223 Program

Group Assignment:
Field Master Assignment:
N/S Street Name: MIDWAY
E/W Street Name: BARNETT

MIDWAY BARNETT BARNETT

Row	Column # ----> / Phase # ---->	Phase 1	2	3	4	5	6	7	8
		↘	= = =	↕				↗	↖
0	Ped Walk		7	7				7	
1	Ped FDW		4	17				5	
2	Min Green	10	10	4				4	10
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.5	2.9	0.0				0.0	3.0
6	Max Gap	2.5	2.9	0.0				0.0	3.0
7	Min Gap	0.2	0.2	0.0				0.0	0.2
8	Max Limit	40 ~~60~~	60	0				0	40 ~~60~~
9	Max Limit 2		(2) 70						
A	Bus Adv								
B	Call to Phs								
C	Reduce By	0.1	0.1						0.1
D	Every	1.3	1.1						1.1
E	Yellow	4.2	4.4	3.0				3.0	4.4
F	Red Clear	1.0	1.0						1.0

Phase Timing - Bank 1
F + Phase + Row

FLG 10-26-12

(2) LV3 7/7/2014

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	
EV-B Clear	
EV-C Delay	0
EV-C Clear	0
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

<F Page>
F + E + Row

	F
Permit	123___78
Red Lock	
Yellow Lock	
Min Recall	_2_____8
Ped Recall	
Peds (View)	_23___7_
Rest In Walk	
Red Rest	
Dbl Entry	
Max Recall	
Soft Recall	
Max 2	
Cond Serv	
Ped Lock	12345678
Yellow Start	1_____7_
1st Phases	_2_____8

F + F + Row

NOTE: SPLIT RING OPERATION - PH 1 ,2 & 3 ARE INDEPENDENT OF PH 7 & 8

Max Initial	0	F + 0 + E
Red Revert	5.0	F + 0 + F
All Red Start	0.0	F + C + O

Start / Revert Times

Drop Number	14	C + 0 + 0
Zone Number	14	C + 0 + 1
Area Number	0	C + 0 + 2
Area Address	203	C + 0 + 3
QuicNet Channel	COM 66	(QuicNet)

Communication Addresses

C + F + O	F	Row
Free Lag	_23___8	0

Lag Phases <C Page>

Overlap Timing

Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A			
Overlap B	B			
Overlap C	C			
Overlap D	D			

<F Page>
F + COLOR +

<D Page>
D + 0 + OVERLAP

Manual Plan	14	C + A + 1
Manual Offset	0	C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Downtime Flash	255	(minutes)

Downtime Before Auto Manual Flash
F + 0 +8

Disable Ports	_234____

Disable Communication Ports
D + D + 9

Timing Sheet By: M2S
Approved By: J.D.
Drawing Number:
Timing Implemented On: 2/23/2011

INTERSECTION: BARNETT AVE @ MIDWAY AVE

LV3 7/7/2014

Row	Time	Function	Day of Week	Column F Phases/Bits
0	16:00	B	-23456-	2
1	18:00	E	-23456-	
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function <D Page>

7 + ROW D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	
7	Ped 4P	3
8	Ped 8P	7
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration <E Page>

E + F + ROW

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	1
B	EV-B Phases	
C	EV-C Phases	2 8
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345 8
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1 E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 = Bus Advance

Time and Date

8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications
(If set to a non-zero value, parity will be disabled)

Program Information

C + C + 0 = program
C + C + F = version

Remote Download

C + 0 + 4 = 1 -255
w/ E + E + E bit 5 on

Row	1 Delay	3 Carry-over
0		1.8
1		1.8
2		1.8
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
WB	2I2U	1
EB	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		
2		
3		
4		
5		
6		
7		1.8
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- -- --	1234____
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	____5678
E	-- -- -- -- -- -- -- --	1234____
F	-- 25 26 27 28 -- -- --	_2345___

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	
2	System Det. # 2	
3	System Det. # 3	
4	System Det. # 4	
5	System Det. # 5	
6	System Det. # 6	
7	System Det. # 7	
8	System Det. # 8	

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

INTERSECTION: E. Mission Bay Dr/ Pacific Highway @ S[illegible]orld Dr — 223 F [illegible]am

Group Assignment:
Field Master Assignment:

N/S Street Name: Sea World Dr
E/W Street Name: E. Mission Bay Dr/ Pacific Highway

Last Database Change:
System Ref. Number:

Row	Column # ---->	Sea World	E. Mission Bay	Sea World	Pacific Highway
	Phase # ---->	1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		7
1	Ped FDW		22		24		27		22
2	Min Green	4	10	4	4	4	10	4	4
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	4.4	2.0	3.0	2.0	4.2	2.0	2.0
6	Max Gap	2.0	4.4	2.0	3.0	2.0	4.2	2.0	2.0
7	Min Gap	2.0	0.2	2.0	3.0	2.0	0.2	2.0	2.0
8	Max Limit	30	70	30	30	30	70	30	30
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1				0.1		
D	Every		0.7				0.7		
E	Yellow	3.4	4.3	3.4	4.1	3.4	4.2	3.4	4.5
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1
F + Phase + Row
<F Page>

Row	E	
RR-1 Delay		
RR-1 Clear		
EV-A Delay	0	
EV-A Clear	0	
EV-B Delay	0	
EV-B Clear	0	
EV-C Delay	0	
EV-C Clear	0	
EV-D Delay	0	
EV-D Clear	0	
RR-2 Delay		
RR-2 Clear		
View EV Delay	---	
View EV Clear	---	
View RR Delay	---	
View RR Clear	---	

Preempt Timing
F + E + Row

Row	F	
Permit	12345678	
Red Lock		
Yellow Lock		
Min Recall		
Ped Recall		
Peds (View)	_2_4_6_8	
Rest In Walk		
Red Rest		
Dbl Entry		
Max Recall		
Soft Recall	_2___6__	
Max 2		
Cond Serv		
Ped Lock	12345678	
Yellow Start	_2___6__	
1st Phases	__3___7_	

Phase Functions <F Page>
F + F + Row

Max Initial	0	F + 0 + E
Red Revert	5.0	F + 0 + F
All Red Start	0.0	F + C + O

Start / Revert Times

Drop Number	2	C + 0 + 0
Zone Number	2	C + 0 + 1
Area Number	5	C + 0 + 2
Area Address	85	C + 0 + 3
QuicNet Channel	COM52	(QuicNet)

Communication Addresses

Overlap Timing

	Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A				
Overlap B	B				
Overlap C	C				
Overlap D	D				

<F Page>
F + COLOR +
<D Page>
D + 0 + OVERLAP

Manual Plan	14	C + A + 1
Manual Offset	0	C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

C + F + O	F	Row
Free Lag	_2_4_6_8	0

Lag Phases <C Page>

Downtime Flash	255	(mInutes)

Downtime Before Auto Manual Flash
F + 0 +8

Disable Ports	_234_

Disable Communication Ports
D + D + 9

Timing Sheet By: KT
Approved By: FLG
Drawing Number: 19078-D-7
Timing Implemented On:

INTERSECTION: E. Mission Bay Dr/ Pacific Highwa) Sea World Dr 223 Pro m

Row	Time	Function	Day of Week	Column F Phases/Bits
0	:			
1	:			
2	:			
3	:			
4	:			
5	:			
6	:			
7	:			
8	:			
9	:			
A	:			
B	:			
C	:			
D	:			
E	:			
F	:			

TOD Function <D Page>

7 + ROW D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	6
7	Ped 4P	4
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	23
B	Overlap B - Phases	67
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	1

Configuration <E Page>

E + F + ROW

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	2
6	Overlap B - Green Omit	6
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Configuration

For access, set F + 9 + E = 1 E + E + ROW

Time and Date

8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications
(If set to a non-zero value, parity will be disabled)

Program Information

C + C + 0 = program
C + C + F = version

Remote Download

C + 0 + 4 = 1 -255
w/ E + E + E bit 5 on

TERSECTION: E. Mission Bay Dr/ Pacific Highway / ea World Dr — 223 Program

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7	10.0	
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7	10.0	
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- -- --	1234___
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	___5678
E	-- -- -- -- -- -- -- --	1234___
F	-- 25 26 27 28 -- -- --	_2345___

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	
2	System Det. # 2	
3	System Det. # 3	
4	System Det. # 4	
5	System Det. # 5	
6	System Det. # 6	
7	System Det. # 7	
8	System Det. # 8	

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number	0	F+C+1
Time Before Yellow	0.0	F+C+3

Advance Warning Beacon - Sign 1

Phase Number	0	F+D+1
Time Before Yellow	0.0	F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

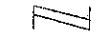
INTERSECTION: Sea World Dr @ Friars Rd

223 Prc m

Group Assignment:
Field Master Assignment:

N/S Street Name: Friars
E/W Street Name: Sea World

Last Database Change:
System Ref. Number:



Row	Column # --->	Sea World					Sea World		Friars
	Phase # ---->	1	2	3	4	5	6	7	8
		↙	→ ↔				←		↑↓ 2+8
0	Ped Walk		7						7
1	Ped FDW		21						20
2	Min Green	4	7				7		4
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	4.0				5.2		2.0
6	Max Gap	2.0	4.0				5.2		2.0
7	Min Gap	2.0	0.2				0.2		2.0
8	Max Limit	30	60				60		40
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1				0.1		
D	Every		0.8				0.6		
E	Yellow	3.4	5.2				4.4		5.2
F	Red Clear	1.0	1.0				1.0		1.0
	Grade								

Phase Timing - Bank 1
F + Phase + Row
<F Page>

Row	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	
EV-A Clear	
EV-B Delay	
EV-B Clear	
EV-C Delay	
EV-C Clear	
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing
F + E + Row

Row	F
Permit	12 6 8
Red Lock	
Yellow Lock	
Min Recall	2 6
Ped Recall	
Peds (View)	2 8
Rest In Walk	
Red Rest	
Dbl Entry	
Max Recall	
Soft Recall	
Max 2	
Cond Serv	
Ped Lock	12345678
Yellow Start	2 6
1st Phases	8

Phase Functions <F Page>
F + F + Row

Max Initial	0
Red Revert	5.0
All Red Start	0.0

F + 0 + E
F + 0 + F
F + C + O

Start / Revert Times

Drop Number	
Zone Number	
Area Number	
Area Address	
QuicNet Channel	

C + 0 + 0
C + 0 + 1
C + 0 + 2
C + 0 + 3
(QuicNet)

Communication Addresses

C + F + O	F	Row
Free Lag	2 6 8	0

Lag Phases <C Page>

Overlap Timing

	Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A				
Overlap B	B				
Overlap C	C				
Overlap D	D				

<F Page>
F + COLOR +

<D Page>
D + 0 + OVERLAP

Manual Plan	14
Manual Offset	0

C + A + 1
C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Downtime Flash	255 (minutes)

Downtime Before Auto Manual Flash
F + 0 +8

Disable Ports	234

Disable Communication Ports
D + D + 9

Timing Sheet By: FLG
Approved By: EFF
Drawing Number:
Timing Implemented On:

INTERSECTION: Sea World Dr @ Friars Rd

223 P am

Row	Time	Function	Day of Week	Column F Phases/Bits
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

<D Page>

D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	
7	Ped 4P	
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	8
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	1

Configuration

E + F + ROW

<E Page>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	
B	EV-B Phases	
C	EV-C Phases	
D	EV-D Phases	
E	Extra 1 Config. Bits	1_34
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1

E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Time and Date

8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications
(If set to a non-zero value, parity will be disabled)

Program Information

C + C + 0 = program
C + C + F = version

Remote Download

C + 0 + 4 = 1 -255
w/ E + E + E bit 5 on

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- -- --	1234____
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	____5678
E	-- -- -- -- -- -- -- --	1234____
F	-- 25 26 27 28 -- -- --	_2345___

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	
2	System Det. # 2	
3	System Det. # 3	
4	System Det. # 4	
5	System Det. # 5	
6	System Det. # 6	
7	System Det. # 7	
8	System Det. # 8	

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

INTERSECTION: BARNETT AVE @ MIDWAY AVE

223 Program

Group Assignment:
Field Master Assignment:
N/S Street Name: MIDWAY
E/W Street Name: BARNETT

MIDWAY BARNETT BARNETT

Row	Column # ----> / Phase # ---->	Phase 1	2	3	4	5	6	7	8
		↘	= = =	↕				↗	↖
0	Ped Walk		7	7				7	
1	Ped FDW		4	17				5	
2	Min Green	10	10	4				4	10
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.5	2.9	0.0				0.0	3.0
6	Max Gap	2.5	2.9	0.0				0.0	3.0
7	Min Gap	0.2	0.2	0.0				0.0	0.2
8	Max Limit	40 ~~60~~	60	0				0	40 ~~60~~
9	Max Limit 2		(2) 70						
A	Bus Adv								
B	Call to Phs								
C	Reduce By	0.1	0.1						0.1
D	Every	1.3	1.1						1.1
E	Yellow	4.2	4.4	3.0				3.0	4.4
F	Red Clear	1.0	1.0						1.0

Phase Timing - Bank 1
F + Phase + Row

FLG 10-26-12

(2) LV3 7/7/2014

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	
EV-B Clear	
EV-C Delay	0
EV-C Clear	0
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

<F Page>
F + E + Row

	F
Permit	123___78
Red Lock	
Yellow Lock	
Min Recall	_2_____8
Ped Recall	
Peds (View)	_23___7_
Rest In Walk	
Red Rest	
Dbl Entry	
Max Recall	
Soft Recall	
Max 2	
Cond Serv	
Ped Lock	12345678
Yellow Start	1_____7_
1st Phases	_2_____8

F + F + Row

NOTE: SPLIT RING OPERATION - PH 1 ,2 & 3 ARE INDEPENDENT OF PH 7 & 8

Max Initial	0	F + 0 + E
Red Revert	5.0	F + 0 + F
All Red Start	0.0	F + C + O

Start / Revert Times

Drop Number	14	C + 0 + 0
Zone Number	14	C + 0 + 1
Area Number	0	C + 0 + 2
Area Address	203	C + 0 + 3
QuicNet Channel	COM 66	(QuicNet)

Communication Addresses

C + F + O	F	Row
Free Lag	_23___8	0

Lag Phases <C Page>

Overlap Timing

Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A			
Overlap B	B			
Overlap C	C			
Overlap D	D			

<F Page>
F + COLOR +

<D Page>
D + 0 + OVERLAP

Manual Plan	14	C + A + 1
Manual Offset	0	C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Downtime Flash	255	(minutes)

Downtime Before Auto Manual Flash
F + 0 +8

Disable Ports	_234____

Disable Communication Ports
D + D + 9

Timing Sheet By: M2S
Approved By: J.D.
Drawing Number:
Timing Implemented On: 2/23/2011

INTERSECTION: BARNETT AVE @ MIDWAY AVE

LV3 7/7/2014

Row	Time	Function	Day of Week	Column F Phases/Bits
0	16:00	B	-23456-	2
1	18:00	E	-23456-	
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function <D Page>

7 + ROW D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	
7	Ped 4P	3
8	Ped 8P	7
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration <E Page>

E + F + ROW

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	1
B	EV-B Phases	
C	EV-C Phases	2 8
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345 8
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1 E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 = Bus Advance

Time and Date

8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications
(If set to a non-zero value, parity will be disabled)

Program Information

C + C + 0 = program
C + C + F = version

Remote Download

C + 0 + 4 = 1 -255
w/ E + E + E bit 5 on

Row	1 Delay	3 Carry-over
0		1.8
1		1.8
2		1.8
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
WB	2I2U	1
EB	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		
2		
3		
4		
5		
6		
7		1.8
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- -- --	1234____
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	____5678
E	-- -- -- -- -- -- -- --	1234____
F	-- 25 26 27 28 -- -- --	_2345___

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	
2	System Det. # 2	
3	System Det. # 3	
4	System Det. # 4	
5	System Det. # 5	
6	System Det. # 6	
7	System Det. # 7	
8	System Det. # 8	

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

INTERSECTION: CAM DEL RIO W @KURTZ ST/ GAINES ST

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: **CAM DEL RIO W**
E/W Street Name: **KURTZ ST/ GAINES**

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
M2S	M2S	1/10/2017

Free Lag <C/1+F+0> _2_4_6_

Notes: **Adaptive System operartion RULES:**

1- Intersection is running in Adaptive system coordination signal timing.
2- Do not change PIN ASSIGNMENTS on page 3. Pin numbers are changed for Adaptive mode operation.
3- No Recalls/Detector delays to be USED in the controller. Recalls/Delays are to be configured in the InSync Processor, Detector Setup.
4- Controller MUST BE set to FREE operation. C/0-A-1 =14
5- Min G is 10s for sync phases and 5s for all other permitted phases.
6- Veh Ext, Max Gap & Min Gap are set to 1.0s, Reduce Every is set to "zero".
7- "Carry Over" is SET to "zero" for all detectors.

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Drop Number	14	<C/0+0+0>
Zone Number	14	<C/0+0+1>
Area Number	1	<C/0+0+2>
Area Address	94	<C/0+0+3>
QuicNet Channel	COM76:	(QuicNet)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

CAM DEL RIO W | KURTZ | CAN DEL RIO W

Phase

Row	Column Numbers --->	1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		
1	Ped FDW		15		38		13		
2	Min Green	5	10		5		10		
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	1.0	1.0		1.0		1.0		
6	Max Gap	1.0	1.0		1.0		1.0		
7	Min Gap	1.0	1.0		1.0		1.0		
8	Max Limit	30	60		40		60		
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change	3.4	3.9		3.9		3.9		
F	Red Clear	1.0	1.0		1.0		1.0		

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	
EV-B Clear	
EV-C Delay	
EV-C Clear	
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

Row		F
0	Permit	12_4_6_
1	Red Lock	
2	Yellow Lock	
3	Min Recall	
4	Ped Recall	
5	*View Set Peds*	_2_4_6_
6	Rest In Walk	
7	Red Rest	
8	Dual Entry	
9	Max Recall	
A	Soft Recall	_2__6_
B	Max 2	
C	Cond. Service	
D	Man Cntrl Calls	
E	Yellow Start	_2__6_
F	First Phases	__4___

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: CAM DEL RIO W @KURTZ ST/ GAINES ST

Row	Column Numbers —> / Overlap Name —>	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	- - -
5	RR-2 *	- - -
6	SE-1	0
7	SE-2	0
8		
9		
A		
B		
C		
D		
E		
F		

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers —>	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2
B	EV-B Phases	
C	EV-C Phases	
D	EV-D Phases	
E	Extra 1 Config. Bits	1_345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Row		2
0		
1	Phase 1	10
2	Phase 2	10
3	Phase 3	10
4	Phase 4	10
5	Phase 5	10
6	Phase 6	10
7	Phase 7	10
8	Phase 8	10
9		
A		
B		
C		
D		
E		
F		

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: CAM DEL RIO W @KURTZ ST/ GAINES ST

Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
	Column Numbers ---->	0	1	2	3	1	3
0	2I2U	47	45_7	2	123		
1	6J2U	48	45_7	6	123		
2	4I6U	45	45_7	4	123		
3		42	45_7	8	123		
4		43	45_7	2	123		
5		44	45_7	6	123		
6	4I6L	41	45_7	4	123		
7		46	45_7	8	123		
8	2I4	39	45_7	2	123		
9	6J4	40	45_7	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E	6J5	57	45_7	6	123		
F		58	45_7	3	123		

Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
		4	5	6	7	2	4
0		59	45_7	5	123		
1		60	45_7	1	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4		63	45_7	2	123		
5		64	45_7	6	123		
6		65	45_7	4	123		
7		66	45_7	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C		76	45_7	2	123		
D		77	45_7	6	123		
E		78	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers ---->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: CAM DEL RIO W @KURTZ ST/ GAINES ST

Row	Time	Plan	Offset	Day of Week
0	06 : 00	6	A	23456
1	11 : 00	2	A	23456
2	13 : 00	7	A	23456
3	14 : 45	5	A	23456
4	19 : 30	E	A	23456
5	10 : 00	4	A	1 7
6	18 : 00	E	A	1 7
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, Decmber = C

INTERSECTION: CAM DEL RIO W @KURTZ ST/ GAINES ST

Coordination - Bank 1 <C/1+Plan+Row>

Row	Column Numbers ---->	Plan 1	2	3	4	5	6	7	8	9	Row
	Plan Name ---->		MID		WKND	PM (PEAK)	AM	PM			
0	Cycle Length		140		140	172	130	160			0
1	Phase 1 - ForceOff		75		75	60	65	60			1
2	Phase 2 - ForceOff		0		0	0	0	0			2
3	Phase 3 - ForceOff										3
4	Phase 4 - ForceOff		42		42	40	40	40			4
5	Phase 5 - ForceOff										5
6	Phase 6 - ForceOff		0		0	0	0	0			6
7	Phase 7 - ForceOff										7
8	Phase 8 - ForceOff										8
9	Ring Offset										9
A	Offset 1		139		139	96	4	70			A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End		12		15	17	13	16			D
E	Hold Release		255		255	255	255	255			E
F	Reserved										F

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Sync Phases <C/1+E+Row>

Row	E	Row
		0
Plan 1 - Sync		1
Plan 2 - Sync	2 6	2
Plan 3 - Sync		3
Plan 4 - Sync	2 6	4
Plan 5 - Sync	2 6	5
Plan 6 - Sync	2 6	6
Plan 7 - Sync	2 6	7
Plan 8 - Sync		8
Plan 9 - Sync		9
NEMA Sync		A
NEMA Hold		B
		C
		D
Coord Extra		E
		F

Coordination - Bank 2 <C/2+Plan+Row>

Row											Row
0	Ped Adjustment		0		0	10	5	10			0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Lag Phases <C/1+F+Row>

Row	F	Row
Free Lag		0
Plan 1 - Lag		1
Plan 2 - Lag	2 4 6	2
Plan 3 - Lag		3
Plan 4 - Lag	2 4 6	4
Plan 5 - Lag	2 4 6	5
Plan 6 - Lag	2 4 6	6
Plan 7 - Lag	2 4 6	7
Plan 8 - Lag		8
Plan 9 - Lag		9
External Lag		A
Lag Hold		B
		C
		D
		E
		F

Coordination Timing By: M2S
Date: 3/22/2010

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	One-Shot Timer		Latch 1 Set		NOT-3		Max 2		Pretimed		Set Monday		Dial 2 (7-Wire)		Sim Term		0
1	AND-5 (a)		Latch 1 Reset		NOT-4		Reserved		Plan 1		Ext. Perm 1		Dial 3 (7-Wire)		EV-A	71	1
2	AND-5 (b)		Latch 2 Set		OR-4 (a)		Reserved		Plan 2		Ext. Perm 2		Offset 1 (7-Wire)		EV-B	72	2
3	AND-6 (a)		Latch 2 Reset		OR-4 (b)		Reserved		Plan 3		Gate Down		Offset 2 (7-Wire)		EV-C	73	3
4	AND-6 (b)		NAND-3 (a)		OR-5 (a)		Reserved		Plan 4		Set Clock		Offset 3 (7-Wire)		EV-D	74	4
5	Reserved		NAND-3 (b)		OR-5 (b)		Reserved		Plan 5		Stop Time	82	Free (7-Wire)		RR-1	51	5
6	Reserved		NAND-4 (a)		OR-6 (a)		Reserved		Plan 6		Flash Sense	81	Flash (7-Wire)		RR-2	52	6
7	Reserved		NAND-4 (b)		OR-6 (b)		Reserved		Plan 7		Manual Enable		Excl. Ped Omit		Spec. Event 1		7
8	Spec. Funct. 1		OR-7 (a)		EXTMR		Reserved		Plan 8		Man. Advance		NOT-1		Spec. Event 2		8
9	Spec. Funct. 2		OR-7 (b)		Reserved		Max Inhibit (nema)		Plan 9		External Alarm		NOT-2		External Lag		9
A	Spec. Funct. 3		OR-7 (c)		AND-4 (a)		Force A (nema)		DELAY-A		Phase Bank 2		OR-1 (a)		AND-1 (a)		A
B	Spec. Funct. 4		OR-7 (d)		AND-4 (b)		Force B (nema)		DELAY-B		Phase Bank 3		OR-1 (b)		AND-1 (b)		B
C	Reserved		OR-8 (a)		NAND-1 (a)		C.N.A. (nema)		DELAY-C		Overlap Set 2		OR-2 (a)		AND-2 (a)		C
D	Reserved		OR-8 (b)		NAND-1 (b)		Hold (nema)		DELAY-D		Overlap Set 3		OR-2 (b)		AND-2 (b)		D
E	Reserved		OR-8 (c)		NAND-2 (a)		Max Recall		DELAY-E		Detector Set 2		OR-3 (a)		AND-3 (a)		E
F	Reserved		OR-8 (d)		NAND-2 (b)		Min Recall		DELAY-F		Detector Set 3		OR-3 (b)		AND-3 (b)		F

Assignable Inputs <E/126+Column+Row>

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	Reserved		Phase ON - 1		Preempt Fail		Flasher 0		Free		NOT-1		TOD Out 1		Dial 2 (7-Wire)		0
1	Reserved		Phase ON - 2		Sp Evnt Out 1		Flasher 1		Plan 1		OR-1		TOD Out 2		Dial 3 (7-Wire)		1
2	Reserved		Phase ON - 3		Sp Evnt Out 2		Fast Flasher		Plan 2		OR-2		TOD Out 3		Offset 1 (7-Wire)		2
3	Reserved		Phase ON - 4		Sp Evnt Out 3		EXTMR		Plan 3		OR-3		TOD Out 4		Offset 2 (7-Wire)		3
4	Reserved		Phase ON - 5		Sp Evnt Out 4		One-Shot Timer		Plan 4		AND-1		TOD Out 5		Offset 3 (7-Wire)		4
5	Reserved		Phase ON - 6		Sp Evnt Out 5		Reserved		Plan 5		AND-2		TOD Out 6		Free (7-Wire)		5
6	Reserved		Phase ON - 7		Sp Evnt Out 6		Latch 1		Plan 6		AND-3		TOD Out 7		Flash (7-Wire)		6
7	Reserved		Phase ON - 8		Sp Evnt Out 7		Latch 2		Plan 7		NOT-2		TOD Out 8		Preempt		7
8	Flh Yell Arrow 1		Ph. Check - 1		Sp Evnt Out 8		NOT-3		Plan 8		EV-A		Adv. Warn - 1		Low Priority A		8
9	Green 1		Ph. Check - 2		Coord On		NOT-4		Plan 9		EV-B		Adv. Warn - 2		Low Priority B		9
A	Flh Yell Arrow 3		Ph. Check - 3		Detector Fail		OR-4		Spec. Funct. 3		EV-C		DELAY-A		Low Priority C		A
B	Green 3		Ph. Check - 4		Spec. Funct. 1		OR-5		Spec. Funct. 4		EV-D		DELAY-B		Low Priority D		B
C	Flh Yell Arrow 5		Ph. Check - 5		Spec. Funct. 2		OR-6		NAND-3		RR-1		DELAY-C		AND-5		C
D	Green 5		Ph. Check - 6		Central Control		AND-4		NAND-4		RR-2		DELAY-D		AND-6		D
E	Flh Yell Arrow 7		Ph. Check - 7		Excl. Ped DW		NAND-1		OR-7		Spec. Event 1		DELAY-E		Reserved		E
F	Green 7		Ph. Check - 8		Excl. Ped WK		NAND-2		OR-8		Spec. Event 2		DELAY-F		Reserved		F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: CAM DEL RIO W @KURTZ ST/ GAINES ST

Row	Column Numbers ----> / Phase Names ---->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		
1	Ped FDW		15		38		13		
2	Min Green	4	10		4		10		
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	3.7		2.0		3.8		
6	Max Gap	2.0	3.7		2.0		3.8		
7	Min Gap	2.0	0.2		2.0		0.2		
8	Max Limit	30	60		40		60		
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every		0.9				0.8		
E	Yellow Change	3.4	3.9		3.9		3.9		
F	Red Clear	1.0	1.0		1.0		1.0		

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3	<C/5+1+9>

TBC Transition

Hawk Select	0	<F/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address	0	<C/1+0+6>
Select Parity	0	<C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Daylight Savings Date
If set to all zeros, standard dates will be used.

Begin Month	3	<C/5+2+A>
Begin Week	2	<C/5+2+B>
End Month	11	<C/5+2+C>
End Week	1	<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	<F/1+D+E>
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time	0	<C/5+2+E>
Max Cycle Time	20	<C/5+2+F>

Yellow Yield Coordination

	12345678	
Omit Alarm	#NAME?	

Local Alarm Disable <C/5+F+0>

IEN Status	1	<C/5+1+B>
Synch Time	0.0	<C/5+1+C>

Other Parameters

Row		1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

INTERSECTION: CAM DEL RIO W @ HANCOCK ST

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: **CAM DEL RIO W**
E/W Street Name: **HANCOCK**

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
M2S	M2S	1/10/2017

Free Lag <C/1+F+0> _2_4_6__

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Notes: **Adaptive System operartion RULES:**

1- Intersection is running in Adaptive system coordination signal timing.
2- Do not change PIN ASSIGNMENTS on page 3. Pin numbers are changed for Adaptive mode operation.
3- No Recalls/Detector delays to be USED in the controller. Recalls/Delays are to be configured in the InSync Processor, Detector Setup.
4- Controller MUST BE set to FREE operation. C/0-A-1 =14
5- Min G is 10s for sync phases and 5s for all other permitted phases.
6- Veh Ext, Max Gap & Min Gap are set to 1.0s, Reduce Every is set to "zero".
7- "Carry Over" is SET to "zero" for all detectors.

Drop Number	15	<C/0+0+0>
Zone Number	15	<C/0+0+1>
Area Number	1	<C/0+0+2>
Area Address	92	<C/0+0+3>
QuicNet Channel	COM76	(QuicNet)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

CAM DEL RIO W — HANCOCK ST — CAM DEL RIO W

Row	Column Numbers --->	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
0	Ped Walk		7		7		7		
1	Ped FDW		14		37		16		
2	Min Green		10		5	5	10		
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension		1.0		1.0	1.0	1.0		
6	Max Gap		1.0		1.0	1.0	1.0		
7	Min Gap		1.0		1.0	1.0	1.0		
8	Max Limit		60		40	30	60		
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change		3.9		3.9	3.4	3.9		
F	Red Clear		1.0		1.0	1.0	1.0		

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	
EV-B Clear	
EV-C Delay	
EV-C Clear	
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

Row		F
0	Permit	2_456__
1	Red Lock	
2	Yellow Lock	
3	Min Recall	
4	Ped Recall	
5	*View Set Peds*	2_4_6
6	Rest In Walk	
7	Red Rest	
8	Dual Entry	
9	Max Recall	
A	Soft Recall	2__6__
B	Max 2	
C	Cond. Service	
D	Man Cntrl Calls	
E	Yellow Start	2__6__
F	First Phases	__4__

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: CAM DEL RIO W @ HANCOCK ST

Row	Column Numbers ----> / Overlap Name ---->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	---
5	RR-2 *	---
6	SE-1	0
7	SE-2	0

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers ---->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	
C	EV-C Phases	
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

	2
Phase 1	10
Phase 2	10
Phase 3	10
Phase 4	10
Phase 5	10
Phase 6	10
Phase 7	10
Phase 8	10

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: CAM DEL RIO W @ HANCOCK ST

Column Numbers -->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	2I2U	47	45_7	2	123		
1	6J2U	48	45_7	6	123		
2		41	45_7	4	123		
3		42	45_7	8	123		
4	2I2L	39	45_7	2	123		
5		44	45_7	6	123		
6		45	45_7	4	123		
7		46	45_7	8	123		
8	2I4	39	67	2	123		
9	6J4	40	67	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E		57	45_7	7	123		
F		58	45_7	3	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7	5	123		
1		60	45_7	1	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4		63	45_7	2	123		
5		64	45_7	6	123		
6		65	45_7	4	123		
7		66	45_7	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C		76	45_7	2	123		
D		77	45_7	6	123		
E		78	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers -->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: CAM DEL RIO W @ HANCOCK ST

Row	Time	Plan	Offset	Day of Week
0	06 : 00	6	A	_23456_
1	11 : 00	2	A	_23456_
2	13 : 00	7	A	_23456_
3	14 : 45	5	A	_23456_
4	19 : 30	E	A	_23456_
5	10 : 00	4	A	1____7
6	18 : 00	E	A	1____7
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, Decmber = C

INTERSECTION: CAM DEL RIO W @ HANCOCK ST

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers --->	Plan 1	2	3	4	5	6	7	8	9	Row
	Plan Name --->		MID		WKND	PM (PEAK)	AM	PM			
0	Cycle Length		140		140	172	130	160			0
1	Phase 1 - ForceOff										1
2	Phase 2 - ForceOff		0		0	0	0	0			2
3	Phase 3 - ForceOff										3
4	Phase 4 - ForceOff		65		65	40	61	40			4
5	Phase 5 - ForceOff		25		25	71	21	71			5
6	Phase 6 - ForceOff		0		0	0	0	0			6
7	Phase 7 - ForceOff										7
8	Phase 8 - ForceOff										8
9	Ring Offset										9
A	Offset 1		131		116	105	126	94			A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End		12		15	17	13	16			D
E	Hold Release		255		255	255	255	255			E
F	Reserved										F

Coordination - Bank 1 <C/1+Plan+Row>

Row		F	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync	2 6	2
3	Plan 3 - Sync		3
4	Plan 4 - Sync	2 6	4
5	Plan 5 - Sync	2 6	5
6	Plan 6 - Sync	2 6	6
7	Plan 7 - Sync	2 6	7
8	Plan 8 - Sync		8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C/1+E+Row>

Row											Row
0	Ped Adjustment		0		0	0	0	0			0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row		F	Row
0	Free Lag		0
1	Plan 1 - Lag		1
2	Plan 2 - Lag	2 45	2
3	Plan 3 - Lag		3
4	Plan 4 - Lag	2 45	4
5	Plan 5 - Lag	2 4 6	5
6	Plan 6 - Lag	2 45	6
7	Plan 7 - Lag	2 4 6	7
8	Plan 8 - Lag		8
9	Plan 9 - Lag		9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 3/22/2010

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A 71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B 72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down	Offset 2 (7-Wire)	EV-C 73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D 74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time 82	Free (7-Wire)	RR-1 51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense 81	Flash (7-Wire)	RR-2 52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: CAM DEL RIO W @ HANCOCK ST

Row	Phase Names --->	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
0	Ped Walk		7		7		7		
1	Ped FDW		14		37		16		
2	Min Green		10		4	4	10		
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension		4.0		2.0	2.0	3.9		
6	Max Gap		4.0		2.0	2.0	3.9		
7	Min Gap		0.2		2.0	2.0	0.2		
8	Max Limit		60		40	30	60		
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		
C	Cond Serv Check								
D	Reduce Every		0.8				0.8		
E	Yellow Change		3.9		3.9	3.4	3.9		
F	Red Clear		1.0		1.0	1.0	1.0		

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type		<C/5+1+9>

TBC Transition

Hawk Select		<F/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address		<C/1+0+6>
Select Parity		<C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Daylight Savings Date
If set to all zeros, standard dates will be used.

Begin Month		<C/5+2+A>
Begin Week		<C/5+2+B>
End Month		<C/5+2+C>
End Week		<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	<F/1+D+E>
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time		<C/5+2+E>
Max Cycle Time		<C/5+2+F>

Yellow Yield Coordination

	12345678	
Omit Alarm	#NAME?	

Local Alarm Disable <C/5+F+0>

IEN Status		<C/5+1+B>
Synch Time		<C/5+1+C>

Other Parameters

Row		1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: ROSECRANS/CAM DEL RIO W Last Database Change:
E/W Street Name: ROSECRANS ST/ SPORTS ARENA BLVD

Change Record		
Timing Sheet By	Approved By	Date
M2S	M2S	1/10/2017

Free Lag <C/1+F+0>: _2_4_6__

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Notes: **Adaptive System operartion RULES:**

1- Intersection is running in Adaptive system coordination signal timing.
2- Do not change PIN ASSIGNMENTS on page 3. Pin numbers are changed for Adaptive mode operation.
3- No Recalls/Detector delays to be USED in the controller. Recalls/Delays are to be configured in the InSync Processor, Detector Setup.
4- Controller MUST BE set to FREE operation. C/0-A-1 =14
5- Min G is 10s for sync phases and 5s for all other permitted phases.
6- Veh Ext, Max Gap & Min Gap are set to 1.0s, Reduce Every is set to "zero".
7- "Carry Over" is SET to "zero" for all detectors.

Drop Number	13	<C/0+0+0>
Zone Number	13	<C/0+0+1>
Area Number	1	<C/0+0+2>
Area Address	90	<C/0+0+3>
QuicNet Channel	COM76	(QuicNet)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

		ROSECRANS	ROSECRANS	SPORTS ARENA		CAM DEL RIO W			
		Phase							
Column Numbers -->		1	2	3	4	5	6	7	8
Row	N								
0	Ped Walk		7		7		7		
1	Ped FDW		23		29		21		
2	Min Green		10	5	5	5	10		
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension		1.0	1.0	1.0	1.0	1.0		
6	Max Gap		1.0	1.0	1.0	1.0	1.0		
7	Min Gap		1.0	1.0	1.0	1.0	1.0		
8	Max Limit		60	40	40	30	60		
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change		3.9	3.9	3.9	3.4	3.9		
F	Red Clear		2.0	2.0	2.0	2.0	2.0		

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	_23456_	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	_2_4_6__	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall	_2___6__	A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	_2___6__	E
First Phases	__3____	F

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: ROSECRANS ST/CAM DEL RIO W @ ROSECRANS ST/SPORTS ARENA BLVD

Row	Column Numbers ---> / Overlap Name --->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

	C
EV-A	0
EV-B	0
EV-C	0
EV-D	0
RR-1 *	---
RR-2 *	---
SE-1	0
SE-2	0

Preempt Priority <E/125+C+Row>
(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers --->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4
C	EV-C Phases	6
D	EV-D Phases	3
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

	2
Phase 1	10
Phase 2	10
Phase 3	10
Phase 4	10
Phase 5	10
Phase 6	10
Phase 7	10
Phase 8	10

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: ROSECRANS ST/CAM DEL RIO W @ ROSECRANS ST/SPORTS ARENA BLVD

Column Numbers --->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	2I2U	47	45_7	2	123		
1	6J2U	48	45_7	6	123		
2	4I6U	45	45_7	4	123		
3	8J6U	42	45_7	8	123		
4		43	45_7	2	123		
5		44	45_7	6	123		
6	4I6L	41	45_7	4	123		
7		46	45_7	8	123		
8	2I4	39	45_7	2	123		
9	6J4	40	45_7	6	123		
A	4I8	41	45_7	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E		57	45_7	7	123		
F		58	45_7	3	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7	5	123		
1	3I9U	58	45_7	3	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4		63	45_7	2	123		
5		64	45_7	6	123		
6		65	45_7	4	123		
7		66	45_7	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C		76	45_7	2	123		
D		77	45_7	6	123		
E	4I7L	41	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

	Ped / Phase / Overlap								
Column Numbers --->	1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: ROSECRANS ST/CAM DEL RIO W @ ROSECRANS ST/SPORTS ARENA BLVD

Row	Time	Plan	Offset	Day of Week
0	06 : 00	6	A	23456
1	11 : 00	2	A	23456
2	13 : 00	7	A	23456
3	14 : 45	5	A	23456
4	19 : 30	E	A	23456
5	10 : 00	4	A	1 7
6	18 : 00	E	A	1 7
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, Decmber = C

INTERSECTION: ROSECRANS ST/CAM DEL RIO W @ ROSECRANS ST/SPORTS ARENA BLVD

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers ---->	Plan 1	2	3	4	6	6	7	8	9	Row
	Plan Name ---->		MID		WKND	PM (PEAK)	AM	PM			
0	Cycle Length		140		140	172	130	160			0
1	Phase 1 - ForceOff										1
2	Phase 2 - ForceOff		0		0	0	0	0			2
3	Phase 3 - ForceOff		31		31	40	30	40			3
4	Phase 4 - ForceOff		68		68	82	71	82			4
5	Phase 5 - ForceOff		90		90	108	92	108			5
6	Phase 6 - ForceOff		0		0	0	0	0			6
7	Phase 7 - ForceOff										7
8	Phase 8 - ForceOff										8
9	Ring Offset										9
A	Offset 1		133		133	78	117	71			A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End		10		10	17	13	16			D
E	Hold Release		255		255	255	255	255			E
F	Reserved										F

Coordination - Bank 1 <C/1+Plan+Row>

Row	E	Row
		0
Plan 1 - Sync		1
Plan 2 - Sync	2 6	2
Plan 3 - Sync		3
Plan 4 - Sync	2 6	4
Plan 5 - Sync	2 6	5
Plan 6 - Sync	2 6	6
Plan 7 - Sync	2 6	7
Plan 8 - Sync		8
Plan 9 - Sync		9
NEMA Sync		A
NEMA Hold		B
		C
		D
Coord Extra		E
		F

Sync Phases <C/1+E+Row>

Row		1	2	3	4	6	6	7	8	9	Row
0	Ped Adjustment										0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row	F	Row
Free Lag		0
Plan 1 - Lag		1
Plan 2 - Lag	2 4 6	2
Plan 3 - Lag		3
Plan 4 - Lag	2 4 6	4
Plan 5 - Lag	2 4 6	5
Plan 6 - Lag	2 4 6	6
Plan 7 - Lag	2 4 6	7
Plan 8 - Lag		8
Plan 9 - Lag		9
External Lag		A
Lag Hold		B
		C
		D
		E
		F

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 3/22/2010

INTERSECTION: ROSECRANS ST/CAM DEL RIO W @ ROSECRANS ST/SPORTS ARENA BLVD

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F		Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term		0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A	71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B	72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down	Offset 2 (7-Wire)	EV-C	73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D	74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time	82 Free (7-Wire)	RR-1	51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense	83 Flash (7-Wire)	RR-2	52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1		7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance	NOT-1	Spec. Event 2		8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag		9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)		A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)		B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)		C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)		D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)		E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)		F

Assignable Outputs <E/127+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

INTERSECTION: ROSECRANS ST/CAM DEL RIO W @ ROSECRANS ST/SPORTS ARENA BLVD

Row	Column Numbers ----> / Phase Names ---->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		
1	Ped FDW		23		29		21		
2	Min Green		10	7	7	4	10		
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension		3.9	2.0	2.0	2.0	4.0		
6	Max Gap		3.9	2.0	2.0	2.0	4.0		
7	Min Gap		0.2	0.2	0.2	2.0	0.2		
8	Max Limit		60	40	40	30	60		
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		
C	Cond Serv Check								
D	Reduce Every		0.8	1.7	1.7		0.8		
E	Yellow Change		3.9	3.9	3.9	3.4	3.9		
F	Red Clear		2.0	2.0	2.0	2.0	2.0		

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3	<C/5+1+9>

TBC Transition

Hawk Select	0	<F/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address	0	<C/1+0+6>
Select Parity	0	<C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Daylight Savings Date
If set to all zeros, standard dates will be used.

Begin Month	3	<C/5+2+A>
Begin Week	2	<C/5+2+B>
End Month	11	<C/5+2+C>
End Week	1	<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	<F/1+D+E>
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time	0	<C/5+2+E>
Max Cycle Time	20	<C/5+2+F>

Yellow Yield Coordination

	12345678	
Omit Alarm	#NAME?	

Local Alarm Disable <C/5+F+0>

IEN Status	1	<C/5+1+B>
Synch Time	0.0	<C/5+1+C>

Other Parameters

Row		1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

INTERSECTION: MIDWAY DR & DUKE ST

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: **DUKE**
E/W Street Name: **MIDWAY**

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
SGC	M25	2/4/16

Notes: ***FDW is calculated using 3.5 fps pedestrian speed***

Free Lag <C/1+F+0> : _2_4_6_8

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Drop Number	15	<C/0+0+0>
Zone Number	15	<C/0+0+1>
Area Number	1	<C/0+0+2>
Area Address	234	<C/0+0+3>
QuicNet Channel	COM 66	(QuicNet)

Communication Addresses

Manual Plan	0	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

MIDWAY DWY MIDWAY DUKE

Row	Column Numbers --->	Phase 1	2	3	4	5	6	7	8
		PPLT				PPLT			
0	Ped Walk		7				7		7
1	Ped FDW		13				13		16
2	Min Green	4	10		4	4	10		4
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	2.9		2.0	2.0	2.9		2.0
6	Max Gap	2.0	2.9		2.0	2.0	2.9		2.0
7	Min Gap	2.0	0.2		2.0	2.0	0.2		2.0
8	Max Limit	30	60		40	30	60		40
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1				1		1
C	Cond Serv Check								
D	Reduce Every		1.1				1.1		
E	Yellow Change	3.4	3.9		3.9	3.4	3.9		3.9
F	Red Clear	1.0	1.0		1.0	1.0	1.0		1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	
EV-B Clear	
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

Row		F
0	Permit	12_456_8
1	Red Lock	
2	Yellow Lock	
3	Min Recall	
4	Ped Recall	
5	*View Set Peds*	_2___6_8
6	Rest In Walk	
7	Red Rest	
8	Dual Entry	___4___8
9	Max Recall	
A	Soft Recall	_2___6__
B	Max 2	
C	Cond. Service	
D	Man Cntrl Calls	12345678
E	Yellow Start	_2___6__
F	First Phases	___4___8

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: MIDWAY DR & DUKE ST

Row	Column Numbers ---> / Overlap Name --->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	---
5	RR-2 *	---
6	SE-1	0
7	SE-2	0
8		
9		
A		
B		
C		
D		
E		
F		

Preempt Priority <E/125+C+Row>
(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers --->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	1 5
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	
C	EV-C Phases	1 6
D	EV-D Phases	8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Row		2
0		
1	Phase 1	10
2	Phase 2	10
3	Phase 3	10
4	Phase 4	10
5	Phase 5	10
6	Phase 6	10
7	Phase 7	10
8	Phase 8	10
9		
A		
B		
C		
D		
E		
F		

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: MIDWAY DR & DUKE ST

Row	Detector Name	0 C1 Pin Number	1 Attributes	2 Phase(s)	3 Assign	1 Delay	3 Carry-over
0	2I2U	39	45_7	2	123		1.8
1	6J2U	40	45_7	6	123		1.8
2		41	45_7	4	123		
3	8J6U	42	45_7	8	123	10.0	
4	2I2L	43	45_7	2	123		1.8
5	6J2L	44	45_7	6	123		1.8
6		45	45_7	4	123		
7		46	45_7	8	123		
8		47	67	2	123		
9		48	67	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E		57	45_7	7	123		
F		58	45_7	3	123		

Row	Detector Name	4 C1 Pin Number	5 Attributes	6 Phase(s)	7 Assign	2 Delay	4 Carry-over
0		59	45_7	5	123		
1		60	45_7	1	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4		63	45_7	2	123		
5		64	45_7	6	123		
6		65	45_7	4	123		
7		66	45_7	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C		76	45_7	2	123		
D		77	45_7	6	123		
E		78	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers --->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: MIDWAY DR & DUKE ST

Row	Time	Plan	Offset	Day of Week
0	11 : 00	2	A	_23456_
1	14 : 30	3	A	_23456_
2	18 : 30	E	A	1234567
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct.	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct.	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Month Select: October = A, November = B, Decmber = C

INTERSECTION: MIDWAY DR & DUKE ST

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers ---->	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Plan 8	Plan 9	Row
	Plan Name ---->		MID	PM							
0	Cycle Length		78	80							0
1	Phase 1 - ForceOff		46	42							1
2	Phase 2 - ForceOff		0	0							2
3	Phase 3 - ForceOff										3
4	Phase 4 - ForceOff		30	29							4
5	Phase 5 - ForceOff		46	42							5
6	Phase 6 - ForceOff		0	0							6
7	Phase 7 - ForceOff										7
8	Phase 8 - ForceOff		30	29							8
9	Ring Offset										9
A	Offset 1		45	31							A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End		8	8							D
E	Hold Release		255	255							E
F	Reserved										F

Coordination - Bank 1 <C/1+Plan+Row>

Row		E	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync	2 6	2
3	Plan 3 - Sync	2 6	3
4	Plan 4 - Sync		4
5	Plan 5 - Sync		5
6	Plan 6 - Sync		6
7	Plan 7 - Sync		7
8	Plan 8 - Sync		8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C/1+E+Row>

Row		Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Plan 8	Plan 9	Row
0	Ped Adjustment		0	0							0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row		F	Row
0	Free Lag		0
1	Plan 1 - Lag		1
2	Plan 2 - Lag	2 4 6 8	2
3	Plan 3 - Lag	2 4 6 8	3
4	Plan 4 - Lag		4
5	Plan 5 - Lag		5
6	Plan 6 - Lag		6
7	Plan 7 - Lag		7
8	Plan 8 - Lag		8
9	Plan 9 - Lag		9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 5/14/2013

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	One-Shot Timer		Latch 1 Set		NOT-3		Max 2		Pretimed		Set Monday		Dial 2 (7-Wire)		Sim Term	0	0
1	AND-5 (a)		Latch 1 Reset		NOT-4		Reserved		Plan 1		Ext. Perm 1		Dial 3 (7-Wire)		EV-A	71	1
2	AND-5 (b)		Latch 2 Set		OR-4 (a)		Reserved		Plan 2		Ext. Perm 2		Offset 1 (7-Wire)		EV-B	72	2
3	AND-6 (a)		Latch 2 Reset		OR-4 (b)		Reserved		Plan 3		Gate Down		Offset 2 (7-Wire)		EV-C	73	3
4	AND-6 (b)		NAND-3 (a)		OR-5 (a)		Reserved		Plan 4		Set Clock		Offset 3 (7-Wire)		EV-D	74	4
5	Reserved		NAND-3 (b)		OR-5 (b)		Reserved		Plan 5		Stop Time	82	Free (7-Wire)		RR-1	51	5
6	Reserved		NAND-4 (a)		OR-6 (a)		Reserved		Plan 6		Flash Sense	81	Flash (7-Wire)		RR-2	52	6
7	Reserved		NAND-4 (b)		OR-6 (b)		Reserved		Plan 7		Manual Enable		Excl. Ped Omit		Spec. Event 1		7
8	Spec. Funct. 1		OR-7 (a)		EXTMR		Reserved		Plan 8		Man. Advance		NOT-1		Spec. Event 2		8
9	Spec. Funct. 2		OR-7 (b)		Reserved		Max Inhibit (nema)		Plan 9		External Alarm		NOT-2		External Lag		9
A	Spec. Funct. 3		OR-7 (c)		AND-4 (a)		Force A (nema)		DELAY-A		Phase Bank 2		OR-1 (a)		AND-1 (a)		A
B	Spec. Funct. 4		OR-7 (d)		AND-4 (b)		Force B (nema)		DELAY-B		Phase Bank 3		OR-1 (b)		AND-1 (b)		B
C	Reserved		OR-8 (a)		NAND-1 (a)		C.N.A. (nema)		DELAY-C		Overlap Set 2		OR-2 (a)		AND-2 (a)		C
D	Reserved		OR-8 (b)		NAND-1 (b)		Hold (nema)		DELAY-D		Overlap Set 3		OR-2 (b)		AND-2 (b)		D
E	Reserved		OR-8 (c)		NAND-2 (a)		Max Recall		DELAY-E		Detector Set 2		OR-3 (a)		AND-3 (a)		E
F	Reserved		OR-8 (d)		NAND-2 (b)		Min Recall		DELAY-F		Detector Set 3		OR-3 (b)		AND-3 (b)		F

Assignable Inputs <E/126+Column+Row>

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	Reserved		Phase ON - 1		Preempt Fail		Flasher 0		Free		NOT-1		TOD Out 1		Dial 2 (7-Wire)		0
1	Reserved		Phase ON - 2		Sp Evnt Out 1		Flasher 1		Plan 1		OR-1		TOD Out 2		Dial 3 (7-Wire)		1
2	Reserved		Phase ON - 3		Sp Evnt Out 2		Fast Flasher		Plan 2		OR-2		TOD Out 3		Offset 1 (7-Wire)		2
3	Reserved		Phase ON - 4		Sp Evnt Out 3		EXTMR		Plan 3		OR-3		TOD Out 4		Offset 2 (7-Wire)		3
4	Reserved		Phase ON - 5		Sp Evnt Out 4		One-Shot Timer		Plan 4		AND-1		TOD Out 5		Offset 3 (7-Wire)		4
5	Reserved		Phase ON - 6		Sp Evnt Out 5		Reserved		Plan 5		AND-2		TOD Out 6		Free (7-Wire)		5
6	Reserved		Phase ON - 7		Sp Evnt Out 6		Latch 1		Plan 6		AND-3		TOD Out 7		Flash (7-Wire)		6
7	Reserved		Phase ON - 8		Sp Evnt Out 7		Latch 2		Plan 7		NOT-2		TOD Out 8		Preempt		7
8	Flh Yell Arrow 1		Ph. Check - 1		Sp Evnt Out 8		NOT-3		Plan 8		EV-A		Adv. Warn - 1		Low Priority A		8
9	Green 1		Ph. Check - 2		Coord On		NOT-4		Plan 9		EV-B		Adv. Warn - 2		Low Priority B		9
A	Flh Yell Arrow 3		Ph. Check - 3		Detector Fail		OR-4		Spec. Funct. 3		EV-C		DELAY-A		Low Priority C		A
B	Green 3		Ph. Check - 4		Spec. Funct. 1		OR-5		Spec. Funct. 4		EV-D		DELAY-B		Low Priority D		B
C	Flh Yell Arrow 5		Ph. Check - 5		Spec. Funct. 2		OR-6		NAND-3		RR-1		DELAY-C		AND-5		C
D	Green 5		Ph. Check - 6		Central Control		AND-4		NAND-4		RR-2		DELAY-D		AND-6		D
E	Flh Yell Arrow 7		Ph. Check - 7		Excl. Ped DW		NAND-1		OR-7		Spec. Event 1		DELAY-E		Reserved		E
F	Green 7		Ph. Check - 8		Excl. Ped WK		NAND-2		OR-8		Spec. Event 2		DELAY-F		Reserved		F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: MIDWAY DR & EAST DR

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: **EAST**
E/W Street Name: **MIDWAY**

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
SGC	M25	

Free Lag <C/1+F+0> _2_4_6_8

Notes:

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Drop Number	12	<C/0+0+0>
Zone Number	12	<C/0+0+1>
Area Number	0	<C/0+0+2>
Area Address	201	<C/0+0+3>
QuicNet Channel	COM 66	(QuicNet)

Communication Addresses

Manual Plan	0	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

MIDWAY EAST MIDWAY DWY

Phase

Row	N	1 PPLT	2	3	4	5 PPLT	6	7	8
0	Ped Walk		7		7		7		
1	Ped FDW		6		14		7		
2	Min Green	4	10		7	4	10		7
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	3.2		2.0	2.0	3.2		2.0
6	Max Gap	2.0	3.2		2.0	2.0	3.2		2.0
7	Min Gap	2.0	0.2		2.0	2.0	0.2		2.0
8	Max Limit	30	60		40	30	60		40
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		
C	Cond Serv Check								
D	Reduce Every		1.0				1.0		
E	Yellow Change	3.4	3.9		3.9	3.4	3.9		3.9
F	Red Clear	1.0	1.0		1.0	1.0	1.0		1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	
EV-B Clear	
EV-C Delay	0
EV-C Clear	0
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	12_456_8	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	_2_4_6_	5
Rest In Walk		6
Red Rest		7
Dual Entry	__4__8	8
Max Recall		9
Soft Recall	_2__6_	A
Max 2		B
Cond. Service		C
Man Cntrl Calls	12345678	D
Yellow Start	_2__6_	E
First Phases	__4__8	F

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 – C + 0 + F = 1

INTERSECTION: MIDWAY DR & EAST DR

Row	Column Numbers ----> / Overlap Name ---->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	- - -
5	RR-2 *	- - -
6	SE-1	0
7	SE-2	0

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers ---->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	1 5
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	
C	EV-C Phases	1 6
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

	2
Phase 1	10
Phase 2	10
Phase 3	10
Phase 4	10
Phase 5	10
Phase 6	10
Phase 7	10
Phase 8	10

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: MIDWAY DR & EAST DR

Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
	Column Numbers ---->	0	1	2	3	1	3
0	2I2U	39	45_7	2	123		1.8
1		40	45_7	6	123		
2		41	45_7	4	123		
3		42	45_7	8	123		
4		43	45_7	2	123		
5		44	45_7	6	123		
6		45	45_7	4	123		
7		46	45_7	8	123		
8		47	67_	2	123		
9		48	67_	6	123		
A		49	67_	4	123		
B		50	67_	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E		57	45_7	7	123		
F		58	45_7	3	123		

Row	Defector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
		4	5	6	7	2	4
0		59	45_7	5	123		
1		60	45_7	1	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4		63	45_7	2	123		
5	6J3U	64	45_7	6	123		1.8
6		65	45_7	4	123		
7		66	45_7	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C		76	45_7	2	123		
D		77	45_7	6	123		
E		78	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers --->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: MIDWAY DR & EAST DR

Row	Time	Plan	Offset	Day of Week
0	11 : 00	2	A	_23456_
1	14 : 30	3	A	_23456_
2	18 : 30	E	A	1234567
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct.	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct.	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, December = C

INTERSECTION: MIDWAY DR & EAST DR

Row	Column Numbers ---->	Plan 1	2	3	4	5	6	7	8	9	Row
	Plan Name ---->		MID	PM							
0	Cycle Length		78	80							0
1	Phase 1 - ForceOff		41	39							1
2	Phase 2 - ForceOff		0	0							2
3	Phase 3 - ForceOff										3
4	Phase 4 - ForceOff		25	26							4
5	Phase 5 - ForceOff		41	39							5
6	Phase 6 - ForceOff		0	0							6
7	Phase 7 - ForceOff										7
8	Phase 8 - ForceOff		25	26							8
9	Ring Offset										9
A	Offset 1		45	35							A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End		8	8							D
E	Hold Release		225	255							E
F	Reserved										F

Coordination - Bank 1 <C/1+Plan+Row>

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row		E	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync	2 6	2
3	Plan 3 - Sync	2 6	3
4	Plan 4 - Sync		4
5	Plan 5 - Sync		5
6	Plan 6 - Sync		6
7	Plan 7 - Sync		7
8	Plan 8 - Sync		8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C/1+E+Row>

Row		1	2	3	4	5	6	7	8	9	Row
0	Ped Adjustment		0	0							0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row		F	Row
0	Free Lag		0
1	Plan 1 - Lag		1
2	Plan 2 - Lag	2 4 6 8	2
3	Plan 3 - Lag	2 4 6 8	3
4	Plan 4 - Lag		4
5	Plan 5 - Lag		5
6	Plan 6 - Lag		6
7	Plan 7 - Lag		7
8	Plan 8 - Lag		8
9	Plan 9 - Lag		9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 5/14/2013

INTERSECTION: MIDWAY DR & EAST DR

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	One-Shot Timer		Latch 1 Set		NOT-3		Max 2		Pretimed		Set Monday		Dial 2 (7-Wire)		Sim Term	0	0
1	AND-5 (a)		Latch 1 Reset		NOT-4		Reserved		Plan 1		Ext. Perm 1		Dial 3 (7-Wire)		EV-A	71	1
2	AND-5 (b)		Latch 2 Set		OR-4 (a)		Reserved		Plan 2		Ext. Perm 2		Offset 1 (7-Wire)		EV-B	72	2
3	AND-6 (a)		Latch 2 Reset		OR-4 (b)		Reserved		Plan 3		Gate Down		Offset 2 (7-Wire)		EV-C	73	3
4	AND-6 (b)		NAND-3 (a)		OR-5 (a)		Reserved		Plan 4		Set Clock		Offset 3 (7-Wire)		EV-D	74	4
5	Reserved		NAND-3 (b)		OR-5 (b)		Reserved		Plan 5		Stop Time	82	Free (7-Wire)		RR-1	51	5
6	Reserved		NAND-4 (a)		OR-6 (a)		Reserved		Plan 6		Flash Sense	81	Flash (7-Wire)		RR-2	52	6
7	Reserved		NAND-4 (b)		OR-6 (b)		Reserved		Plan 7		Manual Enable		Excl. Ped Omit		Spec. Event 1		7
8	Spec. Funct. 1		OR-7 (a)		EXTMR		Reserved		Plan 8		Man. Advance		NOT-1		Spec. Event 2		8
9	Spec. Funct. 2		OR-7 (b)		Reserved		Max Inhibit (nema)		Plan 9		External Alarm		NOT-2		External Lag		9
A	Spec. Funct. 3		OR-7 (c)		AND-4 (a)		Force A (nema)		DELAY-A		Phase Bank 2		OR-1 (a)		AND-1 (a)		A
B	Spec. Funct. 4		OR-7 (d)		AND-4 (b)		Force B (nema)		DELAY-B		Phase Bank 3		OR-1 (b)		AND-1 (b)		B
C	Reserved		OR-8 (a)		NAND-1 (a)		C.N.A. (nema)		DELAY-C		Overlap Set 2		OR-2 (a)		AND-2 (a)		C
D	Reserved		OR-8 (b)		NAND-1 (b)		Hold (nema)		DELAY-D		Overlap Set 3		OR-2 (b)		AND-2 (b)		D
E	Reserved		OR-8 (c)		NAND-2 (a)		Max Recall		DELAY-E		Detector Set 2		OR-3 (a)		AND-3 (a)		E
F	Reserved		OR-8 (d)		NAND-2 (b)		Min Recall		DELAY-F		Detector Set 3		OR-3 (b)		AND-3 (b)		F

Assignable Inputs <E/126+Column+Row>

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	Reserved		Phase ON - 1		Preempt Fail		Flasher 0		Free		NOT-1		TOD Out 1		Dial 2 (7-Wire)		0
1	Reserved		Phase ON - 2		Sp Evnt Out 1		Flasher 1		Plan 1		OR-1		TOD Out 2		Dial 3 (7-Wire)		1
2	Reserved		Phase ON - 3		Sp Evnt Out 2		Fast Flasher		Plan 2		OR-2		TOD Out 3		Offset 1 (7-Wire)		2
3	Reserved		Phase ON - 4		Sp Evnt Out 3		EXTMR		Plan 3		OR-3		TOD Out 4		Offset 2 (7-Wire)		3
4	Reserved		Phase ON - 5		Sp Evnt Out 4		One-Shot Timer		Plan 4		AND-1		TOD Out 5		Offset 3 (7-Wire)		4
5	Reserved		Phase ON - 6		Sp Evnt Out 5		Reserved		Plan 5		AND-2		TOD Out 6		Free (7-Wire)		5
6	Reserved		Phase ON - 7		Sp Evnt Out 6		Latch 1		Plan 6		AND-3		TOD Out 7		Flash (7-Wire)		6
7	Reserved		Phase ON - 8		Sp Evnt Out 7		Latch 2		Plan 7		NOT-2		TOD Out 8		Preempt		7
8	Flh Yell Arrow 1		Ph. Check - 1		Sp Evnt Out 8		NOT-3		Plan 8		EV-A		Adv. Warn - 1		Low Priority A		8
9	Green 1		Ph. Check - 2		Coord On		NOT-4		Plan 9		EV-B		Adv. Warn - 2		Low Priority B		9
A	Flh Yell Arrow 3		Ph. Check - 3		Detector Fail		OR-4		Spec. Funct. 3		EV-C		DELAY-A		Low Priority C		A
B	Green 3		Ph. Check - 4		Spec. Funct. 1		OR-5		Spec. Funct. 4		EV-D		DELAY-B		Low Priority D		B
C	Flh Yell Arrow 5		Ph. Check - 5		Spec. Funct. 2		OR-6		NAND-3		RR-1		DELAY-C		AND-5		C
D	Green 5		Ph. Check - 6		Central Control		AND-4		NAND-4		RR-2		DELAY-D		AND-6		D
E	Flh Yell Arrow 7		Ph. Check - 7		Excl. Ped DW		NAND-1		OR-7		Spec. Event 1		DELAY-E		Reserved		E
F	Green 7		Ph. Check - 8		Excl. Ped WK		NAND-2		OR-8		Spec. Event 2		DELAY-F		Reserved		F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: SPORTS ARENA BLVD & EAST DR

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: EAST
E/W Street Name: SPORTS ARENA

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
SGC	M25	

Notes:

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Free Lag <C/1+F+0>: 2 6 8

Drop Number	7	<C/0+0+0>
Zone Number	7	<C/0+0+1>
Area Number	0	<C/0+0+2>
Area Address	197	<C/0+0+3>
QuicNet Channel	COM 66	(QuicNet)

Communication Addresses

Manual Plan	0	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

SPORTS ARENA | SPORTS ARENA | EAST

Row	Column Numbers ---->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk		7				7		7
1	Ped FDW		11				18		21
2	Min Green	4	10			4	10		4
3	Type 3 Disconnect								
4	Added Per Vehicle								
5	Veh Extension	2.0	4.9			2.0	3.9		2.0
6	Max Gap	2.0	4.9			2.0	3.9		2.0
7	Min Gap	2.0	0.2			2.0	0.2		2.0
8	Max Limit	30	60			30	60		40
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1				1		1
C	Cond Serv Check								
D	Reduce Every		0.6				0.8		
E	Yellow Change	3.4	3.9			3.4	3.9		3.9
F	Red Clear	1.0	1.0			1.0	1.0		1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	
EV-B Clear	
EV-C Delay	0
EV-C Clear	0
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	12 56 8	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	2 6 8	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall	2 6	A
Max 2		B
Cond. Service		C
Man Cntrl Calls	12345678	D
Yellow Start	2 6	E
First Phases	8	F

How to Set Page Access Code: F/1 – C + 0 + F = 1

INTERSECTION: SPORTS ARENA BLVD & EAST DR

Row	Column Numbers ---> / Overlap Name --->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

	C
EV-A	0
EV-B	0
EV-C	0
EV-D	0
RR-1 *	---
RR-2 *	---
SE-1	0
SE-2	0

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers ---> /	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	
C	EV-C Phases	1 6
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

	2
Phase 1	10
Phase 2	10
Phase 3	10
Phase 4	10
Phase 5	10
Phase 6	10
Phase 7	10
Phase 8	10

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: SPORTS ARENA BLVD & EAST DR

Column Numbers ---->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	2I2U	39	45_7_	_2_____	123		1.8
1		40	45_7_	_____6_	123		
2		41	45_7_	_4_____	123		
3		42	45_7_	_____8_	123		
4		43	45_7_	_2_____	123		
5		44	45_7_	_____6_	123		
6		45	45_7_	_4_____	123		
7	8J6L	46	45_7_	_____8_	123	10.0	
8		47	67_____	_2_____	123		
9		48	67_____	_____6_	123		
A		49	67_____	_4_____	123		
B		50	67_____	_____8_	123		
C		55	45_7_	_____5_	123		
D		56	45_7_	_1_____	123		
E		57	45_7_	_____7_	123		
F		58	45_7_	_3_____	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7_	_____5_	123		
1		60	45_7_	_1_____	123		
2		61	45_7_	_____7_	123		
3		62	45_7_	_3_____	123		
4		63	45_7_	_2_____	123		
5	6J3U	64	45_7_	_____6_	123		1.8
6		65	45_7_	_4_____	123		
7		66	45_7_	_____8_	123		
8		67	2_____	_2_____	123		
9		68	2_____	_____6_	123		
A		69	2_____	_4_____	123		
B		70	2_____	_____8_	123		
C		76	45_7_	_2_____	123		
D		77	45_7_	_____6_	123		
E		78	45_7_	_4_____	123		
F		79	45_7_	_____8_	123		

Detector Assignments <E/125+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers ---->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

TOD Coordination <9/0.1+Row> (Bank 1)

Row	Time	Plan	Offset	Day of Week
0	11 : 00	5	A	_23456_
1	14 : 00	6	A	_23456_
2	19 : 00	E	A	1234567
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function <7/0.1+Row> / Column 4 <E/27+4+Row>

Time	Funct.	Day of Week	Column 4 Phases/Bits

Holiday Dates <8/1.1+Row> (Bank 1)

Day	Year	Month	Holiday Type

Holiday Events <9/1.1+Row> (Bank 1)

Time	Plan	Offset	Holiday Type

TOD Coordination <C+0+9=0.2> (Bank 2)

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday TOD Function <C+0+7=0.2> / Column 4 <C+0+E=28>

Time	Funct.	Holiday Type	Column 4 Phases/Bits

Holiday Dates <C+0+8=1.2> (Bank 2)

Day	Year	Month	Holiday Type

Holiday Events <C+0+9=1.2> (Bank 2)

Time	Plan	Offset	Holiday Type

Month Select: October = A, November = B, Decmber = C

T.O.D. Functions
- 0 = Permitted Phases
- 1 = Red Lock
- 2 = Yellow Lock
- 3 = Veh Min Recall
- 4 = Ped Recall
- 5 =
- 6 = Rest In Walk
- 7 = Red Rest
- 8 = Double Entry
- 9 = Veh Max Recall
- A = Veh Soft Recall
- B = Maximum 2
- C = Conditional Service
- D = Free Lag Phases
- E = Bit 1 - Local Override
  - Bit 4 - Disable Detector OFF Monitor
  - Bit 5 - Disable Low Priority Preempt
  - Bit 6 - FYA Inhibit
  - Bit 7 - Detector Count Monitor
  - Bit 8 - Real Time Split Monitor
- F = Output Bits 1 thru 8

Plan Select
- 1 thru 9 = Coordination Plan 1 thru 9
- 14 or E = Free
- 15 or F = Flash

Offset Select
- A = Offset A
- B = Offset B
- C = Offset C

INTERSECTION: SPORTS ARENA BLVD & EAST DR

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers ---> / Plan Name --->	Plan 1	2	3	4	5 MID	6 PM	7	8	9	Row
0	Cycle Length					110	108				0
1	Phase 1 - ForceOff					81	81				1
2	Phase 2 - ForceOff					0	16				2
3	Phase 3 - ForceOff										3
4	Phase 4 - ForceOff										4
5	Phase 5 - ForceOff					18	16				5
6	Phase 6 - ForceOff					0	0				6
7	Phase 7 - ForceOff										7
8	Phase 8 - ForceOff					45	45				8
9	Ring Offset										9
A	Offset 1					70	89				A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End					11	16				D
E	Hold Release					255	255				E
F	Reserved					0	0				F

Coordination - Bank 1 <C/1+Plan+Row>

Row	E	Row
		0
Plan 1 - Sync		1
Plan 2 - Sync		2
Plan 3 - Sync		3
Plan 4 - Sync		4
Plan 5 - Sync	2 6	5
Plan 6 - Sync	2 6	6
Plan 7 - Sync		7
Plan 8 - Sync		8
Plan 9 - Sync		9
NEMA Sync		A
NEMA Hold		B
		C
		D
Coord Extra		E
		F

Sync Phases <C/1+E+Row>

Row		1	2	3	4	5	6	7	8	9	Row
0	Ped Adjustment					0	0				0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row	F	Row
		0
Free Lag		1
Plan 1 - Lag		2
Plan 2 - Lag		3
Plan 3 - Lag		4
Plan 4 - Lag		5
Plan 5 - Lag	2 5 8	6
Plan 6 - Lag	2 5 8	7
Plan 7 - Lag		8
Plan 8 - Lag		9
Plan 9 - Lag		A
External Lag		B
Lag Hold		C
		D
		E
		F

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 5/14/2013

INTERSECTION: SPORTS ARENA BLVD & EAST DR

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	One-Shot Timer		Latch 1 Set		NOT-3		Max 2		Pretimed		Set Monday		Dial 2 (7-Wire)		Sim Term	0	0
1	AND-5 (a)		Latch 1 Reset		NOT-4		Reserved		Plan 1		Ext. Perm 1		Dial 3 (7-Wire)		EV-A	71	1
2	AND-5 (b)		Latch 2 Set		OR-4 (a)		Reserved		Plan 2		Ext. Perm 2		Offset 1 (7-Wire)		EV-B	72	2
3	AND-6 (a)		Latch 2 Reset		OR-4 (b)		Reserved		Plan 3		Gate Down		Offset 2 (7-Wire)		EV-C	73	3
4	AND-6 (b)		NAND-3 (a)		OR-5 (a)		Reserved		Plan 4		Set Clock		Offset 3 (7-Wire)		EV-D	74	4
5	Reserved		NAND-3 (b)		OR-5 (b)		Reserved		Plan 5		Stop Time	82	Free (7-Wire)		RR-1	51	5
6	Reserved		NAND-4 (a)		OR-6 (a)		Reserved		Plan 6		Flash Sense	81	Flash (7-Wire)		RR-2	52	6
7	Reserved		NAND-4 (b)		OR-6 (b)		Reserved		Plan 7		Manual Enable		Excl. Ped Omit		Spec. Event 1		7
8	Spec. Funct. 1		OR-7 (a)		EXTMR		Reserved		Plan 8		Man. Advance		NOT-1		Spec. Event 2		8
9	Spec. Funct. 2		OR-7 (b)		Reserved		Max Inhibit (nema)		Plan 9		External Alarm		NOT-2		External Lag		9
A	Spec. Funct. 3		OR-7 (c)		AND-4 (a)		Force A (nema)		DELAY-A		Phase Bank 2		OR-1 (a)		AND-1 (a)		A
B	Spec. Funct. 4		OR-7 (d)		AND-4 (b)		Force B (nema)		DELAY-B		Phase Bank 3		OR-1 (b)		AND-1 (b)		B
C	Reserved		OR-8 (a)		NAND-1 (a)		C.N.A. (nema)		DELAY-C		Overlap Set 2		OR-2 (a)		AND-2 (a)		C
D	Reserved		OR-8 (b)		NAND-1 (b)		Hold (nema)		DELAY-D		Overlap Set 3		OR-2 (b)		AND-2 (b)		D
E	Reserved		OR-8 (c)		NAND-2 (a)		Max Recall		DELAY-E		Detector Set 2		OR-3 (a)		AND-3 (a)		E
F	Reserved		OR-8 (d)		NAND-2 (b)		Min Recall		DELAY-F		Detector Set 3		OR-3 (b)		AND-3 (b)		F

Assignable Inputs <E/126+Column+Row>

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	Reserved		Phase ON - 1		Preempt Fail		Flasher 0		Free		NOT-1		TOD Out 1		Dial 2 (7-Wire)		0
1	Reserved		Phase ON - 2		Sp Evnt Out 1		Flasher 1		Plan 1		OR-1		TOD Out 2		Dial 3 (7-Wire)		1
2	Reserved		Phase ON - 3		Sp Evnt Out 2		Fast Flasher		Plan 2		OR-2		TOD Out 3		Offset 1 (7-Wire)		2
3	Reserved		Phase ON - 4		Sp Evnt Out 3		EXTMR		Plan 3		OR-3		TOD Out 4		Offset 2 (7-Wire)		3
4	Reserved		Phase ON - 5		Sp Evnt Out 4		One-Shot Timer		Plan 4		AND-1		TOD Out 5		Offset 3 (7-Wire)		4
5	Reserved		Phase ON - 6		Sp Evnt Out 5		Reserved		Plan 5		AND-2		TOD Out 6		Free (7-Wire)		5
6	Reserved		Phase ON - 7		Sp Evnt Out 6		Latch 1		Plan 6		AND-3		TOD Out 7		Flash (7-Wire)		6
7	Reserved		Phase ON - 8		Sp Evnt Out 7		Latch 2		Plan 7		NOT-2		TOD Out 8		Preempt		7
8	Flh Yell Arrow 1		Ph. Check - 1		Sp Evnt Out 8		NOT-3		Plan 8		EV-A		Adv. Warn - 1		Low Priority A		8
9	Green 1		Ph. Check - 2		Coord On		NOT-4		Plan 9		EV-B		Adv. Warn - 2		Low Priority B		9
A	Flh Yell Arrow 3		Ph. Check - 3		Detector Fail		OR-4		Spec. Funct. 3		EV-C		DELAY-A		Low Priority C		A
B	Green 3		Ph. Check - 4		Spec. Funct. 1		OR-5		Spec. Funct. 4		EV-D		DELAY-B		Low Priority D		B
C	Flh Yell Arrow 5		Ph. Check - 5		Spec. Funct. 2		OR-6		NAND-3		RR-1		DELAY-C		AND-5		C
D	Green 5		Ph. Check - 6		Central Control		AND-4		NAND-4		RR-2		DELAY-D		AND-6		D
E	Flh Yell Arrow 7		Ph. Check - 7		Excl. Ped DW		NAND-1		OR-7		Spec. Event 1		DELAY-E		Reserved		E
F	Green 7		Ph. Check - 8		Excl. Ped WK		NAND-2		OR-8		Spec. Event 2		DELAY-F		Reserved		F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: Enterprise St @ Pacific Hwy

223 I ram

Group Assignment:
Field Master Assignment:

N/S ... t Name: Pacific Hwy
E/W Street Name: Enterprise St

Timing Sheet By: S2A
Approved By: EFF

System Ref. Number:
Drawing Number: 31462-4-D
Timing Implemented On: 06/11/07

Row	Column # ---->	1	2	3	4	5	6	7	8
	Phase # ---->	1	2	3	4	5	6	7	8
		PACIFIC HWY		ENTERPRISE ST		PACIFIC HWY		SPAWAR DWY	
0	Ped Walk		7				7		7
1	Ped FDW		18				27		33
2	Min Green	4	10	4	4	4	10	4	4
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	3.6	2.0	2.0	4 2.0	5.5	2.0	2.0
6	Max Gap	2.0	3.6	2.0	2.0	4 2.0	5.5	2.0	2.0
7	Min Gap	2.0	0.2	2.0	2.0	4 2.0	0.2	2.0	2.0
8	Max Limit	30	60	30	30	30	60	30	30
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1				0.1		
D	Every		0.9				0.6		
E	Yellow	3.4	5.7	3.4	3.9	3.4	4.7	3.4	3.9
F	Red Clear	2.0	3.0	1.0	1.0	1.0	3.0	1.0	1.0

Phase Timing - Bank 1
F + Phase + Row
<F Page>

Row		E
	RR-1 Delay	
	RR-1 Clear	
	EV-A Delay	0
	EV-A Clear	0
	EV-B Delay	0
	EV-B Clear	0
	EV-C Delay	0
	EV-C Clear	0
	EV-D Delay	0
	EV-D Clear	0
	RR-2 Delay	
	RR-2 Clear	
	View EV Delay	
	View EV Clear	
	View RR Delay	
	View RR Clear	

Preempt Timing
F + E + Row

Row		F
0	Permit	12345678
1	Red Lock	
2	Yellow Lock	4 5
3	Min Recall	_2___6__
4	Ped Recall	
5	Peds (View)	_2___6_8
6	Rest In Walk	
7	Red Rest	
8	Dbl Entry	
9	Max Recall	
A	Soft Recall	
B	Max 2	
C	Cond Serv	
D	Ped Lock	12345678
E	Yellow Start	_2___6__
F	1st Phases	___4___8

Phase Functions <F Page>
F + F + Row

Max Initial	0	F + 0 + E
Red Revert	5.0	F + 0 + F
All Red Start	0.0	F + C + O

Start / Revert Times

Drop Number	16	C + 0 + 0
Zone Number	16	C + 0 + 1
Area Number	0	C + 0 + 2
Area Address	218	C + 0 + 3
QuicNet Channel	DIGI62:	(QuicNet)

Communication Addresses

C + F + O	F	Row
Free Lag	_2_4_6_8	

Lag Phases <C Page>

Row		9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
A	Overlap A				
B	Overlap B				
C	Overlap C				
D	Overlap D				

Overlap Timing <F Page> F + COLOR + <D Page> D + 0 + OVERLAP

Manual Plan	14	C + A + 1
Manual Offset	0	C + B + 1

Manual Selection

Manual Plan	Manual Offset
0 = Automatic	0 = Automatic
1-9 = Plan 1-9	1 = Offset A
14 = Free	2 = Offset B
15 = Flash	3 = Offset C

Downtime Flash	255	(minutes)

Downtime Before Auto Manual Flash
F + 0 +8

Disable Ports	_234___

Disable Communication Ports
D + D + 9

INTERSECTION: ENTERPRISE ST @ PACIFIC HWY

Row	Time	Function	Day of Week	Column F Phases/Bits
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

<D Page>

D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	6
7	Ped 4P	
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration

E + F + ROW

<E Page>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

For access, set F + 9 + E = 1

Configuration

E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Time and Date

8-0 Hour, Minute, Day-of-Week

8-1 Day-of-Month, Year, Month

8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications

(If set to a non-zero value, parity will be disabled)

Program Information

C + C + 0 = program

C + C + F = version

Remote Download

C + 0 + 4 = 1 -255

w/ E + E + E bit 5 on

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		1.8
3		1.8
4		1.8
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	
B	9 10 11 12 -- -- -- --	
C	13 14 15 16 17 18 19 20	
D	-- -- -- -- 21 22 23 24	
E	-- -- -- -- -- -- -- --	
F	-- 25 26 27 28 -- -- --	

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	
2	System Det. # 2	
3	System Det. # 3	
4	System Det. # 4	
5	System Det. # 5	
6	System Det. # 6	
7	System Det. # 7	
8	System Det. # 8	

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

INTERSECTION: HANCOCK ST @ SPORTS ARENA BLVD

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: HANCOCK
E/W Street Name: SPORTS ARENA

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
SI	M2S	11/8/16

Free Lag <C/1+F+0>: _2_4_6__

Notes: *FDW is calculated using 3.5 fps pedestrian speed.*

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Drop Number	4	<C/0+0+0>
Zone Number	4	<C/0+0+1>
Area Number	0	<C/0+0+2>
Area Address	194	<C/0+0+3>
QuicNet Channel	COM66:	(QuicNet)

Communication Addresses

Manual Plan	0	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

	SPORTS ARENA	HANCOCK		SPORTS ARENA				
	Phase							
Row	Column Numbers ---> 1	2	3	4	5	6	7	8
0	Ped Walk			7		7		
1	Ped FDW			27		19		
2	Min Green	4	10	4	4	10		
3	Type 3 Disconnect							
4	Added per Vehicle							
5	Veh Extension	2.0	3.5	2.0	2.0	3.5		
6	Max Gap	2.0	3.5	2.0	2.0	3.5		
7	Min Gap	2.0	0.2	2.0	2.0	0.2		
8	Max Limit	30	60	40	30	60		
9	Max Limit 2							
A	Adv. / Delay Walk							
B	PE Min Ped FDW			1		1		
C	Cond Serv Check							
D	Reduce Every		0.9			0.9		
E	Yellow Change	3.4	3.9	3.9	3.4	3.9		
F	Red Clear	1.0	1.0	1.0	1.0	1.0		

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	12_456__	0
Red Lock		1
Yellow Lock		2
Min Recall	_2___6__	3
Ped Recall		4
View Set Peds	___4_6__	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall		A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	_2___6__	E
First Phases	___4____	F

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: HANCOCK ST @ SPORTS ARENA BLVD

Row	Column Numbers ---> / Overlap Name --->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	---
5	RR-2 *	---
6	SE-1	0
7	SE-2	0
8		
9		
A		
B		
C		
D		
E		
F		

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers --->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4
C	EV-C Phases	1 6
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	E
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Row		2
0	Phase 1	10
1	Phase 2	10
2	Phase 3	10
3	Phase 4	10
4	Phase 5	10
5	Phase 6	10
6	Phase 7	10
7	Phase 8	10
8		
9		
A		
B		
C		
D		
E		
F		

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: HANCOCK ST @ SPORTS ARENA BLVD

Row	Time	Plan	Offset	Day of Week
0	11 : 00	5	A	_23456_
1	14 : 00	6	A	_23456_
2	19 : 00	E	A	1234567
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct.	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct.	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, Decmber = C

INTERSECTION: HANCOCK ST @ SPORTS ARENA BLVD

Column Numbers ---->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	2I2U	39	45_7	2	123		1.8
1	6J2U	40	45_7	6	123		1.8
2		41	45_7	4	123		
3		42	45_7	8	123		
4		43	45_7	2	123		
5		44	45_7	6	123		
6		45	45_7	4	123		
7		46	45_7	8	123		
8		47	67	2	123		
9		48	67	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E		57	45_7	7	123		
F		58	45_7	3	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7	5	123		
1		60	45_7	1	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4		63	45_7	2	123		
5		64	45_7	6	123		
6		65	45_7	4	123		
7		66	45_7	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C		76	45_7	2	123		
D		77	45_7	6	123		
E	4I7L	78	45_7	4	123	10.0	
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers ---->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: HANCOCK ST @ SPORTS ARENA BLVD

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A 71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B 72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down	Offset 2 (7-Wire)	EV-C 73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D 74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time 82	Free (7-Wire)	RR-1 51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense 81	Flash (7-Wire)	RR-2 52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: HANCOCK ST @ SPORTS ARENA BLVD

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers → / Plan Name →	Plan 1	2	3	4	5 MID	6 PM	7	8	9
0	Cycle Length					110	108			
1	Phase 1 - ForceOff					55	16			
2	Phase 2 - ForceOff					0	0			
3	Phase 3 - ForceOff									
4	Phase 4 - ForceOff					39	55			
5	Phase 5 - ForceOff					65	76			
6	Phase 6 - ForceOff					0	0			
7	Phase 7 - ForceOff									
8	Phase 8 - ForceOff									
9	Ring Offset									
A	Offset 1					77	90			
B	Offset 2									
C	Offset 3									
D	Perm 1 - End					11	11			
E	Hold Release					255	255			
F	Reserved									

Coordination - Bank 1 <C/1+Plan+Row>

Row	Sync Phases	E
0		
1	Plan 1 - Sync	
2	Plan 2 - Sync	
3	Plan 3 - Sync	
4	Plan 4 - Sync	
5	Plan 5 - Sync	2 6
6	Plan 6 - Sync	2 6
7	Plan 7 - Sync	
8	Plan 8 - Sync	
9	Plan 9 - Sync	
A	NEMA Sync	
B	NEMA Hold	
C		
D		
E	Coord Extra	
F		

Sync Phases <C/1+E+Row>

Row		Plan 1	2	3	4	5	6	7	8	9
0	Ped Adjustment					0	0			
1	Perm 2 - Start									
2	Perm 2 - End									
3	Perm 3 - Start									
4	Perm 3 - End									
5	Reservice Time									
6	Reservice Phases									
7										
8	Pretimed Phases									
9	Max Recall									
A	Perm 1 Veh Phase									
B	Perm 1 Ped Phase									
C	Perm 2 Veh Phase									
D	Perm 2 Ped Phase									
E	Perm 3 Veh Phase									
F	Perm 3 Ped Phase									

Coordination - Bank 2 <C/2+Plan+Row>

Row	Lag Phases	F
0	Free Lag	
1	Plan 1 - Lag	
2	Plan 2 - Lag	
3	Plan 3 - Lag	
4	Plan 4 - Lag	
5	Plan 5 - Lag	2 4 6
6	Plan 6 - Lag	1 4 6
7	Plan 7 - Lag	
8	Plan 8 - Lag	
9	Plan 9 - Lag	
A	External Lag	
B	Lag Hold	
C		
D		
E		
F		

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 5/14/2013

INTERSECTION: MIDWAY DR & KEMPER DR

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: **KEMPER**
E/W Street Name: **MIDWAY**

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
SGC	M2S	

Free Lag <C/1+F+0>: _2__5__8

Notes: ***FDW calculated using 3.5 fps pedestrian speed***

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Drop Number	9	<C/0+0+0>
Zone Number	9	<C/0+0+1>
Area Number	0	<C/0+0+2>
Area Address	198	<C/0+0+3>
QuicNet Channel	COM 66	(QuicNet)

Communication Addresses

Manual Plan	0	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

MIDWAY MIDWAY KEMPER KEMPER

	Column Numbers --->	Phase 1	2	3	4	5	6	7	8
Row	N	1+8							
0	Ped Walk		7				7	7	7
1	Ped FDW		20				16	26	27
2	Min Green	4	10			4	10	7	7
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	4.0			2.0	4.5	2.0	2.0
6	Max Gap	2.0	4.0			2.0	4.5	2.0	2.0
7	Min Gap	2.0	0.2			2.0	0.2	2.0	2.0
8	Max Limit	30	60			30	60	40	40
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1				1	1	1
C	Cond Serv Check								
D	Reduce Every		0.8				0.7		
E	Yellow Change	3.4	3.9			3.4	3.9	3.9	3.9
F	Red Clear	1.0	1.0			1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	12__5678	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	_2__678	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall	2__6__	A
Max 2		B
Cond. Service		C
Man Cntrl Calls	12345678	D
Yellow Start	_2__6__	E
First Phases	____7__	F

How to Set Page Access Code: F/1 – C + 0 + F = 1

INTERSECTION: MIDWAY DR & KEMPER DR

Row	Column Numbers ---->	Overlap 1	2	3	4	5	6	7	8
	Overlap Name ---->								
0	Load Switch Number								
1	Veh Set 1 - Phases	1 8							
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases	2 78							
5	Neg Ped Phases	2 78							
6	Green Omit Phases	8							
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change	3.4							
F	Red Clear	1.0							

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	- - -
5	RR-2 *	- - -
6	SE-1	0
7	SE-2	0
8		
9		
A		
B		
C		
D		
E		
F		

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers ---->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	7
C	EV-C Phases	1 6
D	EV-D Phases	8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	7
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Row		2
0		
1	Phase 1	10
2	Phase 2	10
3	Phase 3	10
4	Phase 4	10
5	Phase 5	10
6	Phase 6	10
7	Phase 7	10
8	Phase 8	10
9		
A		
B		
C		
D		
E		
F		

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: MIDWAY DR & KEMPER DR

Row	Detector Name	0 C1 Pin Number	1 Attributes	2 Phase(s)	3 Assign	1 Delay	3 Carry-over
0	2I2U	39	45_7_	2	123		1.8
1	6J2U	40	45_7_	6	123		1.8
2		41	45_7_	4	123		
3		42	45_7_	8	123		
4		43	45_7_	2	123		
5		44	45_7_	6	123		
6		45	45_7_	4	123		
7		46	45_7_	8	123		
8		47	67_	2	123		
9		48	67_	6	123		
A		49	67_	4	123		
B		50	67_	8	123		
C		55	45_7_	5	123		
D		56	45_7_	1	123		
E		57	45_7_	7	123		
F		58	45_7_	3	123		

Row	Detector Name	4 C1 Pin Number	5 Attributes	6 Phase(s)	7 Assign	2 Delay	4 Carry-over
0		59	45_7_	5	123		
1		60	45_7_	1	123		
2	7J9L	61	45_7_	7	123	10.0	
3		62	45_7_	3	123		
4		63	45_7_	2	123		
5		64	45_7_	6	123		
6		65	45_7_	4	123		
7	8J7U	66	45_7_	8	123	10.0	
8		67	2_	2	123		
9		68	2_	6	123		
A		69	2_	4	123		
B		70	2_	8	123		
C		76	45_7_	2	123		
D		77	45_7_	6	123		
E		78	45_7_	4	123		
F		79	45_7_	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers --->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green	35								5
Overlap Yellow	37								6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	30

<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: MIDWAY DR & KEMPER DR

Row	Time	Plan	Offset	Day of Week
0	11 : 00	2	A	23456
1	14 : 30	3	A	23456
2	18 : 30	E	A	1234567
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct.	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct.	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, December = C

INTERSECTION: MIDWAY DR & KEMPER DR

Plan

Row	Column Numbers ----> / Plan Name ---->	1	2	3	4	5	6	7	8	9
0	Cycle Length		156	160						
1	Phase 1 - ForceOff		129	136						
2	Phase 2 - ForceOff		0	0						
3	Phase 3 - ForceOff									
4	Phase 4 - ForceOff									
5	Phase 5 - ForceOff		25	30						
6	Phase 6 - ForceOff		0	0						
7	Phase 7 - ForceOff		64	70						
8	Phase 8 - ForceOff		104	110						
9	Ring Offset									
A	Offset 1		136	126						
B	Offset 2									
C	Offset 3									
D	Perm 1 - End		16	16						
E	Hold Release		225	255						
F	Reserved									

Coordination - Bank 1 <C/1+Plan+Row>

Row		1	2	3	4	5	6	7	8	9
0	Ped Adjustment		0	0						
1	Perm 2 - Start									
2	Perm 2 - End									
3	Perm 3 - Start									
4	Perm 3 - End									
5	Reservice Time									
6	Reservice Phases									
7										
8	Pretimed Phases									
9	Max Recall									
A	Perm 1 Veh Phase									
B	Perm 1 Ped Phase									
C	Perm 2 Veh Phase									
D	Perm 2 Ped Phase									
E	Perm 3 Veh Phase									
F	Perm 3 Ped Phase									

Coordination - Bank 2 <C/2+Plan+Row>

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row		E
0		
1	Plan 1 - Sync	
2	Plan 2 - Sync	2 6
3	Plan 3 - Sync	2 6
4	Plan 4 - Sync	
5	Plan 5 - Sync	
6	Plan 6 - Sync	
7	Plan 7 - Sync	
8	Plan 8 - Sync	
9	Plan 9 - Sync	
A	NEMA Sync	
B	NEMA Hold	
C		
D		
E	Coord Extra	
F		

Sync Phases <C/1+E+Row>

Row		F
0	Free Lag	
1	Plan 1 - Lag	
2	Plan 2 - Lag	2 5 8
3	Plan 3 - Lag	2 5 8
4	Plan 4 - Lag	
5	Plan 5 - Lag	
6	Plan 6 - Lag	
7	Plan 7 - Lag	
8	Plan 8 - Lag	
9	Plan 9 - Lag	
A	External Lag	
B	Lag Hold	
C		
D		
E		
F		

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 5/14/2013

INTERSECTION: MIDWAY DR & KEMPER DR

Row	Column 8	Column 9	Column A	Column B	Column C	Column D		Column E		Column F		Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday		Dial 2 (7-Wire)		Sim Term	0	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1		Dial 3 (7-Wire)		EV-A	71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2		Offset 1 (7-Wire)		EV-B	72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down		Offset 2 (7-Wire)		EV-C	73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock		Offset 3 (7-Wire)		EV-D	74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time	82	Free (7-Wire)		RR-1	51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense	81	Flash (7-Wire)		RR-2	52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable		Excl. Ped Omit		Spec. Event 1		7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance		NOT-1		Spec. Event 2		8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm		NOT-2		External Lag		9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2		OR-1 (a)		AND-1 (a)		A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3		OR-1 (b)		AND-1 (b)		B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2		OR-2 (a)		AND-2 (a)		C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3		OR-2 (b)		AND-2 (b)		D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2		OR-3 (a)		AND-3 (a)		E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3		OR-3 (b)		AND-3 (b)		F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: KEMPER ST @ SPORTS ARENA BLVD

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: KEMPER ST
E/W Street Name: SPORTS ARENA

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
SI	M2S	11/3/16

Notes:

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Free Lag <C/1+F+0> 2 6 8

Drop Number	5	<C/0+0+0>
Zone Number	5	<C/0+0+1>
Area Number	0	<C/0+0+2>
Area Address	195	<C/0+0+3>
QuicNet Channel	COM66:	(QuicNet)

Communication Addresses

Manual Plan	0	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

Row		SPORTS ARENA 1	2	3	4	SPORTS AREI KEMPER 5	6	7	DWY 8
	Column Numbers →	Phase							
0	Ped Walk		7				7	7	
1	Ped FDW		18				17	24	
2	Min Green	4	10			4	10	7	7
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	4.8			2.0	4.8	2.0	2.0
6	Max Gap	2.0	4.8			2.0	4.8	2.0	2.0
7	Min Gap	2.0	0.2			2.0	0.2	2.0	2.0
8	Max Limit	35	60			60	60	40	80
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1				1	1	
C	Cond Serv Check								
D	Reduce Every		0.7				0.7		
E	Yellow Change	3.4	3.9			3.4	3.9	3.9	3.9
F	Red Clear	1.0	1.0			1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	12 5678	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	2 67	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall	2 6	A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	2 6	E
First Phases	7	F

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 – C + 0 + F = 1

INTERSECTION: KEMPER ST @ SPORTS ARENA BLVD

Row	Column Numbers ---> / Overlap Name --->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	---
5	RR-2 *	---
6	SE-1	0
7	SE-2	0
8		
9		
A		
B		
C		
D		
E		
F		

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers --->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	7
C	EV-C Phases	1 6
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	7
Ped for 8P Output	
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Row		2
0		
1	Phase 1	10
2	Phase 2	10
3	Phase 3	10
4	Phase 4	10
5	Phase 5	10
6	Phase 6	10
7	Phase 7	10
8	Phase 8	10
9		
A		
B		
C		
D		
E		
F		

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: KEMPER ST @ SPORTS ARENA BLVD

Column Numbers --->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	2I2U	39	45_7	2	123		1.8
1	6J2U	40	45_7	6	123		1.8
2		41	45_7	4	123		
3		42	45_7	8	123		
4		43	45_7	2	123		
5		44	45_7	6	123		
6		45	45_7	4	123		
7		46	45_7	8	123		
8		47	67	2	123		
9		48	67	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E		57	45_7	7	123		
F		58	45_7	3	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7	5	123		
1		60	45_7	1	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4		63	45_7	2	123		
5		64	45_7	6	123		
6		65	45_7	4	123		
7		66	45_7	8	123		
8		67	2	2	123		
9		68	2	6	123		
A	PH7 ped	69	2	7	123		
B		70	2	8	123		
C		76	45_7	2	123		
D		77	45_7	6	123		
E		78	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers --->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	30	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: KEMPER ST @ SPORTS ARENA BLVD

TOD Coordination <9/0.1+Row> (Bank 1)

Row	Time	Plan	Offset	Day of Week
0	11 : 00	5	A	_23456_
1	14 : 00	6	A	_23456_
2	19 : 00	E	A	1234567
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function <7/0.1+Row> <E/27+4+Row>

Time	Funct.	Day of Week	Column 4 Phases/Bits

Holiday Dates <8/1.1+Row> (Bank 1)

Day	Year	Month	Holiday Type

Holiday Events <9/1.1+Row> (Bank 1)

Time	Plan	Offset	Holiday Type

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

TOD Coordination <C+0+9=0.2> (Bank 2)

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Time	Funct.	Holiday Type	Column 4 Phases/Bits

Holiday Dates <C+0+8=1.2> (Bank 2)

Day	Year	Month	Holiday Type

Holiday Events <C+0+9=1.2> (Bank 2)

Time	Plan	Offset	Holiday Type

Month Select: October = A, November = B, December = C

INTERSECTION: KEMPER ST @ SPORTS ARENA BLVD

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers →	1	2	3	4	Plan 5	Plan 6	7	8	9	Row
	Plan Name →					MID	PM				
0	Cycle Length					110	108				0
1	Phase 1 - ForceOff					80	75				1
2	Phase 2 - ForceOff					0	0				2
3	Phase 3 - ForceOff										3
4	Phase 4 - ForceOff										4
5	Phase 5 - ForceOff					72	68				5
6	Phase 6 - ForceOff					0	0				6
7	Phase 7 - ForceOff					36	30				7
8	Phase 8 - ForceOff					56	52				8
9	Ring Offset										9
A	Offset 1					67	87				A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End					11	11				D
E	Hold Release					255	255				E
F	Reserved										F

Coordination - Bank 1 <C/1+Plan+Row>

Row		E	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync		2
3	Plan 3 - Sync		3
4	Plan 4 - Sync		4
5	Plan 5 - Sync	2 6	5
6	Plan 6 - Sync	2 6	6
7	Plan 7 - Sync		7
8	Plan 8 - Sync		8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C/1+E+Row>

Row											Row
0	Ped Adjustment					0	0				0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row		F	Row
0	Free Lag		0
1	Plan 1 - Lag		1
2	Plan 2 - Lag		2
3	Plan 3 - Lag		3
4	Plan 4 - Lag		4
5	Plan 5 - Lag	2 6 8	5
6	Plan 6 - Lag	2 6 8	6
7	Plan 7 - Lag		7
8	Plan 8 - Lag		8
9	Plan 9 - Lag		9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 5/14/2013

Row	Column 8	Column 9	Column A	Column B	Column C	Column D		Column E		Column F		Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday		Dial 2 (7-Wire)		Sim Term		0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1		Dial 3 (7-Wire)		EV-A	71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2		Offset 1 (7-Wire)		EV-B	72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down		Offset 2 (7-Wire)		EV-C	73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock		Offset 3 (7-Wire)		EV-D	74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time	82	Free (7-Wire)		RR-1	51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense	81	Flash (7-Wire)		RR-2	52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable		Excl. Ped Omit		Spec. Event 1		7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance		NOT-1		Spec. Event 2		8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm		NOT-2		External Lag		9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2		OR-1 (a)		AND-1 (a)		A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3		OR-1 (b)		AND-1 (b)		B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2		OR-2 (a)		AND-2 (a)		C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3		OR-2 (b)		AND-2 (b)		D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2		OR-3 (a)		AND-3 (a)		E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3		OR-3 (b)		AND-3 (b)		F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: Kurtz St @ Rosecrans St

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: **Rosecrans St**
E/W Street Name: **Kurtz St**

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
MB	MJS	10/8/18

Free Lag <C/1+F+0> _23__6__

Manual Plan
0 = Automatic
1-8 = Plan 1-8
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Notes:

Adaptive System Operation Rules:

1- Intersection is running in Adaptive system coordination signal timing.
2- No Min Recalls/Max Recalls/Detector delays or locks to be used in the controller.
Only soft recall to be used for sync phases.
Recalls/Delays are to be configured in the InSync Processor, Detector Setup.
3- Controller MUST BE set to FREE operation. C/0+A+1 =14
4- Min Green is 10s for sync phases and 5s for all other permitted phases.
5- Veh Ext, Max Gap & Min Gap are set to 1.0s, Reduce Every is set to "zero".
6- "Carry Over" is set to "zero" for all detectors.

Drop Number	1	<C/0+0+0>
Zone Number	1	<C/0+0+1>
Area Number	1	<C/0+0+2>
Area Address	160	<C/0+0+3>
Transparity Channe	13	(Transparity)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

Row		ROSECRANS 1	2	KURTZ 3	KURTZ 4	5	ROSECRANS 6	7	8
	Column Numbers —>			Phase					
	N	PPLT							
0	Ped Walk		7		7		7		
1	Ped FDW		15		19		10		
2	Min Green	5	10	5	5		10		
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	1.0	1.0	1.0	1.0		1.0		
6	Max Gap	1.0	1.0	1.0	1.0		1.0		
7	Min Gap	1.0	1.0	1.0	1.0		1.0		
8	Max Limit	10	60	30	30		60		
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change	3.4	3.9	3.4	3.9		3.9		
F	Red Clear	1.0	1.0	1.0	1.0		1.0		

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	1234_6__	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	_2_4_6__	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall	_2___6__	A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	_2___6__	E
First Phases	__3____	F

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: Kurtz St @ Rosecrans St

Row	Column Numbers ---> / Overlap Name --->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	---
5	RR-2 *	---
6	SE-1	0
7	SE-2	0

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers --->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	1
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2
B	EV-B Phases	4
C	EV-C Phases	1 6
D	EV-D Phases	3
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	1234_6__
Start-up Ped Calls	_2_4_6__

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Row		2
0	Phase 1	10
1	Phase 2	10
2	Phase 3	10
3	Phase 4	10
4	Phase 5	10
5	Phase 6	10
6	Phase 7	10
7	Phase 8	10

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: Kurtz St @ Rosecrans St

Column Numbers --->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		39	45_7_	2	123		
1		40	45_7_	6	123		
2		41	45_7_	4	123		
3		42	45_7_	8	123		
4		43	45_7_	2	123		
5		44	45_7_	6	123		
6		45	45_7_	4	123		
7		46	45_7_	8	123		
8		47	67_	2	123		
9		48	67_	6	123		
A		49	67_	4	123		
B		50	67_	8	123		
C		55	45_7_	5	123		
D		56	45_7_	1	123		
E		57	45_7_	7	123		
F		58	45_7_	3	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7_	5	123		
1		60	45_7_	1	123		
2		61	45_7_	7	123		
3		62	45_7_	3	123		
4		63	45_7_	2	123		
5		64	45_7_	6	123		
6		65	45_7_	4	123		
7		66	45_7_	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C		76	45_7_	2	123		
D		77	45_7_	6	123		
E		78	45_7_	4	123		
F		79	45_7_	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers --->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	7	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: Kurtz St @ Rosecrans St

TOD Coordination <9/0.1+Row> (Bank 1)

Row	Time	Plan	Offset	Day of Week
0	11 : 00	2	A	_23456_
1	13 : 00	7	A	_23456_
2	14 : 45	5	A	_23456_
3	19 : 30	E	A	_23456_
4	10 : 00	4	A	1____7
5	18 : 00	E	A	1____8
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function <7/0.1+Row> <E/27+4+Row>

Time	Funct.	Day of Week	Column 4 Phases/Bits

Holiday Dates <8/1.1+Row> (Bank 1)

Day	Year	Month	Holiday Type

Holiday Events <9/1.1+Row> (Bank 1)

Time	Plan	Offset	Holiday Type

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

TOD Coordination <C+0+9=0.2> (Bank 2)

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Time	Funct.	Holiday Type	Column 4 Phases/Bits

Holiday Dates <C+0+8=1.2> (Bank 2)

Day	Year	Month	Holiday Type

Holiday Events <C+0+9=1.2> (Bank 2)

Time	Plan	Offset	Holiday Type

Month Select: October = A, November = B, December = C

INTERSECTION: Kurtz St @ Rosecrans St

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers --->	1	2	3	4	5	6	7	8	9
	Plan Name --->		MID		WKND	PM(PEAK)		PM		
0	Cycle Length		140		140	86		160		
1	Phase 1 - ForceOff		88		86	62		93		
2	Phase 2 - ForceOff		0		0	0		0		
3	Phase 3 - ForceOff		73		71	50		77		
4	Phase 4 - ForceOff		38		36	28		43		
5	Phase 5 - ForceOff									
6	Phase 6 - ForceOff		0		0	0		0		
7	Phase 7 - ForceOff									
8	Phase 8 - ForceOff									
9	Ring Offset									
A	Offset 1		60		72	70		150		
B	Offset 2									
C	Offset 3									
D	Perm 1 - End		12		15	9		16		
E	Hold Release		255		255	255		255		
F	Reserved									

Coordination - Bank 1 <C/1+Plan+Row>

Row	E
0	
1	Plan 1 - Sync
2	Plan 2 - Sync 2 6
3	Plan 3 - Sync
4	Plan 4 - Sync 2 6
5	Plan 5 - Sync 2 6
6	Plan 6 - Sync
7	Plan 7 - Sync 2 6
8	Plan 8 - Sync
9	Plan 9 - Sync
A	NEMA Sync
B	NEMA Hold
C	
D	
E	Coord Extra
F	

Sync Phases <C/1+E+Row>

Row		Plan 2
0	Ped Adjustment	0
1	Perm 2 - Start	
2	Perm 2 - End	
3	Perm 3 - Start	
4	Perm 3 - End	
5	Reservice Time	
6	Reservice Phases	
7		
8	Pretimed Phases	
9	Max Recall	
A	Perm 1 Veh Phase	
B	Perm 1 Ped Phase	
C	Perm 2 Veh Phase	
D	Perm 2 Ped Phase	
E	Perm 3 Veh Phase	
F	Perm 3 Ped Phase	

Coordination - Bank 2 <C/2+Plan+Row>

Row	F
0	Free Lag
1	Plan 1 - Lag
2	Plan 2 - Lag 23 6
3	Plan 3 - Lag
4	Plan 4 - Lag 23 6
5	Plan 5 - Lag 23 6
6	Plan 6 - Lag
7	Plan 7 - Lag 23 6
8	Plan 8 - Lag
9	Plan 9 - Lag
A	External Lag
B	Lag Hold
C	
D	
E	
F	

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 4/20/2010

INTERSECTION: Kurtz St @ Rosecrans St

Row	Column 8	Column 9	Column A	Column B	Column C	Column D		Column E		Column F		Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday		Dial 2 (7-Wire)		Sim Term	0	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1		Dial 3 (7-Wire)		EV-A	71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2		Offset 1 (7-Wire)		EV-B	72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down		Offset 2 (7-Wire)		EV-C	73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock		Offset 3 (7-Wire)		EV-D	74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time	82	Free (7-Wire)		RR-1	51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense	81	Flash (7-Wire)		RR-2	52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable		Excl. Ped Omit		Spec. Event 1		7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance		NOT-1		Spec. Event 2		8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm		NOT-2		External Lag		9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2		OR-1 (a)		AND-1 (a)		A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3		OR-1 (b)		AND-1 (b)		B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2		OR-2 (a)		AND-2 (a)		C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3		OR-2 (b)		AND-2 (b)		D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2		OR-3 (a)		AND-3 (a)		E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3		OR-3 (b)		AND-3 (b)		F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: Kurtz St @ Rosecrans St

Row	Column Numbers —> / Phase Names —>	Phase 1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		
1	Ped FDW		15		19		10		
2	Min Green	4	10	4	4		10		
3	Type 3 Disconnect								
4	Added per Vehicle		1.6				1.6		
5	Veh Extension	2.0	6.3	3.0	3.0		7.1		
6	Max Gap	2.0	6.3	3.0	3.0		7.1		
7	Min Gap	2.0	2.0	3.0	3.0		2.0		
8	Max Limit	10	50	30	30		50		
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		
C	Cond Serv Check								
D	Reduce Every		0.7				0.6		
E	Yellow Change	3.4	3.9	3.4	3.9		3.9		
F	Red Clear	1.0	1.0	1.0	1.0		1.0		

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2	23				
Phase 3					
Phase 4					
Phase 5					
Phase 6	23				
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3 <C/5+1+9>

TBC Transition

Hawk Select	0 <F/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address	0 <C/1+0+6>
Select Parity	0 <C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Daylight Savings Date
If set to all zeros, standard dates will be used.

Begin Month	3 <C/5+2+A>
Begin Week	2 <C/5+2+B>
End Month	11 <C/5+2+C>
End Week	1 <C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0 <F/1+C+E>
Phase Number	0 <F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0 <F/1+D+E>
Phase Number	0 <F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time	0 <C/5+2+E>
Max Cycle Time	20 <C/5+2+F>

Yellow Yield Coordination

	12345678
Omit Alarm	#NAME?

Local Alarm Disable <C/5+F+0>

IEN Status	1 <C/5+1+B>
Synch Time	0.0 <C/5+1+C>

Other Parameters

Row	Phase 1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Row	6 Clear	7 Time	8 Ped Call	9 Hold	A Advance	B Force Off	C Vehicle Call	D Permit Phases	E Ped Omit	F Output
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

Special Event Schedule -- Table 1 <C+0+E=27>

Notes:

[ ] <E/27+5+F>
Limited Service Interval

Row	6 Clear	7 Time	8 Ped Call	9 Hold	A Advance	B Force Off	C Vehicle Call	D Permit Phases	E Ped Omit	F Output
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

Special Event Schedule -- Table 2 <C+0+E=28>

Notes:

[ ] <E/28+5+F>
Limited Service Interval

INTERSECTION: LYTTON ST @ ROSECRANS ST

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: **ROSECRANS**
E/W Street Name: **LYTTON**
Last Database Change:
Notes: **Drawing Number 32008-8-D**

Adaptive System operartion RULES:

1- Intersection is running in Adaptive system coordination signal timing.
2- Do not change PIN ASSIGNMENTS on page 3. Pin numbers are changed for Adaptive mode operation.
3- No Recalls/Detector delays to be USED in the controller. Recalls/Delays are to be configured in the inSync Processor, Detector Setup.
4- Controller MUST BE set to FREE operation. C/0-A-1 =14
5- Min G is 10s for sync phases and 5s for all other permitted phases.
6- Veh Ext, Max Gap & Min Gap are set to 1.0s, Reduce Every is set to "zero".
7- "Carry Over" is SET to "zero" for all detectors.

Change Record		
Timing Sheet By	Approved By	Date
M2S	M2S	1/10/2017

Free Lag <C/1+F+0>: 2_4_6_8

Manual Plan: 0 = Automatic, 1-9 = Plan 1-9, 14 = Free, 15 = Flash
Manual Offset: 0 = Automatic, 1 = Offset A, 2 = Offset B, 3 = Offset C

Drop Number	10	<C/0+0+0>
Zone Number	10	<C/0+0+1>
Area Number	1	<C/0+0+2>
Area Address	87	<C/0+0+3>
QuicNet Channel	COM76	(QuicNet)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

Row	Column Numbers ---->	1	2	3	4	5	6	7	8
			ROSECRANS		LYTTON		ROSECRANS		LYTTON
					Phase				
0	Ped Walk		7		7		7		7
1	Ped FDW		18		26		12		27
2	Min Green	5	10	5	5	5	10	5	5
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
6	Max Gap	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
7	Min Gap	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
8	Max Limit	30	60	30	40	30	60	30	45
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		1
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change	3.4	4.3	3.4	3.9	3.4	4.7	3.4	3.9
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

Row		F
0	Permit	12345678
1	Red Lock	
2	Yellow Lock	
3	Min Recall	
4	Ped Recall	
5	*View Set Peds*	2_4_6_8
6	Rest In Walk	
7	Red Rest	
8	Dual Entry	
9	Max Recall	
A	Soft Recall	2 6
B	Max 2	
C	Cond. Service	
D	Man Cntrl Calls	
E	Yellow Start	2 6
F	First Phases	4 8

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 – C + 0 + F = 1

INTERSECTION: LYTTON ST @ ROSECRANS ST

Row	Overlap Name → / Column Numbers →	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

	C
EV-A	0
EV-B	0
EV-C	0
EV-D	0
RR-1 *	---
RR-2 *	---
SE-1	0
SE-2	0

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers → /	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

	2
Phase 1	10
Phase 2	10
Phase 3	10
Phase 4	10
Phase 5	10
Phase 6	10
Phase 7	10
Phase 8	10

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: LYTTON ST @ ROSECRANS ST

Row	Detector Name	0 C1 Pin Number	1 Attributes	2 Phase(s)	3 Assign	1 Delay	3 Carry-over
0	2I2U	63	45_7	2	123		
1	6J2U	44	45_7	6	123		
2		41	45_7	4	123		
3	8J6U	46	45_7	8	123		
4	2I2L (Bike)	43	45_7	2	123		
5	6J2L	40	45_7	6	123		
6		45	45_7	4	123		
7	8J6L	42	45_7	8	123		
8		47	67	2	123		
9		48	67	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E		57	45_7	7	123		
F		58	45_7	3	123		

Row	Detector Name	4 C1 Pin Number	5 Attributes	6 Phase(s)	7 Assign	2 Delay	4 Carry-over
0		59	45_7	5	123		
1		60	45_7	1	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4	2I3U	39	45_7	2	123		
5		64	45_7	6	123		
6		65	45_7	4	123		
7		66	45_7	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C	2I3L	39	45_7	2	123		
D		77	45_7	6	123		
E		78	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers --->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	20	<D/0+0+1>
Max ON (minutes)	7	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: LYTTON ST @ ROSECRANS ST

TOD Coordination <9/0.1+Row> (Bank 1)

Row	Time	Plan	Offset	Day of Week
0	06 : 00	6	A	_23456_
1	11 : 00	2	A	_23456_
2	13 : 00	7	A	_23456_
3	14 : 45	5	A	_23456_
4	19 : 30	E	A	_23456_
5	10 : 00	4	A	1_____7
6	18 : 00	E	A	1_____7
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function <7/0.1+Row> <E/27+4+Row>

Row	Time	Funct.	Day of Week	Column 4 Phases/Bits
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Dates <8/1.1+Row> (Bank 1)

Row	Day	Year	Month	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Events <9/1.1+Row> (Bank 1)

Row	Time	Plan	Offset	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2> (Bank 2)

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Row	Time	Funct.	Holiday Type	Column 4 Phases/Bits
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Dates <C+0+8=1.2> (Bank 2)

Row	Day	Year	Month	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Month Select: October = A, November = B, Decmber = C

Holiday Events <C+0+9=1.2> (Bank 2)

Row	Time	Plan	Offset	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

T.O.D. Functions
- 0 = Permitted Phases
- 1 = Red Lock
- 2 = Yellow Lock
- 3 = Veh Min Recall
- 4 = Ped Recall
- 5 =
- 6 = Rest In Walk
- 7 = Red Rest
- 8 = Double Entry
- 9 = Veh Max Recall
- A = Veh Soft Recall
- B = Maximum 2
- C = Conditional Service
- D = Free Lag Phases
- E = Bit 1 - Local Override
  - Bit 4 - Disable Detector OFF Monitor
  - Bit 5 - Disable Low Priority Preempt
  - Bit 6 - FYA Inhibit
  - Bit 7 - Detector Count Monitor
  - Bit 8 - Real Time Split Monitor
- F = Output Bits 1 thru 8

Plan Select
- 1 thru 9 = Coordination Plan 1 thru 9
- 14 or E = Free
- 15 or F = Flash

Offset Select
- A = Offset A
- B = Offset B
- C = Offset C

INTERSECTION: LYTTON ST @ ROSECRANS ST

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers --->	Plan 1	2	3	4	5	6	7	8	9	Row
0	Plan Name --->		MID		WKND	PM (Peak)	AM	PM			0
1	Cycle Length		140		140	172	130	160			1
2	Phase 1 - ForceOff		90		90	108	100	108			2
3	Phase 2 - ForceOff		0		0	0	0	0			3
4	Phase 3 - ForceOff		38		38	36	36	36			4
5	Phase 4 - ForceOff		77		77	82	75	82			5
6	Phase 5 - ForceOff		90		90	98	91	98			6
7	Phase 6 - ForceOff		0		0	0	0	0			7
8	Phase 7 - ForceOff		38		38	82	76	82			8
9	Phase 8 - ForceOff		69		69	52	36	52			9
A	Ring Offset										A
B	Offset 1		47		47	161	35	150			B
C	Offset 2										C
D	Offset 3										D
E	Perm 1 - End		10		10	17	13	16			E
F	Hold Release		255		255	255	255	255			F
	Reserved										

Coordination - Bank 1 <C/1+Plan+Row>

Row		E	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync	2 6	2
3	Plan 3 - Sync		3
4	Plan 4 - Sync	2 6	4
5	Plan 5 - Sync	2 6	5
6	Plan 6 - Sync	2 6	6
7	Plan 7 - Sync	2 6	7
8	Plan 8 - Sync		8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C/1+E+Row>

Row		1	2	3	4	5	6	7	8	9	Row
0	Ped Adjustment		10		10	0	0	0			0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row		F	Row
0	Free Lag		0
1	Plan 1 - Lag		1
2	Plan 2 - Lag	2 4 6 8	2
3	Plan 3 - Lag		3
4	Plan 4 - Lag	2 4 6 8	4
5	Plan 5 - Lag	2 4 67	5
6	Plan 6 - Lag	2 4 67	6
7	Plan 7 - Lag	2 4 67	7
8	Plan 8 - Lag		8
9	Plan 9 - Lag		9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 3/22/2010

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F		Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Prelimed	Set Monday	Dial 2 (7-Wire)	Sim Term	0	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A	71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B	72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down	Offset 2 (7-Wire)	EV-C	73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D	74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time	82 Free (7-Wire)	RR-1	51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense	81 Flash (7-Wire)	RR-2	52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1		7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance	NOT-1	Spec. Event 2		8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag		9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)		A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)		B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)		C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)		D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)		E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)		F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: LYTTON ST @ ROSECRANS ST

Row	Column Numbers ----> / Phase Names ---->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		7
1	Ped FDW		18		26		12		27
2	Min Green	4	10	4	7	4	10	4	7
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	4.7	2.0	2.0	2.0	4.2	2.0	4.0
6	Max Gap	2.0	4.7	2.0	2.0	2.0	4.2	2.0	4.0
7	Min Gap	2.0	0.2	2.0	2.0	2.0	0.2	2.0	0.2
8	Max Limit	30	60	30	40	30	60	30	45
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		1
C	Cond Serv Check								
D	Reduce Every		0.7				0.7		0.8
E	Yellow Change	3.4	4.3	3.4	3.9	3.4	4.7	3.4	3.9
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3	<C/5+1+9>

TBC Transition

Hawk Select	0	<F/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address	0	<C/1+0+6>
Select Parity	0	<C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Daylight Savings Date
If set to all zeros, standard dates will be used.

Begin Month	3	<C/5+2+A>
Begin Week	2	<C/5+2+B>
End Month	11	<C/5+2+C>
End Week	1	<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	<F/1+D+E>
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time	0	<C/5+2+E>
Max Cycle Time	20	<C/5+2+F>

Yellow Yield Coordination

Row		1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

12345678

Omit Alarm	#NAME?

Local Alarm Disable <C/5+F+0>

IEN Status	1	<C/5+1+B>
Synch Time	0.0	<C/5+1+C>

Other Parameters

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: ROSECRANS
E/W Street Name: MIDWAY

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
M2S	M2S	1/10/2017

Free Lag <C/1+F+0> 1__4_67_

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Notes:

Adaptive System operartion RULES:

1- Intersection is running in Adaptive system coordination signal timing.
2- Do not change PIN ASSIGNMENTS on page 3. Pin numbers are changed for Adaptive mode operation.
3- No Recalls/Detector delays to be USED in the controller. Recalls/Delays are to be configured in the InSync Processor, Detector Setup.
4- Controller MUST BE set to FREE operation. C/0-A-1 =14
5- Min G is 10s for sync phases and 5s for all other permitted phases.
6- Veh Ext, Max Gap & Min Gap are set to 1.0s, Reduce Every is set to "zero".
7- "Carry Over" is SET to "zero" for all detectors.

Drop Number	12	<C/0+0+0>
Zone Number	12	<C/0+0+1>
Area Number	1	<C/0+0+2>
Area Address	89	<C/0+0+3>
QuicNet Channel	COM76	(QuicNet)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

		ROSECRANS		MIDWAY		ROSECRANS		MIDWAY	
		Phase							
Row	Column Numbers ---->	1	2	3	4	5	6	7	8
0	Ped Walk		5		5		5		5
1	Ped FDW		20		27		19		26
2	Min Green	5	10	5	10	5	10	5	10
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
6	Max Gap	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
7	Min Gap	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
8	Max Limit	30	45	30	40	35	40	30	40
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		1
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change	3.4	3.9	3.4	3.9	3.4	4.7	3.4	3.9
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	12345678	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	_2_4_6_8	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall	_2__6__	A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	_2___6__	E
First Phases	__3___8	F

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: MIDWAY @ ROSECRANS ST

Row	Column Numbers ----> / Overlap Name ---->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Gm B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	---
5	RR-2 *	---
6	SE-1	0
7	SE-2	0

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers ---->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Stave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Row		2
0	Phase 1	
1	Phase 2	
2	Phase 3	
3	Phase 4	
4	Phase 5	
5	Phase 6	
6	Phase 7	
7	Phase 8	

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: MIDWAY @ ROSECRANS ST

Column Numbers ---->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	2I2U	43	45_7_	2	123		
1	6J2U	48	45_7_	6	123		
2	4I6U	65	45_7_	4	123		
3	8J6U	46	45_7_	8	123		
4	2I2L	39	45_7_	2	123		
5		44	45_7_	6	123		
6		45	45_7_	4	123		
7	8J6L	42	45_7_	8	123		
8		47	67_	2	123		
9	6J4	40	45_7_	6	123		
A		49	67_	4	123		
B		50	67_	8	123		
C		55	45_7_	5	123		
D		56	45_7_	1	123		
E		57	45_7_	7	123		
F		58	45_7_	3	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7_	5	123		
1		60	45_7_	1	123		
2		61	45_7_	7	123		
3		62	45_7_	3	123		
4	2I3U	39	45_7_	2	123		
5		64	45_7_	6	123		
6	4I7U	41	45_7_	4	123		
7		66	45_7_	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C		76	45_7_	2	123		
D		77	45_7_	6	123		
E		78	45_7_	4	123		
F		79	45_7_	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers ---->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	20	<D/0+0+1>
Max ON (minutes)	7	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: MIDWAY @ ROSECRANS ST

Row	Time	Plan	Offset	Day of Week
0	06 : 00	6	A	23456
1	11 : 00	2	A	23456
2	13 : 00	7	A	23456
3	14 : 45	5	A	23456
4	19 : 30	E	A	23456
5	10 : 00	4	A	1 7
6	18 : 00	E	A	1 7
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, Decmber = C

INTERSECTION: MIDWAY @ ROSECRANS ST

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers --->	Plan 1	2	3	4	5	6	7	8	9
	Plan Name --->		MID		WKND	PM(PEAK)	AM	PM		
0	Cycle Length		140		140	172	130	160		
1	Phase 1 - ForceOff		29		29	34	26	35		
2	Phase 2 - ForceOff		0		0	0	0	0		
3	Phase 3 - ForceOff		85		52	95	41	100		
4	Phase 4 - ForceOff		62		85	72	81	77		
5	Phase 5 - ForceOff		115		115	133	107	128		
6	Phase 6 - ForceOff		29		29	30	26	35		
7	Phase 7 - ForceOff		54		85	60	81	65		
8	Phase 8 - ForceOff		85		59	95	60	100		
9	Ring Offset									
A	Offset 1		118		118	55	111	44		
B	Offset 2									
C	Offset 3									
D	Perm 1 - End		10		10	17	13	16		
E	Hold Release		255		255	255	125	255		
F	Reserved									

Coordination - Bank 1 <C/1+Plan+Row>

Row		1	2	3	4	5	6	7	8	9
0	Ped Adjustment		4		4	2	0	3		
1	Perm 2 - Start									
2	Perm 2 - End									
3	Perm 3 - Start									
4	Perm 3 - End									
5	Reservice Time									
6	Reservice Phases									
7										
8	Pretimed Phases									
9	Max Recall									
A	Perm 1 Veh Phase									
B	Perm 1 Ped Phase									
C	Perm 2 Veh Phase									
D	Perm 2 Ped Phase									
E	Perm 3 Veh Phase									
F	Perm 3 Ped Phase									

Coordination - Bank 2 <C/2+Plan+Row>

Row		E
0		
1	Plan 1 - Sync	
2	Plan 2 - Sync	2
3	Plan 3 - Sync	
4	Plan 4 - Sync	2
5	Plan 5 - Sync	2
6	Plan 6 - Sync	2
7	Plan 7 - Sync	2
8	Plan 8 - Sync	
9	Plan 9 - Sync	
A	NEMA Sync	
B	NEMA Hold	
C		
D		
E	Coord Extra	
F		

Sync Phases <C/1+E+Row>

Row		F
0	Free Lag	
1	Plan 1 - Lag	
2	Plan 2 - Lag	1 3 6 8
3	Plan 3 - Lag	
4	Plan 4 - Lag	1 4 67
5	Plan 5 - Lag	1 3 6 8
6	Plan 6 - Lag	1 4 67
7	Plan 7 - Lag	1 3 6 8
8	Plan 8 - Lag	
9	Plan 9 - Lag	
A	External Lag	
B	Lag Hold	
C		
D		
E		
F		

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 3/22/2010

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	One-Shot Timer		Latch 1 Set		NOT-3		Max 2		Pretimed		Set Monday		Dial 2 (7-Wire)		Sim Term		0
1	AND-5 (a)		Latch 1 Reset		NOT-4		Reserved		Plan 1		Ext. Perm 1		Dial 3 (7-Wire)		EV-A	71	1
2	AND-5 (b)		Latch 2 Set		OR-4 (a)		Reserved		Plan 2		Ext. Perm 2		Offset 1 (7-Wire)		EV-B	72	2
3	AND-6 (a)		Latch 2 Reset		OR-4 (b)		Reserved		Plan 3		Gate Down		Offset 2 (7-Wire)		EV-C	73	3
4	AND-6 (b)		NAND-3 (a)		OR-5 (a)		Reserved		Plan 4		Set Clock		Offset 3 (7-Wire)		EV-D	74	4
5	Reserved		NAND-3 (b)		OR-5 (b)		Reserved		Plan 5		Stop Time	82	Free (7-Wire)		RR-1	75	5
6	Reserved		NAND-4 (a)		OR-6 (a)		Reserved		Plan 6		Flash Sense	81	Flash (7-Wire)		RR-2	51	6
7	Reserved		NAND-4 (b)		OR-6 (b)		Reserved		Plan 7		Manual Enable		Excl. Ped Omit		Spec. Event 1	52	7
8	Spec. Funct. 1		OR-7 (a)		EXTMR		Reserved		Plan 8		Man. Advance		NOT-1		Spec. Event 2		8
9	Spec. Funct. 2		OR-7 (b)		Reserved		Max Inhibit (nema)		Plan 9		External Alarm		NOT-2		External Lag		9
A	Spec. Funct. 3		OR-7 (c)		AND-4 (a)		Force A (nema)		DELAY-A		Phase Bank 2		OR-1 (a)		AND-1 (a)		A
B	Spec. Funct. 4		OR-7 (d)		AND-4 (b)		Force B (nema)		DELAY-B		Phase Bank 3		OR-1 (b)		AND-1 (b)		B
C	Reserved		OR-8 (a)		NAND-1 (a)		C.N.A. (nema)		DELAY-C		Overlap Set 2		OR-2 (a)		AND-2 (a)		C
D	Reserved		OR-8 (b)		NAND-1 (b)		Hold (nema)		DELAY-D		Overlap Set 3		OR-2 (b)		AND-2 (b)		D
E	Reserved		OR-8 (c)		NAND-2 (a)		Max Recall		DELAY-E		Detector Set 2		OR-3 (a)		AND-3 (a)		E
F	Reserved		OR-8 (d)		NAND-2 (b)		Min Recall		DELAY-F		Detector Set 3		OR-3 (b)		AND-3 (b)		F

Assignable Inputs <E/126+Column+Row>

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	Reserved		Phase ON - 1		Preempt Fail		Flasher 0		Free		NOT-1		TOD Out 1		Dial 2 (7-Wire)		0
1	Reserved		Phase ON - 2		Sp Evnt Out 1		Flasher 1		Plan 1		OR-1		TOD Out 2		Dial 3 (7-Wire)		1
2	Reserved		Phase ON - 3		Sp Evnt Out 2		Fast Flasher		Plan 2		OR-2		TOD Out 3		Offset 1 (7-Wire)		2
3	Reserved		Phase ON - 4		Sp Evnt Out 3		EXTMR		Plan 3		OR-3		TOD Out 4		Offset 2 (7-Wire)		3
4	Reserved		Phase ON - 5		Sp Evnt Out 4		One-Shot Timer		Plan 4		AND-1		TOD Out 5		Offset 3 (7-Wire)		4
5	Reserved		Phase ON - 6		Sp Evnt Out 5		Reserved		Plan 5		AND-2		TOD Out 6		Free (7-Wire)		5
6	Reserved		Phase ON - 7		Sp Evnt Out 6		Latch 1		Plan 6		AND-3		TOD Out 7		Flash (7-Wire)		6
7	Reserved		Phase ON - 8		Sp Evnt Out 7		Latch 2		Plan 7		NOT-2		TOD Out 8		Preempt		7
8	Flh Yell Arrow 1		Ph. Check - 1		Sp Evnt Out 8		NOT-3		Plan 8		EV-A		Adv. Warn - 1		Low Priority A		8
9	Green 1		Ph. Check - 2		Coord On		NOT-4		Plan 9		EV-B		Adv. Warn - 2		Low Priority B		9
A	Flh Yell Arrow 3		Ph. Check - 3		Detector Fail		OR-4		Spec. Funct. 3		EV-C		DELAY-A		Low Priority C		A
B	Green 3		Ph. Check - 4		Spec. Funct. 1		OR-5		Spec. Funct. 4		EV-D		DELAY-B		Low Priority D		B
C	Flh Yell Arrow 5		Ph. Check - 5		Spec. Funct. 2		OR-6		NAND-3		RR-1		DELAY-C		AND-5		C
D	Green 5		Ph. Check - 6		Central Control		AND-4		NAND-4		RR-2		DELAY-D		AND-6		D
E	Flh Yell Arrow 7		Ph. Check - 7		Excl. Ped DW		NAND-1		OR-7		Spec. Event 1		DELAY-E		Reserved		E
F	Green 7		Ph. Check - 8		Excl. Ped WK		NAND-2		OR-8		Spec. Event 2		DELAY-F		Reserved		F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: MIDWAY @ ROSECRANS ST

Row	Column Numbers ----> / Phase Names ---->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk		5		5		5		5
1	Ped FDW		20		27		19		26
2	Min Green	4	10	4	10	4	10	4	10
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	3.9	2.0	2.1	2.0	2.9	2.0	2.0
6	Max Gap	2.0	3.9	2.0	2.1	2.0	2.9	2.0	2.0
7	Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
8	Max Limit	30	45	30	40	35	40	30	40
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		1
C	Cond Serv Check								
D	Reduce Every		0.8		1.6		1.1		1.7
E	Yellow Change	3.4	3.9	3.4	3.9	3.4	4.7	3.4	3.9
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3	<C/5+1+9>

TBC Transition

Hawk Select	0	<F/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address	0	<C/1+0+6>
Select Parity	0	<C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Daylight Savings Date
If set to all zeros, standard dates will be used

Begin Month	3	<C/5+2+A>
Begin Week	2	<C/5+2+B>
End Month	11	<C/5+2+C>
End Week	1	<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	<F/1+D+E>
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time	0	<C/5+2+E>
Max Cycle Time	20	<C/5+2+F>

Yellow Yield Coordination

	12345678	
Omit Alarm	#NAME?	

Local Alarm Disable <C/5+F+0>

IEN Status	1	<C/5+1+B>
Synch Time	0.0	<C/5+1+C>

Other Parameters

Row		1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: **MIDWAY**
E/W Street Name: **SPORTS ARENA**

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
M2S	M2S	1/27/16

Free Lag <C/1+F+0>: 1_3____

Notes: *FDW IS CALCULATED USING 3.5 FPS PEDESTRIAN SPEED.*

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Drop Number	3	<C/0+0+0>
Zone Number	3	<C/0+0+1>
Area Number	0	<C/0+0+2>
Area Address	193	<C/0+0+3>
QuicNet Channel	COM 66	(QuicNet)

Communication Addresses

Manual Plan	0	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

Row	Column Numbers ---->	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
		SPORTS ARENA	W. PT LOMA	MIDWAY	SPORTS ARENA				
0	Ped Walk	7	7	7	7				
1	Ped FDW	24	32	26	28				
2	Min Green	7	7	7	7				
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	6.1	5.5	2.6	2.3				
6	Max Gap	6.1	5.5	2.6	2.3				
7	Min Gap	0.2	0.2	0.2	0.2				
8	Max Limit	50	35	30	30				
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW	1	1	1	1				
C	Cond Serv Check								
D	Reduce Every	0.5	0.6	1.3	1.4				
E	Yellow Change	3.9	3.9	3.9	3.9				
F	Red Clear	1.0	1.0	1.0	1.0				

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	
EV-A Clear	
EV-B Delay	
EV-B Clear	
EV-C Delay	
EV-C Clear	
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

Row	F
Permit	1234
Red Lock	
Yellow Lock	
Min Recall	4
Ped Recall	
View Set Peds	1234
Rest In Walk	
Red Rest	
Dual Entry	
Max Recall	
Soft Recall	
Max 2	
Cond. Service	
Man Cntrl Calls	12345678
Yellow Start	4
First Phases	3

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: MIDWAY DR @ SPORTS ARENA BLVD/W. POINT LOMA BLVD

Row	Column Numbers ---->	Overlap 1	2	3	4	5	6	7	8
	Overlap Name ---->								
0	Load Switch Number								
1	Veh Set 1 - Phases	3							
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases	12_4							
5	Neg Ped Phases	_2_4							
6	Green Omit Phases	_2							
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change	3.4							
F	Red Clear	1.0							

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Gm B4 Yellow

	C
EV-A	0
EV-B	0
EV-C	0
EV-D	0
RR-1 *	---
RR-2 *	---
SE-1	0
SE-2	0

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers --->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2
B	EV-B Phases	4
C	EV-C Phases	1
D	EV-D Phases	3
E	Extra 1 Config. Bits	1_45
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	1
Ped for 4P Output	4
Ped for 8P Output	3
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

	2
Phase 1	10
Phase 2	10
Phase 3	10
Phase 4	10
Phase 5	10
Phase 6	10
Phase 7	10
Phase 8	10

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: MIDWAY DR @ SPORTS ARENA BLVD/W. POINT LOMA BLVD

Column Numbers -->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	2I2U	39	45_7	2	123		1.8
1		40	45_7	6	123		
2	4I6U	41	45_7	4	123		1.8
3		42	45_7	8	123		
4		43	45_7	2	123		
5		44	45_7	6	123		
6		45	45_7	4	123		
7		46	45_7	8	123		
8		47	67	2	123		
9		48	67	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D	1I1	56	45_7	1	123		1.8
E		57	45_7	7	123		
F	3I5	58	45_7	3	123		1.8

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7	5	123		
1		60	45_7	1	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4		63	45_7	2	123		
5		64	45_7	6	123		
6		65	45_7	4	123		
7		66	45_7	8	123		
8		67	2	2	123		
9	Ph 1 Ped	68	2	1	123		
A		69	2	4	123		
B	Ph 3 Ped	70	2	3	123		
C		76	45_7	2	123		
D		77	45_7	6	123		
E		78	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

	Ped / Phase / Overlap								
Column Numbers -->	1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green	35								5
Overlap Yellow	37								6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	30	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	20	<D/0+0+1>
Max ON (minutes)	7	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: MIDWAY DR @ SPORTS ARENA BLVD/W. POINT LOMA BLVD

Row	Time	Plan	Offset	Day of Week
0	11 : 00	2	A	_23456_
1	14 : 30	3	A	_23456_
2	18 : 30	E	A	1234567
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, Decmber = C

INTERSECTION: MIDWAY DR @ SPORTS ARENA BLVD/W. POINT LOMA BLVD

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers ---->	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Plan 8	Plan 9	Row
	Plan Name ---->		MID	PM							
0	Cycle Length		156	160							0
1	Phase 1 - ForceOff		79	80							1
2	Phase 2 - ForceOff		43	44							2
3	Phase 3 - ForceOff		0	0							3
4	Phase 4 - ForceOff		119	120							4
5	Phase 5 - ForceOff										5
6	Phase 6 - ForceOff										6
7	Phase 7 - ForceOff										7
8	Phase 8 - ForceOff										8
9	Ring Offset										9
A	Offset 1		144	133							A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End		16	16							D
E	Hold Release		255	255							E
F	Reserved										F

Coordination - Bank 1 <C/1+Plan+Row>

Row		E	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync	3	2
3	Plan 3 - Sync	3	3
4	Plan 4 - Sync		4
5	Plan 5 - Sync		5
6	Plan 6 - Sync		6
7	Plan 7 - Sync		7
8	Plan 8 - Sync		8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C/1+E+Row>

Row		Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Plan 8	Plan 9	Row
0	Ped Adjustment		0	0							0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row		F	Row
0	Free Lag		0
1	Plan 1 - Lag		1
2	Plan 2 - Lag	1_3	2
3	Plan 3 - Lag	1_3	3
4	Plan 4 - Lag		4
5	Plan 5 - Lag		5
6	Plan 6 - Lag		6
7	Plan 7 - Lag		7
8	Plan 8 - Lag		8
9	Plan 9 - Lag		9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 5/14/2013

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term 0	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A 71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B 72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down	Offset 2 (7-Wire)	EV-C 73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D 74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time 82	Free (7-Wire)	RR-1 51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense 81	Flash (7-Wire)	RR-2 52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: N. EVERGREEN ST @ ROSECRANS ST

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: **ROSECRANS** Last Database Change:
E/W Street Name: **N. EVERGREEN**
Notes: **Drawing Number 34142-42-D**

Change Record		
Timing Sheet By	Approved By	Date
M2S	M2S	1/10/2017

Free Lag <C/1+F+0>: 2_4_6_

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Adaptive System operartion RULES:

1- Intersection is running in Adaptive system coordination signal timing.
2- Do not change PIN ASSIGNMENTS on page 3. Pin numbers are changed for Adaptive mode operation.
3- No Recalls/Detector delays to be USED in the controller. Recalls/Delays are to be configured in the InSync Processor, Detector Setup.
4- Controller MUST BE set to FREE operation. C/0-A-1 =14
5- Min G is 10s for sync phases and 5s for all other permitted phases.
6- Veh Ext, Max Gap & Min Gap are set to 1.0s, Reduce Every is set to "zero".
7- "Carry Over" is SET to "zero" for all detectors.

Drop Number	11	<C/0+0+0>
Zone Number	11	<C/0+0+1>
Area Number	1	<C/0+0+2>
Area Address	88	<C/0+0+3>
QuicNet Channel	COM76	(QuicNet)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

ROSECRANS N. EVERGREEN ROSECRANS

Row		Phase 1	2	3	4	5	6	7	8
	Column Numbers --->								
0	Ped Walk		7		7		7		
1	Ped FDW		14		30		12		
2	Min Green	5	10		5	5	10		
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	1.0	1.0		1.0	1.0	1.0		
6	Max Gap	1.0	1.0		1.0	1.0	1.0		
7	Min Gap	1.0	1.0		1.0	1.0	1.0		
8	Max Limit	25	40		30	30	40		
9	Max Limit 2	35					60		
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change	3.4	4.5		3.9	3.4	4.7		
F	Red Clear	1.0	1.0		1.0	1.0	1.0		

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	
EV-B Clear	
EV-C Delay	0
EV-C Clear	0
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	12_456_	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	2_4_6_	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall	2___6_	A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	2___6_	E
First Phases	___4___	F

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 – C + 0 + F = 1

INTERSECTION: N. EVERGREEN ST @ ROSECRANS ST

Row	Column Numbers ---->	Overlap 1	2	3	4	5	6	7	8
	Overlap Name ---->								
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	- - -
5	RR-2 *	- - -
6	SE-1	0
7	SE-2	0
8		
9		
A		
B		
C		
D		
E		
F		

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers ---->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	
C	EV-C Phases	1 6
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Row		2
0		
1	Phase 1	10
2	Phase 2	10
3	Phase 3	10
4	Phase 4	10
5	Phase 5	10
6	Phase 6	10
7	Phase 7	10
8	Phase 8	10
9		
A		
B		
C		
D		
E		
F		

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: N. EVERGREEN ST @ ROSECRANS ST

Column Numbers --->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	2I2U	47	45_7	2	123		
1	6J2U	44	45_7	6	123		
2	4I6U	45	45_7	4	123		
3		42	45_7	8	123		
4		43	45_7	2	123		
5	6J2L	40	45_7	6	123		
6	4I6L	41	45_7	4	123		
7		46	45_7	8	123		
8	2I4	39	67	2	123		
9		48	67	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E		57	45_7	7	123		
F		58	45_7	3	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7	5	123		
1		60	45_7	1	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4		63	45_7	2	123		
5		64	45_7	6	123		
6	4I7U	41	45_7	4	123		
7		66	45_7	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C		76	45_7	2	123		
D	6J3L	40	45_7	6	123		
E	4I7L	41	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers --->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	20	<D/0+0+1>
Max ON (minutes)	7	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: N. EVERGREEN ST @ ROSECRANS ST

Row	Time	Plan	Offset	Day of Week
0	06 : 00	6	A	23456
1	11 : 00	2	A	23456
2	13 : 00	7	A	23456
3	14 : 45	5	A	23456
4	19 : 30	E	A	23456
5	10 : 00	4	A	1 7
6	18 : 00	E	A	1 7
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct	Day of Week
05 : 00	B	234567
09 : 00	B	234567

TOD Function <7/0.1+Row>

Column 4
Phases/Bits
1 6

<E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct	Holiday Type

Holiday TOD Function <C+0+7=0.2>

Column 4
Phases/Bits

<C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, Decmber = C

INTERSECTION: N. EVERGREEN ST @ ROSECRANS ST

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers --->	Plan 1	2	3	4	5	6	7	8	9	Row
0	Plan Name --->		MID		WKND	PM (PEAK)	AM	PM			0
1	Cycle Length		140		140	172	130	160			1
2	Phase 1 - ForceOff		73		73	76	67	76			2
3	Phase 2 - ForceOff		0		0	0	0	0			3
4	Phase 3 - ForceOff										4
5	Phase 4 - ForceOff		39		39	36	41	40			5
6	Phase 5 - ForceOff		60		60	56	57	56			6
7	Phase 6 - ForceOff		0		0	0	0	0			7
8	Phase 7 - ForceOff										8
9	Phase 8 - ForceOff										9
A	Ring Offset										A
B	Offset 1		64		84	20	71	9			B
C	Offset 2										C
D	Offset 3										D
E	Perm 1 - End		12		20	17	13	16			E
F	Hold Release		255		255	255	255	255			F
	Reserved										

Coordination - Bank 1 <C/1+Plan+Row>

Row											Row
0	Ped Adjustment		5		5	0	0	0			0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row		E	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync	2 6	2
3	Plan 3 - Sync		3
4	Plan 4 - Sync	2 6	4
5	Plan 5 - Sync	2 6	5
6	Plan 6 - Sync	2 6	6
7	Plan 7 - Sync	2 6	7
8	Plan 8 - Sync		8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C/1+E+Row>

Row		F	Row
0	Free Lag		0
1	Plan 1 - Lag		1
2	Plan 2 - Lag	2 4 6	2
3	Plan 3 - Lag		3
4	Plan 4 - Lag	2 4 6	4
5	Plan 5 - Lag	2 4 6	5
6	Plan 6 - Lag	2 4 6	6
7	Plan 7 - Lag	2 4 6	7
8	Plan 8 - Lag		8
9	Plan 9 - Lag		9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By: M2S
Date: 3/22/2010

INTERSECTION: N. EVERGREEN ST @ ROSECRANS ST

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term 0	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A 71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B 72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down	Offset 2 (7-Wire)	EV-C 73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D 74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time 82	Free (7-Wire)	RR-1 51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense 81	Flash (7-Wire)	RR-2 52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: N. EVERGREEN ST @ ROSECRANS ST

Row	Phase Names --->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		
1	Ped FDW		14		30		12		
2	Min Green	4	10		4	4	10		
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	3.3		2.0	2.0	3.0		
6	Max Gap	2.0	3.3		2.0	2.0	3.0		
7	Min Gap	2.0	0.2		2.0	2.0	0.2		
8	Max Limit	25	40		30	30	40		
9	Max Limit 2	35					60		
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		
C	Cond Serv Check								
D	Reduce Every		1.0				1.1		
E	Yellow Change	3.4	4.5		3.9	3.4	4.7		
F	Red Clear	1.0	1.0		1.0	1.0	1.0		

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Daylight Savings Date
If set to all zeros, standard dates will be used.

Transition Type	0.3	<C/5+1+9>

TBC Transition

Hawk Select	0	<F/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address	0	<C/1+0+6>
Select Parity	0	<C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Begin Month	3	<C/5+2+A>
Begin Week	2	<C/5+2+B>
End Month	11	<C/5+2+C>
End Week	1	<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	<F/1+D+E>
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time	0	<C/5+2+E>
Max Cycle Time	20	<C/5+2+F>

Yellow Yield Coordination

	12345678	
Omit Alarm	#NAME?	

Local Alarm Disable <C/5+F+0>

IEN Status	1	<C/5+1+B>
Synch Time	0.0	<C/5+1+C>

Other Parameters

Row		1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

INTERSECTION: PACIFIC HWY @ ROSECRANS ST/TAYLOR ST

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: PACIFIC HWY
E/W Street Name: ROSECRANS/TAYLOR

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
M2S	M2S	

Free Lag <C/1+F+0>: _2_4_6_8

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Notes:
1- Adjust Railroad timing to check bus detection during limited service.
2- Make sure Detector ASSIGN fields are correctly set to remove DET SET2 for all phase 2 detection except within the bus lane and phase 2 ped.
3- RR2 input calls Special Event Sequence 1 and Calls DET SET2.
4- Overlap 3: Bus Indication is phase 2 and EB (ph2) vehicle indications are the overlapping phase.

Drop Number	10	<C/0+0+0>
Zone Number	10	<C/0+0+1>
Area Number	2	<C/0+0+2>
Area Address	161	<C/0+0+3>
QuicNet Channel	COM84	(QuicNet)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

	ROSECRANS		PACIFIC HWY		TAYLOR		PACIFIC HWY	
	Phase							
Column Numbers ---->	1	2	3	4	5	6	7	8
Row	1+8		2+3					
0 Ped Walk		7		7		7		7
1 Ped FDW		29		31		22		29
2 Min Green	4	10	4	10	4	10	4	10
3 Type 3 Disconnect								
4 Added per Vehicle								
5 Veh Extension	2.0	3.5	2.0	2.0	2.0	2.2	2.0	3.0
6 Max Gap	2.0	3.5	2.0	2.0	2.0	2.2	2.0	3.0
7 Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
8 Max Limit	30	40	30	40	30	40	30	40
9 Max Limit 2								
A Adv. / Delay Walk								
B PE Min Ped FDW		1		1		1		1
C Cond Serv Check								
D Reduce Every		0.9		1.7		1.5		1.1
E Yellow Change	3.4	3.9	3.4	4.7	3.4	3.9	3.4	4.7
F Red Clear	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	
EV-A Clear	
EV-B Delay	
EV-B Clear	
EV-C Delay	
EV-C Clear	
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

Row	F
0 Permit	12345678
1 Red Lock	
2 Yellow Lock	
3 Min Recall	_2__6_
4 Ped Recall	
5 View Set Peds	_2_4_6_8
6 Rest In Walk	
7 Red Rest	
8 Dual Entry	
9 Max Recall	
A Soft Recall	_4__8_
B Max 2	
C Cond. Service	
D Man Cntrl Calls	12345678
E Yellow Start	_2__6_
F First Phases	_4__8_

Phase Functions <F/1+F+Row>

① ALS 9/23/21

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: PACIFIC HWY @ ROSECRANS ST/TAYLOR ST

Row	Column Numbers ---->	Overlap 1	2	3	4	5	6	7	8
	Overlap Name ---->								
0	Load Switch Number			10					
1	Veh Set 1 - Phases	1 8	23	2					
2	Veh Set 2 - Phases		3						
3	Veh Set 3 - Phases								
4	Neg Veh Phases	2 7	1 4	1 34 78					
5	Neg Ped Phases	2 8	2 4	4 8					
6	Green Omit Phases	8	2						
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change	4.7	3.9	3.9					
F	Red Clear	2.0	2.0	2.0					

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	- - -
5	RR-2 *	- - -
6	SE-1	0
7	SE-2	0

Preempt Priority <E/125+C+Row>

(* RR-1 Is always Highest, and RR-2 Is always Second Highest)

Row	Column Numbers ---->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 34
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Row		2
0		
1	Phase 1	10
2	Phase 2	10
3	Phase 3	10
4	Phase 4	10
5	Phase 5	10
6	Phase 6	10
7	Phase 7	10
8	Phase 8	10

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: PACIFIC HWY @ ROSECRANS ST/TAYLOR ST

Column Numbers ---->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	2I2U*	39	45_7	2	1 3		1.8
1		40	45_7	6	123		
2		41	45_7	4	123		
3	8J6U	42	45_7	8	123		1.8
4	2I2L*	43	45_7	2	1 3	10.0	
5	6J2L	44	45_7	6	123		1.8
6		45	45_7	4	123		
7		46	45_7	8	123		
8		47	67	2	1 3		
9		48	67	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E		57	45_7	7	123		
F		58	45_7	3	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7	5	123		
1		60	45_7	1	123		
2		61	45_7	7	123		
3		62	45_7	3	123		
4	2I3U Bus Loop	63	45_7	2	123		
5		64	45_7	6	123		
6	4I7U	65	45_7	4	123		1.8
7		66	45_7	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C	2I3L*	76	45_7	2	1 3		
D		77	45_7	6	123		
E		78	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

	Ped / Phase / Overlap								
Column Numbers ---->	1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green	35	36	96						5
Overlap Yellow	37	38	95						6
Overlap Red			94						7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	30	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	20	<D/0+0+1>
Max ON (minutes)	7	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

*** Remove Det Set 2**

INTERSECTION: PACIFIC HWY @ ROSECRANS ST/TAYLOR ST

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, December = C

INTERSECTION: PACIFIC HWY @ ROSECRANS ST/TAYLOR ST

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers ----> / Plan Name ---->	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Plan 8	Plan 9	Row
0	Cycle Length										0
1	Phase 1 - ForceOff										1
2	Phase 2 - ForceOff										2
3	Phase 3 - ForceOff										3
4	Phase 4 - ForceOff										4
5	Phase 5 - ForceOff										5
6	Phase 6 - ForceOff										6
7	Phase 7 - ForceOff										7
8	Phase 8 - ForceOff										8
9	Ring Offset										9
A	Offset 1										A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End										D
E	Hold Release										E
F	Reserved										F

Coordination - Bank 1 <C/1+Plan+Row>

Row		E	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync		2
3	Plan 3 - Sync		3
4	Plan 4 - Sync		4
5	Plan 5 - Sync		5
6	Plan 6 - Sync		6
7	Plan 7 - Sync		7
8	Plan 8 - Sync		8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C/1+E+Row>

Row	Ped Adjustment	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Plan 8	Plan 9	Row
0	Ped Adjustment										0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row		F	Row
0	Free Lag		0
1	Plan 1 - Lag		1
2	Plan 2 - Lag		2
3	Plan 3 - Lag		3
4	Plan 4 - Lag		4
5	Plan 5 - Lag		5
6	Plan 6 - Lag		6
7	Plan 7 - Lag		7
8	Plan 8 - Lag		8
9	Plan 9 - Lag		9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By:
Date:

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term 0	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A 71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B 72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down	Offset 2 (7-Wire)	EV-C 73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D 74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time 82	Free (7-Wire)	RR-1 51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense 81	Flash (7-Wire)	RR-2 0	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance	NOT-1	Spec. Event 2 52	8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2 52	OR-2 (a)	AND-2 (a)	C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2 52	OR-3 (a)	AND-3 (a)	E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

Row	6 Clear	7 Time	8 Ped Call	9 Hold	A Advance	B Force Off	C Vehicle Call	D Permit Phases	E Ped Omit	F Output
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

Special Event Schedule -- Table 1 <C+0+E=27>

Notes:

0 <E/27+5+F>
Limited Service Interval

Row	6 Clear	7 Time	8 Ped Call	9 Hold	A Advance	B Force Off	C Vehicle Call	D Permit Phases	E Ped Omit	F Output
0		0								
1	1 6	20		1 6	2345 78		1 6	1 6	2 4 6 8	
2		0								
3		1				1 6		2345 78		
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

Special Event Schedule -- Table 2 <C+0+E=28>

Notes:

3 <E/28+5+F>
Limited Service Interval

INTERSECTION: RALPHS DWY @ SPORTS ARENA

2. Program

Group Assignment: 4109
Field Master Assignment: NONE
N/S Street Name: RALPHS DWY
E/W Street Name: SPORTS ARENA
Last Database Change: 7/8/03 13:58
System Ref. Number: 607

N

SPORTS ARENA BI | SPORTS ARENA BI | RALPHS Dy

Row	Column # / Phase #	1 (1+8)	2	3	4	5	6	7	8
0	Ped Walk		7				7		7
1	Ped FDW		14				16		29
2	Min Green	4	10			4	10	6	4
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	3.6			2.0	2.0	2.0	2.0
6	Max Gap	2.0	3.6			2.0	2.0	2.0	2.0
7	Min Gap	2.0	0.2			2.0	0.2	2.0	2.0
8	Max Limit	30	60			60	60	80	30
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1				0.1		
D	Every		0.9				1.7		
E	Yellow	3.4	3.9			3.4	3.9	3.9	3.9
F	Red Clear	1.0	1.0			1.0	1.0	1.0	1.0
	Grade		-1%				0%	-2%	-1%

Phase Timing - Bank 1
F + Phase + Row
<F Page>

Row		E
	RR-1 Delay	
	RR-1 Clear	
	EV-A Delay	0
	EV-A Clear	0
	EV-B Delay	
	EV-B Clear	
	EV-C Delay	0
	EV-C Clear	0
	EV-D Delay	
	EV-D Clear	
	RR-2 Delay	
	RR-2 Clear	
	View EV Delay	---
	View EV Clear	---
	View RR Delay	---
	View RR Clear	---

Preempt Timing
F + E + Row

Row		F
0	Permit	12__5678
1	Red Lock	
2	Yellow Lock	
3	Min Recall	
4	Ped Recall	
5	Peds (View)	_2___6_8
6	Rest In Walk	
7	Red Rest	
8	Dbl Entry	
9	Max Recall	
A	Soft Recall	_2___6__
B	Max 2	
C	Cond Serv	
D	Ped Lock	12345678
E	Yellow Start	_2___6__
F	1st Phases	_____7_

Phase Functions <F Page>
F + F + Row

Max Initial	0 (F + 0 + E)
Red Revert	5.0 (F + 0 + F)
All Red Start	0.0 (F + C + O)

Start / Revert Times

Drop Number	6	C + 0 + 0
Zone Number	6	C + 0 + 1
Area Number	0	C + 0 + 2
Area Address	196	C + 0 + 3
QuicNet Channel	DIGI62:	(QuicNet)

Communication Addresses

C + F + O	F	Row
Free Lag	_2___6_8	0

Lag Phases <C Page>

Overlap Timing

Row		9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A				
Overlap B	B				
Overlap C	C				
Overlap D	D				

<F Page> F + COLOR +
<D Page> D + 0 + OVERLAP

Manual Plan	0 (C + A + 1)
Manual Offset	0 (C + B + 1)

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Downtime Flash	255	(minutes)

Downtime Before Auto Manual Flash
F + 0 +8

Disable Ports	_234____

Disable Communication Ports
D + D + 9

Timing Sheet By: JD/AM
Approved By: mm
Drawing Number: 14896-3-D
Timing Implemented On:

6

INTERSECTION: RALPHS DWY @ SPORTS ARENA

223 Program

Row	Time	Function	Day of Week	Column F Phases/Bits
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

<D Page>

D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	6
7	Ped 4P	
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	1 8
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	1

Configuration

E + F + ROW

<E Page>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	8
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	
C	EV-C Phases	1 6
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1

E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Time and Date

8-0 Hour, Minute, Day-of-Week

8-1 Day-of-Month, Year, Month

8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications

(If set to a non-zero value, parity will be disabled)

Program Information

C + C + 0 = program

C + C + F = version

Remote Download

C + 0 + 4 = 1 -255

w/ E + E + E bit 5 on

ITERSECTION: RALPHS DWY @ SPORTS ARENA

223 Program

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Delay & Carryover <D Page>

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- -- --	1234____
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	____5678
E	-- -- -- -- -- -- -- --	1234____
F	-- 25 26 27 28 -- -- --	_2345___

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	
2	System Det. # 2	
3	System Det. # 3	
4	System Det. # 4	
5	System Det. # 5	
6	System Det. # 6	
7	System Det. # 7	
8	System Det. # 8	

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

INTERSECTION: RALPHS DWY @ SPORTS ARENA

223 Program

Row	Plan Name ---->	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Plan 8	Plan 9
	Column # ---->	1	2	3	4	5	6	7	8	9
0	Cycle Length			105						
1	Phase 1 - ForceOff			60						
2	Phase 2 - ForceOff			0						
3	Phase 3 - ForceOff									
4	Phase 4 - ForceOff									
5	Phase 5 - ForceOff			60						
6	Phase 6 - ForceOff			0						
7	Phase 7 - ForceOff			15						
8	Phase 8 - ForceOff			45						
9	Ring Offset									
A	Offset A			25						
B	Offset B									
C	Offset C									
D	Permissive			10						
E	Hold Release			255						
F	Ped Shift			0						

Coordination Timing By: AM
Implemented On: 3/10/03

FOR OBSERVATION ONLY

Master Plan	C + A + 2
Current Plan	C + A + 3
Next Plan	C + A + 4
T.O.D. Plan	C + A + 5
Master Cycle	C + A + 0
Ring A Cycle	C + B + 0
Ring B Cycle	C + D + 0
Min Cycle	C + A + E
Max Cycle	C + B + E

Coordination <C Page>

C + Plan + ROW

Row	Time	Plan	Offset	Day of Week
0	11 : 00	3	A	_23456_
1	17 : 30	E	A	1234567
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination

<9 Key with C+0+9=1>

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

	E	Row		F
		0	Free Lag	_2___6_8
Plan 1	_2___6__	1	Plan 1 - Lag	_2___6_8
Plan 2		2	Plan 2 - Lag	
Plan 3	_2___6__	3	Plan 3 - Lag	_2___6_8
Plan 4		4	Plan 4 - Lag	
Plan 5		5	Plan 5 - Lag	
Plan 6		6	Plan 6 - Lag	
Plan 7		7	Plan 7 - Lag	
Plan 8		8	Plan 8 - Lag	
Plan 9		9	Plan 9 - Lag	
Coord Ped*		A	Coord Max *	
NEMA Hold		B	Coord Lag *	
		C		
		D		
		E		
		F		

Sync Phases

C + E + FUNCTION #

Lag Phases <C Page>

C + F + FUNCTION #

Transition Type	0

TBC Transition
C + D + D

Transition Type
0 = Shortway
Non-zero = Lengthen

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2070 Controller TSCP Timing Chart

TSCP: 2.23 PAGE 1

Location: I-5 NB @ Sea World
System:
Master At: SB Ramp

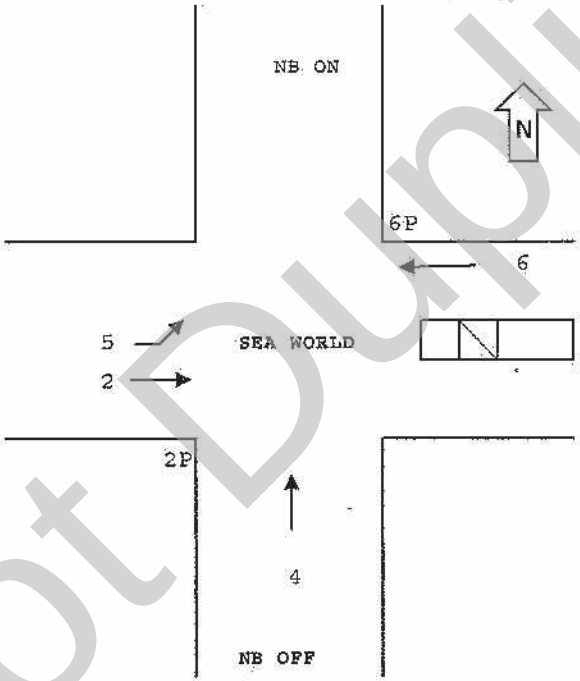
District:
I/C:

Designed By:
Installed By:
Service Info:

Timing Change:	Date Start:	Date End:	Designed:	Installed:
				11/4/2020

		FLASH
PHASE	1)	[ ]
	2) EB Sea World	[ ]
	3)	[ ]
	4) NB Off Ramp	[ ]
	5) EB Sea World to NB Ramp	[ ]
	6) WB Sea World	[ ]
	7)	[ ]
	8)	[ ]
OVERLAP	A)	[ ]
	B)	[ ]
	C)	[ ]
	D)	[ ]
	E)	[ ]
	F)	[ ]

Intersection Layou



Comments and Notes:
Ped Measurment (FT)
02 = 57 06 = 72

Bike Neasurment (FT)
02 = 50 06 = 106

RAM Checksum

Page 2: F0A4	Page 8: 96DC
Page 3: 7A92	Page 9: C238
Page 4: 30EB	Page 10: 3DC3
Page 5: 191A	Page 11: C3CB
Page 6: 191A	Page 12: D68F
Page 7: D653	Page 13: 84E7

Post Mile: NB @ Sea World

Printed: 20/2022

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CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	. 2 . 4 5 6 . .
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	. . . 4 5 . . .
Yellow	. . . . .
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . . .
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. . . . . 6 . .
Max Green 2	. . . . .
Max Green 3	. . . . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	. . . 4 5 . . .
Pedestrian Calls	. 2 . . . 6 . .
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlap	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlap	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. . . . . 6 . .

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. 2 . . . . .
P3	. . . . .
P4	. . . . .
P5	. . . . .
P6	. . . . . 6 . .
P7	. . . . .
P8	. . . . .

Overlap (2-1-4)				
Overlap	Parent	Omit	No Start	Not
A	. . . . .	. . . . .	. . . . .	. . . . .
B	. . . . .	. . . . .	. . . . .	. . . . .
C	. . . . .	. . . . .	. . . . .	. . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

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PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	7	0	0	0	7	0	10
Flash Don't Walk	0	16	0	0	0	21	0	10
Minimum Green	10	10	10	5	5	14	10	10
Det Limit	10	0	10	0	0	0	10	10
Max Initial	10	0	10	0	0	0	10	10
Max Green 1	50	30	50	25	30	30	50	50
Max Green 2	50	0	50	0	0	0	50	50
Max Green 3	50	0	50	40	0	0	50	50
Extension	5.0	2.0	5.0	2.0	2.0	2.0	5.0	5.0
Maximum Gap	5.0	2.0	5.0	2.0	2.0	2.0	5.0	5.0
Minimum Gap	5.0	2.0	5.0	2.0	2.0	2.0	5.0	5.0
Add Per Vehicle	1.0	0.0	1.0	0.0	0.0	0.0	1.0	1.0
Reduce Gap By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reduce Every	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Yellow	5.0	4.5	5.0	4.1	3.7	4.5	5.0	5.0
All-Red	1.0	1.5	1.0	1.0	1.0	1.5	1.0	1.0
Ped/Bike (2-3)	**-1-**	**-2-**	**-3-**	**-4-**	**-5-**	**-6-**	**-7-**	**-8-**
--- Walk 2 ---	0	0	0	0	0	7	0	0
Delay/Early Walk	0	0	0	0	0	5	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

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Location: I-5 NB @ Sea World

TSCP 2.23

Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor	90		.....	50				63		15	25	32		
Plan 2	Green Factor	100		.....	60				58		30	20	32		
Plan 3	Green Factor	100		.....	70				63		25	25	32		
Plan 4	Green Factor	100		.....	70				63		25	25	32		
Plan 5	Green Factor	100		.....	70				68		20	30	32		
Plan 6	Green Factor			.....											
Plan 7	Green Factor			.....											
Plan 8	Green Factor			.....											
Plan 9	Green Factor			.....											

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	.2.45..8	.2...6..	.....	.....	...45...	.....	.....	.....
Plan 2	.2.45..8	.2...6..	.....	.....	...45...	.....	.....	.....
Plan 3	.2.45..8	.2...6..	.....	.....	...45...	.....	.....	.....
Plan 4	.2.45..8	.2...6..	.....	.....	...4....	.....	.....	.....
Plan 5	.2.45..8	.2...6..	.....	.....	....5...	.....	.....	.....
Plan 6	.....	.....	.....	.....	.....	.....	.....	.....
Plan 7	.....	.....	.....	.....	.....	.....	.....	.....
Plan 8	.....	.....	.....	.....	.....	.....	.....	.....
Plan 9	.....	.....	.....	.....	.....	.....	.....	.....

Master Timer Sync (7-A)	
Enable in Plans	
1-9	.....
11-19	.....
21-29	.....

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	Omit
.2.4.6.8	.....
Veh Min	Veh Max
.2...6..	.....
Ped	Bike
.....	.....
Cond	Cond Grn
.....	10

MANUAL COMMANDS

Manual Plan (4-1)	
Plan	OffSet
	A

Plan: 1-29
254 = Flash
255 = Free
Offset A, B, or C

Special Function Override (4-2)			
#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

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Post Mile: NB @ Sea World

PA( )

Checksum: 30EB

Printed: 10/ 2022

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Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

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Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			.....											
Plan 22	Green Factor			.....											
Plan 23	Green Factor			.....											
Plan 24	Green Factor			.....											
Plan 25	Green Factor			.....											
Plan 26	Green Factor			.....											
Plan 27	Green Factor			.....											
Plan 28	Green Factor			.....											
Plan 29	Green Factor			.....											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	.....	.....	.....	.....	.....	.....	.....	.....
Plan 22	.....	.....	.....	.....	.....	.....	.....	.....
Plan 23	.....	.....	.....	.....	.....	.....	.....	.....
Plan 24	.....	.....	.....	.....	.....	.....	.....	.....
Plan 25	.....	.....	.....	.....	.....	.....	.....	.....
Plan 26	.....	.....	.....	.....	.....	.....	.....	.....
Plan 27	.....	.....	.....	.....	.....	.....	.....	.....
Plan 28	.....	.....	.....	.....	.....	.....	.....	.....
Plan 29	.....	.....	.....	.....	.....	.....	.....	.....

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TOD SCHEDULE

Table 1 (8-2-1)		
Time	Plan	OS
0700	1	A
0930	2	A
1530	4	A
1830	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 2 (8-2-2)		
Time	Plan	OS
1500	1	A
1900	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 3 (8-2-3)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 4 (8-2-4)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 5 (8-2-5)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 6 (8-2-6)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

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HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Daylight Saving (8-1)

Enabl	YES	Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	.....
Holiday	.....

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1	0600	1900	M T W T F . .	18	. . . 4 . . .
2			.....		.....
3			.....		.....
4			.....		.....
5			.....		.....
6			.....		.....
7			.....		.....
8			.....		.....
9			.....		.....
10			.....		.....
11			.....		.....
12			.....		.....
13			.....		.....
14			.....		.....
15			.....		.....
16			.....		.....

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

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RAILROAD PREEMPTION

RR 1

(3-1-1)	Timing	Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
		Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
Delay										
Clear 1	10	.2..5...	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
Clear 2		.....	.....	.....	.....	.....	.....	.....	.....	.....
Clear 3		.....	.....	.....	.....	.....	.....	.....	.....	.....
Hold		.....	.....	12345678	.....	.....	.....	.....	.....	ABCDEF
Exit	5									
Min Grn										
Ped Clr										

Exit Parameters (3-1-5)

Phase Green	Overlap Green	Vehicle Call	Ped Call
.....	.....	12345678	.2.4.6.8

Configuration (3-1-6)

PR 1	PR 2	Latching	Power-Up
2.5	0.0	YES	FLASHING

RR 2

(3-2-1)	Timing	Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
		Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
Delay										
Clear 1	10	...4..7.	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
Clear 2		.....	.....	.....	.....	.....	.....	.....	.....	.....
Clear 3		.....	.....	.....	.....	.....	.....	.....	.....	.....
Hold		123..6..	.....	.....	.2...6..	.....	...4...8	.....	.....	.....
Exit										
Min Grn										
Ped Clr										

Exit Parameters (3-2-5)

Phase Green	Overlap Green	Vehicle Call	Ped Call
.....	.....	...4..7.	.....

Configuration (3-2-6)

PR 1	PR 2	Latching	Power-up
2.6	0.0	YES	DARK

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	.2..5...	.....

Port	Latching	Phase Termination
5.5	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	...4..7.	.....

Port	Latching	Phase Termination
5.6	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	1....6..	.....

Port	Latching	Phase Termination
5.7	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	..3....8	.....

Port	Latching	Phase Termination
5.8	NO	ADVANCE

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INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	R1	3.8	Free	3.6
Max ON		R2	3.5	D2	2.8
Max OFF		R3	3.7	D3	6.1

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Cabinet Status (2-1-5-3)	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
2.7	FLASHING

Y-Coordination (2-1-5-6)	
Port C	Port D
6.1	2.8

OUTPUTS

Loadswitch Assignments (2-1-6)							+
A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:
- 0 Unused (no output)
- 1-8 Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special Functions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7
- 51-57 Special Functions
- 71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6
Channel 9 and 10

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TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Transit Priority Configuration (3-E-A)				Indicator Output	
Enable in Plans		Input	Type	Stop	Go
Plan 1-9	.....	0.0	NONE	0	0
Plan 11-19	.....	0.0	NONE	0	0

Queue Jump (3-E-B)	
Grn Hold	Hold Phase
	.....
	.....

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	.....

Access Utilities (9-5)	
Password	
Timeout	60

YELLOW YIELD COORDINATION

					Force-Offs											
Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													.2...6..	.2.4.6.8	.....	.....
Plan D													.2...6..	.2.4.6.8	.....	.....

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					.....	0.0	0.0	0.0	0	0.0	0

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2070 Controller TSCP Timing Chart

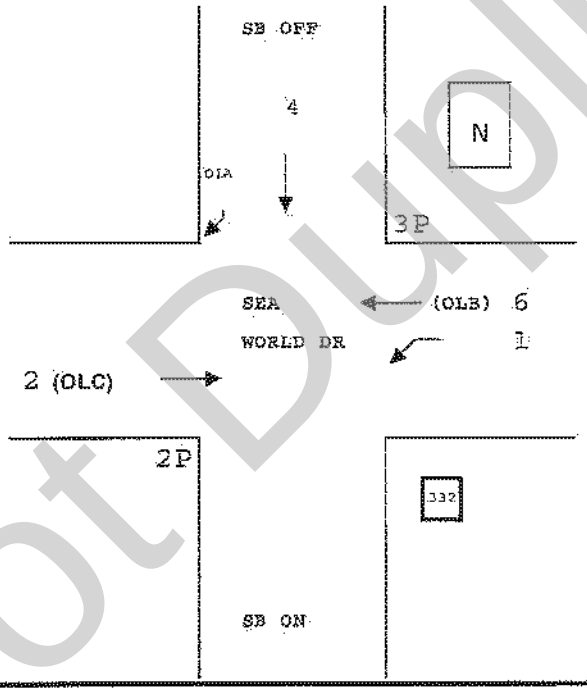
TSCP: 2.23 PAGE 1

Location: I-5 SB @ Sea World
System:
Master At: SB Ramp
District:
I/C: NB Ramp
Designed By:
Installed By:
Service Info:

Timing Change:	Date Start:	Date End:	Designed:	Installed:
				11/4/2020

		FLASH
PHASE	1) WB to SB Ramp	[ ]
	2) EB Sea World	[ ]
	3)	[ ]
	4) SB Off Ramp	[ ]
	5)	[ ]
	6) WB Sea World	[ ]
	7)	[ ]
	8)	[ ]
OVERLAP	A) RT Off Ramp	[ ]
	B) WB (phase 6)	[ ]
	C) EB (phase 02)	[ ]
	D)	[ ]
	E)	[ ]
	F)	[ ]

Intersection Layou



Comments and Notes:
Ped Measurment (FT)
02 = 71 03 = 61

Bike Measurment (FT)
02 = 101 06 = 90

RAM Checksum

Page 2: 5C65	Page 8: 96DC
Page 3: 33E0	Page 9: D2FD
Page 4: 87BA	Page 10: D7C1
Page 5: 191A	Page 11: C3CB
Page 6: 191A	Page 12: DCFF
Page 7: AF67	Page 13: 84E7

Post Mile: SB @ Sea World

Printed: 20/2022

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CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	1 2 3 4 . 6 . .
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	1 . . . . .
Yellow	. . . . .
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . . .
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. 2 . . . . .
Max Green 2	. . . . .
Max Green 3	. . . . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	1 . . 4 . . . .
Pedestrian Calls	. 2 3 . . . . .
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlap	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlap	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. 2 . . . . .

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. 2 . . . . .
P3	. . 3 . . . . .
P4	. . . . .
P5	. . . . .
P6	. . . . .
P7	. . . . .
P8	. . . . .

Overlap (2-1-4)				
Overlap	Parent	Omit	No Start	Not
A	1 2 . 4 . 6 . .	. . . . .	. . . . .	. . 3 . . . . .
B	1 2 3 . . 6 . .	. . . . .	. . . . .	. . . 4 . . . .
C	. 2 3 . . 6 . .	. . . . .	. . . . .	1 . . 4 . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

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PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	7	7	0	0	0	0	10
Flash Don't Walk	0	14	13	0	0	0	0	10
Minimum Green	5	14	5	5	10	13	10	10
Det Limit	0	0	0	0	10	0	10	10
Max Initial	0	0	0	0	10	0	10	10
Max Green 1	30	30	20	30	50	30	50	50
Max Green 2	0	0	0	0	50	0	50	50
Max Green 3	0	0	0	0	50	0	50	50
Extension	2.0	2.0	5.0	2.0	5.0	2.0	5.0	5.0
Maximum Gap	2.0	2.0	5.0	2.0	5.0	2.0	5.0	5.0
Minimum Gap	2.0	2.0	5.0	2.0	5.0	2.0	5.0	5.0
Add Per Vehicle	0.0	0.0	1.0	0.0	1.0	0.0	1.0	1.0
Reduce Gap By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reduce Every	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Yellow	3.7	4.5	3.0	4.1	5.0	4.5	5.0	5.0
All-Red	1.0	2.0	1.0	1.0	1.0	2.0	1.0	1.0
Ped/Bike (2-3)	**-1-**	**-2-**	**-3-**	**-4-**	**-5-**	**-6-**	**-7-**	**-8-**
--- Walk 2 ---	0	7	0	0	0	0	0	0
Delay/Early Walk	0	5	0	0	0	0	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.5	4.5	4.5	5.0	5.0	5.0
Red	1.0	2.0	2.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

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Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor	90		.....				10	21	20	15		38		
Plan 2	Green Factor	100		.....				15	23	20	18		45		
Plan 3	Green Factor	100		.....				15	21	20	20		43		
Plan 4	Green Factor	100		.....				15	21	20	20		43		
Plan 5	Green Factor			.....											
Plan 6	Green Factor			.....											
Plan 7	Green Factor			.....											
Plan 8	Green Factor			.....											
Plan 9	Green Factor			.....											

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	1 . 3 . . 6 . 8	. 2 . . . 6 . .	.....	.....	1 . . 4	.....	.....	.....
Plan 2	1 . 3 . . 6 . 8	. 2 . . . 6 . .	.....	.....	1 . . 4	.....	.....	.....
Plan 3	1 . 3 . . 6 . 8	. 2 . . . 6 . .	.....	.....	1 . . 4	.....	.....	.....
Plan 4	1 . 3 . . 6 . 8	. 2 . . . 6 . .	.....	.....	1 . . 4	.....	.....	.....
Plan 5	.....	.....	.....	.....	.....	.....	.....	.....
Plan 6	.....	.....	.....	.....	.....	.....	.....	.....
Plan 7	.....	.....	.....	.....	.....	.....	.....	.....
Plan 8	.....	.....	.....	.....	.....	.....	.....	.....
Plan 9	.....	.....	.....	.....	.....	.....	.....	.....

Master Timer Sync (7-A)

Enable in Plans	
1-9	.....
11-19	.....
21-29	.....

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free

Lag	Omit
. 2 . 4 . 6 . 8	.....
Veh Min	**Veh Max**
. 2 . . . 6 . .	.....
Ped	**Bike**
.....	.....
Cond	**Cond Grn**
.....	10

MANUAL COMMANDS

Manual Plan (4-1)		*Plan: 1-29*
Plan	OffSet	*254 = Flash*
	A	*255 = Free*
		Offset A, B, or C

Special Function Override (4-2)

#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

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Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

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Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			.....											
Plan 22	Green Factor			.....											
Plan 23	Green Factor			.....											
Plan 24	Green Factor			.....											
Plan 25	Green Factor			.....											
Plan 26	Green Factor			.....											
Plan 27	Green Factor			.....											
Plan 28	Green Factor			.....											
Plan 29	Green Factor			.....											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	.....	.....	.....	.....	.....	.....	.....	.....
Plan 22	.....	.....	.....	.....	.....	.....	.....	.....
Plan 23	.....	.....	.....	.....	.....	.....	.....	.....
Plan 24	.....	.....	.....	.....	.....	.....	.....	.....
Plan 25	.....	.....	.....	.....	.....	.....	.....	.....
Plan 26	.....	.....	.....	.....	.....	.....	.....	.....
Plan 27	.....	.....	.....	.....	.....	.....	.....	.....
Plan 28	.....	.....	.....	.....	.....	.....	.....	.....
Plan 29	.....	.....	.....	.....	.....	.....	.....	.....

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TOD SCHEDULE

Table 1 (8-2-1)		
Time	Plan	OS
0700	1	A
0930	2	A
1530	4	A
1830	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 2 (8-2-2)		
Time	Plan	OS
1500	1	A
1900	255	A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 3 (8-2-3)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 4 (8-2-4)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 5 (8-2-5)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

Table 6 (8-2-6)		
Time	Plan	OS
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A
		A

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

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HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Daylight Saving (8-1)

Enabl	YES	Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	.....
Holiday	.....

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1			.....		.....
2			.....		.....
3			.....		.....
4			.....		.....
5			.....		.....
6			.....		.....
7			.....		.....
8			.....		.....
9			.....		.....
10			.....		.....
11			.....		.....
12			.....		.....
13			.....		.....
14			.....		.....
15			.....		.....
16			.....		.....

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

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RAILROAD PREEMPTION

RR 1

(3-1-1)	Timing	Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
		Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
Delay										
Clear 1	10	.2..5...	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
Clear 2		.....	.....	.....	.....	.....	.....	.....	.....	.....
Clear 3		.....	.....	.....	.....	.....	.....	.....	.....	.....
Hold		.....	.....	12345678	.....	.....	.....	.....	.....	ABCDEF
Exit	5									
Min Grn										
Ped Clr										

Exit Parameters (3-1-5)

Phase Green	Overlap Green	Vehicle Call	Ped Call
.....	.....	12345678	.2.4.6.8

Configuration (3-1-6)

PR 1	PR 2	Latching	Power-Up
2.5	0.0	YES	FLASHING

RR 2

(3-2-1)	Timing	Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
		Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
Delay										
Clear 1	10	...4..7.	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
Clear 2		.....	.....	.....	.....	.....	.....	.....	.....	.....
Clear 3		.....	.....	.....	.....	.....	.....	.....	.....	.....
Hold		123..6..	.....	.....	.2...6..	.....	...4...8	.....	.....	.....
Exit										
Min Grn										
Ped Clr										

Exit Parameters (3-2-5)

Phase Green	Overlap Green	Vehicle Call	Ped Call
.....	.....	..4..7.	.....

Configuration (3-2-6)

PR 1	PR 2	Latching	Power-up
2.6	0.0	YES	DARK

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	.2..5...	.....

Port	Latching	Phase Termination
5.5	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	...4..7.	.....

Port	Latching	Phase Termination
5.6	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	1....6..	.....

Port	Latching	Phase Termination
5.7	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	..3....8	.....

Port	Latching	Phase Termination
5.8	NO	ADVANCE

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INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	R1	3.8	Free	3.6
Max ON		R2	3.5	D2	2.8
Max OFF		R3	3.7	D3	6.1

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Cabinet Status (2-1-5-3)	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
2.7	FLASHING

Y-Coordination (2-1-5-6)	
Port C	Port D
6.1	2.8

OUTPUTS

Loadswitch Assignments (2-1-6)							+
A	1	2	22	3	4	24	0
B	5	6	23	7	8	28	0
X	11	12	0	9	10	0	0

Loadswitch Codes:

0 Unused (no output)
1-8 Vehicle 1-8
9-14 Overlap A-F
21-28 Ped 1-8
41-47 Special Functions
41 Protected Permissive Flashing Phase 1
43 Protected Permissive Flashing Phase 3
45 Protected Permissive Flashing Phase 5
47 Protected Permissive Flashing Phase 7
51-57 Special Functions
71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6 Channel 9 and 10

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TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Transit Priority Configuration (3-E-A)				Indicator Output	
Enable in Plans		Input	Type	Stop	Go
Plan 1-9	.....	0.0	NONE	0	0
Plan 11-19	.....	0.0	NONE	0	0

Queue Jump (3-E-B)	
Grn Hold	Hold Phase
	.....
	.....

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	.....

Access Utilities (9-5)	
Password	
Timeout	60

YELLOW YIELD COORDINATION

					Force-Offs											
Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													.2...6..	.2.4.6.8	.....	.....
Plan D													.2...6..	.2.4.6.8	.....	.....

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					.....	0.0	0.0	0.0	0	0.0	0

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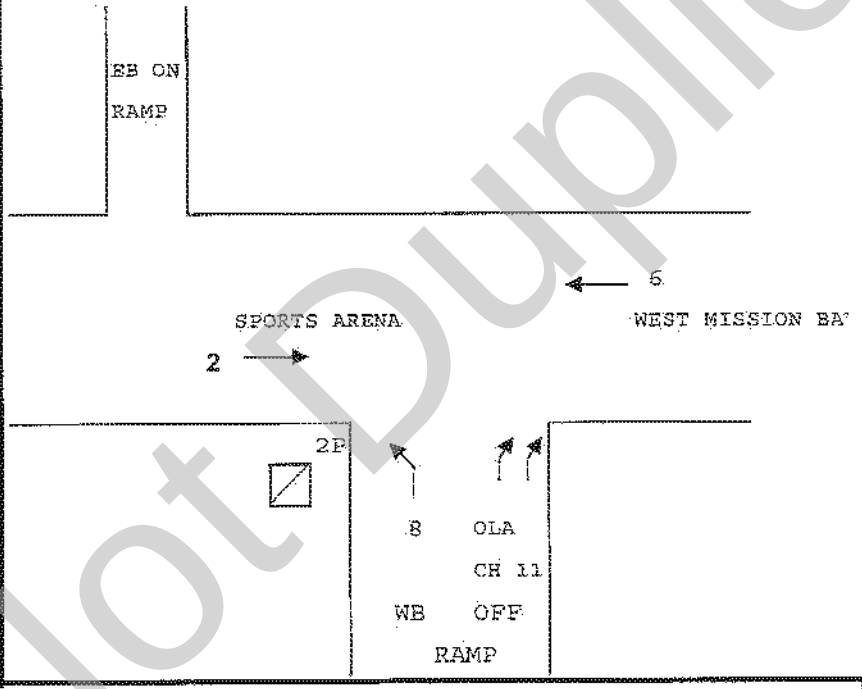
2070 Controller TSCP Timing Chart

Location: I-8 WB @ Sports Arena / Mission Bay Dr.
System:
Master At: Standalone
District: 11
I/C:
Designed By:
Installed By:
Service Info:

Timing Change:	Date Start:	Date End:	Designed:	Installed:
				4/6/2023

		FLASH
	1)	[ ]
P	2) NB Sports Arena	[ ]
H	3)	[ ]
A	4)	[ ]
S	5)	[ ]
E	6) SB W Mission Bay	[ ]
	7)	[ ]
	8) WB Off Ramp	[ ]
O	A)	[ ]
V	B)	[ ]
E	C)	[ ]
R	D)	[ ]
L	E)	[ ]
A	F)	[ ]
P		

Intersection Layout



Comments and Notes:
Ped Measurment (FT)
02 = 113

Bike Measurment (FT)
02 = 154 06 = 140

RAM Checksum

Page 2:	5BCA	Page 8:	85AF
Page 3:	E4BF	Page 9:	A35C
Page 4:	F29E	Page 10:	023B
Page 5:	191A	Page 11:	C838
Page 6:	191A	Page 12:	7617
Page 7:	9F86	Page 13:	84E7

Post Mile 3 WB @ Sports Arena/Mission Bay

Printed 12/2023

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CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	1 2 . . . 6 . 8
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	. . . . .
Yellow	 8
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . . .
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. . . . .
Max Green 2	1 2 . . . 6 . .
Max Green 3	1 2 . . . 6 . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	1 8
Pedestrian Calls	. 2 . . . . .
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlaps	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlaps	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. 2 . . . . .

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. 2 . . . . .
P3	. . . . .
P4	. . . . .
P5	. . . . .
P6	. . . . .
P7	. . . . .
P8	. . . . .

Overlap (2-1-4)				
Overlap	Parent	Omit	No Start	Not
A	1 . . . . 6 . 8	. . . . .	. . . . .	. 2 . . . . .
B	. . . . .	. . . . .	. . . . .	. . . . .
C	. . . . .	. . . . .	. . . . .	. . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

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Location: I-8 WB @ Sports Arena / Mission Bay Dr.

TSCP 3.10

PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	7	0	10	0	0	0	0
Flash Don't Walk	0	32	0	10	0	0	0	0
Minimum Green	5	17	10	10	10	16	10	5
Det Limit	0	0	10	10	10	0	10	0
Max Initial	0	0	10	10	10	0	10	0
Max Green 1	40	40	50	50	50	65	50	35
Max Green 2	15	25	50	50	50	80	50	0
Max Green 3	20	20	50	50	50	100	50	0
Extension	2.0	2.0	5.0	5.0	5.0	2.0	5.0	2.0
Maximum Gap	2.0	2.0	5.0	5.0	5.0	2.0	5.0	2.0
Minimum Gap	2.0	2.0	5.0	5.0	5.0	2.0	5.0	2.0
Add Per Vehicle	0.0	0.0	1.0	1.0	1.0	0.0	1.0	0.0
Reduce Gap By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reduce Every	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Yellow	5.5	5.5	5.0	5.0	5.0	5.5	5.0	5.5
All-Red	2.0	2.0	1.0	1.0	1.0	2.0	1.0	2.0
Ped/Bike (2-3)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 2 ---	0	0	0	0	0	0	0	0
Delay/Early Walk	0	5	0	0	0	0	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.5	5.0	5.0	5.0	5.0	5.0
Red	2.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

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Post Mile 8 WB @ Sports Arena/Mission Bay PA 3 CHECKSUM: E4BF Printed: 5/12/2C

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Location: I-8 WB @ Sports Arena / Mission Bay Dr.

TSCP 3.10

Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor			.....											
Plan 2	Green Factor			.....											
Plan 3	Green Factor			.....											
Plan 4	Green Factor			.....											
Plan 5	Green Factor			.....											
Plan 6	Green Factor			.....											
Plan 7	Green Factor			.....											
Plan 8	Green Factor			.....											
Plan 9	Green Factor			.....											

Master Timer Sync (7-A)	
Enable in Plans	
1-9	.....
11-19	.....
21-29	.....

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	Omit
. 2 . 4 . 6 . 8	.....
Veh Min	Veh Max
. 2 . . . 6 . .	.....
Ped	Bike
.....	.....
Cond	Cond Grn
.....	10

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	.....	.....	.....	.....	.....	.....	.....	.....
Plan 2	.....	.....	.....	.....	.....	.....	.....	.....
Plan 3	.....	.....	.....	.....	.....	.....	.....	.....
Plan 4	.....	.....	.....	.....	.....	.....	.....	.....
Plan 5	.....	.....	.....	.....	.....	.....	.....	.....
Plan 6	.....	.....	.....	.....	.....	.....	.....	.....
Plan 7	.....	.....	.....	.....	.....	.....	.....	.....
Plan 8	.....	.....	.....	.....	.....	.....	.....	.....
Plan 9	.....	.....	.....	.....	.....	.....	.....	.....

MANUAL COMMANDS

Manual Plan (4-1)	
Plan	OffSet
	A

Plan: 1-29
254 = Flash
255 = Free
Offset A, B, or C

Special Function Override (4-2)			
#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

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Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

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Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			.....											
Plan 22	Green Factor			.....											
Plan 23	Green Factor			.....											
Plan 24	Green Factor			.....											
Plan 25	Green Factor			.....											
Plan 26	Green Factor			.....											
Plan 27	Green Factor			.....											
Plan 28	Green Factor			.....											
Plan 29	Green Factor			.....											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	.....	.....	.....	.....	.....	.....	.....	.....
Plan 22	.....	.....	.....	.....	.....	.....	.....	.....
Plan 23	.....	.....	.....	.....	.....	.....	.....	.....
Plan 24	.....	.....	.....	.....	.....	.....	.....	.....
Plan 25	.....	.....	.....	.....	.....	.....	.....	.....
Plan 26	.....	.....	.....	.....	.....	.....	.....	.....
Plan 27	.....	.....	.....	.....	.....	.....	.....	.....
Plan 28	.....	.....	.....	.....	.....	.....	.....	.....
Plan 29	.....	.....	.....	.....	.....	.....	.....	.....

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TOD SCHEDULE

Table 1 (8-2-1)			Table 2 (8-2-2)			Table 3 (8-2-3)			Table 4 (8-2-4)			Table 5 (8-2-5)			Table 6 (8-2-6)		
Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

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HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Daylight Saving (8-1)

Enabled	YES	Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	.....
Holiday	.....

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1	1100	1900	M T W T F . .	17	1 2 . . . 6 . .
2	1100	1900	M T W T F . .	24	1 . . . . .
3	1100	1930	. . . . . S S	18	1 2 . . . 6 . .
4	1100	1930	. . . . . S S	24	1 . . . . .
5			.....		.....
6			.....		.....
7			.....		.....
8			.....		.....
9			.....		.....
10			.....		.....
11			.....		.....
12			.....		.....
13			.....		.....
14			.....		.....
15			.....		.....
16			.....		.....

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

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RAILROAD PREEMPTION

RR 1

Timing (3-1-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
.2..5...	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
.2..5...	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
1..4..78	.....	.....	.....	...4...8	.2...6..	.....	.....	.....

Exit Parameters (3-1-5)

Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
.2...6..	.....	12345678	.2.4.6.8

Configuration (3-1-6)

	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

RR 2

Timing (3-2-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
...4..7.	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
...4..7.	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
123..6..	.....	.....	.....	.2...6..	...4...8	.....	.....	.....

Exit Parameters (3-2-5)

Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
.2...6..	.....	12345678	.2.4.6.8

Configuration (3-2-6)

	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	.2..5...	.....

Port	Latching	Phase Termination
	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	...4..7.	.....

Port	Latching	Phase Termination
	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	1....6..	.....

Port	Latching	Phase Termination
	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	30	30	..3....8	.....

Port	Latching	Phase Termination
	NO	ADVANCE

Do Not Duplicate

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INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	RR1		Free	
Max ON		RR2		D2	
Max OFF		RR3		D3	

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Cabinet Status (2-1-5-3	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
2.7	FLASHING

Y-Coordination (2-1-5-6	
Port C	Port D

OUTPUTS

Loadswitch Assignments (2-1-6)							
A	1	2	22	3	4	24	0
B	5	6	26	7	8	28	0
X	11	12	0	9	10	0	0

Loadswitch Codes:
- 0 Unused (no output)
- 1-8 Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special Functions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7
- 51-57 Special Functions
- 71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6 Channel 9 and 10

INTERVAL CONTROL

Interval Control (3-3-1)	
	Time
Step 1	
Step 2	
Step 3	
Step 4	
Step 5	
Step 6	
Step 7	
Step 8	

Phase Control (3-3-2)		
Hold	Force	Advance
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Phase Recall (3-3-3)		
Veh Call	Ped Call	Int Call
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Phase Permitted (3-3-4)		
Phs Permit	Ped Permit	Ovrlap Permit
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Configuration (3-3-5)			
Input	Port	Delay	HRI Cross
1			
2			

HRI

HRI Configuration (3-4)				
RailRoad	0		WAYSIDE	ATC
Line		Subnode		
Group		Device		

Do Not Duplicate

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TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Enable in Local Plans (3-E-3)	
Plan 1-9	.....
Plan 11-19	.....

Queue Jump (3-E-4)	
Grn Hold	Hold Phase
	.....
	.....

Input		Output	
Type	Port	Stop	Go
NONE	0.0	0	0
NONE	0.0	0	0

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	.....

Access Utilities (9-5)	
Password	
Timeout	60

YELLOW YIELD COORDINATION

					Force-Offs											
Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													.2...6..	.2.4.6.8	.....	.....
Plan D													.2...6..	.2.4.6.8	.....	.....

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					.....	0.0	0.0	0.0	0	0.0	0

Do Not Duplicate

Appendix E

Existing Traffic Count Data

Prepared by National Data & Surveying Services

W Mission Bay Dr & I-8 WB Off Ramp

Peak Hour Turning Movement Count

ID: 23-040224-001
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND — W Mission Bay Dr

AM	0	1288	0	0	1698	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — I-8 WB Off Ramp

AM	NOON	PM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
AM	NOON	PM

WESTBOUND — I-8 WB Off Ramp

PM	NOON	AM
0	0	1322
0	0	0
0	0	751
0	0	0
0	0	0
PM	NOON	AM

NORTHBOUND — W Mission Bay Dr

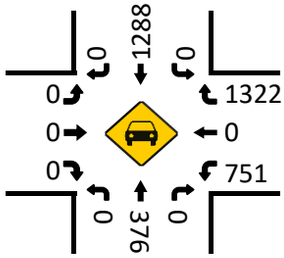
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	2039	0	0	376	0	AM

CONTROL

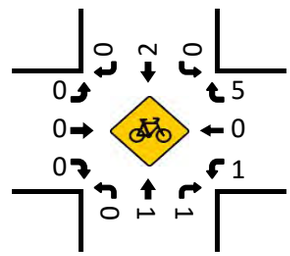
Signalized

TEV	3737 AM	0 NOON	0 PM
PHF	0.95		

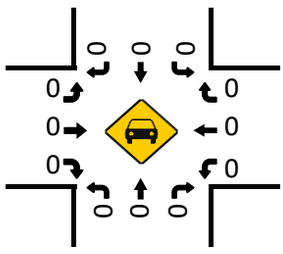
Totals (AM)



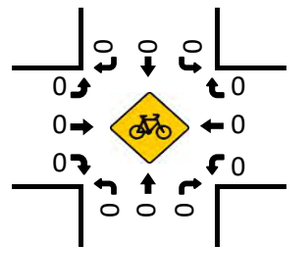
Total Bikes (AM)



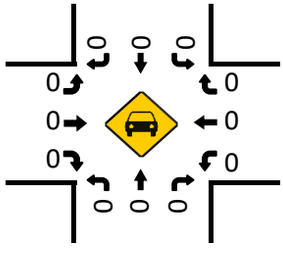
Totals (NOON)



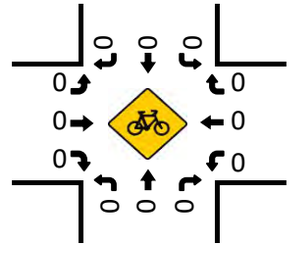
Total Bikes (NOON)



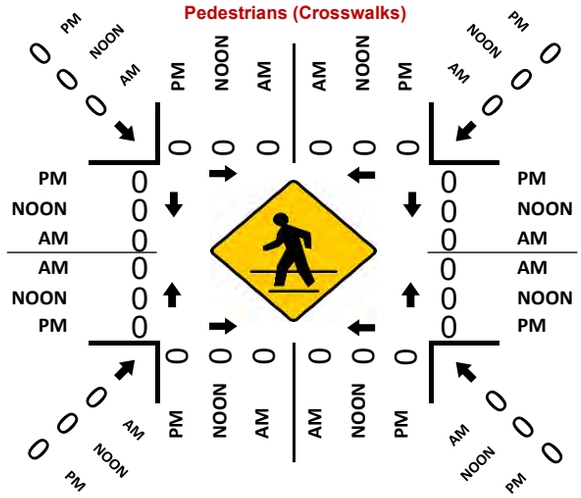
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Sports Arena Blvd/Midway Dr & W Point Loma Blvd/Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040225-002
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	08:45 AM - 09:45 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND — Sports Arena Blvd/Midway Dr

	Left	Thru	Thru	Right	Total	
AM	156	300	259	0	965	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM
	0.5	1.5	1	0		

EASTBOUND — W Point Loma Blvd/Sports Arena Blvd

AM	NOON	PM	
476	0	0	
0	0	0	0
326	0	0	1.5
193	0	0	0.5
193	0	0	1
AM	NOON	PM	

WESTBOUND — W Point Loma Blvd/Sports Arena Blvd

PM	NOON	AM	
0	0	341	1
0	0	166	2
0	0	16	1
0	0	0	0
0	0	468	
PM	NOON	AM	

CONTROL

Signalized

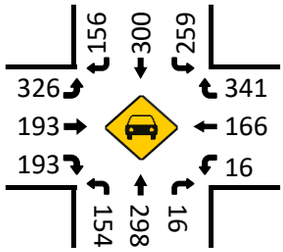
TEV	2418	0	0
	AM	NOON	PM
PHF	0.97		

0 1 1.5 0.5

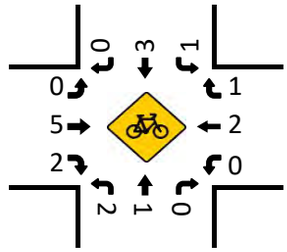
NORTHBOUND — Sports Arena Blvd/Midway Dr

	Left	Thru	Thru	Right	Total	
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	509	0	154	298	16	AM

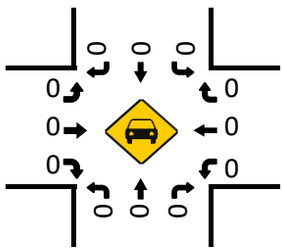
Totals (AM)



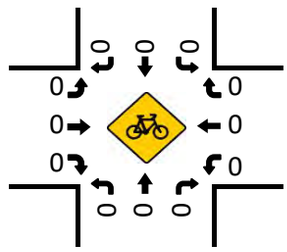
Total Bikes (AM)



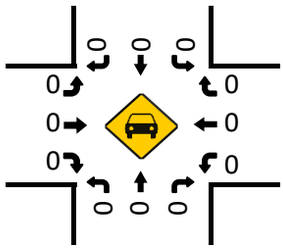
Totals (NOON)



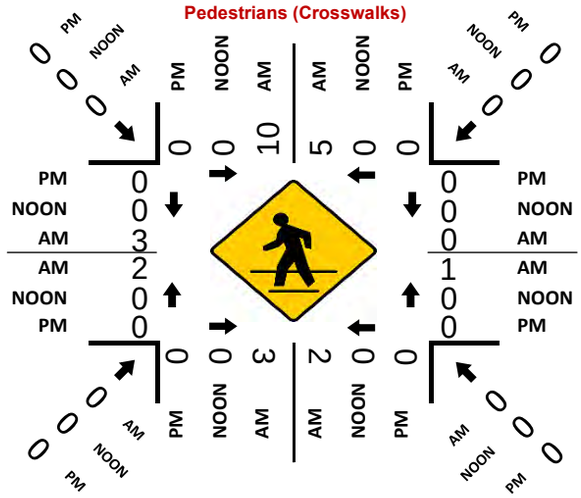
Total Bikes (NOON)



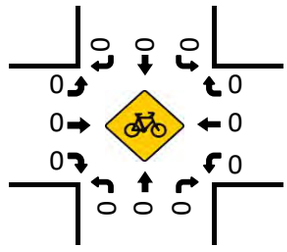
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Hancock St & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040224-003
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS	
AM	09:00 AM - 10:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS	
AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

Hancock St — SOUTHBOUND

	Right	Through	Left	U-Turn	Departing
AM	76	0	47	0	127
NOON	0	0	0	0	0
PM	0	0	0	0	0
Bikes	0	2	0	0	

Sports Arena Blvd — EASTBOUND

	AM	NOON	PM	Bikes
Departing	517	0	0	
U-Turn	14	0	0	0
Left	82	0	0	1
Through	403	0	0	2
Right	12	0	0	0

Sports Arena Blvd — WESTBOUND

	Bikes	PM	NOON	AM
Left	0	0	0	45
Through	3	0	0	427
Right	1	0	0	4
U-Turn	0	0	0	1
Departing		0	0	452

Hancock St — NORTHBOUND

	Departing	U-Turn	Left	Through	Right
Bikes		0	0	0	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	16	0	0	0	1

CONTROL

Signalized

	AM	NOON	PM
TEV	1112	0	0
PHF	0.94		

Totals (AM)

Approach	Left	Through	Right
Southbound	47	0	76
Eastbound	82	403	12
Westbound	4	427	45
Northbound	0	0	1

Totals (NOON)

All movements: 0

Totals (PM)

All movements: 0

Total Bikes (AM)

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

Total Bikes (NOON)

All movements: 0

Total Bikes (PM)

All movements: 0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (west half)	6	0	0
North leg (east half)	4	0	0
South leg (west half)	5	0	0
South leg (east half)	2	0	0
West leg (north half)	0	0	0
West leg (south half)	5	0	0
East leg (north half)	0	0	0
East leg (south half)	6	0	0
NW diagonal	0	0	0
NE diagonal	0	0	0
SW diagonal	0	0	0
SE diagonal	0	0	0

Prepared by National Data & Surveying Services

Kemper St & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040224-032
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS	COUNT PERIODS
09:00 AM - 10:00 AM	7:00 AM - 10:00 AM
NONE	NONE
NONE	NONE

CONTROL: Signalized

	AM	NOON	PM
TEV	1275	0	0
PHF	0.97		

SOUTHBOUND – Kemper St

	Right	Thru	Left	U-Turn	Outbound
Lanes	1	0.5	0.5	0	
AM	67	26	27	0	129
NOON	0	0	0	0	0
PM	0	0	0	0	0

EASTBOUND – Sports Arena Blvd

	Lanes	AM	NOON	PM
Outbound		484	0	0
U-Turn	0	5	0	0
Left	2	46	0	0
Thru	2	300	0	0
Right	0	109	0	0

WESTBOUND – Sports Arena Blvd

	Lanes	PM	NOON	AM
Right	0	0	0	43
Thru	3	0	0	295
Left	1	0	0	114
U-Turn	0	0	0	3
Outbound		0	0	413

NORTHBOUND – Kemper St

	Outbound	U-Turn	Left	Thru	Right
Lanes		0	1	1	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	249	0	117	40	83

Totals (AM)

SB: 67, 26, 27 — EB: 46, 300, 109 — WB: 43, 295, 114 — NB: 117, 40, 83

Totals (NOON)

SB: 0, 0, 0 — EB: 0, 0, 0 — WB: 0, 0, 0 — NB: 0, 0, 0

Totals (PM)

SB: 0, 0, 0 — EB: 0, 0, 0 — WB: 0, 0, 0 — NB: 0, 0, 0

Total Bikes (AM)

SB: 0, 0, 0 — EB: 0, 5, 0 — WB: 0, 0, 1 — NB: 0, 0, 1

Total Bikes (NOON)

SB: 0, 0, 0 — EB: 0, 0, 0 — WB: 0, 0, 0 — NB: 0, 0, 0

Total Bikes (PM)

SB: 0, 0, 0 — EB: 0, 0, 0 — WB: 0, 0, 0 — NB: 0, 0, 0

Pedestrians (Crosswalks)

Crosswalk		PM	NOON	AM	AM	NOON	PM
North		0	0	1	2	0	0
South		0	0	2	6	0	0

Crosswalk	PM	NOON	AM	AM	NOON	PM
West	0	0	0	0	0	0
East	0	0	14	3	0	0

Diagonal crossings (AM / NOON / PM): NW 0 / 0 / 0; NE 0 / 0 / 0; SW 0 / 0 / 0; SE 0 / 0 / 0

Prepared by National Data & Surveying Services

West Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040224-033
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS		COUNT PERIODS
AM	09:00 AM - 10:00 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	NONE	NONE

SOUTHBOUND (West Dr)

	Right	Thru	Left	U-Turn	Departing
AM	31	9	44	0	99
NOON	0	0	0	0	0
PM	0	0	0	0	0
Heavy vehicle %	0.5	1	0.5	0	

WESTBOUND (Sports Arena Blvd)

	PM	NOON	AM	
Right	0	0	67	0
Thru	0	0	364	3
Left	0	0	78	1
U-Turn	0	0	4	0
Departing	0	0	464	

EASTBOUND (Sports Arena Blvd)

	AM	NOON	PM	
Departing	456	0	0	
U-Turn	9	0	0	0
Left	23	0	0	2
Thru	371	0	0	2
Right	53	0	0	0

NORTHBOUND (West Dr)

	Departing	U-Turn	Left	Thru	Right
Heavy vehicle %		0	0	1	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	141	1	52	9	45

CONTROL

Signalized

	AM	NOON	PM
TEV	1160	0	0
PHF	0.96		

Totals (AM)

Approach	Left	Thru	Right
Southbound	44	9	31
Westbound	78	364	67
Northbound	52	9	45
Eastbound	23	371	53

Totals (NOON)

Approach	Left	Thru	Right
Southbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0
Eastbound	0	0	0

Totals (PM)

Approach	Left	Thru	Right
Southbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0
Eastbound	0	0	0

Total Bikes (AM)

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

Total Bikes (NOON)

Approach	Left	Thru	Right
Southbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0
Eastbound	0	0	0

Total Bikes (PM)

Approach	Left	Thru	Right
Southbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0
Eastbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North leg	Eastbound	8	0	0
North leg	Westbound	5	0	0
East leg	Southbound	2	0	0
East leg	Northbound	1	0	0
South leg	Eastbound	2	0	0
South leg	Westbound	6	0	0
West leg	Southbound	0	0	0
West leg	Northbound	0	0	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

Prepared by National Data & Surveying Services

Target Department Store Dwy & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040224-034
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS		COUNT PERIODS
AM	09:00 AM - 10:00 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	NONE	NONE

SOUTHBOUND — Target Department Store Dwy

AM	6	0	1	0	27	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Sports Arena Blvd

AM	NOON	PM		
519	0	0	⇦	
2	0	0	↶	0
21	0	0	↰	1
443	0	0	→	3
20	0	0	↷	0
AM	NOON	PM		

WESTBOUND — Sports Arena Blvd

PM	NOON	AM		
0	0	6	↷	0
0	0	511	←	3
0	0	104	↶	1
0	0	7	↰	0
0	0	491	⇨	
PM	NOON	AM		

NORTHBOUND — Target Department Store Dwy

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	124	0	0	0	40	AM

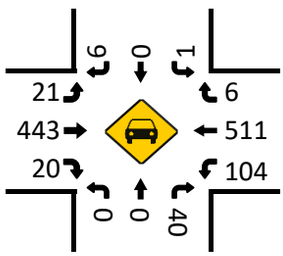
	0	1	0	0
	0	0	0	1

CONTROL

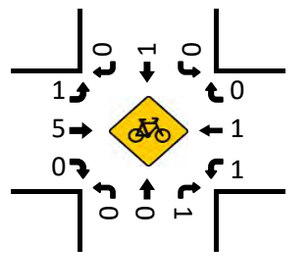
1-Way Stop(NB)

TEV	1161	0	0
	AM	NOON	PM
PHF	0.88		

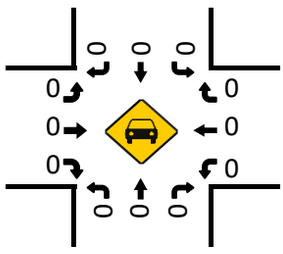
Totals (AM)



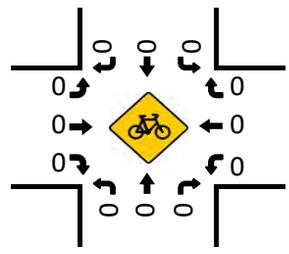
Total Bikes (AM)



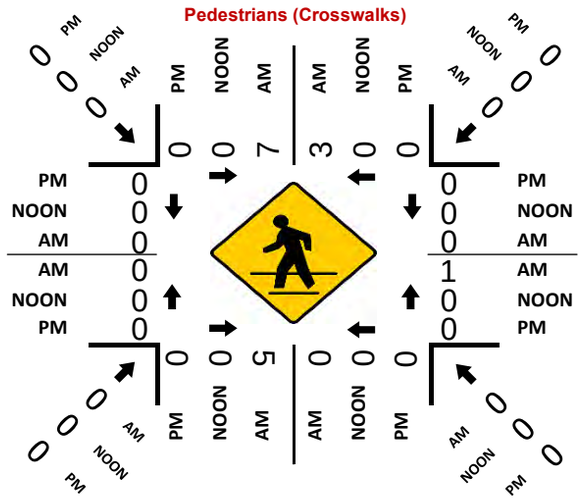
Totals (NOON)



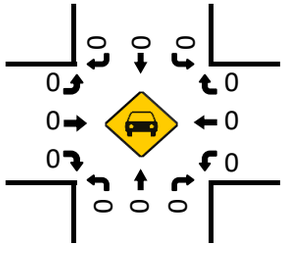
Total Bikes (NOON)



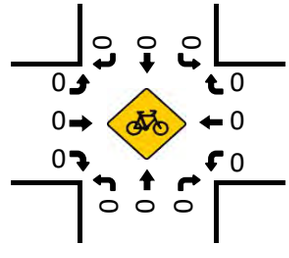
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

East Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040224-004
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS		COUNT PERIODS
AM	09:00 AM - 10:00 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	NONE	NONE

SOUTHBOUND — East Dr

	Left (U-turn side)	Through	Right	U-Turn	Departing
AM	1	0	0	0	56
NOON	0	0	0	0	0
PM	0	0	0	0	0
HV %	0	0	0	0	

EASTBOUND — Sports Arena Blvd

Movement	AM	NOON	PM	HV %
Departing	596	0	0	
U-Turn	2	0	0	0
Left	16	0	0	1
Through	455	0	0	3
Right	13	0	0	0

WESTBOUND — Sports Arena Blvd

Movement	PM	NOON	AM	HV %
Right	0	0	38	0
Through	0	0	575	3
Left	0	0	90	1
U-Turn	0	0	49	0
Departing	0	0	589	

NORTHBOUND — East Dr

	Departing	U-Turn	Left	Through	Right
HV %		0	0.5	0.5	1
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	103	0	18	2	85

CONTROL

Signalized

	AM	NOON	PM
TEV	1344	0	0
PHF	0.89		

Totals (AM)

Approach	Left	Through	Right	U-Turn
Southbound	1	0	0	0
Eastbound	16	455	13	
Westbound	90	575	38	
Northbound	18	2	85	

Totals (NOON)

All movements: 0

Totals (PM)

All movements: 0

Total Bikes (AM)

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

Total Bikes (NOON)

All movements: 0

Total Bikes (PM)

All movements: 0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (west side)	10	0	0
North leg (east side)	9	0	0
West leg (north side)	1	0	0
West leg (south side)	0	0	0
East leg (north side)	6	0	0
East leg (south side)	4	0	0
South leg (west side)	9	0	0
South leg (east side)	3	0	0
Diagonals (all)	0	0	0

Prepared by National Data & Surveying Services

Kemper St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040224-024
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS		COUNT PERIODS
AM	08:15 AM - 09:15 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	NONE	NONE

Kemper St – SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	55	77	30	0	198
NOON	0	0	0	0	0
PM	0	0	0	0	0
Lanes	1	1	1	0	

Midway Dr – WESTBOUND

	AM	NOON	PM	Lanes
Right	38	0	0	0
Thru	316	0	0	2
Left	67	0	0	2
U-Turn	0	0	0	0
Departing	504	0	0	

Midway Dr – EASTBOUND

	AM	NOON	PM	Lanes
Departing	513	0	0	
U-Turn	18	0	0	0
Left	57	0	0	1
Thru	373	0	0	2
Right	90	0	0	1

Kemper St – NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
Lanes		0	1.5	0.5	1
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	234	0	124	103	101

CONTROL

Signalized

	AM	NOON	PM
TEV	1449	0	0
PHF	0.99		

Totals (AM)

Approach	Left	Thru	Right
Southbound	30	77	55
Westbound	67	316	38
Eastbound	57	373	90
Northbound	124	103	101

Totals (NOON)

Approach	Left	Thru	Right
Southbound	0	0	0
Westbound	0	0	0
Eastbound	0	0	0
Northbound	0	0	0

Totals (PM)

Approach	Left	Thru	Right
Southbound	0	0	0
Westbound	0	0	0
Eastbound	0	0	0
Northbound	0	0	0

Total Bikes (AM)

Approach	Left	Thru	Right
Southbound	0	0	0
Westbound	0	0	0
Eastbound	0	1	0
Northbound	0	0	0

Total Bikes (NOON)

Approach	Left	Thru	Right
Southbound	0	0	0
Westbound	0	0	0
Eastbound	0	0	0
Northbound	0	0	0

Total Bikes (PM)

Approach	Left	Thru	Right
Southbound	0	0	0
Westbound	0	0	0
Eastbound	0	0	0
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	→	0	0	0
North	←	3	0	0
West	↓	10	0	0
West	↑	7	0	0
East	↓	6	0	0
East	↑	1	0	0
South	→	10	0	0
South	←	7	0	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

Prepared by National Data & Surveying Services

East Dr & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040224-023
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	08:15 AM - 09:15 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

CONTROL: Signalized

TEV	1549	0	0
	AM	NOON	PM
PHF	0.94		

SOUTHBOUND (East Dr)

AM	36	4	56	0	206	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM
	0	1	0	0		

EASTBOUND (Midway Dr)

AM	NOON	PM		
727	0	0		
0	0	0	0	
33	0	0	1	
521	0	0	2	
11	0	0	0	
AM	NOON	PM		

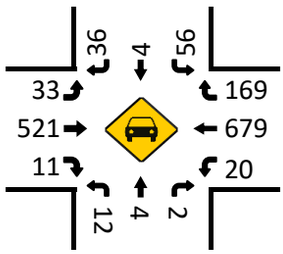
WESTBOUND (Midway Dr)

0		PM	NOON	AM
2		0	0	169
1		0	0	679
0		0	0	20
		0	0	2
		0	0	581
		PM	NOON	AM

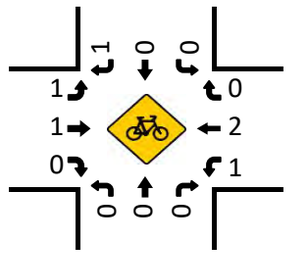
NORTHBOUND (East Dr)

	0	0	1	0	
PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	35	0	12	4	2 AM

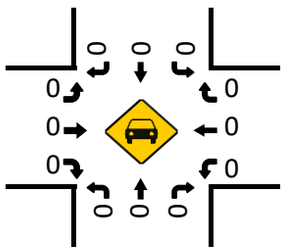
Totals (AM)



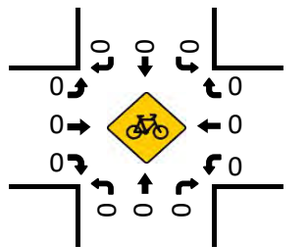
Total Bikes (AM)



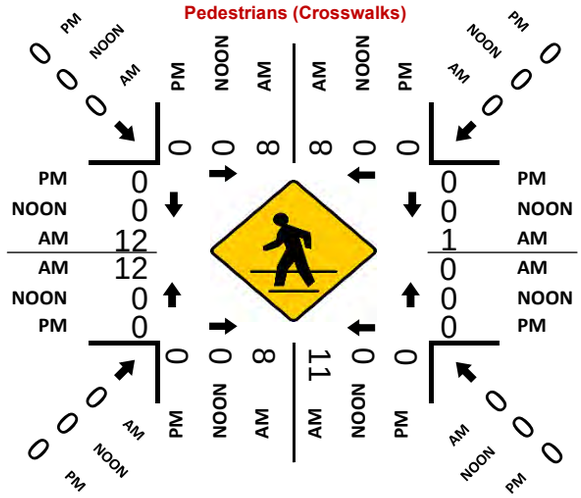
Totals (NOON)



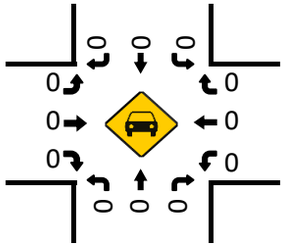
Total Bikes (NOON)



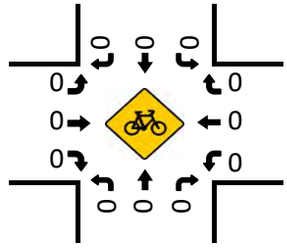
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Hancock St & Channel Way

Peak Hour Turning Movement Count

ID: 23-040224-005
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	09:00 AM - 10:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND (Hancock St)

AM	30	86	0	0	106	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Channel Way)

AM	NOON	PM		
54	0	0	⇦	
0	0	0	↶	0
13	0	0	↰	0
0	0	0	→	1
26	0	0	↳	0
AM	NOON	PM		

WESTBOUND (Channel Way)

PM	NOON	AM		
0	0	0	↷	0
0	0	0	←	0
0	0	0	↱	0
0	0	0	↷	0
0	0	0	⇨	
PM	NOON	AM		

NORTHBOUND (Hancock St)

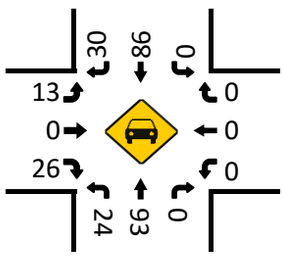
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	116	4	24	93	0	AM

CONTROL

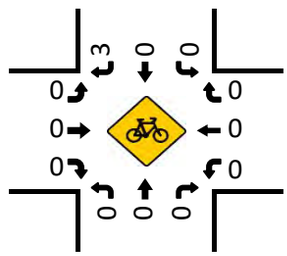
3-Way Stop(NB/SB/EB)

TEV	276	0	0
	AM	NOON	PM
PHF	0.93		

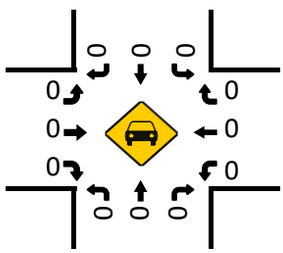
Totals (AM)



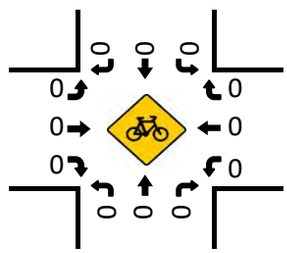
Total Bikes (AM)



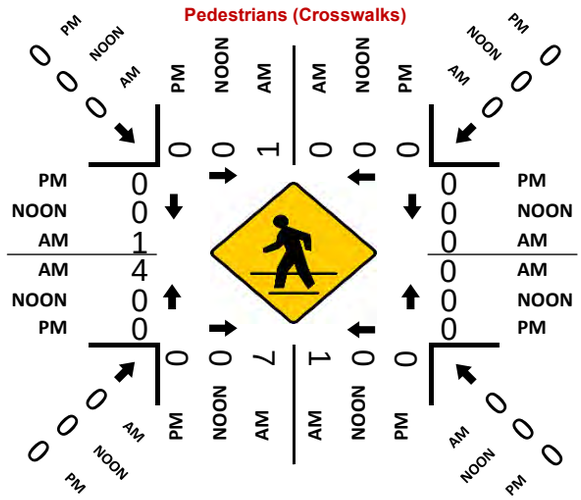
Totals (NOON)



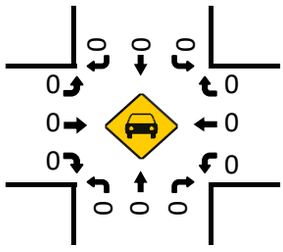
Total Bikes (NOON)



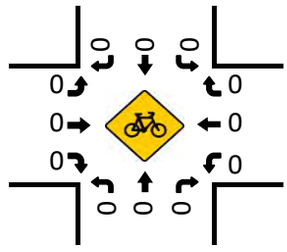
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kurtz St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040224-006
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

09:00 AM - 10:00 AM
NONE
NONE

COUNT PERIODS

7:00 AM - 10:00 AM
NONE
NONE

CONTROL

1-Way Stop(WB)

TEV	318	0	0
	AM	NOON	PM
PHF	0.96		

SOUTHBOUND (Kurtz St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Hancock St)

AM	NOON	PM	
127	0	0	⇦
0	0	0	↶ 0
0	0	0	↱ 0
0	0	0	→ 0
111	0	0	↴ 1
AM	NOON	PM	

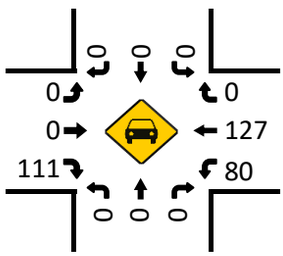
WESTBOUND (Hancock St)

PM	NOON	AM	
0	0	0	↰ 0
0	0	127	← 1
0	0	80	↰ 1
0	0	0	↰ 0
			⇨
0	0	0	
PM	NOON	AM	

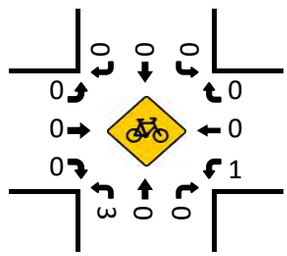
NORTHBOUND (Kurtz St)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	191	0	0	0	0	AM

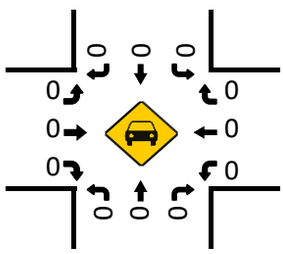
Totals (AM)



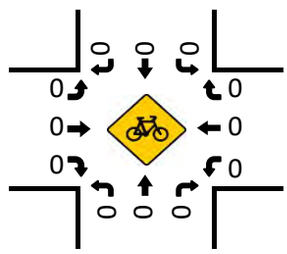
Total Bikes (AM)



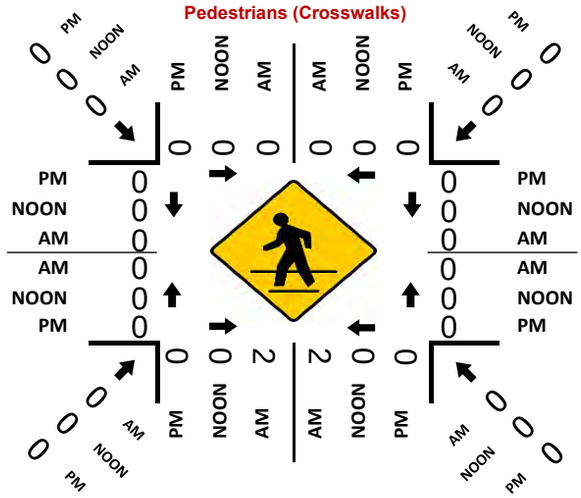
Totals (NOON)



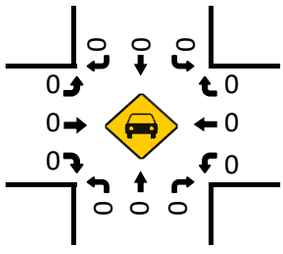
Total Bikes (NOON)



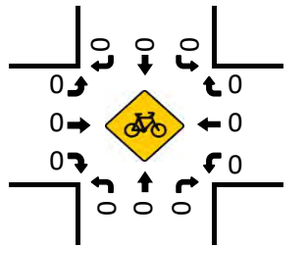
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sherman St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040224-007
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

09:00 AM - 10:00 AM
NONE
NONE

COUNT PERIODS

7:00 AM - 10:00 AM
NONE
NONE

CONTROL

2-Way Stop(SB/EB)

TEV	307	0	0
	AM	NOON	PM
PHF	0.90		

SOUTHBOUND (Sherman St)

AM	0	0	93	0	71	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
70	0	0	0	
143	0	0	2	
0	0	0	0	
AM	NOON	PM		

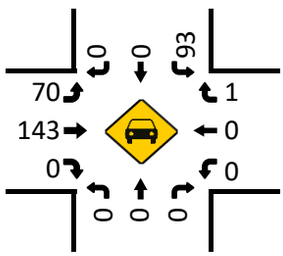
WESTBOUND (Kurtz St)

0	0	0	PM
0	0	0	NOON
0	0	0	AM
0	0	0	AM
0	0	0	NOON
0	0	1	PM

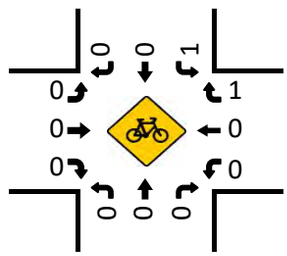
NORTHBOUND (Sherman St)

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM

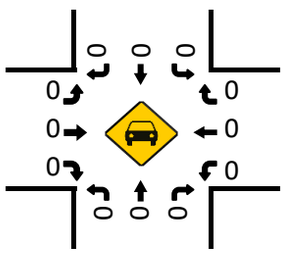
Totals (AM)



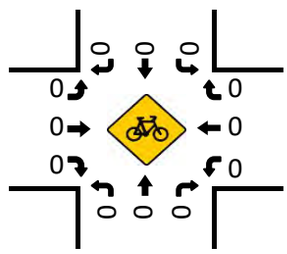
Total Bikes (AM)



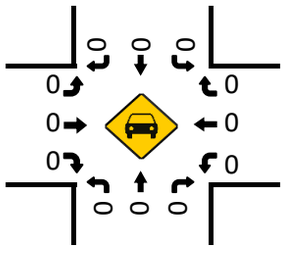
Totals (NOON)



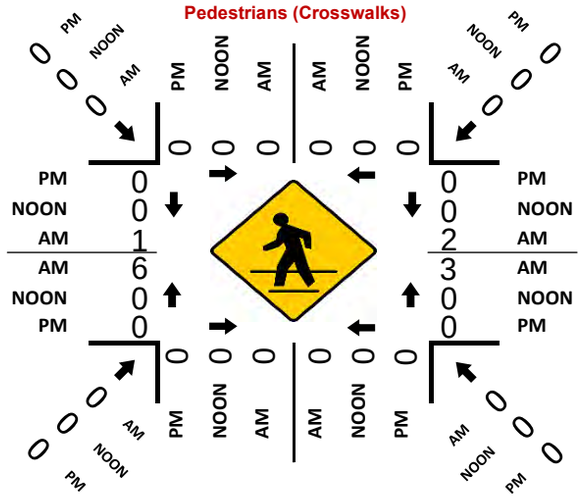
Total Bikes (NOON)



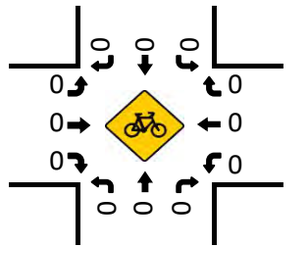
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Greenwood St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040224-009
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

09:00 AM - 10:00 AM
NONE
NONE

COUNT PERIODS

7:00 AM - 10:00 AM
NONE
NONE

Greenwood St

SOUTHBOUND

AM	0	0	44	0	14	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND

AM	NOON	PM		
0	0	0		
0	0	0	↰	0
14	0	0	↑	0
208	0	0	→	2
0	0	0	↱	0
AM	NOON	PM		

WESTBOUND

PM	NOON	AM		
0	0	0		0
0	0	0	←	0
0	0	0	↰	0
0	0	0	↱	0
0	0	252		
PM	NOON	AM		

NORTHBOUND

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

Greenwood St

Kurtz St (EASTBOUND)

Kurtz St (WESTBOUND)

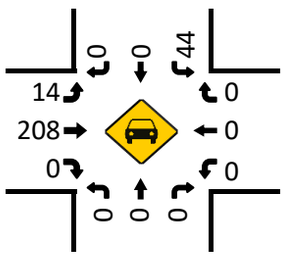
	0	1	0	0
	0	0	1	0

CONTROL

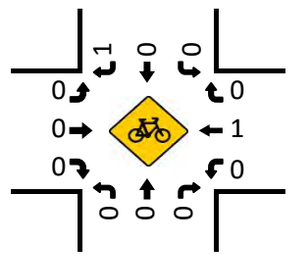
1-Way Stop (SB)

TEV	266	0	0
	AM	NOON	PM
PHF	0.85		

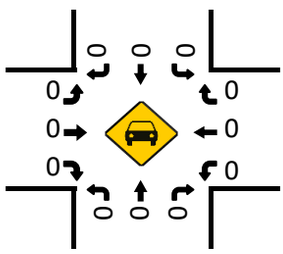
Totals (AM)



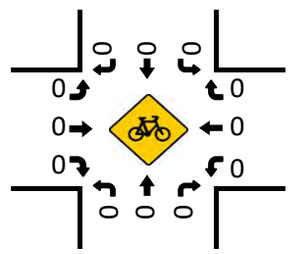
Total Bikes (AM)



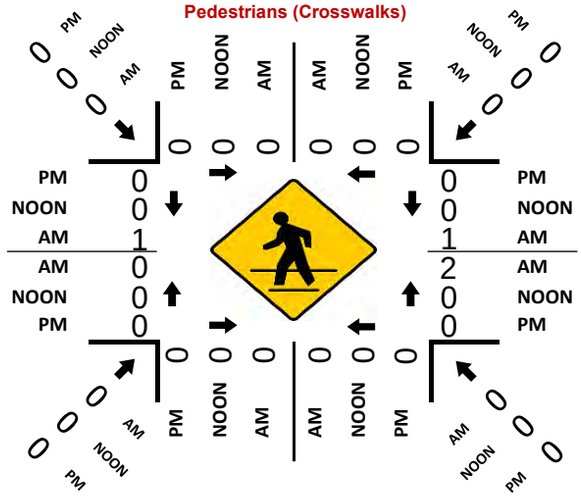
Totals (NOON)



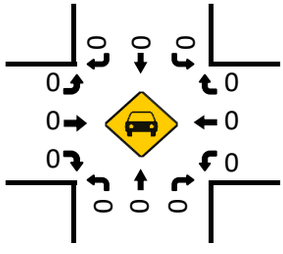
Total Bikes (NOON)



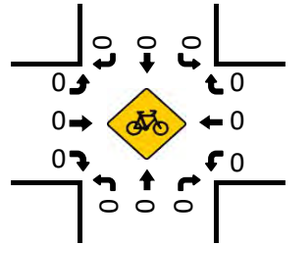
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sherman St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040224-026
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	09:00 AM - 10:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

CONTROL

3-Way Stop(NB/SB/WB)

	AM	NOON	PM
TEV	440	0	0
PHF	0.89		

SOUTHBOUND (Sherman St)

AM	10	44	0	0	79	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Hancock St)

AM	NOON	PM		
256	0	0		
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
AM	NOON	PM		

WESTBOUND (Hancock St)

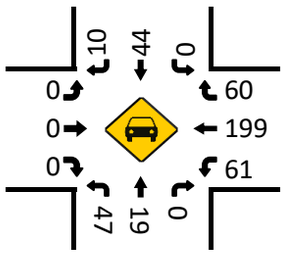
PM	NOON	AM	
0	0	60	0
0	0	199	2
0	0	61	0
0	0	0	0
0	0	0	
PM	NOON	AM	

NORTHBOUND (Sherman St)

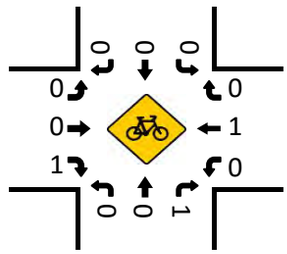
PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	105	0	47	19	0 AM

Turning movements: 0 1 0 0 | 0 0 1 0

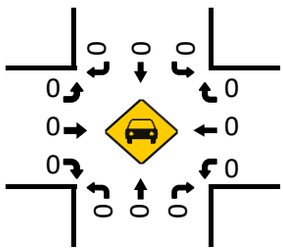
Totals (AM)



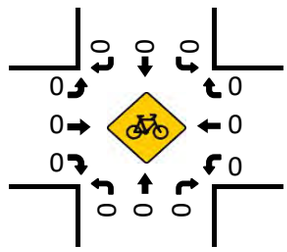
Total Bikes (AM)



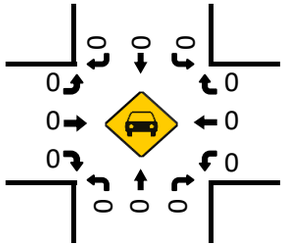
Totals (NOON)



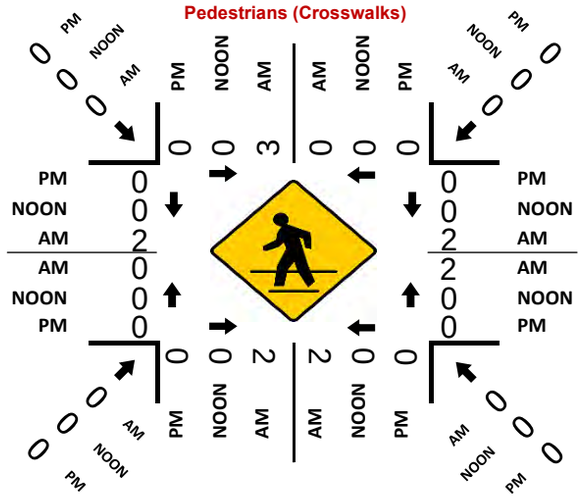
Total Bikes (NOON)



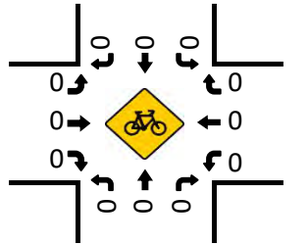
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Greenwood St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040224-008
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND (Greenwood St)

AM	81	38	0	0	27	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Hancock St)

AM	NOON	PM		
346	0	0		
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
AM	NOON	PM		

WESTBOUND (Hancock St)

	PM	NOON	AM
0.5	0	0	23
1	0	0	257
0.5	0	0	19
0	0	0	0
	0	0	0
	PM	NOON	AM

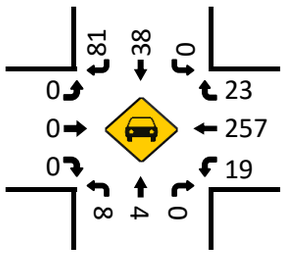
NORTHBOUND (Greenwood St)

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	57	0	8	4	0	AM

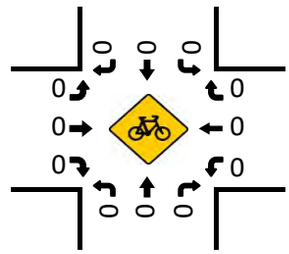
CONTROL: 2-Way Stop(NB/SB)

TEV	430	0	0
	AM	NOON	PM
PHF	0.90		

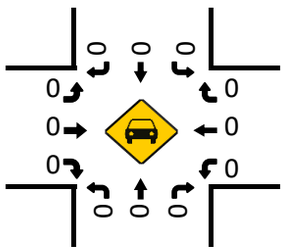
Totals (AM)



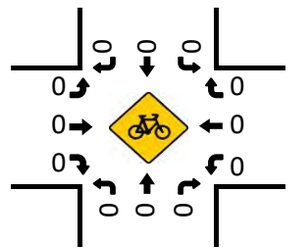
Total Bikes (AM)



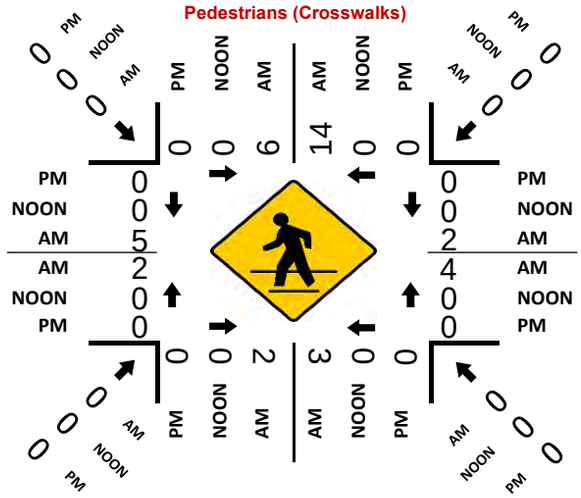
Totals (NOON)



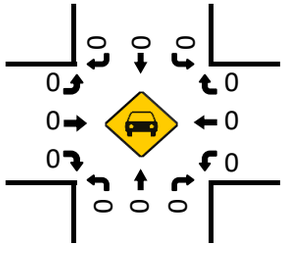
Total Bikes (NOON)



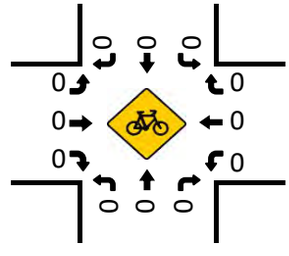
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St/Camino Del Rio W & Sports arena Blvd/Rosecrans St

Peak Hour Turning Movement Count

ID: 23-040224-019
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	08:15 AM - 09:15 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND — Rosecrans St/Camino Del Rio W

AM	348	1499	0	0	1655	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM
	1	3	0	0		

EASTBOUND — Sports arena Blvd/Rosecrans St

AM	NOON	PM		
755	0	0		
0	0	0	0	
208	0	0	1.5	
163	0	0	1.5	
139	0	0	1	
AM	NOON	PM		

WESTBOUND — Sports arena Blvd/Rosecrans St

	PM	NOON	AM
0.5	0	0	11
1	0	0	223
1.5	0	0	201
0	0	0	0
	0	0	413
	PM	NOON	AM

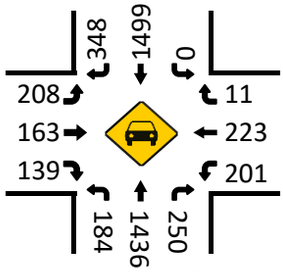
CONTROL: Signalized

TEV	4684 AM	0 NOON	0 PM
PHF	0.95		

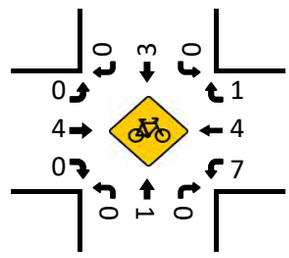
	0	2	3	1	
PM	0	0	0	0	0 PM
NOON	0	0	0	0	0 NOON
AM	1861	22	184	1436	250 AM

NORTHBOUND — Rosecrans St/Camino Del Rio W

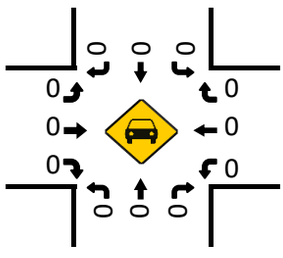
Totals (AM)



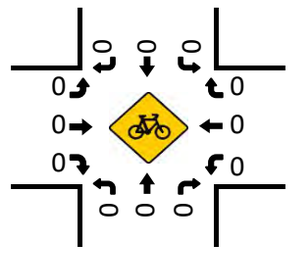
Total Bikes (AM)



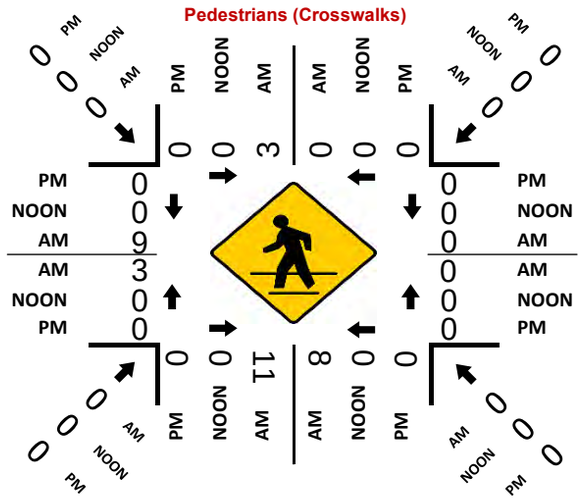
Totals (NOON)



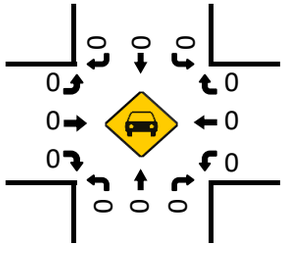
Total Bikes (NOON)



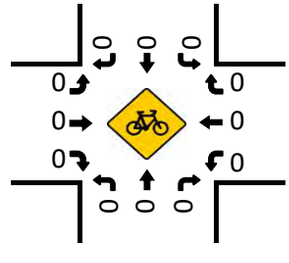
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040224-016
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: NONE

COUNT PERIODS

7:00 AM - 10:00 AM
NONE
NONE

SOUTHBOUND (Pacific Hwy)

AM	8	379	0	0	236	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
265	0	0		
0	0	0	0	
0	0	0	0	
0	0	0	1	
238	0	0	0	
AM	NOON	PM		

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

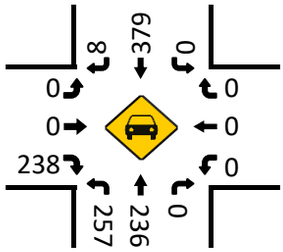
NORTHBOUND (Pacific Hwy)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	617	0	257	236	0	AM

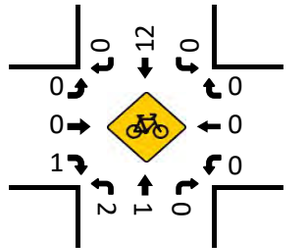
CONTROL: 1-Way Stop(EB)

TEV	1118	0	0
	AM	NOON	PM
PHF	0.94		

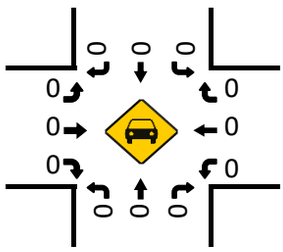
Totals (AM)



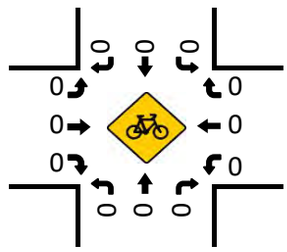
Total Bikes (AM)



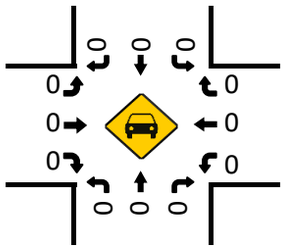
Totals (NOON)



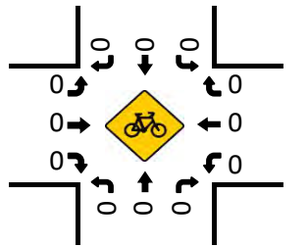
Total Bikes (NOON)



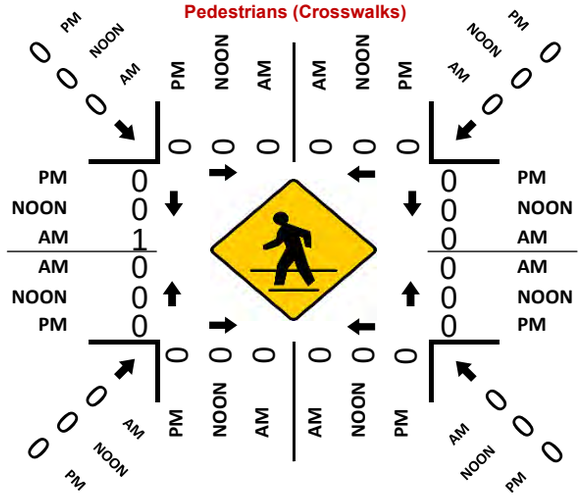
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Sea World Dr & Friars Rd

Peak Hour Turning Movement Count

ID: 23-040224-027
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS		COUNT PERIODS
AM	08:00 AM - 09:00 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	NONE	NONE

SOUTHBOUND (Sea World Dr)

	U-turn	Left	Through	Right	Total out
AM	0	758	105	1	891
NOON	0	0	0	0	0
PM	0	0	0	0	0
Lanes	0	2	2	0	

EASTBOUND (Friars Rd)

	AM	NOON	PM	Lanes
Out	0	0	0	
U-turn	0	0	0	0
Left	0	0	0	0
Through	0	0	0	0
Right	0	0	0	0

WESTBOUND (Friars Rd)

	PM	NOON	AM	Lanes
Right	0	0	0	1.5
Through	0	0	0	0
Left	0	0	0	1.5
U-turn	0	0	0	0
Out	0	0	378	

NORTHBOUND (Sea World Dr)

	Total out	U-turn	Left	Through	Right
Lanes		0	0	2	1
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	758	0	0	890	273

CONTROL: Signalized

	AM	NOON	PM
TEV	2027	0	0
PHF	0.97		

Totals (AM)

SB: U 0, Thru 758, Left 105; EB: U 0, Left 0, Thru 0, Right 0; WB: Right 0, Thru 0, Left 0; NB: U 0, Thru 890, Right 273

Total Bikes (AM)

SB: 0, 4, 1; EB: 0, 0, 0; WB: 5, 0, 2; NB: 0, 1, 0

Totals (NOON)

All movements 0

Total Bikes (NOON)

All movements 0

Totals (PM)

All movements 0

Total Bikes (PM)

All movements 0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg	1	0	0
North leg (east)	0	0	0
West leg	0	0	0
West leg (south)	0	0	0
East leg	0	0	0
East leg (south)	0	0	0
South leg	0	0	0
South leg (east)	0	0	0
Diagonals	0	0	0

Prepared by National Data & Surveying Services

Sea World Dr & Pacific Hwy

Peak Hour Turning Movement Count

ID: 23-040224-028
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS		COUNT PERIODS
AM	08:00 AM - 09:00 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	NONE	NONE

SOUTHBOUND – Sea World Dr

	Right	Through	Left	U-Turn	Departure
AM	155	796	91	1	947
NOON	0	0	0	0	0
PM	0	0	0	0	0
Lanes	1	2	1	0	

EASTBOUND – Pacific Hwy

	AM	NOON	PM	Lanes
Departure	234	0	0	
U-Turn	0	0	0	0
Left	60	0	0	2
Through	30	0	0	1
Right	48	0	0	1

WESTBOUND – Pacific Hwy

	PM	NOON	AM	Lanes
Right	0	0	55	1
Through	0	0	31	1
Left	0	0	24	1
U-Turn	0	0	0	0
Departure	0	0	140	

NORTHBOUND – Sea World Dr

	Departure	U-Turn	Left	Through	Right
Lanes		0	2	2	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	868	0	48	831	19

CONTROL

Signalized

	AM	NOON	PM
TEV	2189	0	0
PHF	0.98		

Totals (AM)

Approach	Left	Through	Right
Southbound	91	796	155
Eastbound	60	30	48
Westbound	24	31	55
Northbound	48	831	19

Totals (NOON)

All movements: 0

Totals (PM)

All movements: 0

Total Bikes (AM)

Approach	Left	Through	Right
Southbound	0	0	2
Eastbound	1	6	5
Westbound	0	9	2
Northbound	3	2	1

Total Bikes (NOON)

All movements: 0

Total Bikes (PM)

All movements: 0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North leg	Eastbound (west half)	0	0	0
North leg	Westbound (east half)	0	0	0
South leg	Eastbound (west half)	1	0	0
South leg	Westbound (east half)	0	0	0
West leg	Southbound (north half)	1	0	0
West leg	Northbound (south half)	0	0	0
East leg	Southbound (north half)	0	0	0
East leg	Northbound (south half)	1	0	0
Diagonal NW		0	0	0
Diagonal NE		0	0	0
Diagonal SW		0	0	0
Diagonal SE		0	0	0

Prepared by National Data & Surveying Services

Sports Arena Blvd & I-8 EB On-Ramp

Peak Hour Turning Movement Count

ID: 23-040224-036
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND — Sports Arena Blvd

AM	0	1079	1	0	399	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — I-8 EB On-Ramp

AM	NOON	PM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

AM NOON PM

WESTBOUND — I-8 EB On-Ramp

PM	NOON	AM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	588

PM NOON AM

NORTHBOUND — Sports Arena Blvd

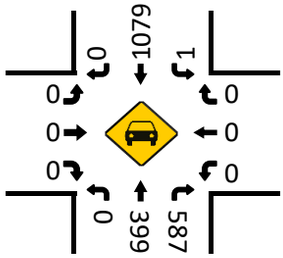
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	1080	1	0	399	587	AM

CONTROL

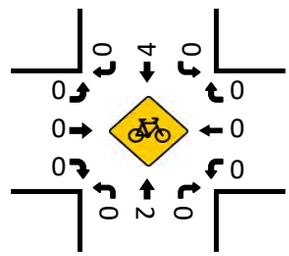
No Control

TEV	2067	0	0
	AM	NOON	PM
PHF	0.94		

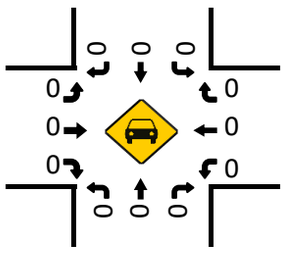
Totals (AM)



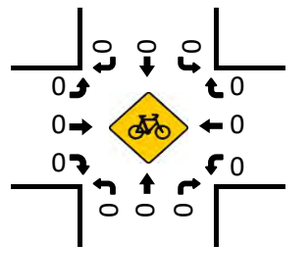
Total Bikes (AM)



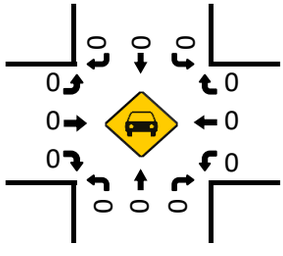
Totals (NOON)



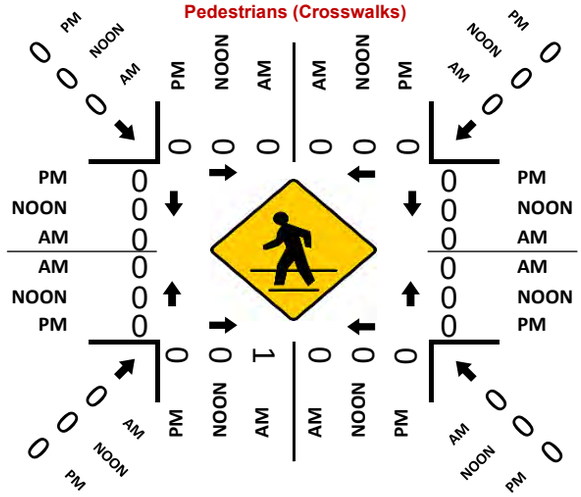
Total Bikes (NOON)



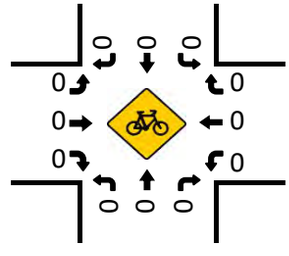
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Greenwood St/Moore St

Peak Hour Turning Movement Count

ID: 23-040225-010
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS		COUNT PERIODS
AM	08:00 AM - 09:00 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	NONE	NONE

SOUTHBOUND — Camino Del Rio W

	Right	Thru	Left	U-Turn	Departing
AM	84	2194	0	0	1731
NOON	0	0	0	0	0
PM	0	0	0	0	0
Bikes	0	3	0	0	

WESTBOUND — Greenwood St/Moore St

	PM	NOON	AM	Bikes
Right	0	0	25	0
Thru	0	0	0	1
Left	0	0	0	0
U-Turn	0	0	0	0
Departing	0	0	15	

EASTBOUND — Greenwood St/Moore St

	AM	NOON	PM	Bikes
Departing	84	0	0	
U-Turn	0	0	0	0
Left	0	0	0	0
Thru	1	0	0	1
Right	4	0	0	0

NORTHBOUND — Camino Del Rio W

	Departing	U-Turn	Left	Thru	Right
Bikes		0	0	3	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	2198	0	0	1706	14

CONTROL

2-Way Stop(EB/WB)

	AM	NOON	PM
TEV	4028	0	0
PHF	0.96		

Totals (AM)

Approach	U-Turn	Left	Thru	Right
Southbound	0	0	2194	84
Westbound	0	0	0	25
Eastbound	0	0	1	4
Northbound	0	0	1706	14

Totals (NOON)

Approach	U-Turn	Left	Thru	Right
Southbound	0	0	0	0
Westbound	0	0	0	0
Eastbound	0	0	0	0
Northbound	0	0	0	0

Totals (PM)

Approach	U-Turn	Left	Thru	Right
Southbound	0	0	0	0
Westbound	0	0	0	0
Eastbound	0	0	0	0
Northbound	0	0	0	0

Total Bikes (AM)

Approach	U-Turn	Left	Thru	Right
Southbound	0	0	0	0
Westbound	0	0	0	0
Eastbound	0	0	0	0
Northbound	0	0	1	1

Westbound: 1 (lower left-turn position)

Total Bikes (NOON)

Approach	U-Turn	Left	Thru	Right
Southbound	0	0	0	0
Westbound	0	0	0	0
Eastbound	0	0	0	0
Northbound	0	0	0	0

Total Bikes (PM)

Approach	U-Turn	Left	Thru	Right
Southbound	0	0	0	0
Westbound	0	0	0	0
Eastbound	0	0	0	0
Northbound	0	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	→	6	0	0
North	←	0	0	0
West	↓	0	0	0
West	↑	1	0	0
East	↓	0	0	0
East	↑	1	0	0
South	→	0	0	0
South	←	0	0	0
Northwest (diagonal)	↘	0	0	0
Northeast (diagonal)	↙	0	0	0
Southwest (diagonal)	↗	0	0	0
Southeast (diagonal)	↖	0	0	0

Prepared by National Data & Surveying Services

Camino Del Rio W/Riley St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040225-011
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND — Camino Del Rio W/Riley St

AM	92	2112	0	0	1724	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM
	1	3	0	0		

EASTBOUND — Hancock St

AM	NOON	PM		
248	0	0		
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
AM	NOON	PM		

WESTBOUND — Hancock St

	PM	NOON	AM
0	0	0	78
1.5	0	0	115
0.5	0	0	25
0	0	0	0
	0	0	46
	PM	NOON	AM

CONTROL

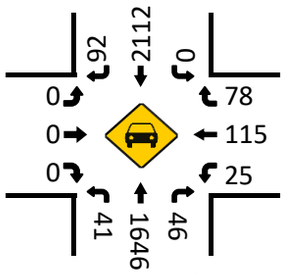
Signalized

TEV	4162	0	0
	AM	NOON	PM
PHF	0.96		

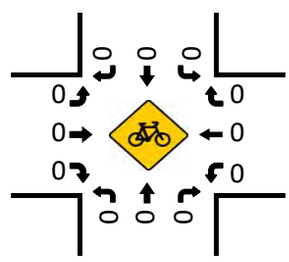
NORTHBOUND — Camino Del Rio W/Riley St

	0	1	3	0	
PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	2144	7	41	1646	46	AM

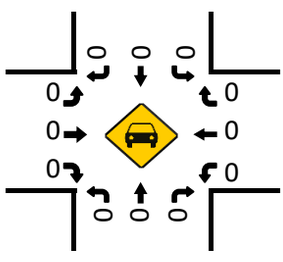
Totals (AM)



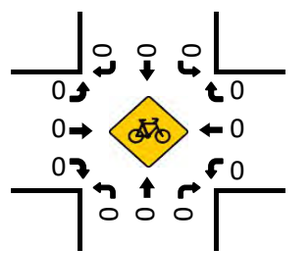
Total Bikes (AM)



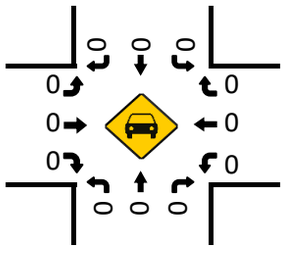
Totals (NOON)



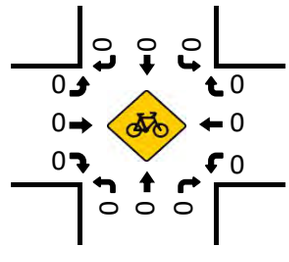
Total Bikes (NOON)



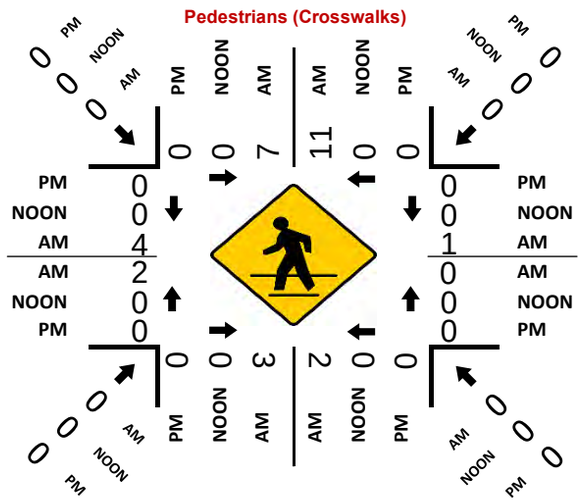
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Camino Del Rio W & Kurtz St/Gaines St

Peak Hour Turning Movement Count

ID: 23-040225-012
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND — Camino Del Rio W

AM	0	2021	88	24	1738	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Kurtz St/Gaines St

AM	NOON	PM		
0	0	0		
0	0	0	0	
106	0	0	1.5	
70	0	0	0.5	
35	0	0	1	
AM	NOON	PM		

WESTBOUND — Kurtz St/Gaines St

PM	NOON	AM	
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	172	
PM	NOON	AM	

NORTHBOUND — Camino Del Rio W

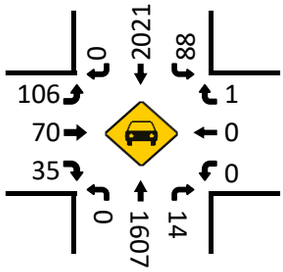
PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	2056	0	0	1607	14 AM

	0	4	1	0
	0	0	3	0

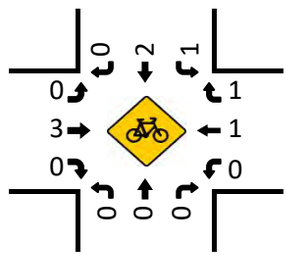
CONTROL: Signalized

TEV	3966	0	0
	AM	NOON	PM
PHF	0.95		

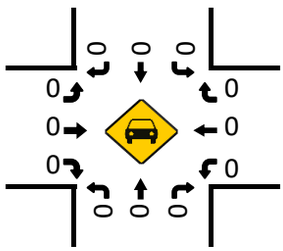
Totals (AM)



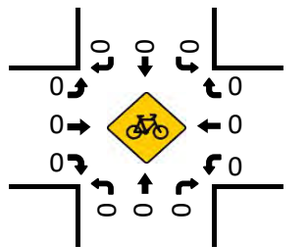
Total Bikes (AM)



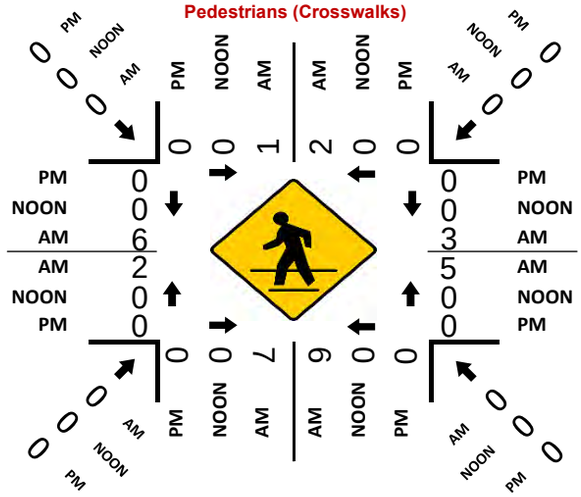
Totals (NOON)



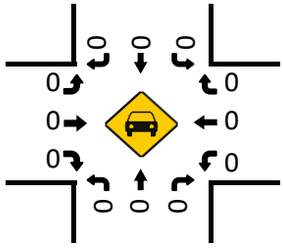
Total Bikes (NOON)



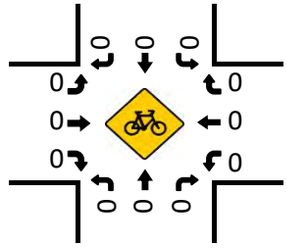
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040225-020
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	189	1568	148	19	1892	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM
	0	3	2	0		

EASTBOUND (Midway Dr)

AM	NOON	PM	
835	0	0	
1	0	0	0
156	0	0	2
219	0	0	2
166	0	0	1
AM	NOON	PM	

WESTBOUND (Midway Dr)

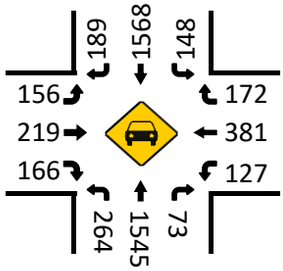
PM	NOON	AM	
0	0	172	1
0	0	381	2
0	0	127	1
0	0	0	0
0	0	440	
PM	NOON	AM	

NORTHBOUND (Rosecrans St)

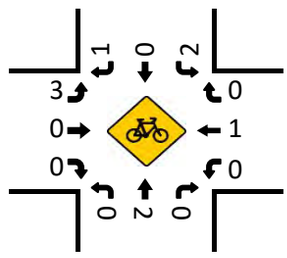
	0	2	3	0		
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	1901	40	264	1545	73	AM

CONTROL			
Signalized			
TEV	5068	0	0
	AM	NOON	PM
PHF	0.94		

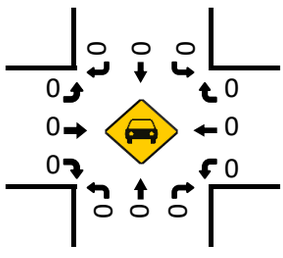
Totals (AM)



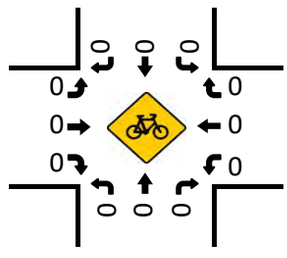
Total Bikes (AM)



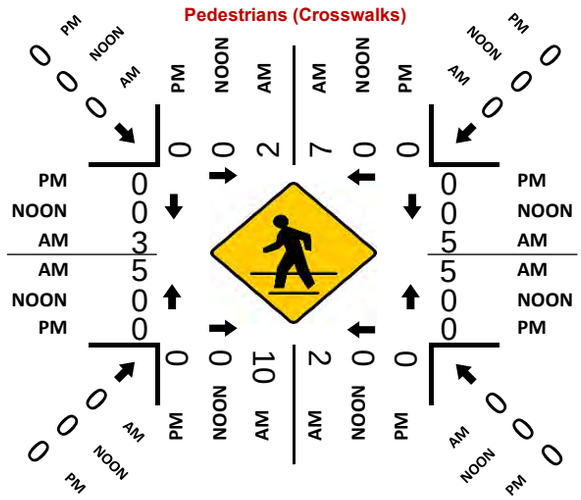
Totals (NOON)



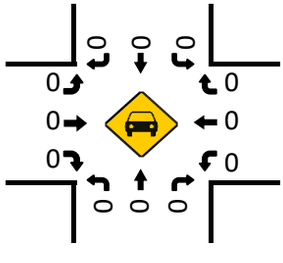
Total Bikes (NOON)



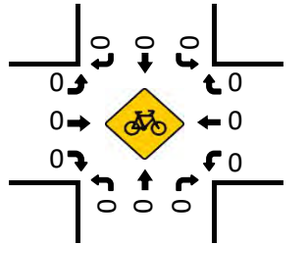
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & N Evergreen St

Peak Hour Turning Movement Count

ID: 23-040225-022
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	70	1717	99	36	1980	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (N Evergreen St)

AM	NOON	PM		
91	0	0	⇦	
0	0	0	↶	0
108	0	0	↰	0
10	0	0	→	1
12	0	0	↷	0
AM	NOON	PM		

WESTBOUND (N Evergreen St)

PM	NOON	AM		
0	0	82	↷	0
0	0	15	←	1
0	0	61	↶	0
0	0	0	↰	0
0	0	132	⇨	
PM	NOON	AM		

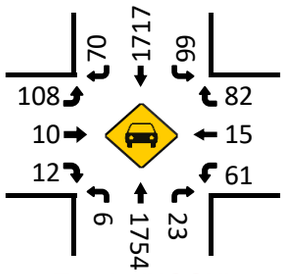
CONTROL: Signalized

TEV	4006	0	0
	AM	NOON	PM
PHF	0.92		

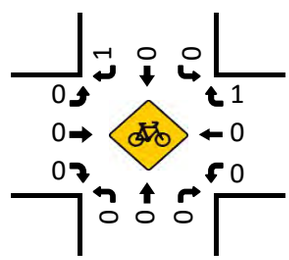
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	1803	13	6	1754	23	AM

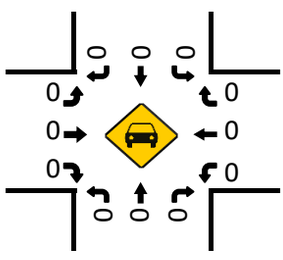
Totals (AM)



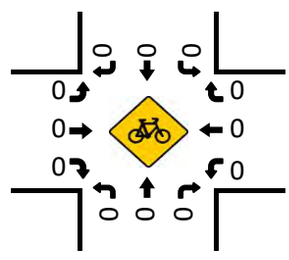
Total Bikes (AM)



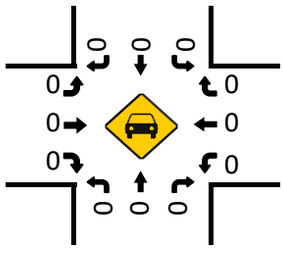
Totals (NOON)



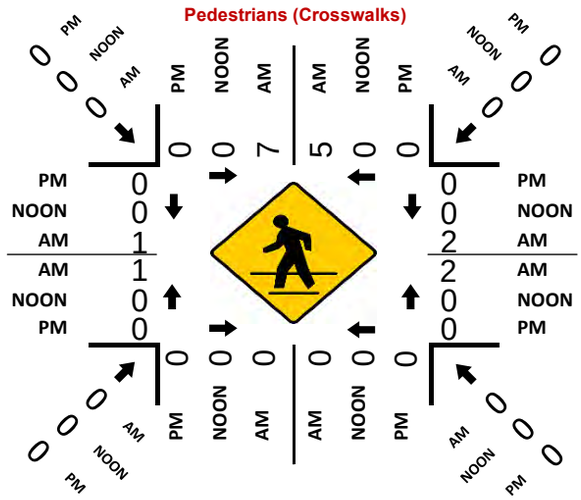
Total Bikes (NOON)



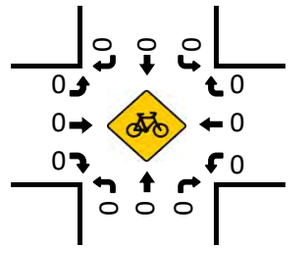
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Lytton St

Peak Hour Turning Movement Count

ID: 23-040225-021
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	259	1394	149	19	1815	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM
	1	2	2	0		

EASTBOUND (Lytton St)

AM	NOON	PM		
557	0	0		
0	0	0	0	
351	0	0	1	
287	0	0	0.5	
13	0	0	0.5	
AM	NOON	PM		

WESTBOUND (Lytton St)

PM	NOON	AM	
0	0	123	1
0	0	288	1
0	0	551	2
0	0	0	0
0	0	917	
PM	NOON	AM	

CONTROL

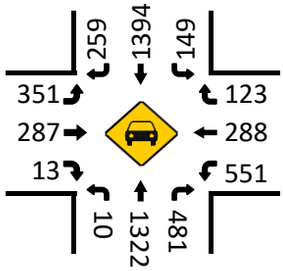
Signalized

TEV	5247	0	0
	AM	NOON	PM
PHF	0.94		

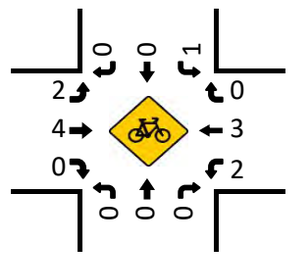
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	1958	0	10	1322	481	AM
		0	1	3	1

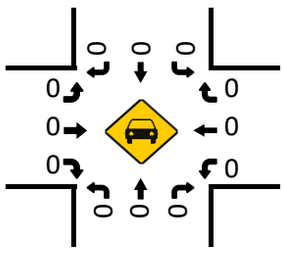
Totals (AM)



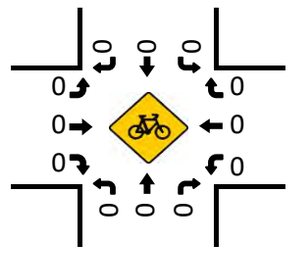
Total Bikes (AM)



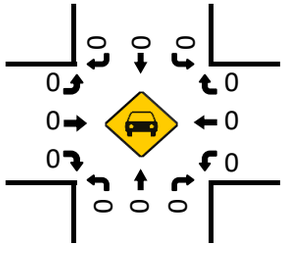
Totals (NOON)



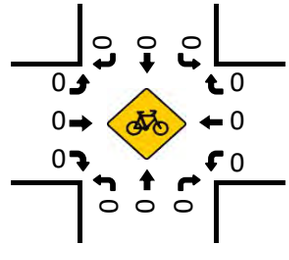
Total Bikes (NOON)



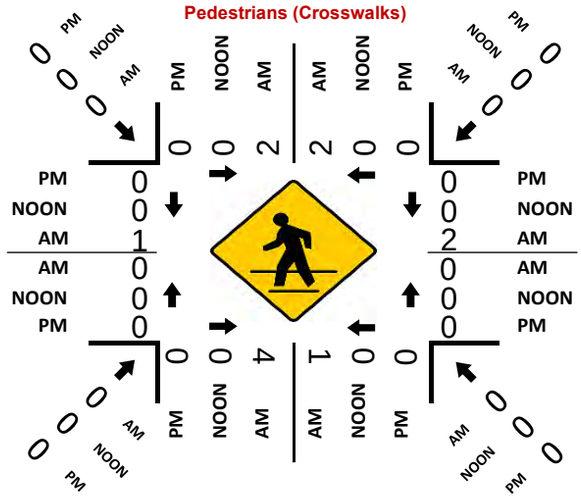
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Rosecrans St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040225-013
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	253	37	0	476	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
2	0	0		
0	0	0	0	
33	0	0	1	
128	0	0	0.5	
5	0	0	0.5	
AM	NOON	PM		

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	142	1
0	0	2	0
0	0	139	1
0	0	0	0
0	0	279	
PM	NOON	AM	

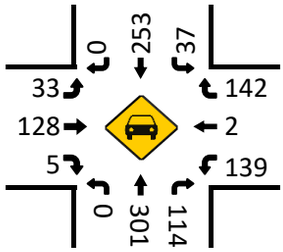
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	397	0	0	301	114	AM

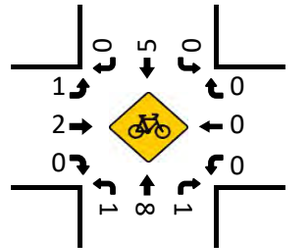
CONTROL: Signalized

TEV	1154 AM	0 NOON	0 PM
PHF	0.91		

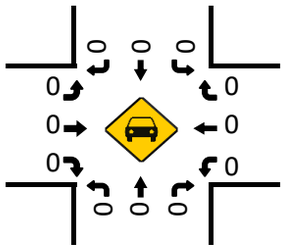
Totals (AM)



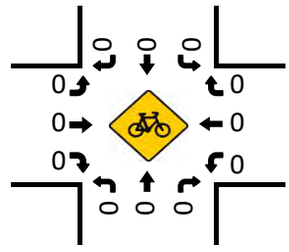
Total Bikes (AM)



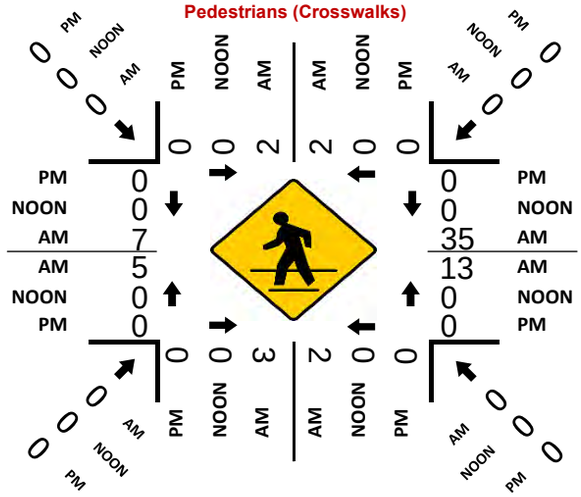
Totals (NOON)



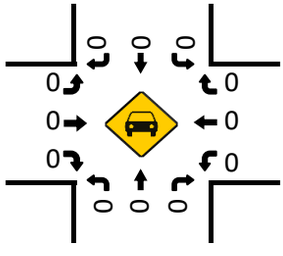
Total Bikes (NOON)



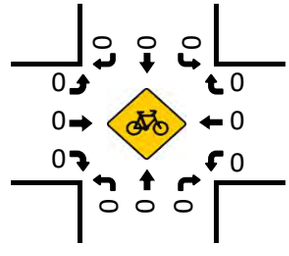
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040225-014
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS		COUNT PERIODS
AM	08:00 AM - 09:00 AM	7:00 AM - 10:00 AM
NOON	11:45 AM - 12:45 PM	11:00 AM - 01:00 PM
PM	NONE	NONE

SOUTHBOUND (Rosecrans St)

	Right	Thru	Left	U-Turn	Departing
AM	56	286	0	1	339
NOON	51	312	0	0	539
PM	0	0	0	0	0
Bikes	0	2	0	0	

EASTBOUND (Hancock St)

	AM	NOON	PM	Bikes
Departing	187	178	0	
U-Turn	0	0	0	0
Left	0	0	0	0
Thru	0	0	0	0
Right	1	0	0	0

WESTBOUND (Hancock St)

	Bikes	PM	NOON	AM
Right	0	0	0	0
Thru	0	0	0	0
Left	0	0	0	0
U-Turn	0	0	0	0
Departing		0	0	0

NORTHBOUND (Rosecrans St)

	Departing	U-Turn	Left	Thru	Right
Bikes		0	1	2	0
PM	0	0	0	0	0
NOON	319	7	127	539	0
AM	290	3	131	338	0

CONTROL

No control

	AM	NOON	PM
TEV	816	1036	0
PHF	0.94	0.96	

Totals (AM)

Approach	Left	Thru	Right
SB	0	286	56
EB	0	0	1
WB	0	0	0
NB	131	338	0

U-turns: SB 0, WB 0, NB 0, EB 0

Total Bikes (AM)

Approach	Left	Thru	Right
SB	0	5	0
EB	0	0	0
WB	0	0	0
NB	0	7	0

Totals (NOON)

Approach	Left	Thru	Right
SB	0	312	51
EB	0	0	0
WB	0	0	0
NB	127	539	0

Total Bikes (NOON)

Approach	Left	Thru	Right
SB	0	4	3
EB	0	0	0
WB	0	0	0
NB	0	14	0

Totals (PM)

Approach	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

Total Bikes (PM)

Approach	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North leg	Eastbound	2	2	0
North leg	Westbound	1	2	0
West leg	Southbound	9	23	0
West leg	Northbound	6	12	0
East leg	Southbound	0	0	0
East leg	Northbound	0	0	0
South leg	Eastbound	0	0	0
South leg	Westbound	0	2	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

Prepared by National Data & Surveying Services

Pacific Hwy & Rosecrans St/Taylor St

Peak Hour Turning Movement Count

ID: 23-040225-015
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND (Pacific Hwy)

AM	43	55	41	1	184	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Rosecrans St/Taylor St)

AM	NOON	PM		
366	0	0		
0	0	0	0	
32	0	0	1	
219	0	0	4	
61	0	0	1	
AM	NOON	PM		

WESTBOUND (Rosecrans St/Taylor St)

	PM	NOON	AM
1	0	0	60
1	0	0	236
2	0	0	192
0	0	0	2
	0	0	365
	PM	NOON	AM

NORTHBOUND (Pacific Hwy)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	308	0	87	91	103	AM

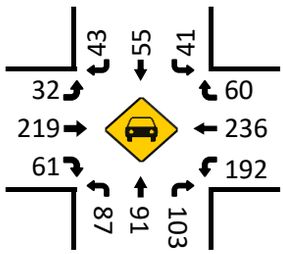
	0	1	2	2

CONTROL

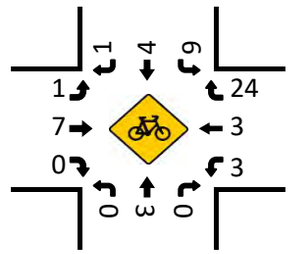
Signalized

TEV	1223	0	0
	AM	NOON	PM
PHF	0.94		

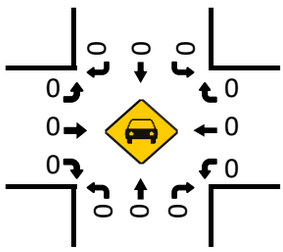
Totals (AM)



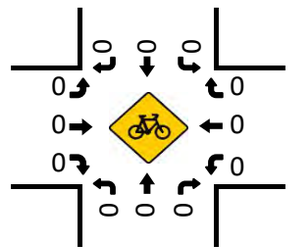
Total Bikes (AM)



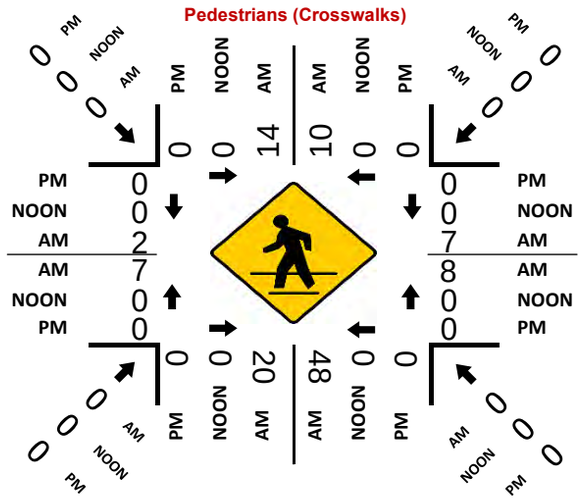
Totals (NOON)



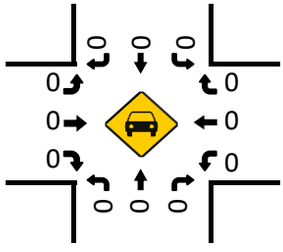
Total Bikes (NOON)



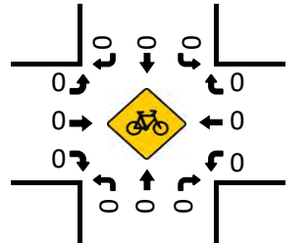
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Enterprise St

Peak Hour Turning Movement Count

ID: 23-040225-031
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND — Pacific Hwy

AM	94	341	81	3	553	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Enterprise St

AM	NOON	PM		
387	0	0		
0	0	0	0	
7	0	0	1	
11	0	0	1	
8	0	0	1	
AM	NOON	PM		

WESTBOUND — Enterprise St

	PM	NOON	AM
1	0	0	4
1	0	0	4
1	0	0	17
0	0	0	0
	0	0	279
	PM	NOON	AM

NORTHBOUND — Pacific Hwy

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	430	64	289	539	187	AM

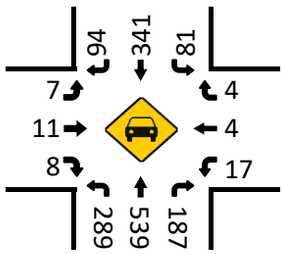
	0	1	2	1

CONTROL

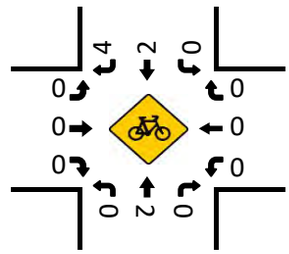
Signalized

TEV	1649	0	0
	AM	NOON	PM
PHF	0.95		

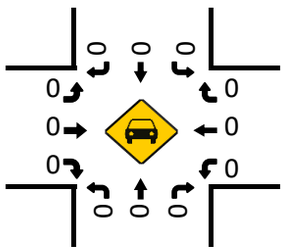
Totals (AM)



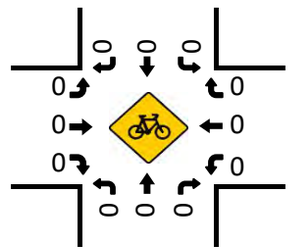
Total Bikes (AM)



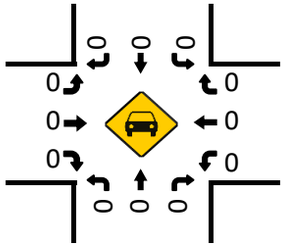
Totals (NOON)



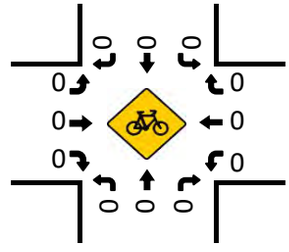
Total Bikes (NOON)



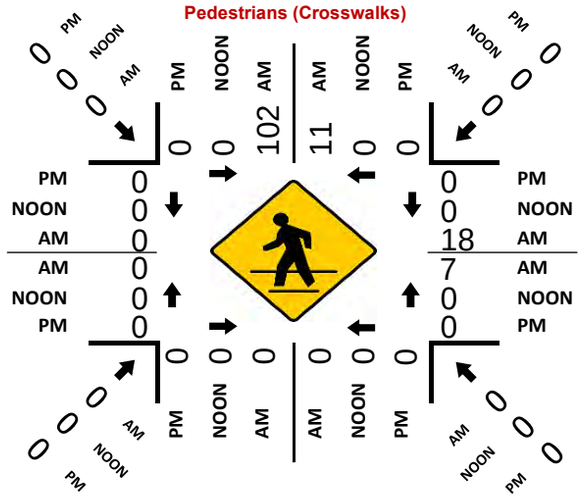
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Enterprise St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040225-018
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	08:30 AM - 09:30 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND — Enterprise St

AM	164	0	0	0	21	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Midway Dr

AM	NOON	PM		
713	0	0	⇦	
0	0	0	↶	0
0	0	0	↱	0
414	0	0	→	2
0	0	0	↷	0
AM	NOON	PM		

WESTBOUND — Midway Dr

PM	NOON	AM		
0	0	21	↷	0
0	0	549	←	2
0	0	0	↰	0
0	0	0	↶	0
0	0	414	⇨	
PM	NOON	AM		

1	0	0	0	
				0
				0
				0
0	0	0	0	

CONTROL

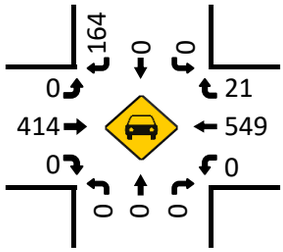
1-Way Stop(SB)

TEV	1148	0	0
	AM	NOON	PM
PHF	0.96		

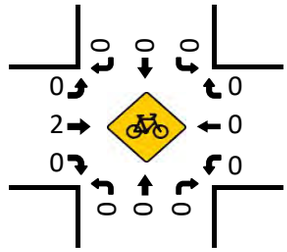
NORTHBOUND — Enterprise St

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

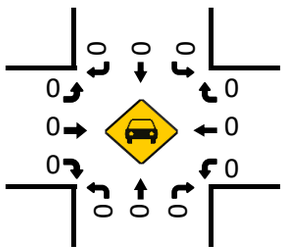
Totals (AM)



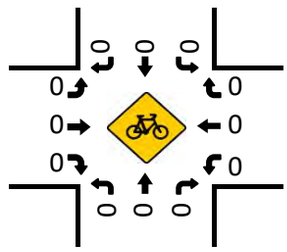
Total Bikes (AM)



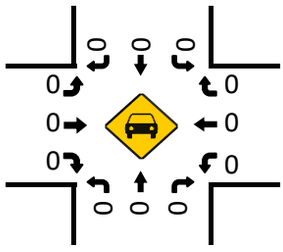
Totals (NOON)



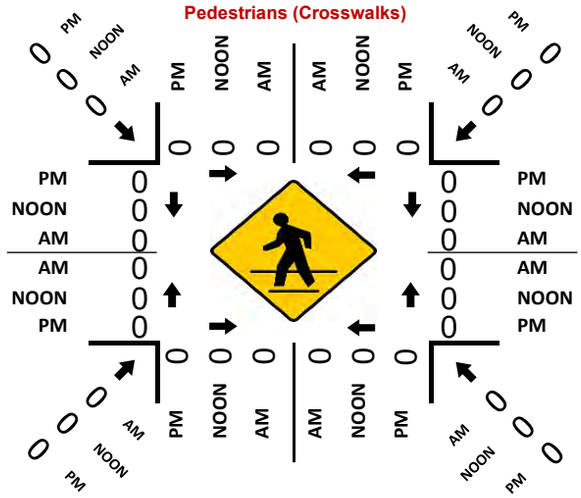
Total Bikes (NOON)



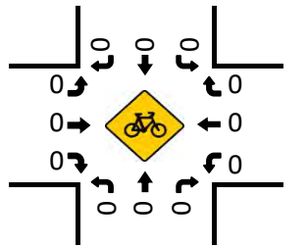
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Barnett Ave & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040225-017
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	NONE
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	NONE

SOUTHBOUND (Barnett Ave)

AM	470	1348	0	0	1284	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
470	0	0	
0	0	0	0
304	0	0	2
0	0	0	0
53	0	0	1

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

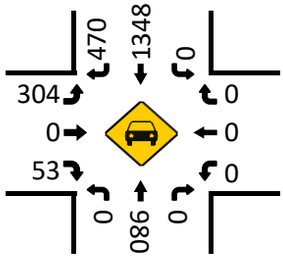
NORTHBOUND (Barnett Ave)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	1401	0	0	980	0	AM

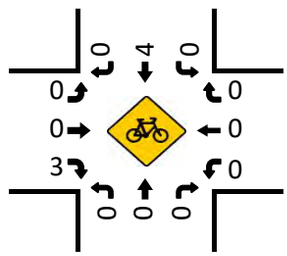
CONTROL: Signalized

TEV	3155	0	0
	AM	NOON	PM
PHF	0.96		

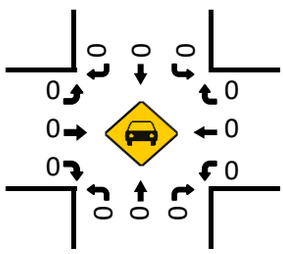
Totals (AM)



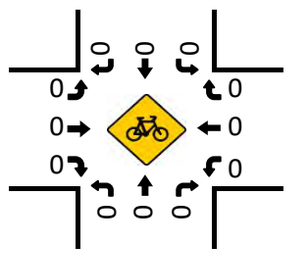
Total Bikes (AM)



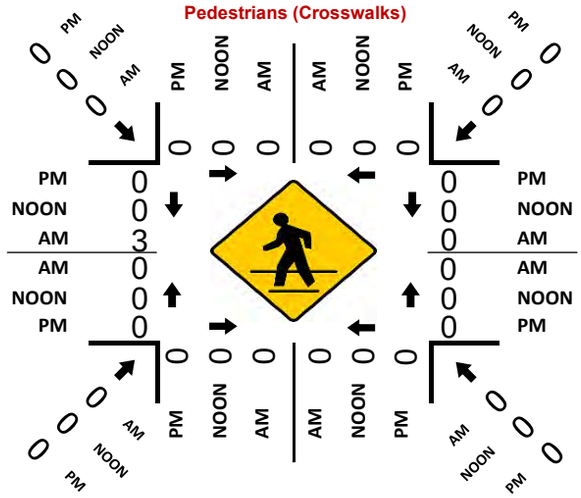
Totals (NOON)



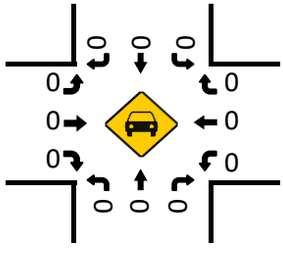
Total Bikes (NOON)



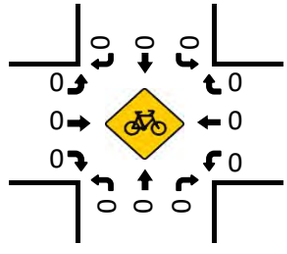
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

I-5 SB Ramps & Sea World Dr

Peak Hour Turning Movement Count

ID: 23-040225-029
City: San Diego

Day: Tuesday
Date: 10/24/2023

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (I-5 SB Ramps)

AM	601	0	237	0	0	AM
NOON	662	2	212	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Sea World Dr)

AM	NOON	PM		
957	1042	0		
0	0	0	0	
0	0	0	0	
982	667	0	2	
60	147	0	1	
AM	NOON	PM		

WESTBOUND (Sea World Dr)

PM	NOON	AM		
0	0	0	0	
0	380	356	2	
0	243	337	2	
0	0	1	0	
PM	NOON	AM		

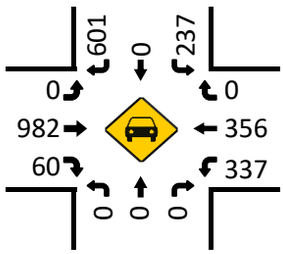
	1	0	1	0
	0	0	0	0

PM	0	0	0	0	PM
NOON	392	0	0	0	0	NOON
AM	397	0	0	0	0	AM

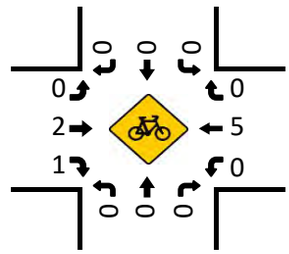
NORTHBOUND (I-5 SB Ramps)

CONTROL			
Signalized			
TEV	2574	2313	0
	AM	NOON	PM
PHF	0.97	0.95	

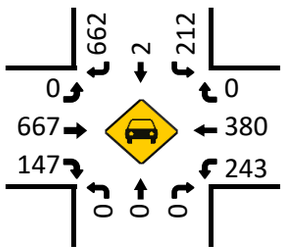
Totals (AM)



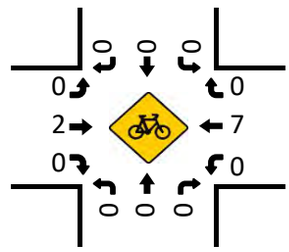
Total Bikes (AM)



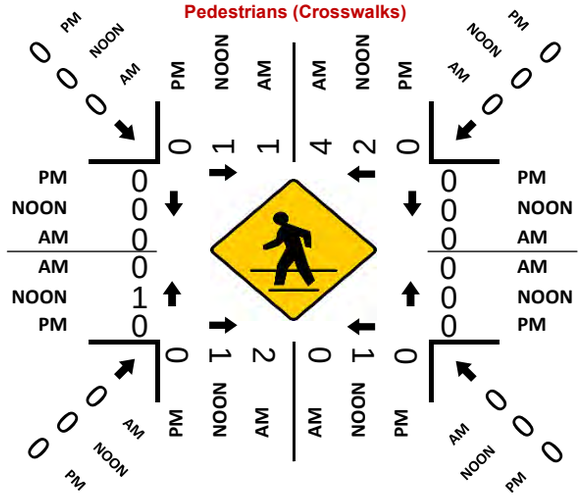
Totals (NOON)



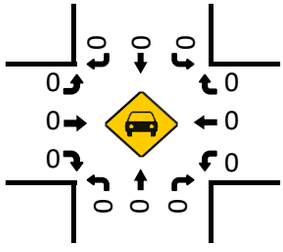
Total Bikes (NOON)



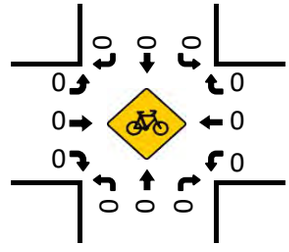
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

W Mission Bay Dr & I-8 WB Off Ramp

Peak Hour Turning Movement Count

ID: 23-040200-001
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND — W Mission Bay Dr

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	1888	0	0	2055	PM

EASTBOUND — I-8 WB Off Ramp

AM	NOON	PM	
0	0	0	⇦
0	0	0	↶ 0
0	0	0	↱ 0
0	0	0	→ 0
0	0	0	↷ 0
AM	NOON	PM	

WESTBOUND — I-8 WB Off Ramp

PM	NOON	AM	
1493	0	0	2 ↷
0	0	0	0 ←
812	0	0	2 ↶
0	0	0	0 ↱
0	0	0	⇨
PM	NOON	AM	

CONTROL: Signalized

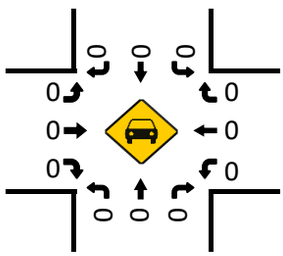
TEV	0 AM	0 NOON	4755 PM
PHF			0.98

NORTHBOUND — W Mission Bay Dr

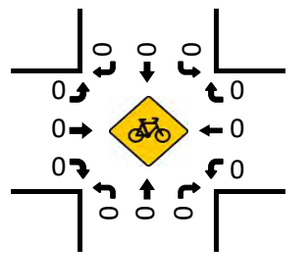
PM	2700	0	0	562	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

0 4 0 0 (EB) — 0 0 3 0 (NB)

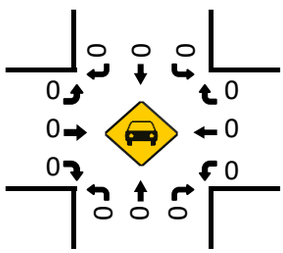
Totals (AM)



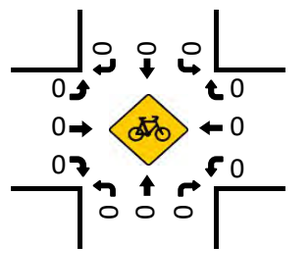
Total Bikes (AM)



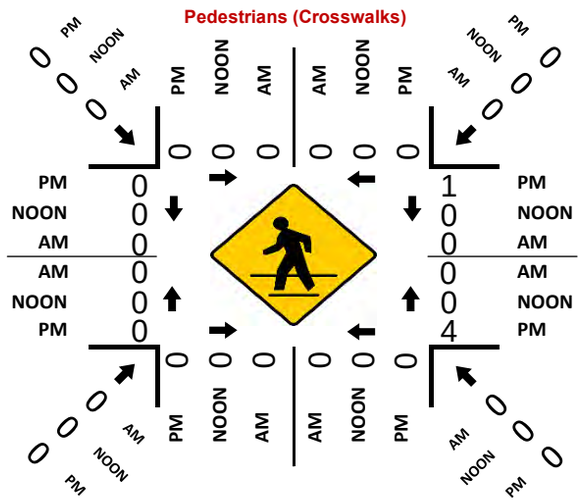
Totals (NOON)



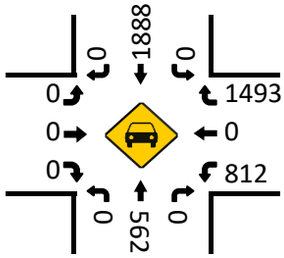
Total Bikes (NOON)



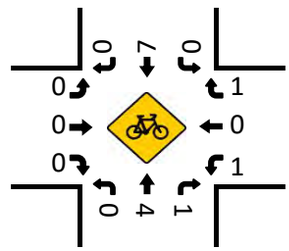
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sports Arena Blvd/Midway Dr & W Point Loma Blvd/Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-002
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	04:15 PM - 05:15 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND — Sports Arena Blvd/Midway Dr

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	328	470	473	3	1148	PM
	0.5	1.5	1	0		

EASTBOUND — W Point Loma Blvd/Sports Arena Blvd

AM	NOON	PM	
0	0	887	
0	0	0	0
0	0	302	1.5
0	0	234	0.5
0	0	274	1
AM	NOON	PM	

WESTBOUND — W Point Loma Blvd/Sports Arena Blvd

PM	NOON	AM	
428	0	0	1
273	0	0	2
26	0	0	1
0	0	0	0
739	0	0	
PM	NOON	AM	

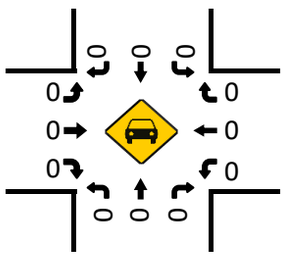
CONTROL: Signalized

TEV	0 AM	0 NOON	3544 PM
PHF			0.98

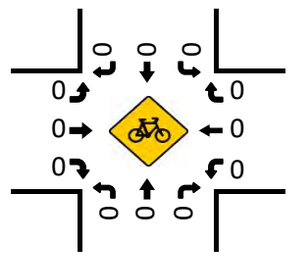
NORTHBOUND — Sports Arena Blvd/Midway Dr

PM	770	0	286	415	32	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1	1.5	0.5	

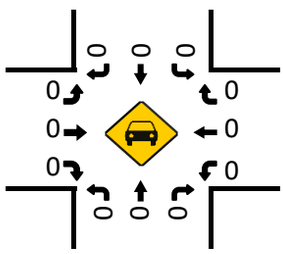
Totals (AM)



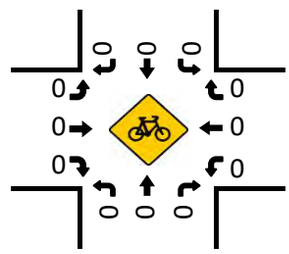
Total Bikes (AM)



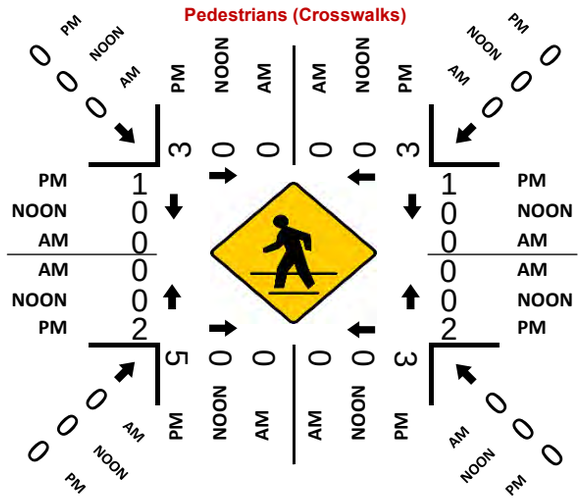
Totals (NOON)



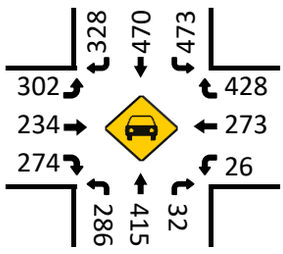
Total Bikes (NOON)



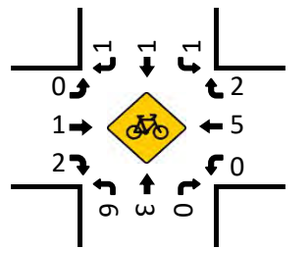
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Hancock St & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-003
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	1599
PHF			0.99

SOUTHBOUND (Hancock St)

	Left	Thru	Right	Peds	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	116	0	65	0	218

EASTBOUND (Sports Arena Blvd)

	AM	NOON	PM
Left	0	0	9
Thru	0	0	136
Right	0	0	639
Peds	0	0	0
Total	0	0	659

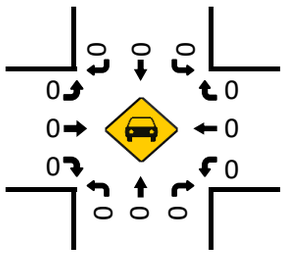
WESTBOUND (Sports Arena Blvd)

	PM	NOON	AM
Left	82	0	0
Thru	534	0	0
Right	6	0	0
Peds	12	0	0
Total	716	0	0

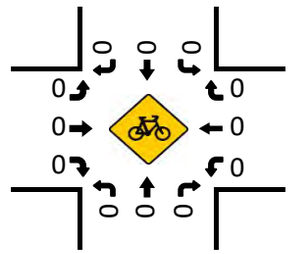
NORTHBOUND (Hancock St)

	Left	Thru	Right	Peds	Total
PM	6	0	0	0	0
NOON	0	0	0	0	0
AM	0	0	0	0	0

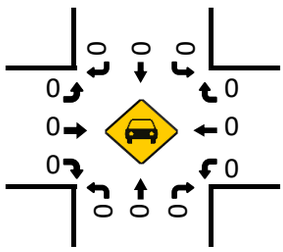
Totals (AM)



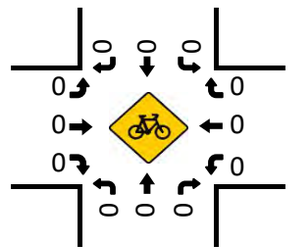
Total Bikes (AM)



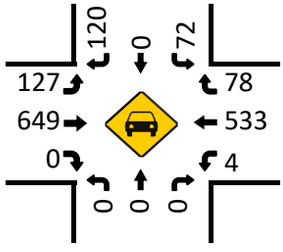
Totals (NOON)



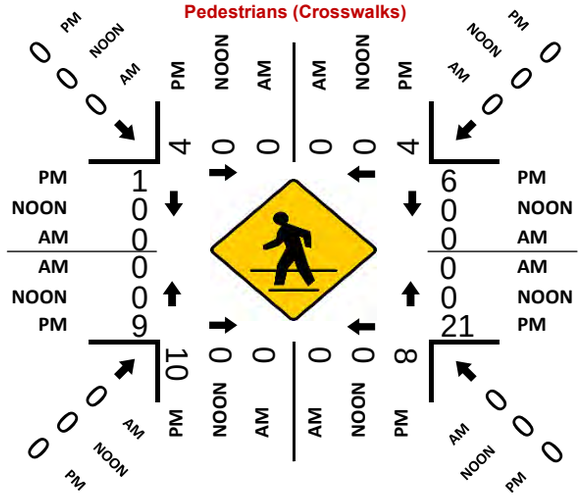
Total Bikes (NOON)



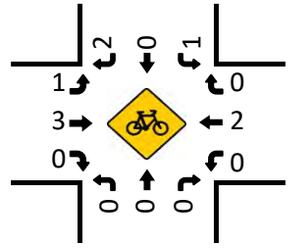
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kemper St & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-032
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Kemper St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	13	1	3	0	242	PM

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	0	666	
0	0	17	0
0	0	105	2
0	0	500	2
0	0	82	0

WESTBOUND (Sports Arena Blvd)

PM	NOON	AM	
75	0	0	0
541	0	0	3
124	0	0	1
8	0	0	0
635	0	0	

NORTHBOUND (Kemper St)

PM	207	0	95	62	124	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

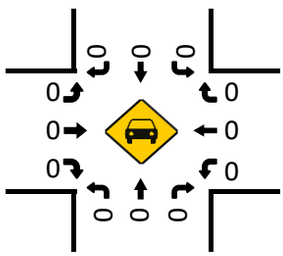
1	0.5	0.5	0
			0
			1
			1
			0

CONTROL

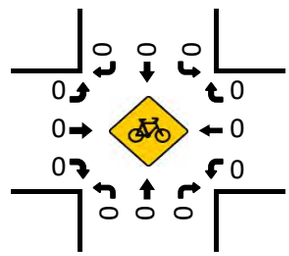
Signalized

	AM	NOON	PM
TEV	0	0	1750
PHF			0.96

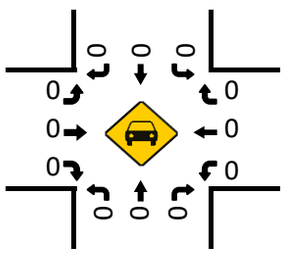
Totals (AM)



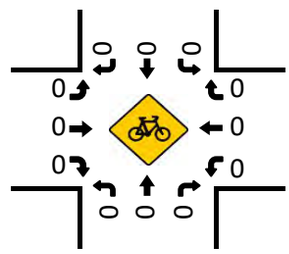
Total Bikes (AM)



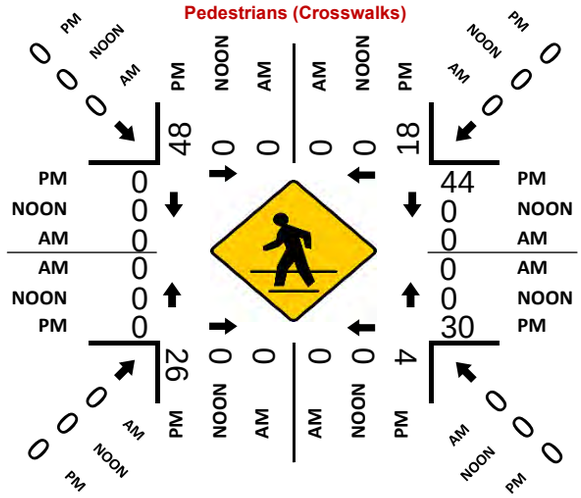
Totals (NOON)



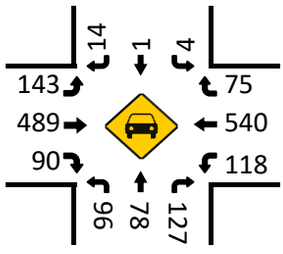
Total Bikes (NOON)



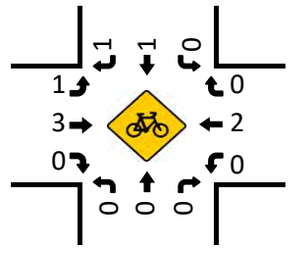
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

West Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-033
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS	
AM	NONE
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS	
AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (West Dr)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	129	25	157	2	334	PM
	0.5	1	0.5	0		

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	0	745	
0	0	6	0
0	0	59	2
0	0	500	2
0	0	67	0

WESTBOUND (Sports Arena Blvd)

	PM	NOON	AM
0	243	0	0
3	498	0	0
1	72	0	0
0	4	0	0
	731	0	0

CONTROL

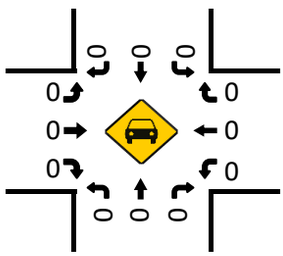
Signalized

	AM	NOON	PM
TEV	0	0	1975
PHF			0.98

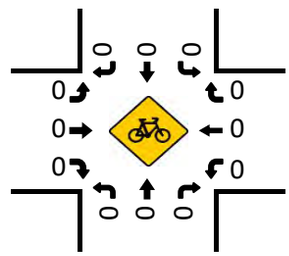
NORTHBOUND (West Dr)

	0	0	1	0		
PM	165	1	112	30	70	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

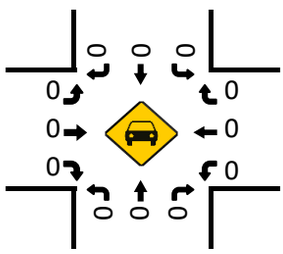
Totals (AM)



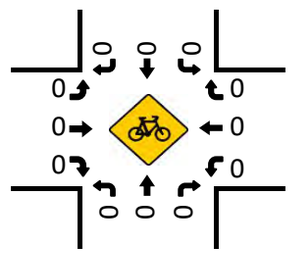
Total Bikes (AM)



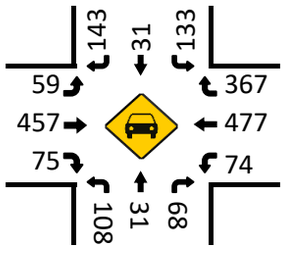
Totals (NOON)



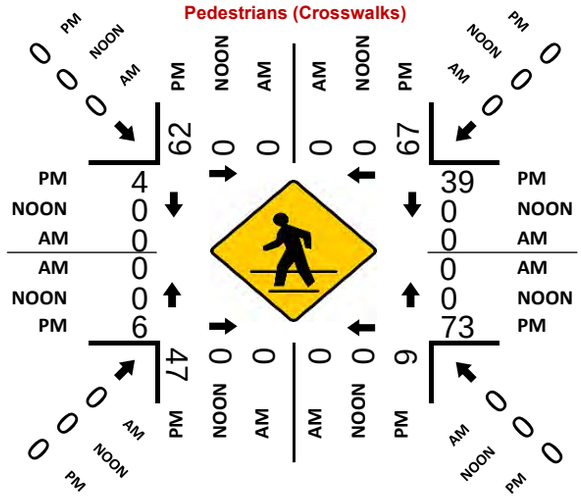
Total Bikes (NOON)



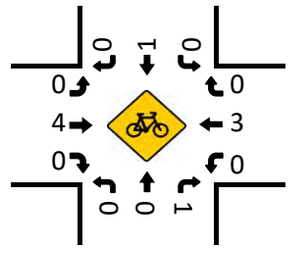
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Target Department Store Dwy & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-034
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Target Department Store Dwy)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	18	3	4	0	58	PM

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM		
0	0	824	⇦	
0	0	4	↰	0
0	0	44	↑	1
0	0	680	→	3
0	0	23	↳	0
AM	NOON	PM		

WESTBOUND (Sports Arena Blvd)

PM	NOON	AM		
13	0	0	↱	0
802	0	0	←	3
117	0	0	↰	1
19	0	0	↳	0
804	0	0	⇨	
PM	NOON	AM		

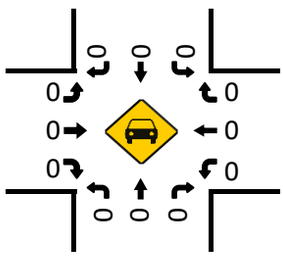
NORTHBOUND (Target Department Store Dwy)

PM	143	0	0	1	101	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

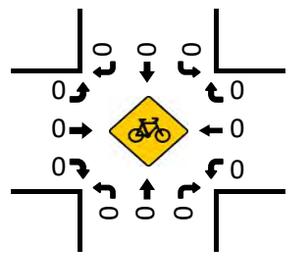
CONTROL: 1-Way Stop(NB)

	AM	NOON	PM
TEV	0	0	1829
PHF			0.92

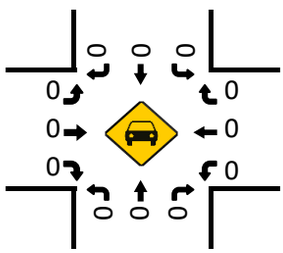
Totals (AM)



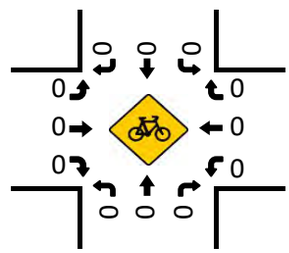
Total Bikes (AM)



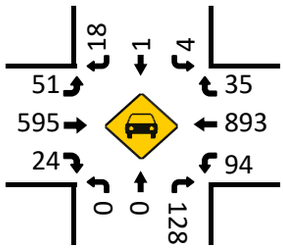
Totals (NOON)



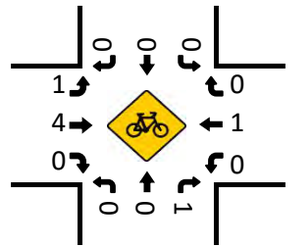
Total Bikes (NOON)



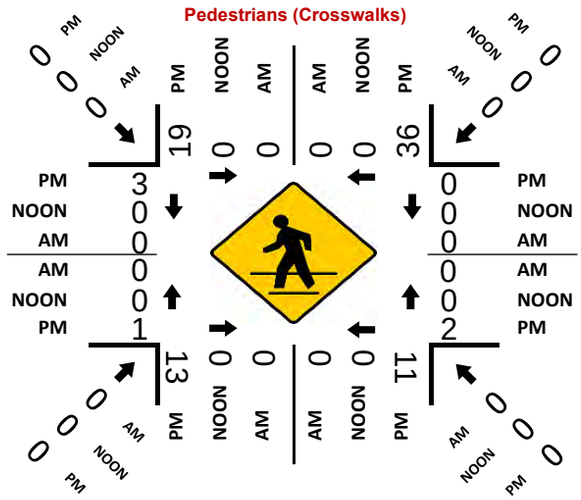
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

East Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-004
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	2115
PHF			0.93

SOUTHBOUND (East Dr)

	Left	Thru	Right	Peds	
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	1	0	9

EASTBOUND (Sports Arena Blvd)

	AM	NOON	PM
Left	0	0	16
Thru	0	0	5
Right	0	0	743
Peds	0	0	29
Through	0	0	971

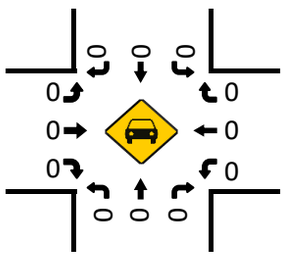
WESTBOUND (Sports Arena Blvd)

	PM	NOON	AM
Left	4	0	0
Thru	854	0	0
Right	125	0	0
Peds	82	0	0
Through	981	0	0

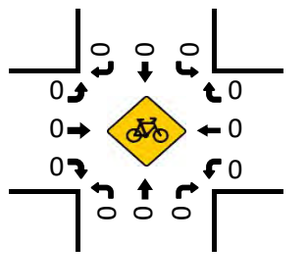
NORTHBOUND (East Dr)

	Left	Thru	Right	Peds	
PM	154	0	101	0	155
NOON	0	0	0	0	0
AM	0	0	0	0	0

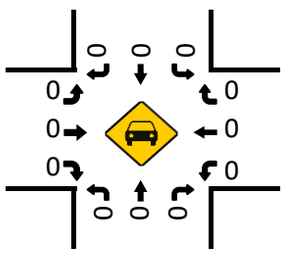
Totals (AM)



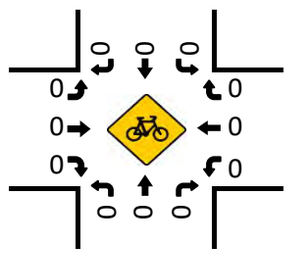
Total Bikes (AM)



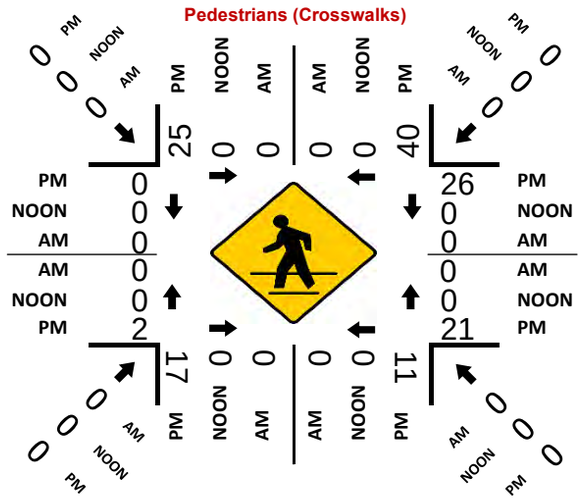
Totals (NOON)



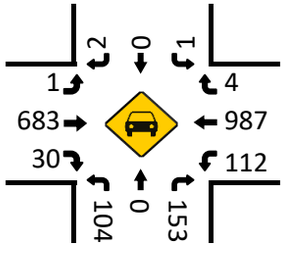
Total Bikes (NOON)



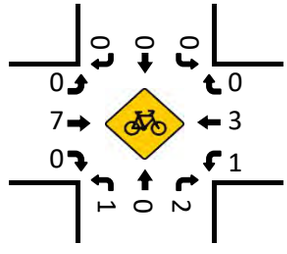
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kemper St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040200-024
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

TEV: AM 0 | NOON 0 | PM 2064
PHF: PM 0.95

SOUTHBOUND (Kemper St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	62	132	31	0	271	PM
	1	1	1	0		

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	0	742	
0	0	37	0
0	0	68	1
0	0	467	2
0	0	117	1

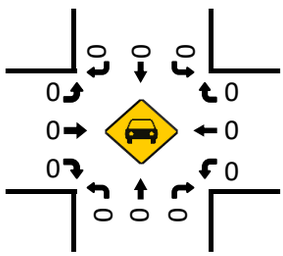
WESTBOUND (Midway Dr)

	PM	NOON	AM
0	58	0	0
2	487	0	0
2	148	0	0
0	0	0	0
	654	0	0

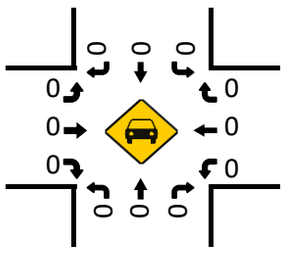
NORTHBOUND (Kemper St)

PM	397	0	156	145	156	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1.5	0.5	1	

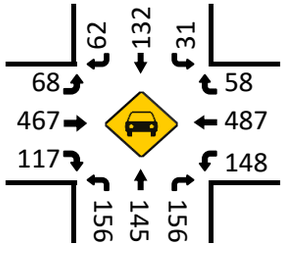
Totals (AM)



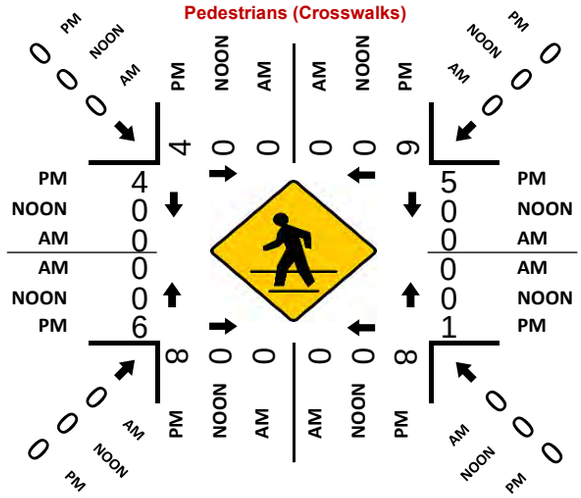
Totals (NOON)



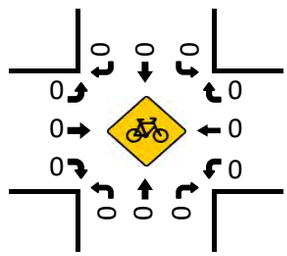
Totals (PM)



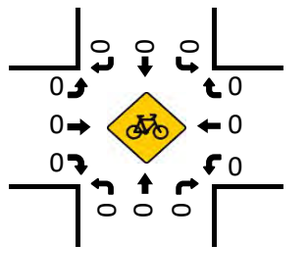
Pedestrians (Crosswalks)



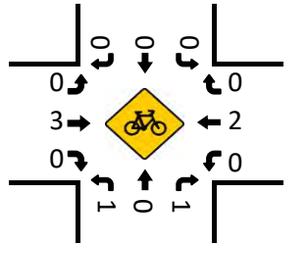
Total Bikes (AM)



Total Bikes (NOON)



Total Bikes (PM)



Prepared by National Data & Surveying Services

East Dr & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040200-023
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	2170
PHF			0.96

SOUTHBOUND (East Dr)

	Left	Thru	Right	Peds	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	76	11	158	0	356

EASTBOUND (Midway Dr)

	Left	Thru	Right	Peds
AM	0	0	0	0
NOON	0	0	0	1
PM	35	0	10	3

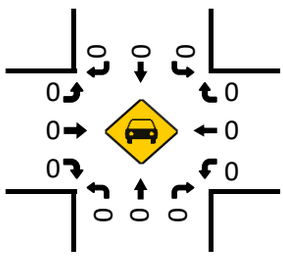
WESTBOUND (Midway Dr)

	Left	Thru	Right	Peds
AM	0	0	810	0
NOON	0	0	60	1
PM	0	0	797	2

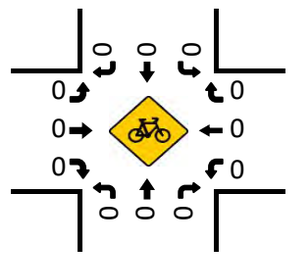
NORTHBOUND (East Dr)

	Left	Thru	Right	Peds	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	293	724	15	7	969

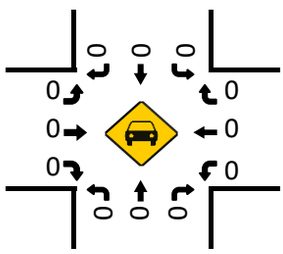
Totals (AM)



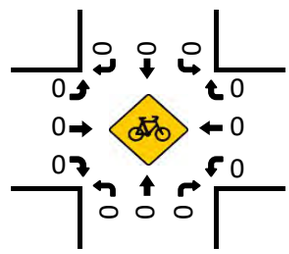
Total Bikes (AM)



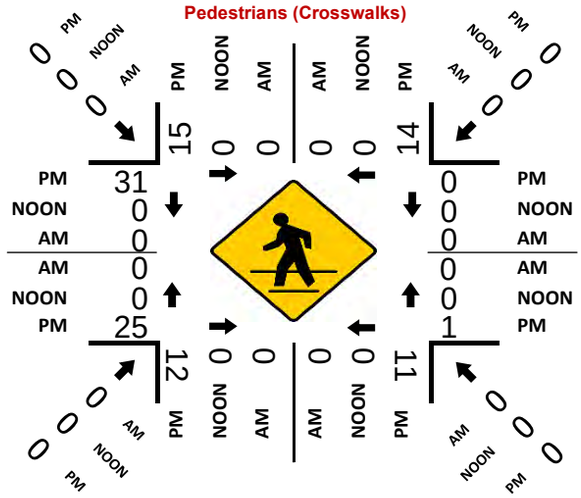
Totals (NOON)



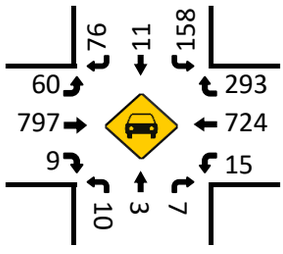
Total Bikes (NOON)



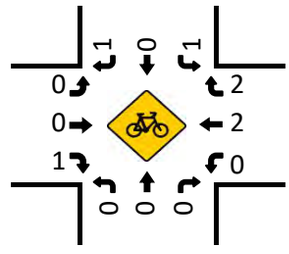
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Hancock St & Channel Way

Peak Hour Turning Movement Count

ID: 23-040200-005
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:15 PM - 05:15 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Hancock St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	36	150	0	1	147	PM

EASTBOUND (Channel Way)

AM	NOON	PM	
0	0	59	
0	0	0	0
0	0	16	0
0	0	0	1
0	0	20	0
AM	NOON	PM	

WESTBOUND (Channel Way)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

CONTROL

3-Way Stop(NB/SB/EB)

	AM	NOON	PM
TEV	0	0	383
PHF			0.89

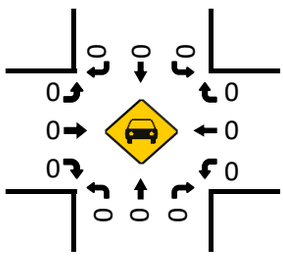
NORTHBOUND (Hancock St)

PM	177	7	23	130	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

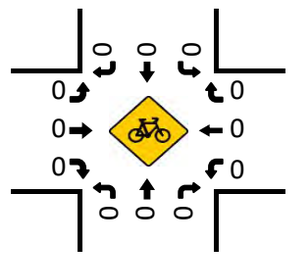
0 1 0 0 (SB turning movements)

0 1 1 0 (NB turning movements)

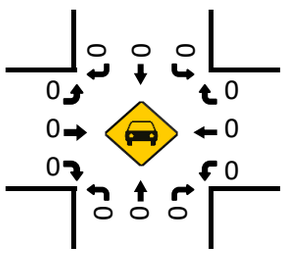
Totals (AM)



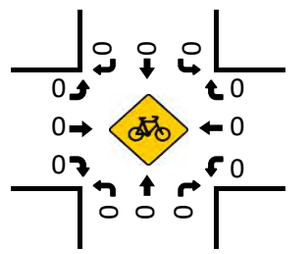
Total Bikes (AM)



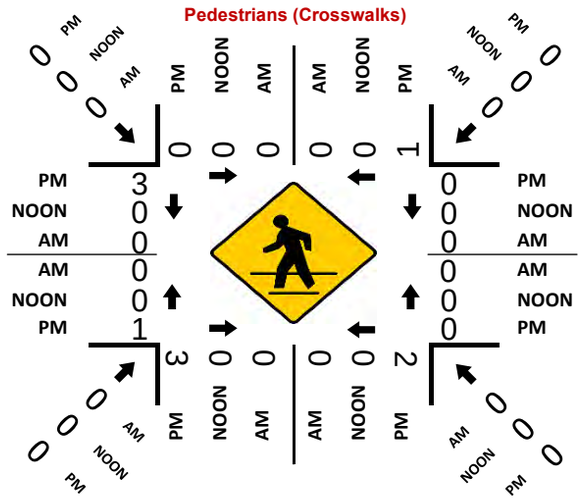
Totals (NOON)



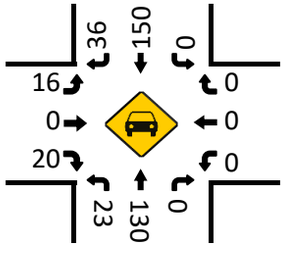
Total Bikes (NOON)



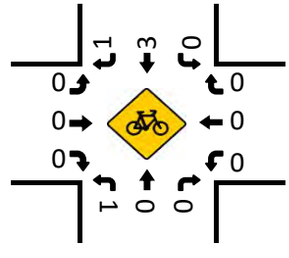
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kurtz St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040200-006
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS		COUNT PERIODS
AM	NONE	NONE
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	3:00 PM - 07:00 PM

CONTROL: 1-Way Stop(WB)

	AM	NOON	PM
TEV	0	0	513
PHF			0.86

Kurtz St — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0
Bikes	0	0	0	0	

Hancock St — WESTBOUND

	PM	NOON	AM	Bikes
U-Turn	0	0	0	0
Thru	213	0	0	1
Left	156	0	0	1
U-Turn	0	0	0	0
Departing	0	0	0	

Hancock St — EASTBOUND

	AM	NOON	PM	Bikes
Departing	0	0	214	
U-Turn	0	0	1	0
Left	0	0	0	0
Thru	0	0	0	0
Right	0	0	143	1

Kurtz St — NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
PM	299	0	0	0	0
NOON	0	0	0	0	0
AM	0	0	0	0	0
Bikes		0	0	0	0

Totals (AM)

Approach	Left	Thru	Right
SB	0	0	0
WB	0	0	0
EB	0	0	0
NB	0	0	0

Totals (NOON)

Approach	Left	Thru	Right
SB	0	0	0
WB	0	0	0
EB	0	0	0
NB	0	0	0

Totals (PM)

Approach	Left	Thru	Right
SB	0	0	0
WB	257	176	0
EB	0	0	132
NB	0	0	0

Total Bikes (AM)

Approach	Left	Thru	Right
SB	0	0	0
WB	0	0	0
EB	0	0	0
NB	0	0	0

Total Bikes (NOON)

Approach	Left	Thru	Right
SB	0	0	0
WB	0	0	0
EB	0	0	0
NB	0	0	0

Total Bikes (PM)

Approach	Left	Thru	Right
SB	0	0	0
WB	0	0	0
EB	0	0	0
NB	1	0	0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (eastbound / westbound)	0 / 0	0 / 0	0 / 0
West leg (southbound / northbound)	0 / 0	0 / 0	0 / 0
East leg (southbound / northbound)	0 / 0	0 / 0	0 / 1
South leg (eastbound / westbound)	0 / 0	0 / 0	6 / 1
NW diagonal	0	0	0
NE diagonal	0	0	0
SW diagonal	0	0	0
SE diagonal	0	0	0

Prepared by National Data & Surveying Services

Sherman St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040200-007
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Sherman St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	156	0	65	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	0	63	0	
0	0	239	2	
0	0	0	0	
AM	NOON	PM		

WESTBOUND (Kurtz St)

PM	NOON	AM	
2	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
395	0	0	
PM	NOON	AM	

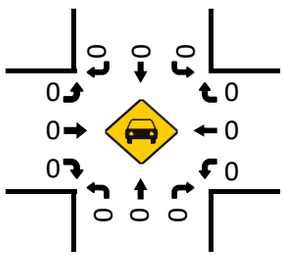
NORTHBOUND (Sherman St)

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM

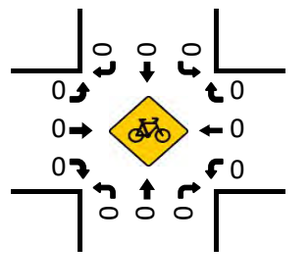
CONTROL: 2-Way Stop(SB/EB)

	AM	NOON	PM
TEV	0	0	460
PHF			0.87

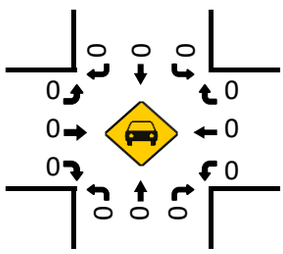
Totals (AM)



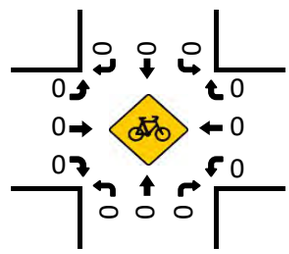
Total Bikes (AM)



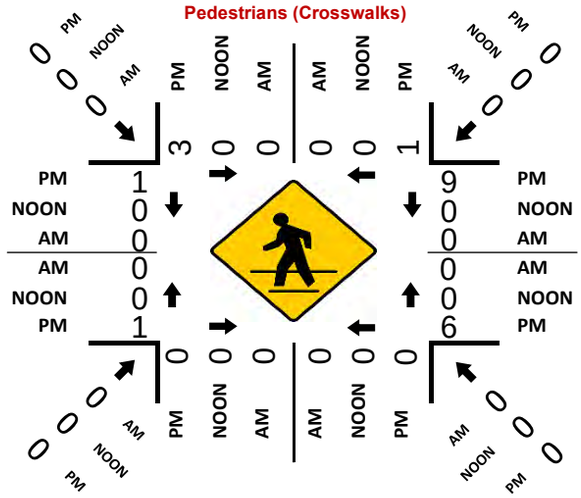
Totals (NOON)



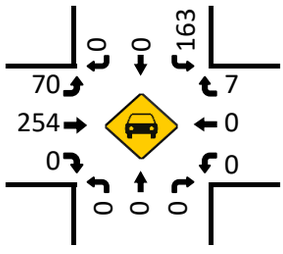
Total Bikes (NOON)



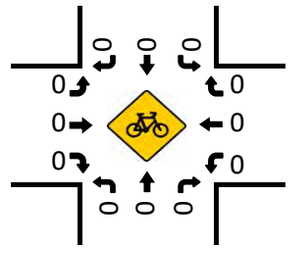
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Greenwood St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040200-009
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: 1-Way Stop (SB)

	AM	NOON	PM
TEV	0	0	459
PHF			0.92

SOUTHBOUND (Greenwood St)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	48	1	24	PM

EASTBOUND (Kurtz St)

	L	T	R	
AM	0	0	0	
NOON	0	0	0	
PM	0	0	22	
PM	0	0	381	
PM	0	0	2	

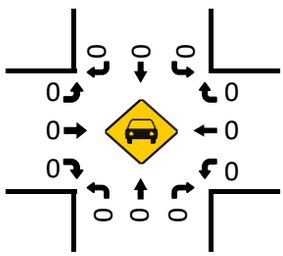
WESTBOUND (Kurtz St)

	L	T	R	
PM	0	0	0	
NOON	0	0	0	
AM	0	0	0	
	0	0	0	
	433	0	0	

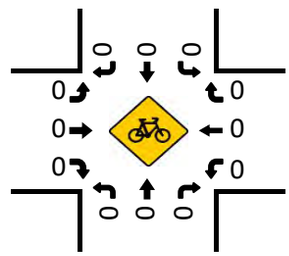
NORTHBOUND (Greenwood St)

	L	T	R	U	Total	
PM	2	0	0	1	4	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

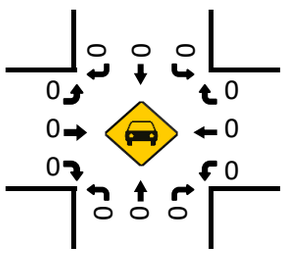
Totals (AM)



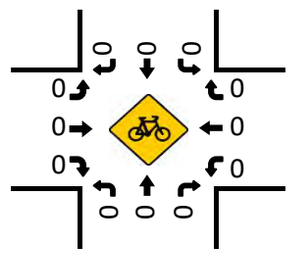
Total Bikes (AM)



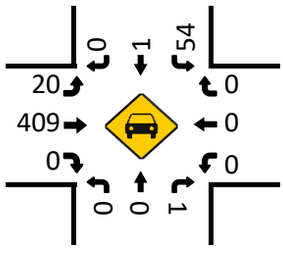
Totals (NOON)



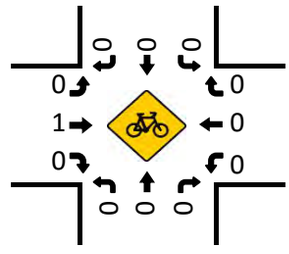
Total Bikes (NOON)



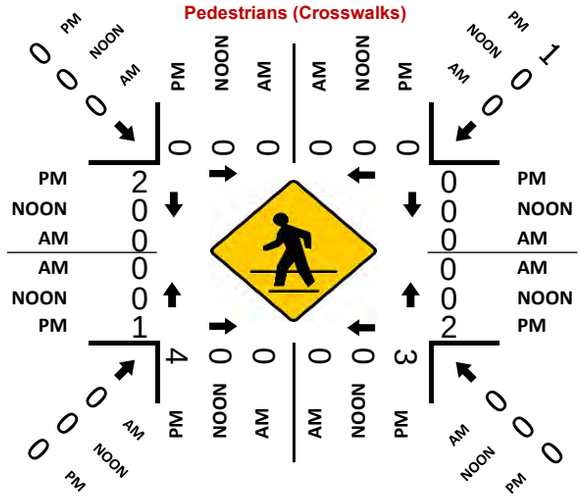
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Sherman St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040200-026
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Sherman St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	10	84	0	0	39	PM
	0	1	0	0		

EASTBOUND (Hancock St)

AM	NOON	PM	
0	0	346	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Hancock St)

	PM	NOON	AM
0	26	0	0
2	276	0	0
0	67	0	0
0	0	0	0
	0	0	0
	PM	NOON	AM

CONTROL

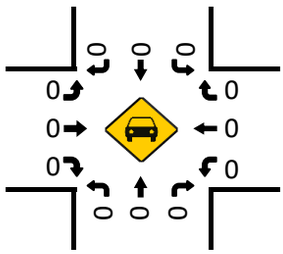
3-Way Stop(NB/SB/WB)

	AM	NOON	PM
TEV	0	0	537
PHF			0.85

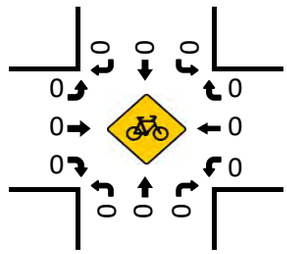
NORTHBOUND (Sherman St)

PM	152	1	60	13	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	0	1	0	

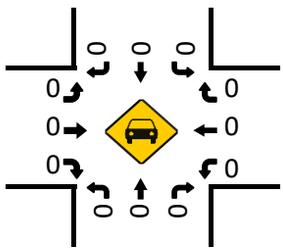
Totals (AM)



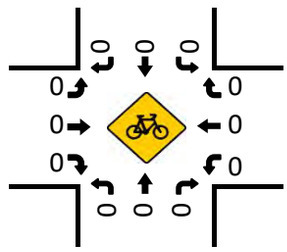
Total Bikes (AM)



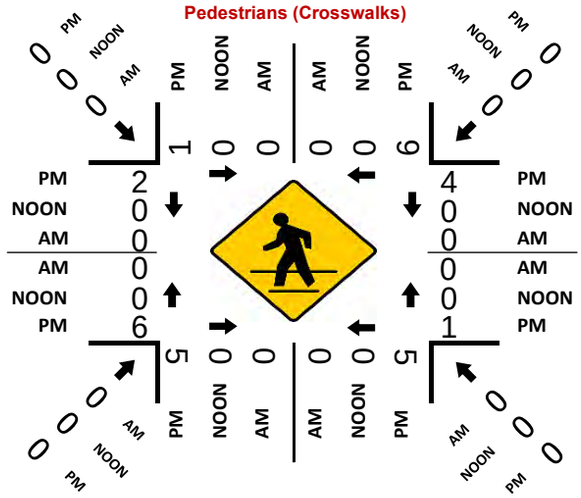
Totals (NOON)



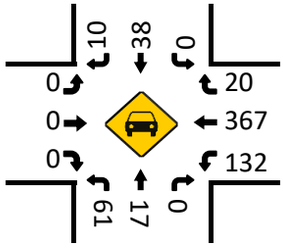
Total Bikes (NOON)



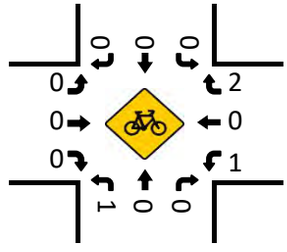
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Greenwood St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040200-008
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: 2-Way Stop(NB/SB)

	AM	NOON	PM
TEV	0	0	450
PHF			0.95

SOUTHBOUND (Greenwood St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	86	23	0	1	44	PM

Turning movements: 0 | 1 | 0 | 0

EASTBOUND (Hancock St)

AM	NOON	PM	
0	0	362	⇦
0	0	0	0 ↶
0	0	0	0 ↱
0	0	0	0 →
0	0	0	0 ↷
AM	NOON	PM	

WESTBOUND (Hancock St)

PM	NOON	AM	
37	0	0	0.5 ↷
258	0	0	1 ←
21	0	0	0.5 ↶
0	0	0	0 ↰
0	0	0	⇨
PM	NOON	AM	

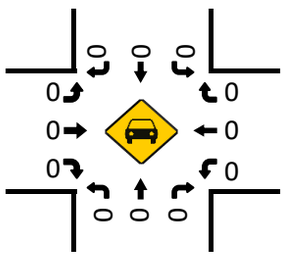
Turning movements: 0.5 | 1 | 0.5 | 0

NORTHBOUND (Greenwood St)

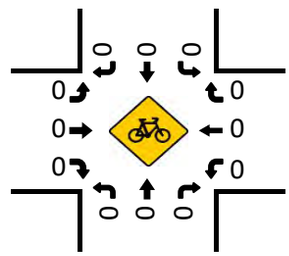
PM	44	0	18	6	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

Turning movements: 0 | 0 | 1 | 0

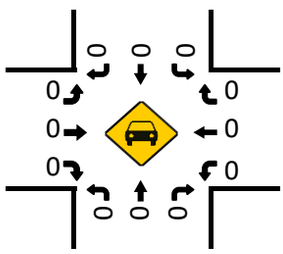
Totals (AM)



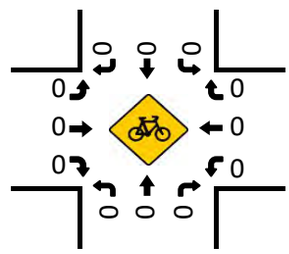
Total Bikes (AM)



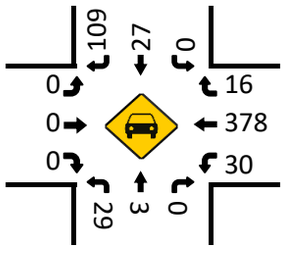
Totals (NOON)



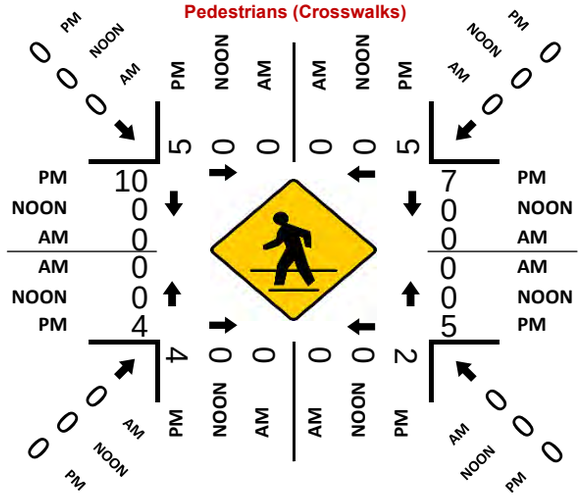
Total Bikes (NOON)



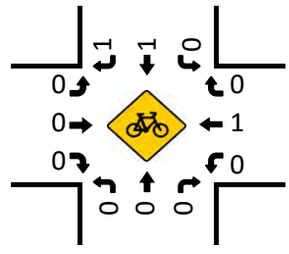
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Greenwood St/Moore St

Peak Hour Turning Movement Count

ID: 23-040200-010
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

NONE
NONE
05:00 PM - 06:00 PM

COUNT PERIODS

NONE
NONE
3:00 PM - 07:00 PM

SOUTHBOUND (Camino Del Rio W)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	93	1993	0	0	1890	PM
		0	3	0	0	

EASTBOUND (Greenwood St/Moore St)

AM	NOON	PM	
0	0	93	
0	0	0	0
0	0	0	0
0	0	0	1
0	0	8	0

WESTBOUND (Greenwood St/Moore St)

	PM	NOON	AM
1	29	0	0
0	0	0	0
0	0	0	0
0	0	0	0
	10	0	0

CONTROL

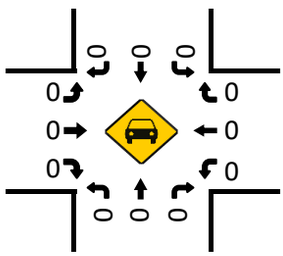
2-Way Stop(EB/WB)

	AM	NOON	PM
TEV	0	0	3994
PHF			0.88

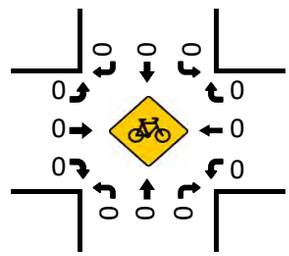
NORTHBOUND (Camino Del Rio W)

PM	2001	0	0	1861	10	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	0	3	0	

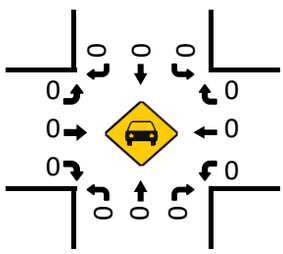
Totals (AM)



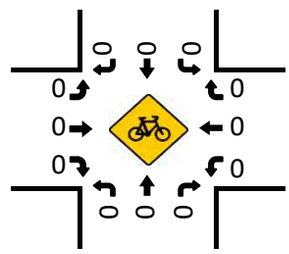
Total Bikes (AM)



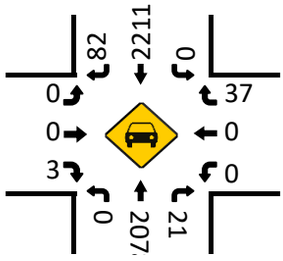
Totals (NOON)



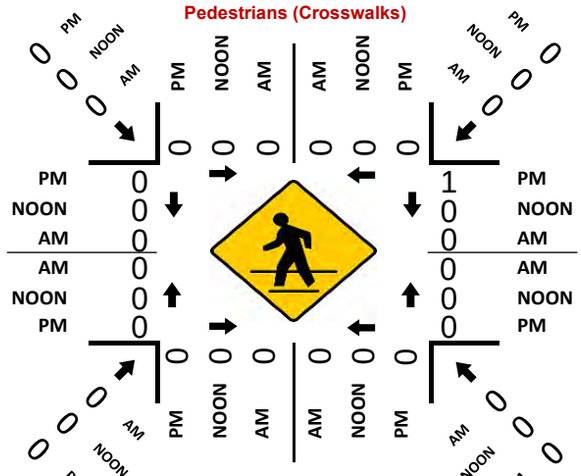
Total Bikes (NOON)



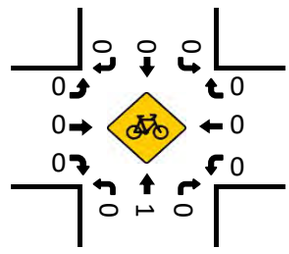
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W/Riley St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040200-011
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

TEV / PHF

	AM	NOON	PM
TEV	0	0	4107
PHF			0.90

SOUTHBOUND — Camino Del Rio W/Riley St

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	118	1855	0	0	1856	PM
	1	3	0	0		

EASTBOUND — Hancock St

AM	NOON	PM	
0	0	306	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

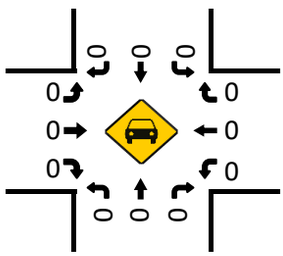
WESTBOUND — Hancock St

	PM	NOON	AM
0	67	0	0
1.5	140	0	0
0.5	62	0	0
0	0	0	0
	9	0	0
	PM	NOON	AM

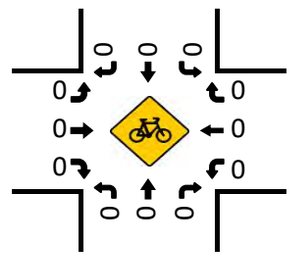
NORTHBOUND — Camino Del Rio W/Riley St

	0	1	3	0		
PM	1936	19	48	1789	9	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

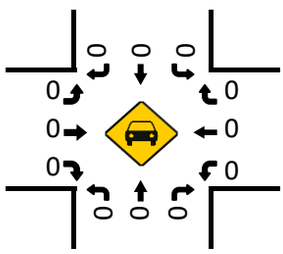
Totals (AM)



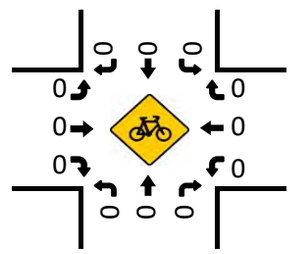
Total Bikes (AM)



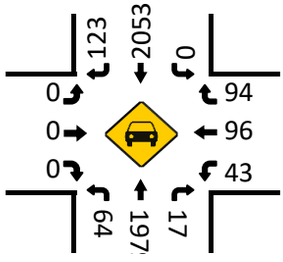
Totals (NOON)



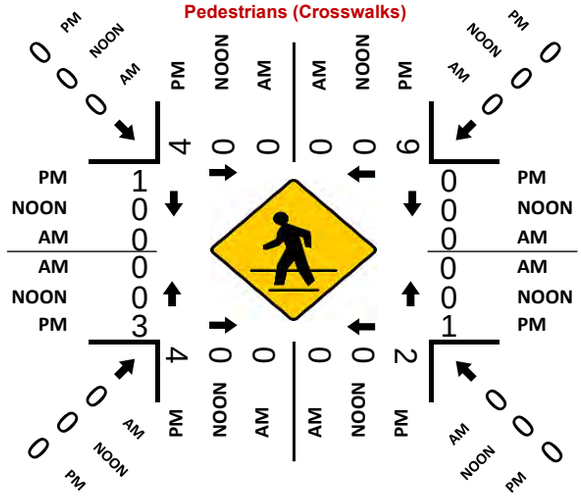
Total Bikes (NOON)



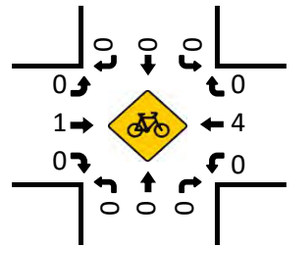
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Kurtz St/Gaines St

Peak Hour Turning Movement Count

ID: 23-040200-012
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

Camino Del Rio W

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	1861	38	10	1876	PM

0 4 1 0

EASTBOUND

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	218	1.5
0	0	137	0.5
0	0	97	1

WESTBOUND

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
194	0	0	

CONTROL: Signalized

TEV	0 AM	0 NOON	4028 PM
PHF			0.90

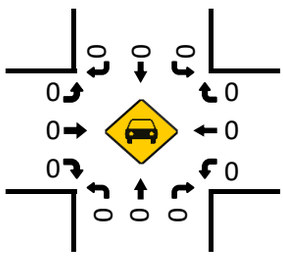
0 0 3 0

PM	1958	0	0	1648	19	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

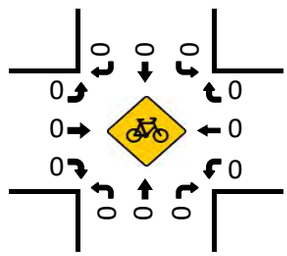
NORTHBOUND

Camino Del Rio W

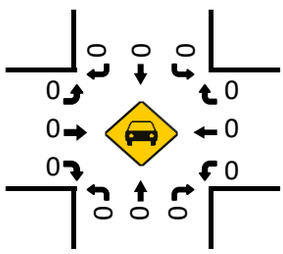
Totals (AM)



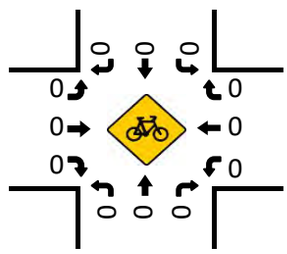
Total Bikes (AM)



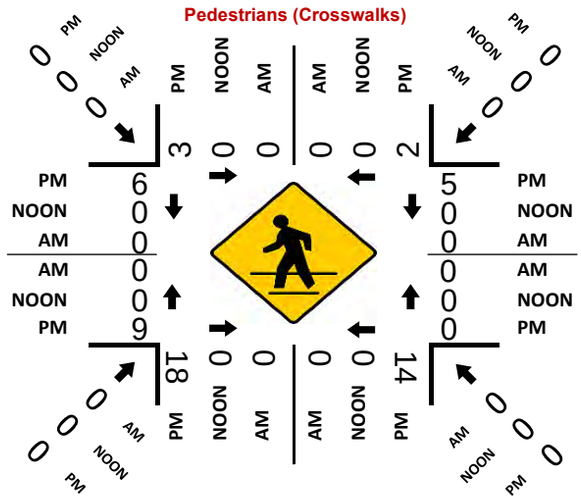
Totals (NOON)



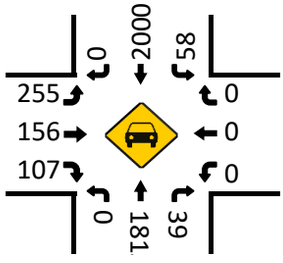
Total Bikes (NOON)



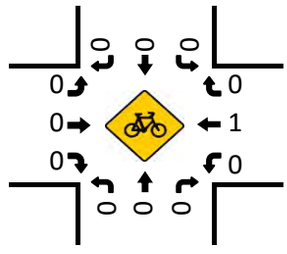
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St/Camino Del Rio W & Sports arena Blvd/Rosecrans St

Peak Hour Turning Movement Count

ID: 23-040200-019
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND — Rosecrans St/Camino Del Rio W

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	561	1354	0	0	1685	PM
	1	3	0	0		

EASTBOUND — Sports arena Blvd/Rosecrans St

AM	NOON	PM	
0	0	1097	
0	0	11	0
0	0	327	1.5
0	0	378	1.5
0	0	215	1

WESTBOUND — Sports arena Blvd/Rosecrans St

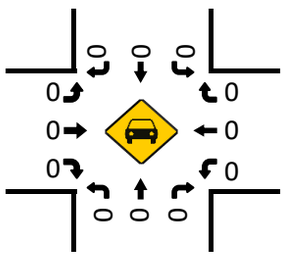
PM	NOON	AM	
7	0	0	0.5
224	0	0	1
189	0	0	1.5
0	0	0	0
781	0	0	

NORTHBOUND — Rosecrans St/Camino Del Rio W

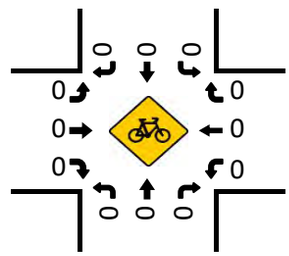
PM	1815	57	301	1351	403	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	2	3	1	

CONTROL			
Signalized			
TEV	0 AM	0 NOON	5378 PM
PHF			0.93

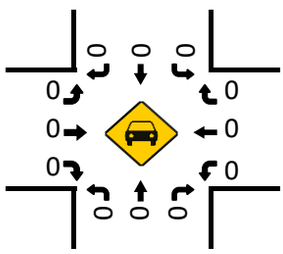
Totals (AM)



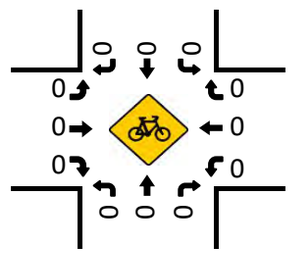
Total Bikes (AM)



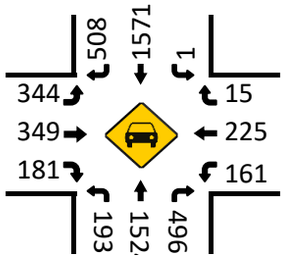
Totals (NOON)



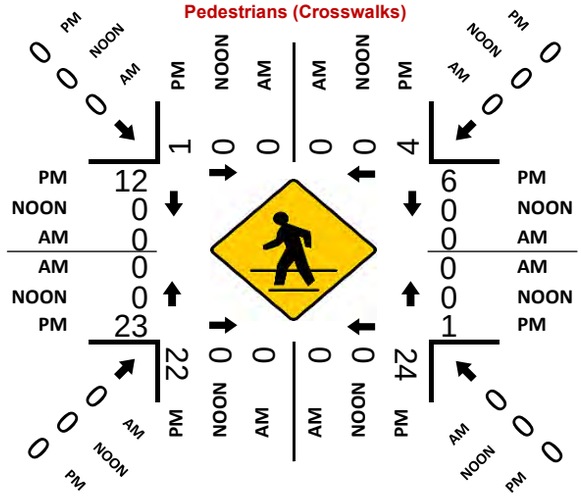
Total Bikes (NOON)



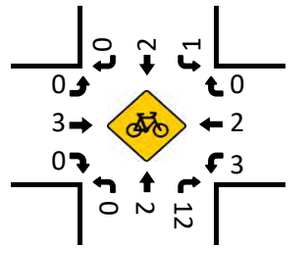
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040200-020
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	5639
PHF			0.96

SOUTHBOUND (Rosecrans St)

	Left	Thru	Thru	Right	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	220	1316	218	74	2100

EASTBOUND (Midway Dr)

	AM	NOON	PM
	0	0	1053
	0	0	8
	0	0	213
	0	0	472
	0	0	238

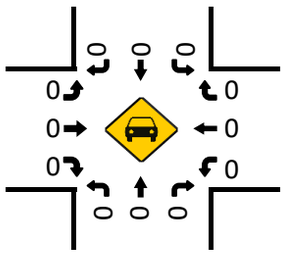
WESTBOUND (Midway Dr)

	PM	NOON	AM
1	240	0	0
2	532	0	0
1	116	0	0
0	0	0	0
	777	0	0

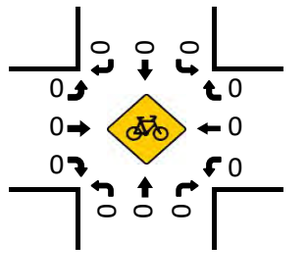
NORTHBOUND (Rosecrans St)

	Left	Thru	Thru	Thru	Right	Total
PM	1709	39	293	1573	87	
NOON	0	0	0	0	0	
AM	0	0	0	0	0	

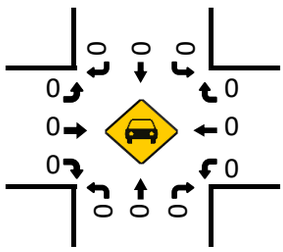
Totals (AM)



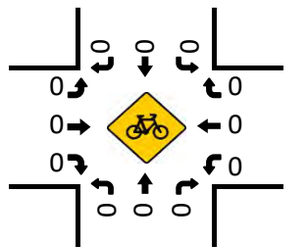
Total Bikes (AM)



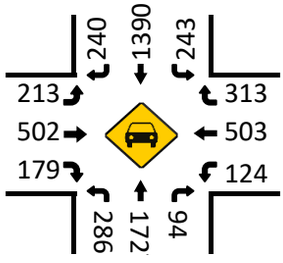
Totals (NOON)



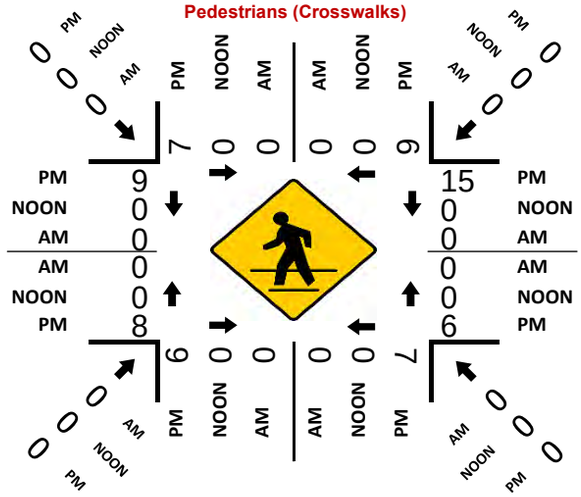
Total Bikes (NOON)



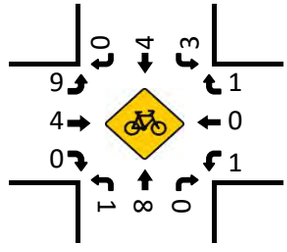
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & N Evergreen St

Peak Hour Turning Movement Count

ID: 23-040200-022
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

Rosecrans St

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	35	1429	96	45	1986	PM
	0	3	1	0		

EASTBOUND (N Evergreen St)

AM	NOON	PM	
0	0	59	
0	0	0	0
0	0	42	0
0	0	10	1
0	0	6	0
AM	NOON	PM	

WESTBOUND (N Evergreen St)

PM	NOON	AM	
105	0	0	0
16	0	0	1
95	0	0	0
0	0	0	0
138	0	0	
PM	NOON	AM	

CONTROL: Signalized

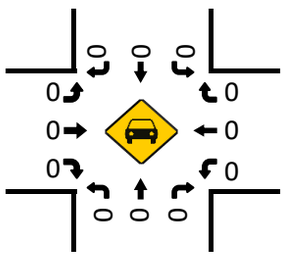
TEV	0 AM	0 NOON	3728 PM
PHF			0.97

PM	1545	15	8	1794	32	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1	4	0	

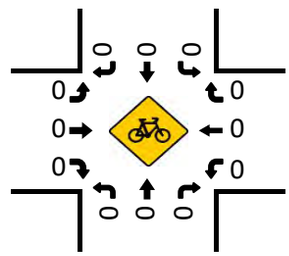
NORTHBOUND

Rosecrans St

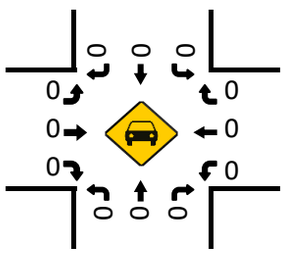
Totals (AM)



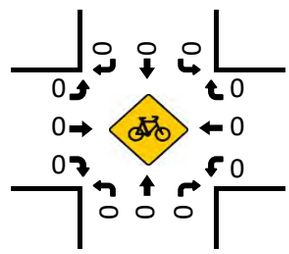
Total Bikes (AM)



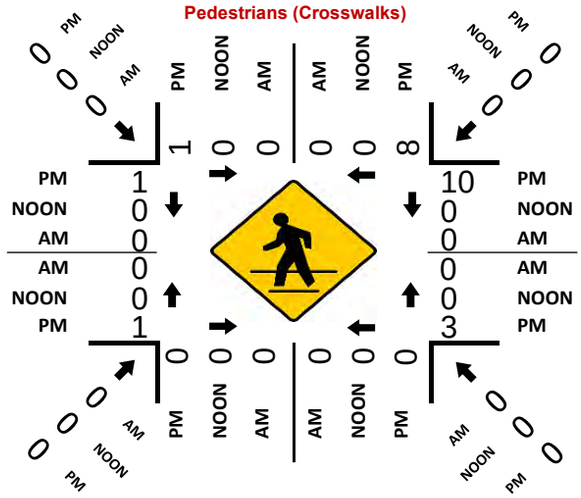
Totals (NOON)



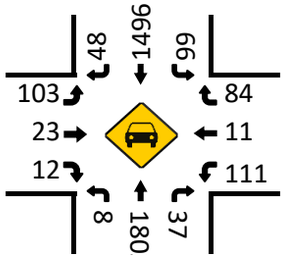
Total Bikes (NOON)



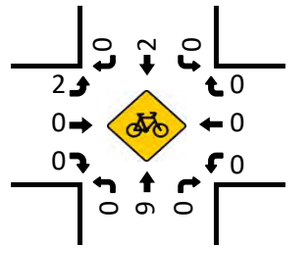
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Lytton St

Peak Hour Turning Movement Count

ID: 23-040200-021
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	275	1185	135	15	1882	PM
	1	2	2	0		

EASTBOUND (Lytton St)

AM	NOON	PM		
0	0	607		
0	0	0	0	
0	0	189	1	
0	0	240	0.5	
0	0	14	0.5	
AM	NOON	PM		

CONTROL

Signalized

	AM	NOON	PM
TEV	0	0	5247
PHF			0.95

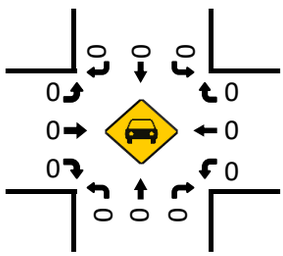
WESTBOUND (Lytton St)

	PM	NOON	AM
1	168	0	0
1	311	0	0
2	503	0	0
0	0	0	0
	1055	0	0
	PM	NOON	AM

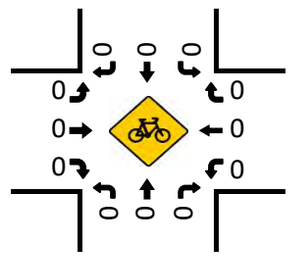
NORTHBOUND (Rosecrans St)

PM	1703	1	21	1510	680	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1	3	1	

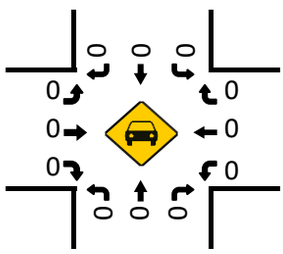
Totals (AM)



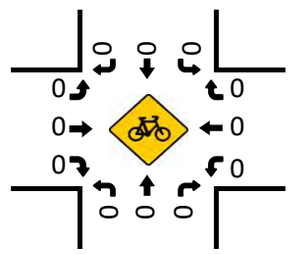
Total Bikes (AM)



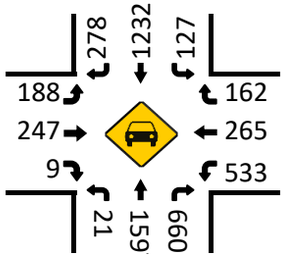
Totals (NOON)



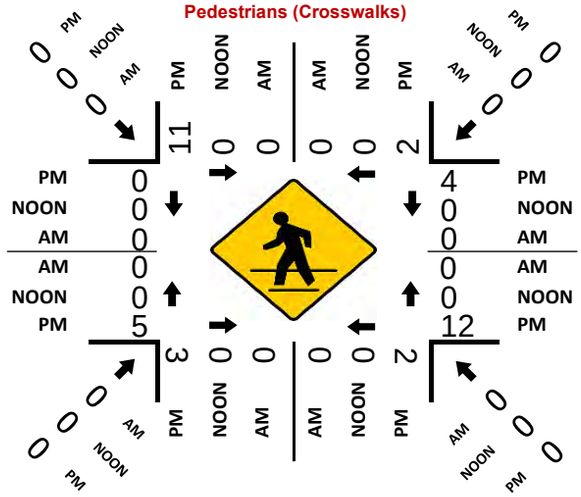
Total Bikes (NOON)



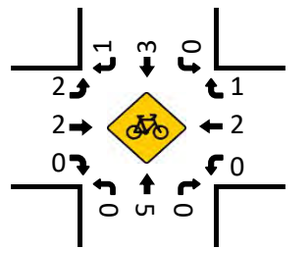
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040200-013
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:00 PM - 05:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	292	62	0	857	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	0	73	1	
0	0	165	0.5	
0	0	4	0.5	
AM	NOON	PM		

WESTBOUND (Kurtz St)

	PM	NOON	AM
1	131	0	0
0	0	0	0
1	101	0	0
0	1	0	0
	447	0	0
	PM	NOON	AM

NORTHBOUND (Rosecrans St)

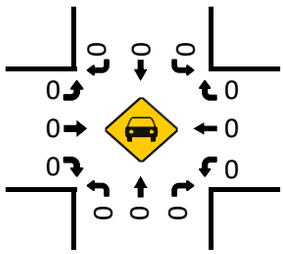
PM	397	0	0	653	219	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

CONTROL

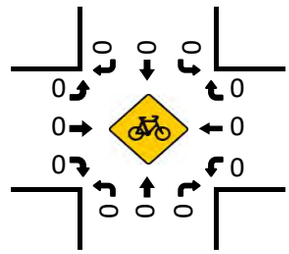
Signalized

TEV	0 AM	0 NOON	1701 PM
PHF			0.97

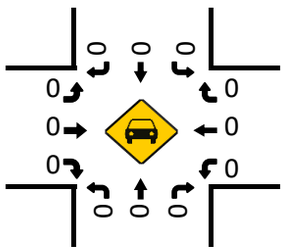
Totals (AM)



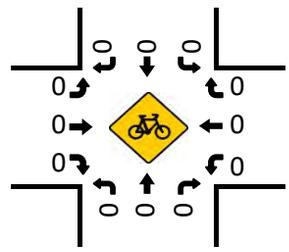
Total Bikes (AM)



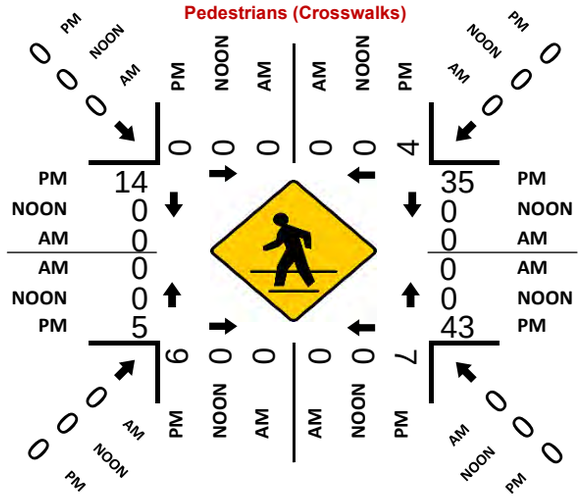
Totals (NOON)



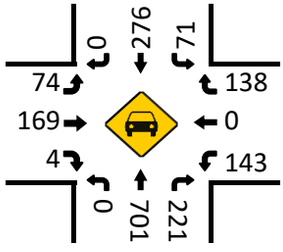
Total Bikes (NOON)



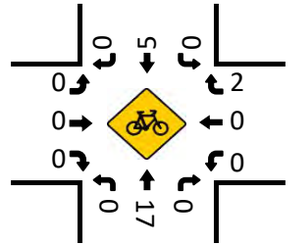
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040200-014
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	68	369	0	1	671	PM

EASTBOUND (Hancock St)

AM	NOON	PM	
0	0	235	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Hancock St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

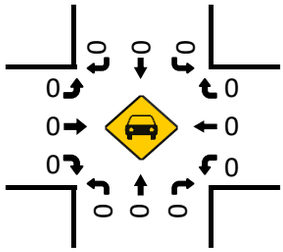
NORTHBOUND (Rosecrans St)

PM	372	3	167	670	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

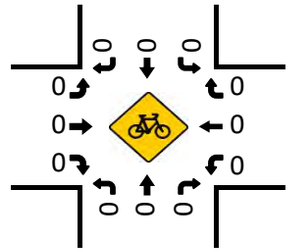
CONTROL: No Control

	AM	NOON	PM
TEV	0	0	1278
PHF			0.95

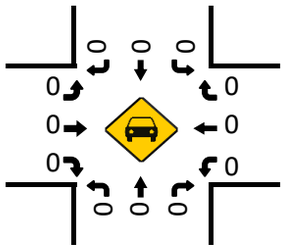
Totals (AM)



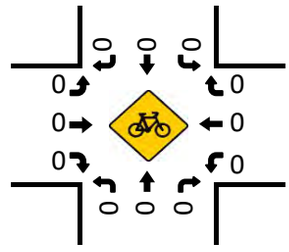
Total Bikes (AM)



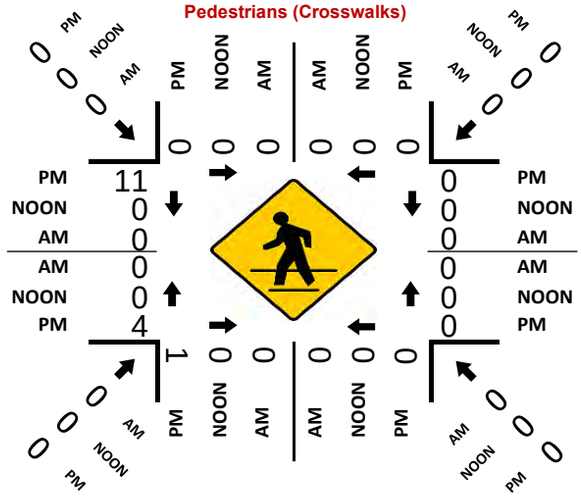
Totals (NOON)



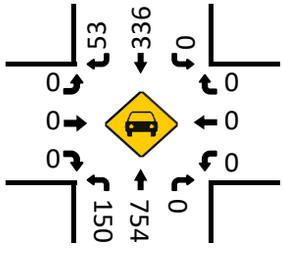
Total Bikes (NOON)



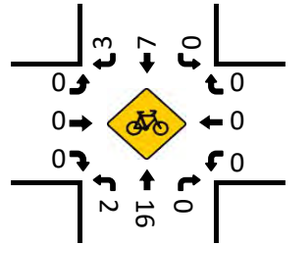
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Rosecrans St/Taylor St

Peak Hour Turning Movement Count

ID: 23-040200-015
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	04:45 PM - 05:45 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	87	224	72	0	242	PM
	1	2	2	0		

EASTBOUND (Rosecrans St/Taylor St)

AM	NOON	PM	
0	0	482	
0	0	0	0
0	0	61	1
0	0	553	4
0	0	99	1
AM	NOON	PM	

WESTBOUND (Rosecrans St/Taylor St)

PM	NOON	AM	
73	0	0	1
251	0	0	1
248	0	0	2
1	0	0	0
1024	0	0	
PM	NOON	AM	

CONTROL

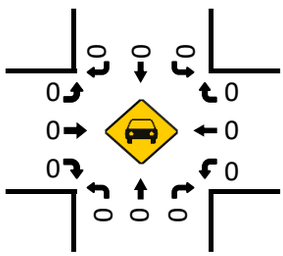
Signalized

TEV	0 AM	0 NOON	2321 PM
PHF			0.93

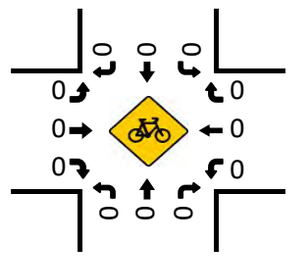
NORTHBOUND (Pacific Hwy)

PM	573	2	144	108	398	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1	2	2	

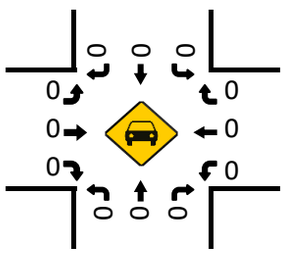
Totals (AM)



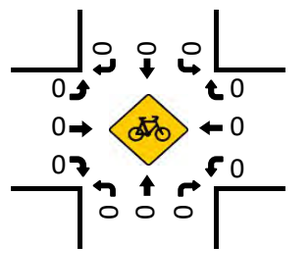
Total Bikes (AM)



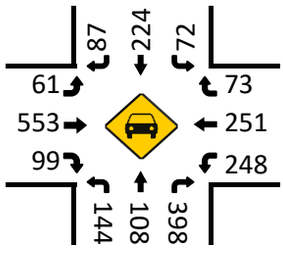
Totals (NOON)



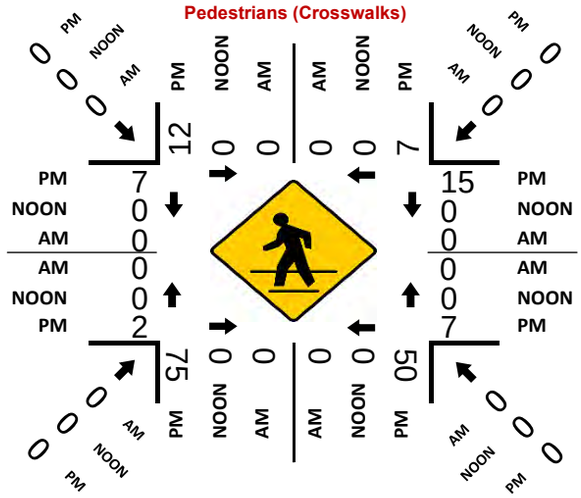
Total Bikes (NOON)



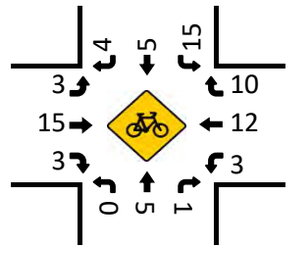
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040200-016
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	14	563	0	0	506	PM

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	0	251	
0	0	0	0
0	0	0	0
0	0	0	1
0	0	407	0
AM	NOON	PM	

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

NORTHBOUND (Pacific Hwy)

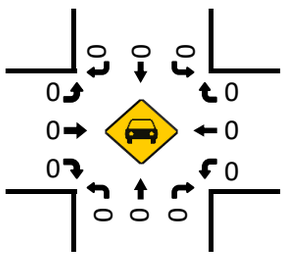
PM	970	0	237	506	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

	0	3	0
0			0
0			0
0			0
0	1	3	0

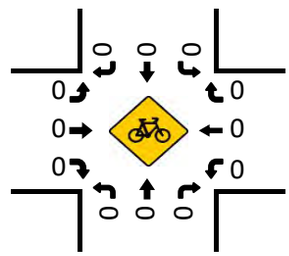
CONTROL: 1-Way Stop(EB)

	AM	NOON	PM
TEV	0	0	1727
PHF			0.94

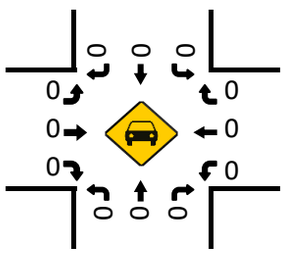
Totals (AM)



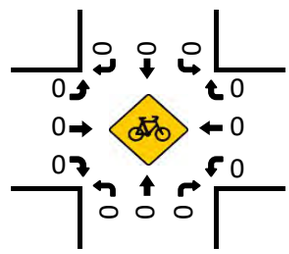
Total Bikes (AM)



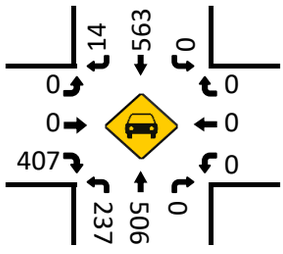
Totals (NOON)



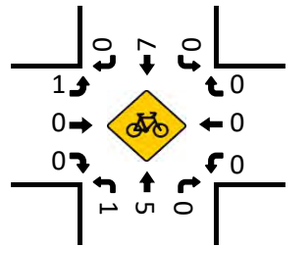
Total Bikes (NOON)



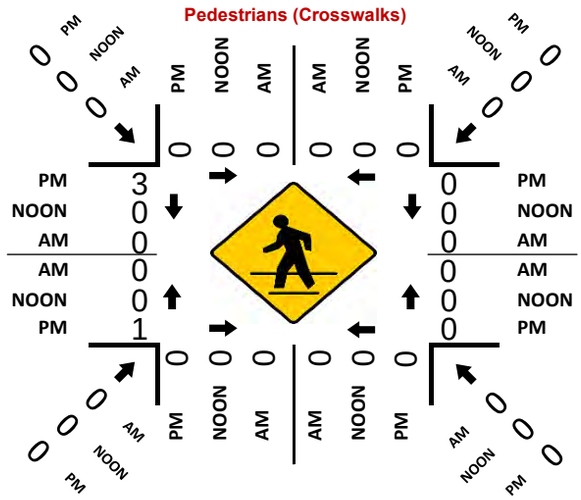
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Pacific Hwy & Enterprise St

Peak Hour Turning Movement Count

ID: 23-040200-031
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	86	918	3	15	750	PM
	0	2	1	0		

EASTBOUND (Enterprise St)

AM	NOON	PM	
0	0	263	
0	0	0	0
0	0	47	1
0	0	7	1
0	0	70	1

WESTBOUND (Enterprise St)

	PM	NOON	AM
1	25	0	0
1	20	0	0
1	39	0	0
0	0	0	0
	17	0	0

CONTROL

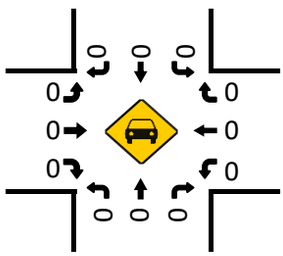
Signalized

	AM	NOON	PM
TEV	0	0	2119
PHF			0.96

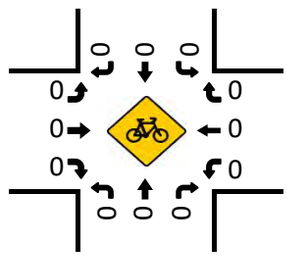
NORTHBOUND (Pacific Hwy)

	0	1	2	1		
PM	1089	62	157	663	7	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

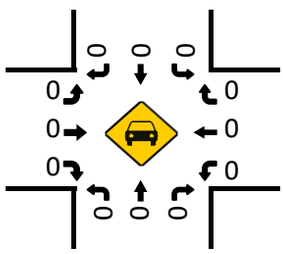
Totals (AM)



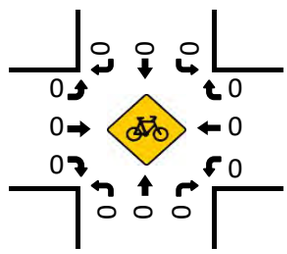
Total Bikes (AM)



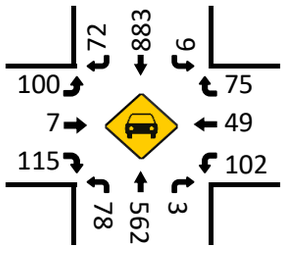
Totals (NOON)



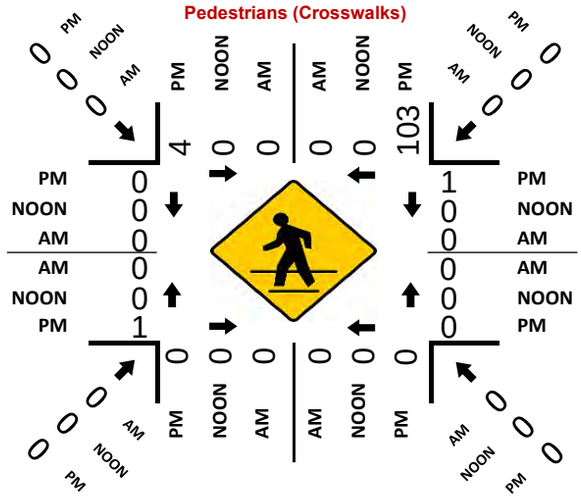
Total Bikes (NOON)



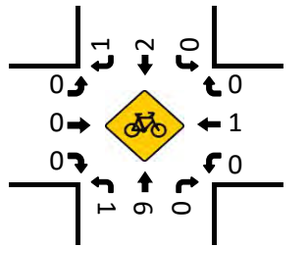
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Enterprise St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040200-018
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: 1-Way Stop(SB)

	AM	NOON	PM
TEV	0	0	1817
PHF			0.93

SOUTHBOUND (Enterprise St)

	Left	Thru	Right	U-Turn	Peds
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	269	0	0	0	9

EASTBOUND (Midway Dr)

	Left	Thru	Right	U-Turn	Peds
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	799	0	2

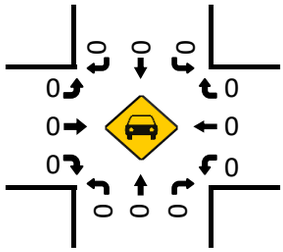
WESTBOUND (Midway Dr)

	Left	Thru	Right	U-Turn	Peds
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	9	740	0	0	0

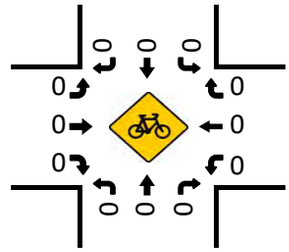
NORTHBOUND (Enterprise St)

	Left	Thru	Right	U-Turn	Peds
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0

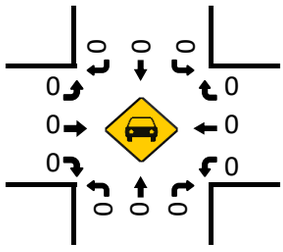
Totals (AM)



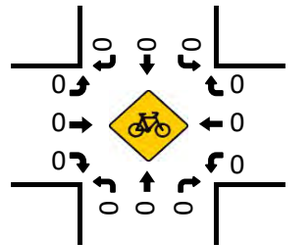
Total Bikes (AM)



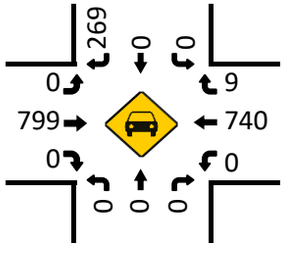
Totals (NOON)



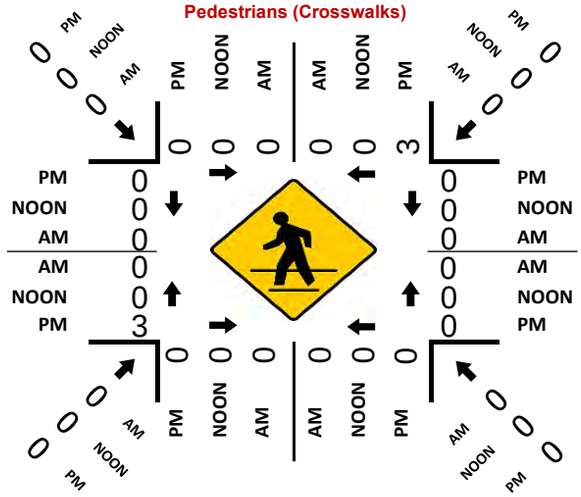
Total Bikes (NOON)



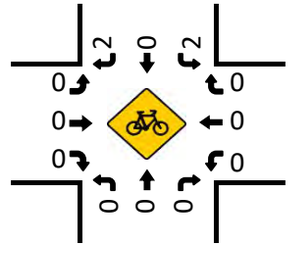
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Barnett Ave & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040200-017
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Barnett Ave)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	750	1091	0	1	1930	PM

EASTBOUND (Midway Dr)

AM	NOON	PM		
0	0	750	⇦	
0	0	0	↶	0
0	0	691	↰	0
0	0	0	→	2
0	0	91	↱	1
AM	NOON	PM		

WESTBOUND (Midway Dr)

PM	NOON	AM		
0	0	0	↷	0
0	0	0	←	0
0	0	0	↰	0
0	0	0	↱	0
0	0	0	⇨	
PM	NOON	AM		

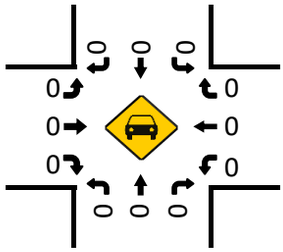
CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	3862
PHF			0.98

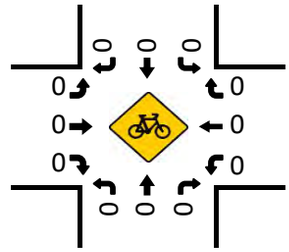
NORTHBOUND (Barnett Ave)

PM	1182	0	0	1238	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

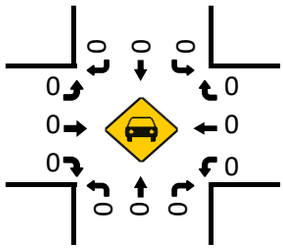
Totals (AM)



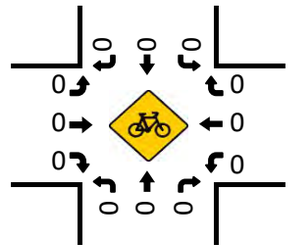
Total Bikes (AM)



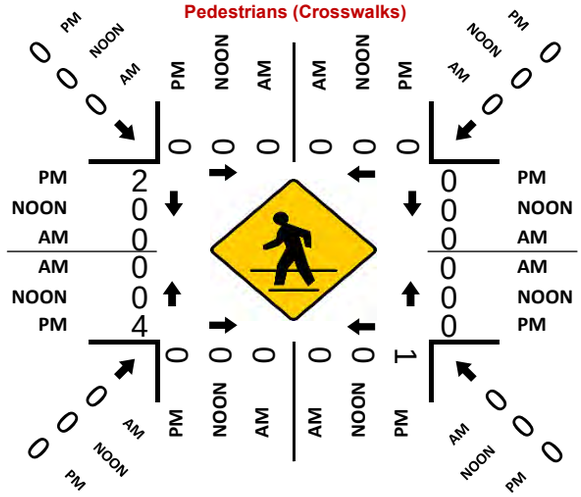
Totals (NOON)



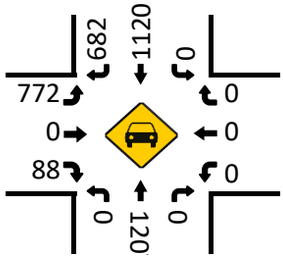
Total Bikes (NOON)



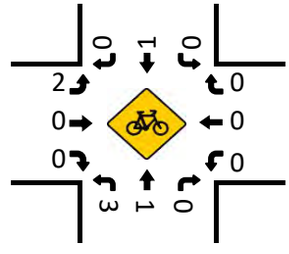
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sea World Dr & Friars Rd

Peak Hour Turning Movement Count

ID: 23-040200-027
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	04:45 PM - 05:45 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Sea World Dr)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	1251	136	2	1183	PM

EASTBOUND (Friars Rd)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
AM	NOON	PM		

WESTBOUND (Friars Rd)

	PM	NOON	AM
1.5	1	0	0
0	0	0	0
1.5	0	0	0
0	0	0	0
	582	0	0
	PM	NOON	AM

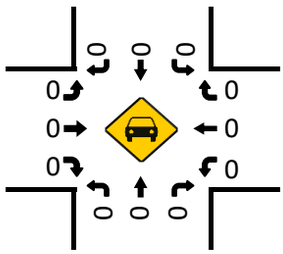
NORTHBOUND (Sea World Dr)

PM	1251	0	0	1180	446	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

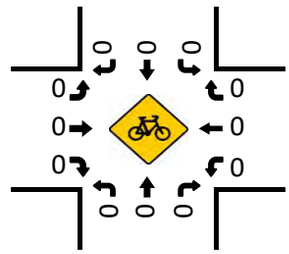
	0	2	2	0
	0	0	2	1

CONTROL			
Signalized			
TEV	0 AM	0 NOON	3016 PM
PHF			0.96

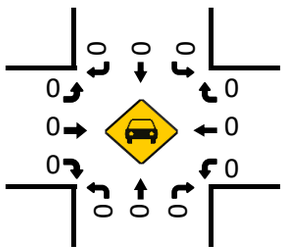
Totals (AM)



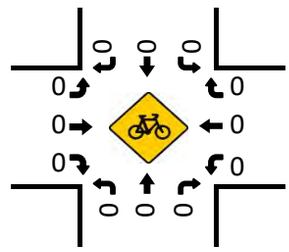
Total Bikes (AM)



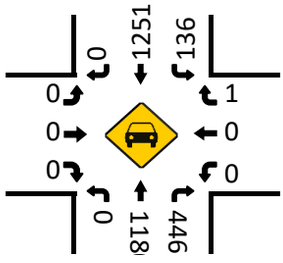
Totals (NOON)



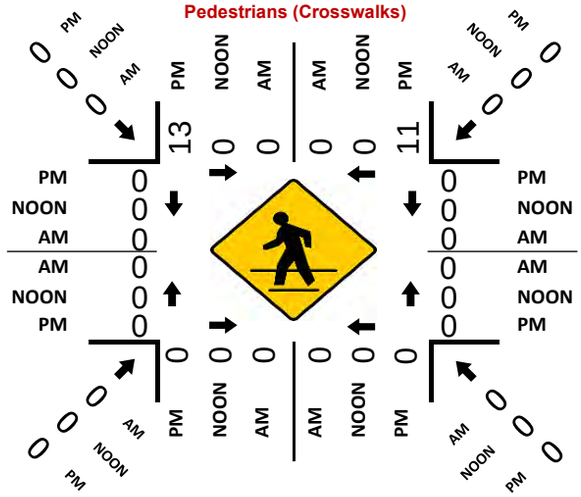
Total Bikes (NOON)



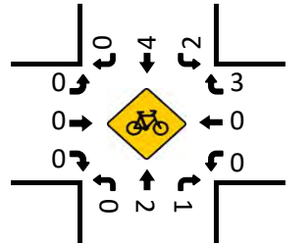
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sea World Dr & Pacific Hwy

Peak Hour Turning Movement Count

ID: 23-040200-028
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Sea World Dr)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	174	1135	138	0	1271	PM
	1	2	1	0		

EASTBOUND (Pacific Hwy)

AM	NOON	PM		
0	0	283	⇦	
0	0	0	↶	0
0	0	158	↱	2
0	0	88	→	1
0	0	181	↴	1
AM	NOON	PM		

WESTBOUND (Pacific Hwy)

PM	NOON	AM		
106	0	0	↰	1
40	0	0	←	1
60	0	0	↰	1
0	0	0	↶	0
339	0	0	⇨	
PM	NOON	AM		

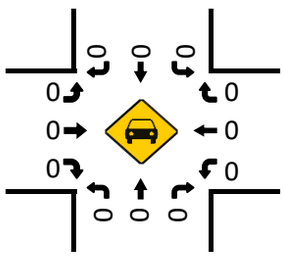
CONTROL: Signalized

TEV	0 AM	0 NOON	3269 PM
PHF			0.95

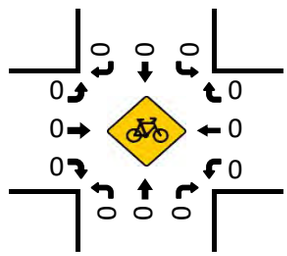
NORTHBOUND (Sea World Dr)

PM	1376	0	69	1007	113	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	2	2	0	

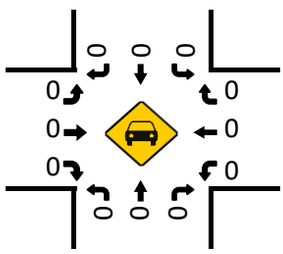
Totals (AM)



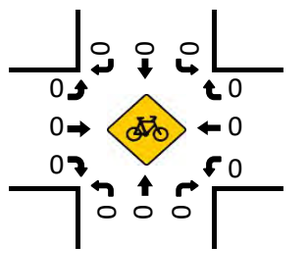
Total Bikes (AM)



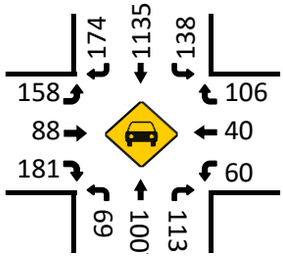
Totals (NOON)



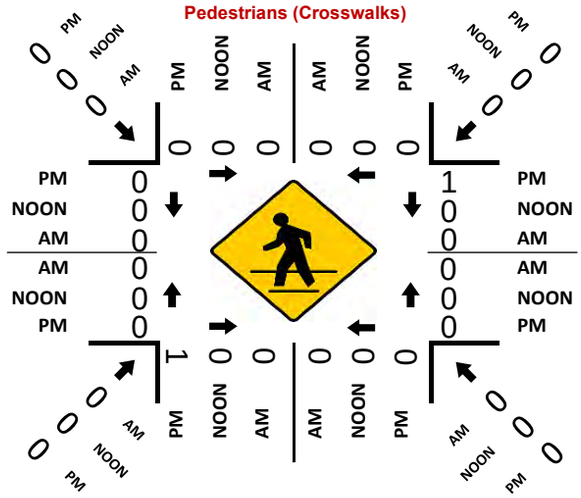
Total Bikes (NOON)



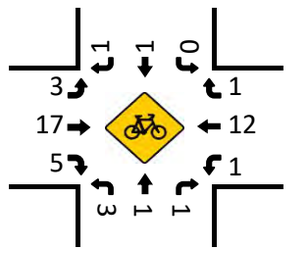
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

I-5 SB Ramps & Sea World Dr

Peak Hour Turning Movement Count

ID: 23-040200-029
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (I-5 SB Ramps)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	867	0	209	0	0	PM

EASTBOUND (Sea World Dr)

AM	NOON	PM		
0	0	1447	⇦	
0	0	0	↰	0
0	0	0	↱	0
0	0	991	→	2
0	0	278	↳	1
AM	NOON	PM		

WESTBOUND (Sea World Dr)

PM	NOON	AM		
0	0	0	↰	0
580	0	0	←	2
270	0	0	↱	2
0	0	0	↳	0
1200	0	0	⇨	
PM	NOON	AM		

NORTHBOUND (I-5 SB Ramps)

PM	548	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

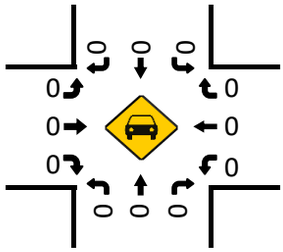
↰	↰	↑	↱	
0	0	0	0	

CONTROL

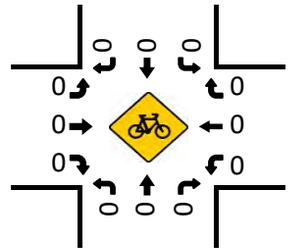
Signalized

TEV	0 AM	0 NOON	3195 PM
PHF			0.97

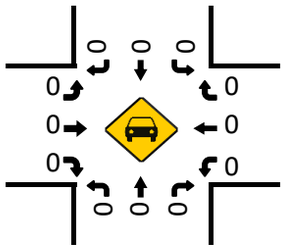
Totals (AM)



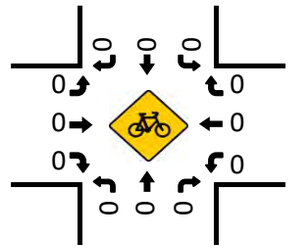
Total Bikes (AM)



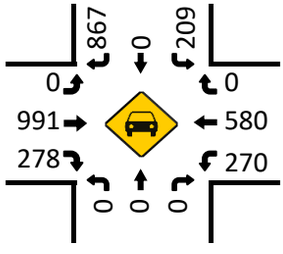
Totals (NOON)



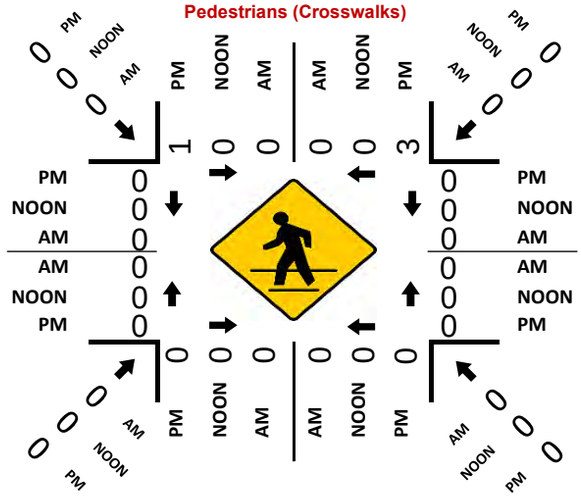
Total Bikes (NOON)



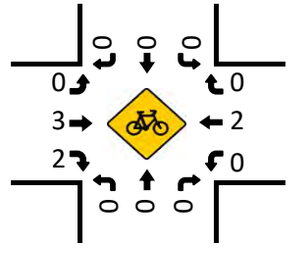
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sports Arena Blvd & I-8 EB On-Ramp

Peak Hour Turning Movement Count

ID: 23-040200-036
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Sports Arena Blvd)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	1452	3	0	581	PM

EASTBOUND (I-8 EB On-Ramp)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (I-8 EB On-Ramp)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
524	0	0	
PM	NOON	AM	

NORTHBOUND (Sports Arena Blvd)

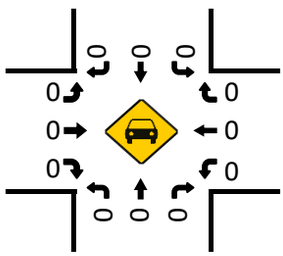
PM	1452	0	0	581	521	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

	0	3	0	0
	0	0	1.5	1.5

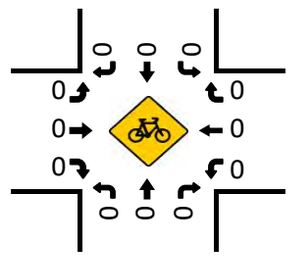
CONTROL: No Control

	AM	NOON	PM
TEV	0	0	2557
PHF			0.97

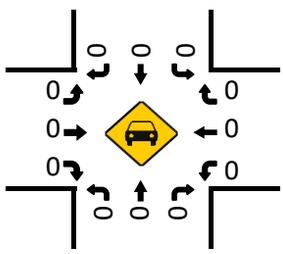
Totals (AM)



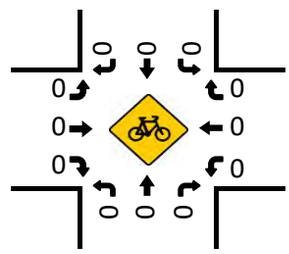
Total Bikes (AM)



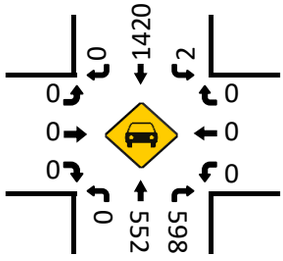
Totals (NOON)



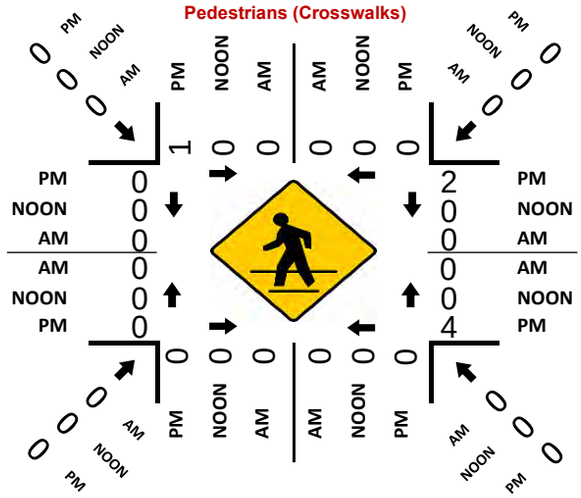
Total Bikes (NOON)



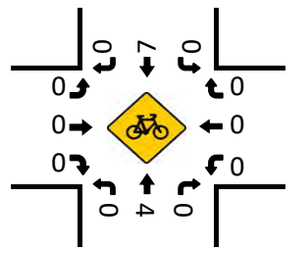
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

W Mission Bay Dr & I-8 WB Off Ramp

Peak Hour Turning Movement Count

ID: 23-040200-001
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND — W Mission Bay Dr

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	1878	0	0	1620	PM

EASTBOUND — I-8 WB Off Ramp

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND — I-8 WB Off Ramp

PM	NOON	AM	
1161	0	0	2
0	0	0	0
826	0	0	2
0	0	0	0
0	0	0	
PM	NOON	AM	

NORTHBOUND — W Mission Bay Dr

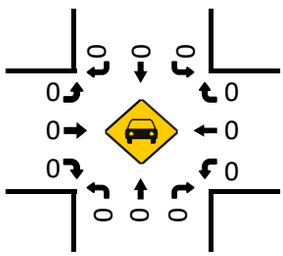
PM	2704	0	0	459	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

	0	4	0	0
	0	0	3	0

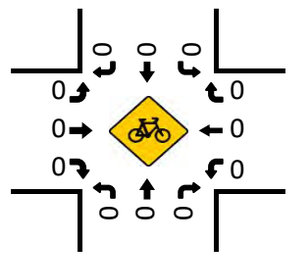
CONTROL: Signalized

TEV	0 AM	0 NOON	4324 PM
PHF			0.96

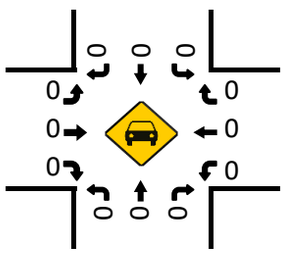
Totals (AM)



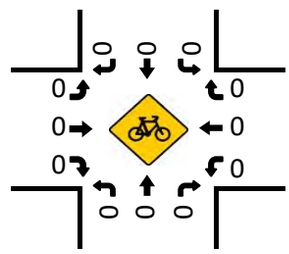
Total Bikes (AM)



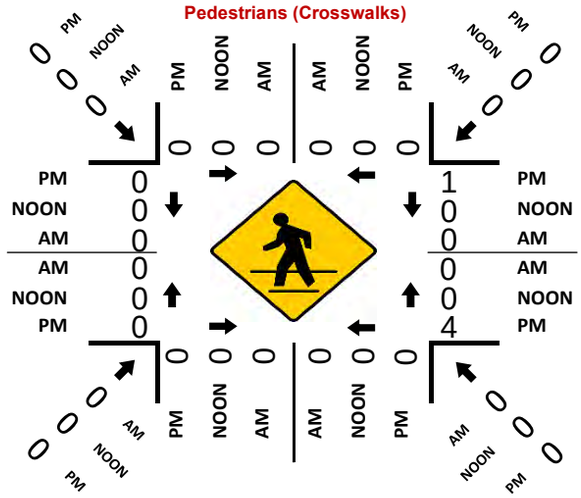
Totals (NOON)



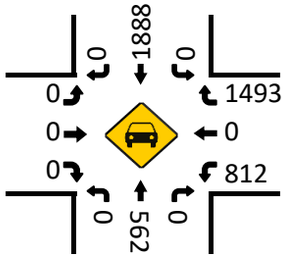
Total Bikes (NOON)



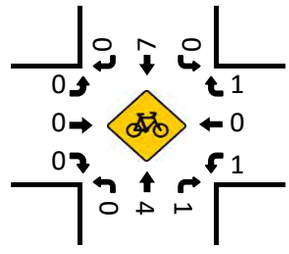
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sports Arena Blvd/Midway Dr & W Point Loma Blvd/Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-002
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND — Sports Arena Blvd/Midway Dr

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	213	436	555	1	1100	PM
	0.5	1.5	1	0		

EASTBOUND — W Point Loma Blvd/Sports Arena Blvd

AM	NOON	PM	
0	0	651	
0	0	0	0
0	0	278	1.5
0	0	215	0.5
0	0	220	1
AM	NOON	PM	

WESTBOUND — W Point Loma Blvd/Sports Arena Blvd

PM	NOON	AM	
396	0	0	1
211	0	0	2
24	0	0	1
2	0	0	0
793	0	0	
PM	NOON	AM	

NORTHBOUND — Sports Arena Blvd/Midway Dr

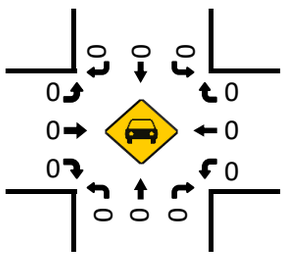
PM	680	0	227	425	21	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1	1.5	0.5	

CONTROL

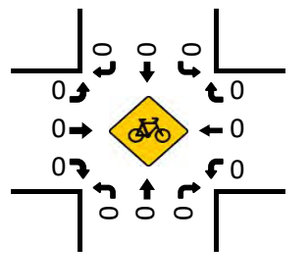
Signalized

TEV	0 AM	0 NOON	3224 PM
PHF			0.95

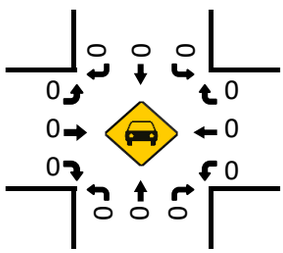
Totals (AM)



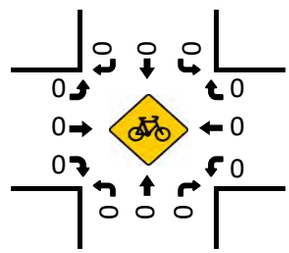
Total Bikes (AM)



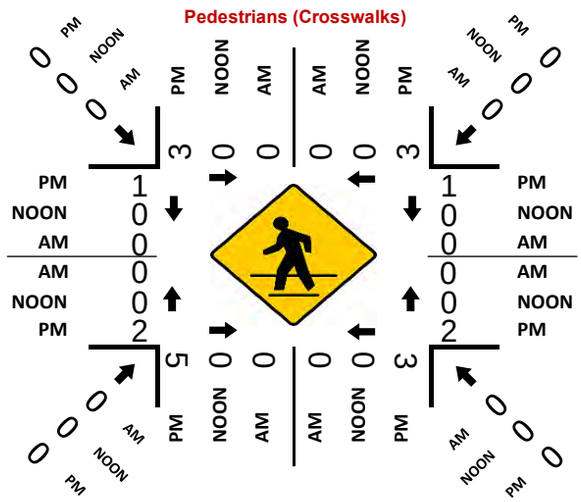
Totals (NOON)



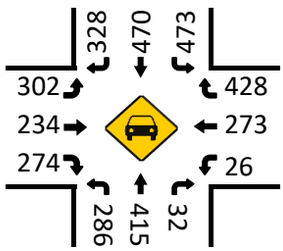
Total Bikes (NOON)



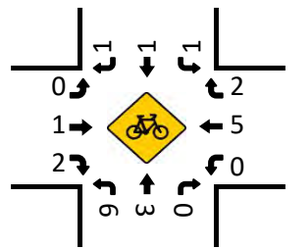
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Hancock St & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-003
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	1585
PHF			0.98

SOUTHBOUND (Hancock St)

	Left	Thru	Right	Peds	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	130	1	69	0	160

EASTBOUND (Sports Arena Blvd)

	AM	NOON	PM
Left	0	0	15
Thru	0	0	96
Right	0	0	692
Peds	0	0	3
Total	0	0	646

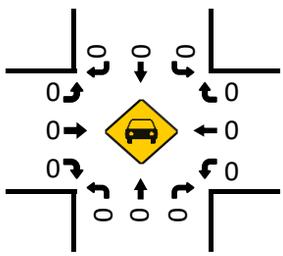
WESTBOUND (Sports Arena Blvd)

	PM	NOON	AM
Left	64	0	0
Thru	501	0	0
Right	0	0	0
Peds	14	0	0
Total	775	0	0

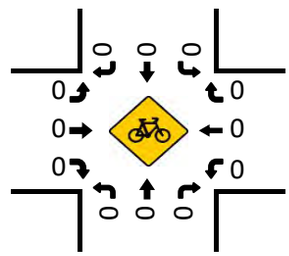
NORTHBOUND (Hancock St)

	Left	Thru	Right	Peds	Total
PM	4	0	0	0	0
NOON	0	0	0	0	0
AM	0	0	0	0	0

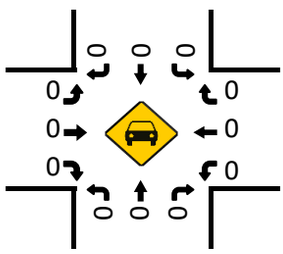
Totals (AM)



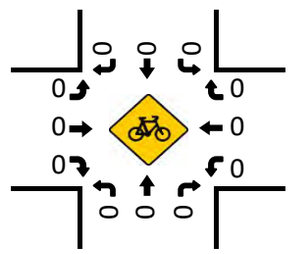
Total Bikes (AM)



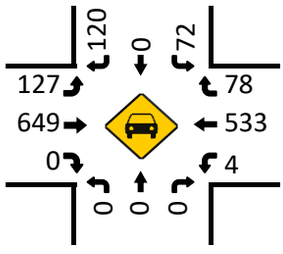
Totals (NOON)



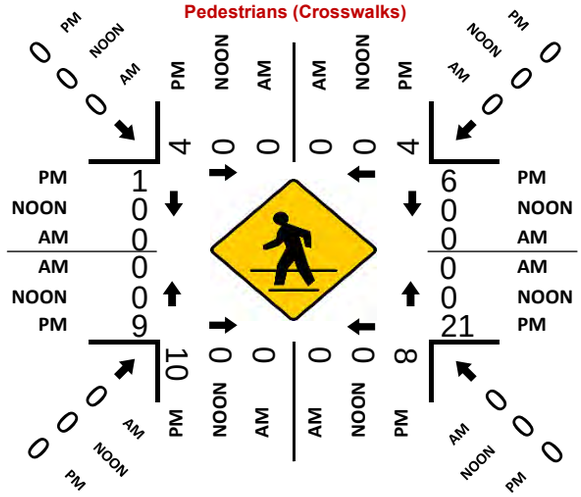
Total Bikes (NOON)



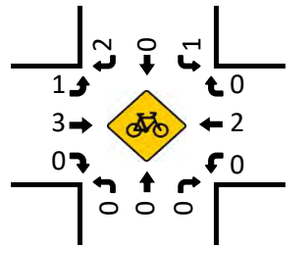
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kemper St & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-032
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Kemper St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	11	0	2	0	430	PM
	1	0.5	0.5	0		

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	0	578	
0	0	17	0
0	0	241	2
0	0	413	2
0	0	102	0

WESTBOUND (Sports Arena Blvd)

	PM	NOON	AM
0	54	0	0
3	450	0	0
1	97	0	0
0	15	0	0
	530	0	0

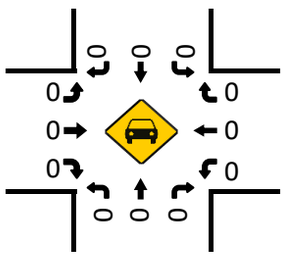
NORTHBOUND (Kemper St)

PM	199	0	100	135	100	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1	1	0	

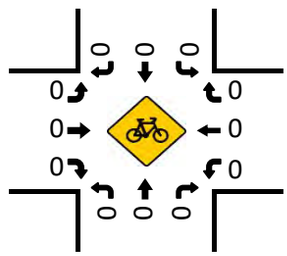
CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	1737
PHF			0.90

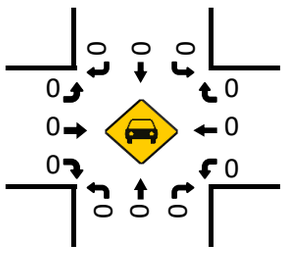
Totals (AM)



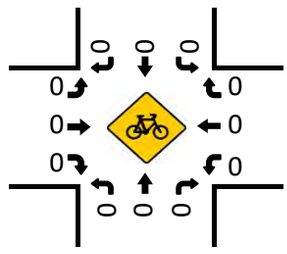
Total Bikes (AM)



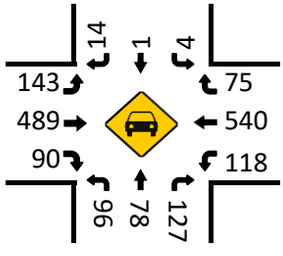
Totals (NOON)



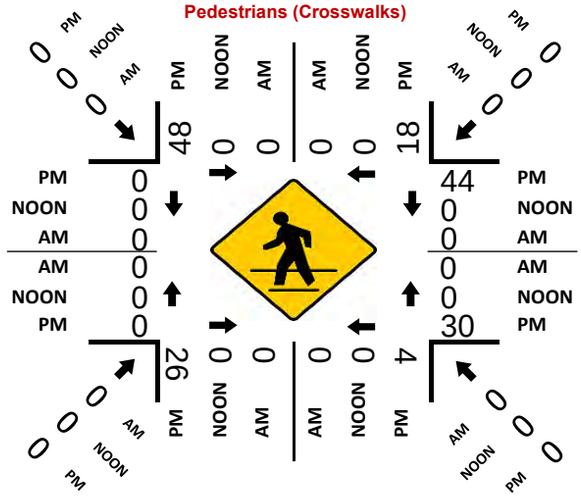
Total Bikes (NOON)



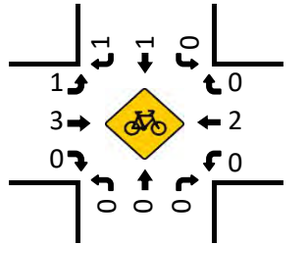
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

West Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-033
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS	
AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS	
AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (West Dr)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	122	34	117	1	544	PM
	0.5	1	0.5	0		

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	0	621	
0	0	13	0
0	0	43	2
0	0	416	2
0	0	78	0

WESTBOUND (Sports Arena Blvd)

PM	NOON	AM	
459	0	0	0
386	0	0	3
75	0	0	1
1	0	0	0
606	0	0	

CONTROL

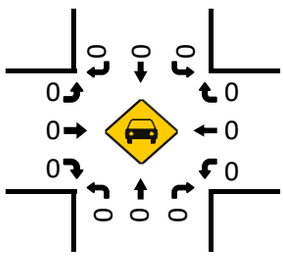
Signalized

	AM	NOON	PM
TEV	0	0	1959
PHF			0.95

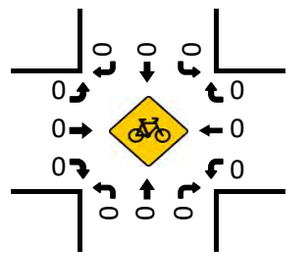
NORTHBOUND (West Dr)

			0	0	1	0
PM	188	1	100	41	72	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

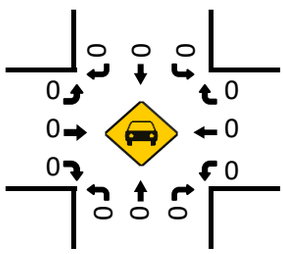
Totals (AM)



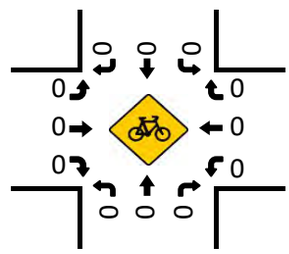
Total Bikes (AM)



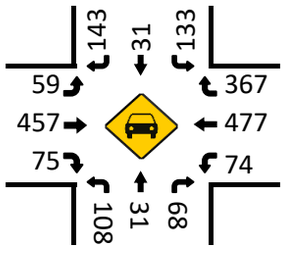
Totals (NOON)



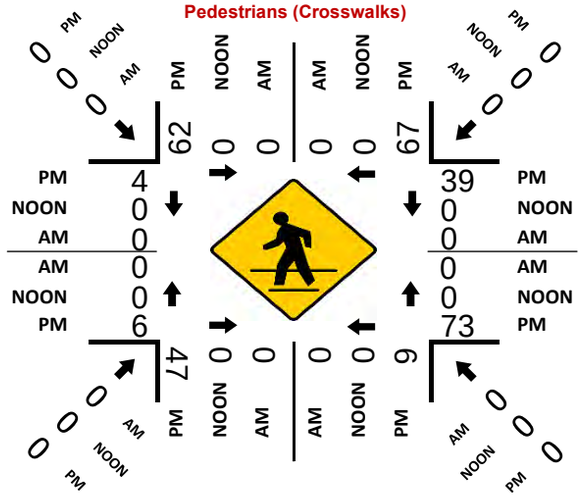
Total Bikes (NOON)



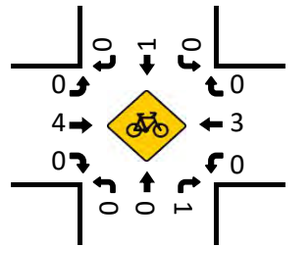
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Target Department Store Dwy & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-034
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND — Target Department Store Dwy

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	28	1	2	1	106	PM

EASTBOUND — Sports Arena Blvd

AM	NOON	PM		
0	0	919	⇦	
0	0	9	↰	0
0	0	44	↑	1
0	0	571	→	3
0	0	17	↳	0
AM	NOON	PM		

WESTBOUND — Sports Arena Blvd

PM	NOON	AM		
61	0	0	↱	0
882	0	0	←	3
78	0	0	↰	1
9	0	0	↳	0
710	0	0	⇨	
PM	NOON	AM		

NORTHBOUND — Target Department Store Dwy

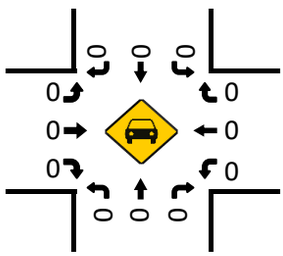
PM	96	0	0	0	128	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

CONTROL

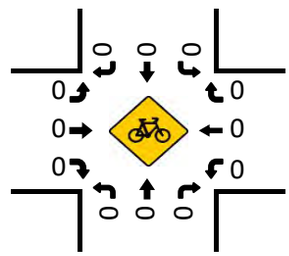
1-Way Stop(NB)

TEV	0 AM	0 NOON	1831 PM
PHF			0.93

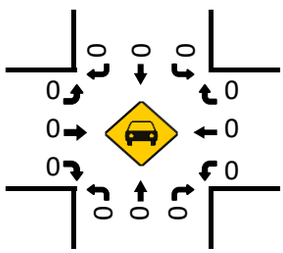
Totals (AM)



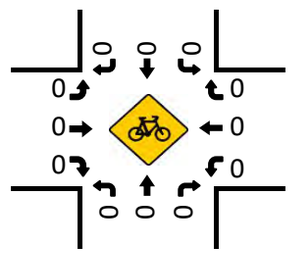
Total Bikes (AM)



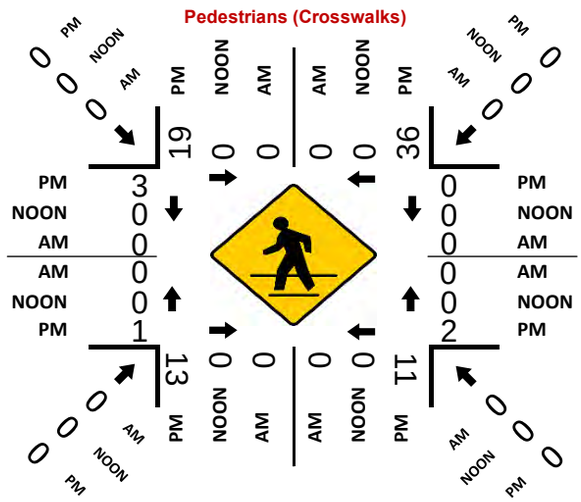
Totals (NOON)



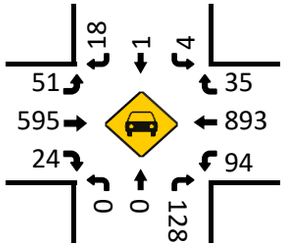
Total Bikes (NOON)



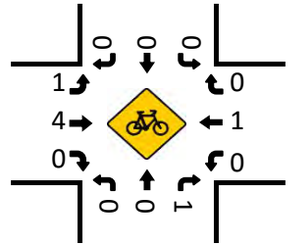
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

East Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040200-004
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (East Dr)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	5	0	0	0	3	PM

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	0	1094	⇦
0	0	22	↰ 0
0	0	2	↑ 1
0	0	653	→ 3
0	0	39	↳ 0
AM	NOON	PM	

WESTBOUND (Sports Arena Blvd)

PM	NOON	AM	
1	0	0	0 ↱
957	0	0	3 ←
100	0	0	1 ↰
88	0	0	0 ↳
890	0	0	⇨
PM	NOON	AM	

NORTHBOUND (East Dr)

PM	139	0	110	0	149	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

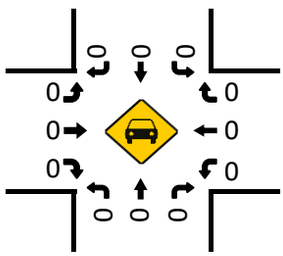
0 ↰ 0 ↑ 0.5 ↑ 0.5 ↱ 1

CONTROL

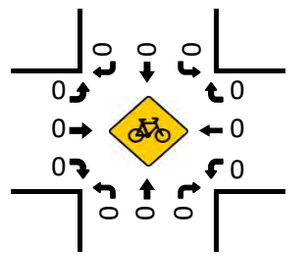
Signalized

	AM	NOON	PM
TEV	0	0	2126
PHF			0.91

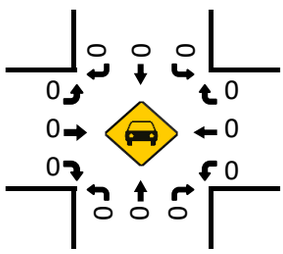
Totals (AM)



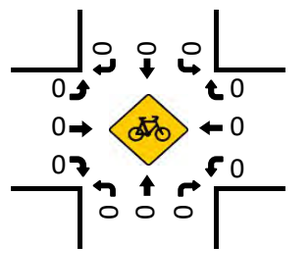
Total Bikes (AM)



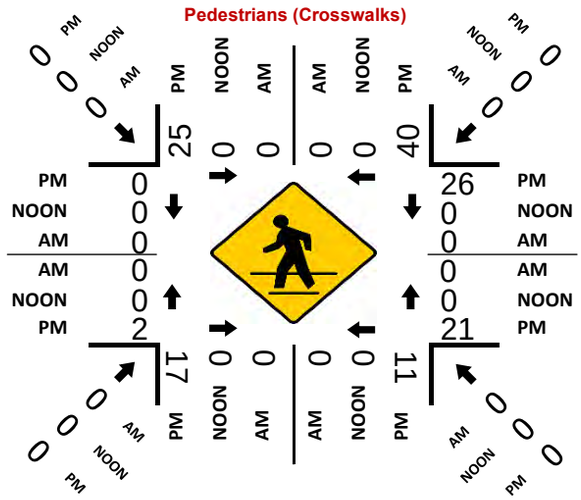
Totals (NOON)



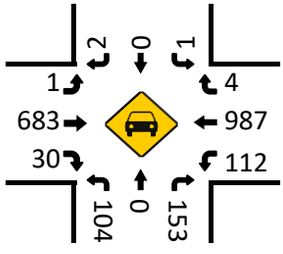
Total Bikes (NOON)



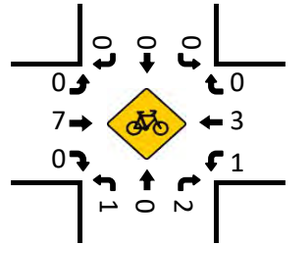
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kemper St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040200-024
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

TEV: AM 0 | NOON 0 | PM 1909
PHF: PM 0.92

SOUTHBOUND (Kemper St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	64	83	40	0	370	PM
	1	1	1	0		

EASTBOUND (Midway Dr)

AM	NOON	PM		
0	0	605		
0	0	38	0	
0	0	79	1	
0	0	443	2	
0	0	127	1	
AM	NOON	PM		

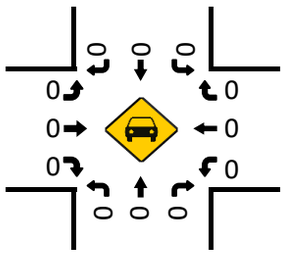
WESTBOUND (Midway Dr)

PM	NOON	AM		
174	0	0	0	
372	0	0	2	
125	0	0	2	
0	0	0	0	
599	0	0		
PM	NOON	AM		

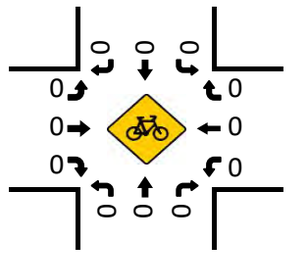
NORTHBOUND (Kemper St)

PM	335	0	131	117	116	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1.5	0.5	1	

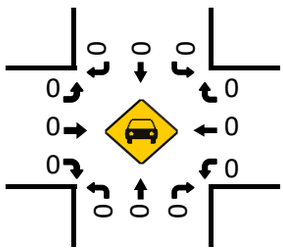
Totals (AM)



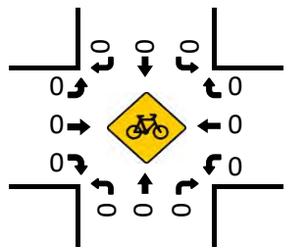
Total Bikes (AM)



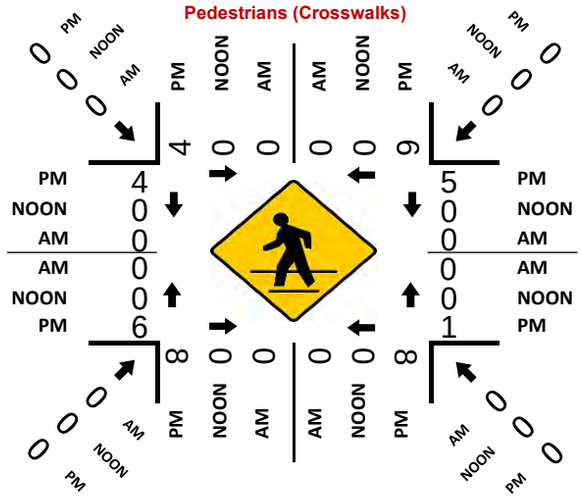
Totals (NOON)



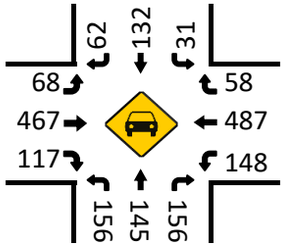
Total Bikes (NOON)



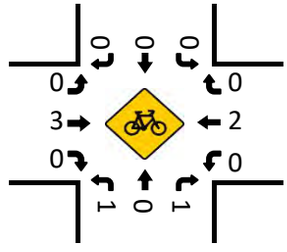
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

East Dr & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040200-023
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	2028
PHF			0.93

SOUTHBOUND (East Dr)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	50	8	156	0	419	PM
	0	1	0	0		

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	0	756	
0	0	0	0
0	0	40	1
0	0	653	2
0	0	11	0

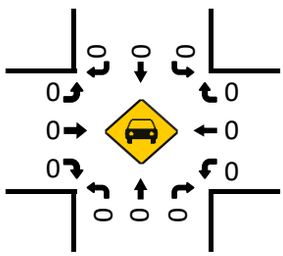
WESTBOUND (Midway Dr)

	PM	NOON	AM
0	373	0	0
2	701	0	0
1	9	0	0
0	11	0	0
	825	0	0

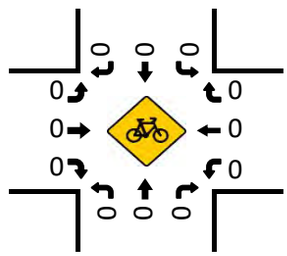
NORTHBOUND (East Dr)

PM	28	0	5	6	5	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	0	1	0	

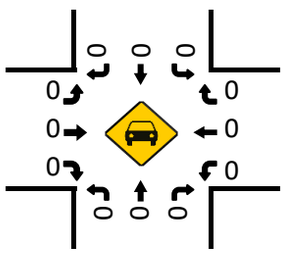
Totals (AM)



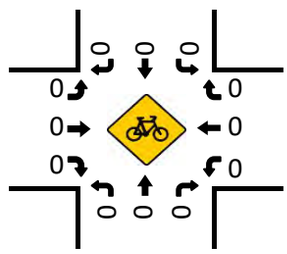
Total Bikes (AM)



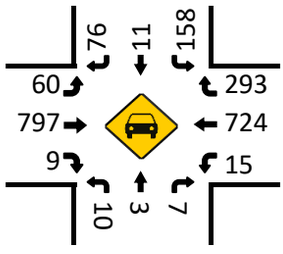
Totals (NOON)



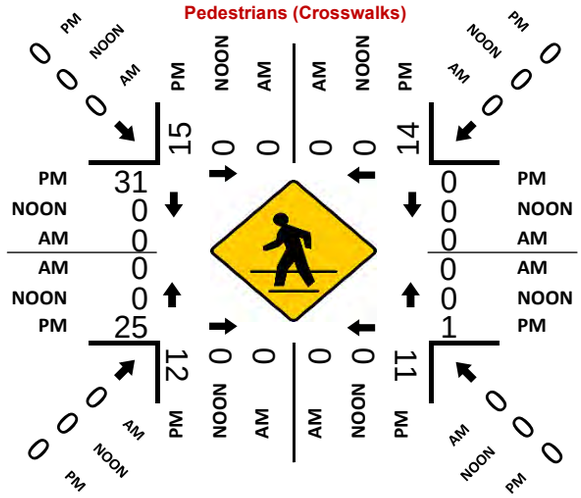
Total Bikes (NOON)



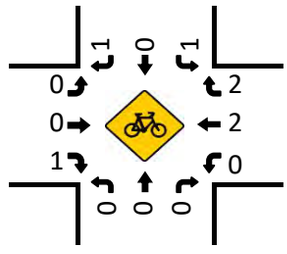
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Hancock St & Channel Way

Peak Hour Turning Movement Count

ID: 23-040200-005
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Hancock St)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	31	127	0	0	130	PM

EASTBOUND (Channel Way)

	L	T	R	
AM	0	0	0	
NOON	0	0	0	
PM	0	0	46	
AM	0	0	0	0
NOON	0	0	8	0
PM	0	0	0	1
AM	0	0	29	0
NOON				
PM				

WESTBOUND (Channel Way)

	L	T	R	
PM	0	0	0	
NOON	0	0	0	
AM	0	0	0	
PM	0	0	0	0
NOON	0	0	0	0
AM	0	0	0	0
PM	0	0	0	0
NOON				
AM				

NORTHBOUND (Hancock St)

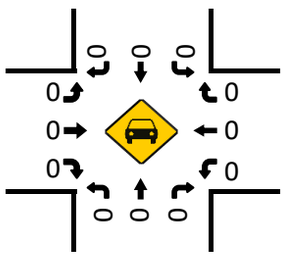
	L	T	T	R	U	Total	
PM	158	2	15	122	0	0	PM
NOON	0	0	0	0	0	0	NOON
AM	0	0	0	0	0	0	AM

CONTROL

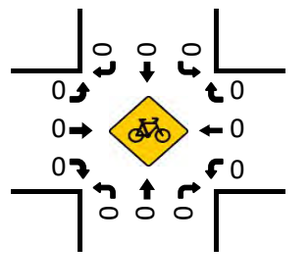
3-Way Stop(NB/SB/EB)

	AM	NOON	PM
TEV	0	0	334
PHF			0.92

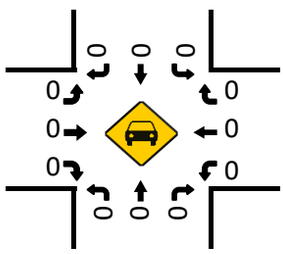
Totals (AM)



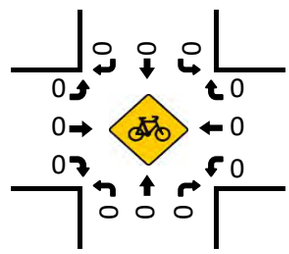
Total Bikes (AM)



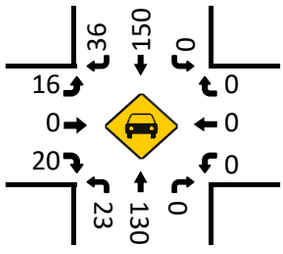
Totals (NOON)



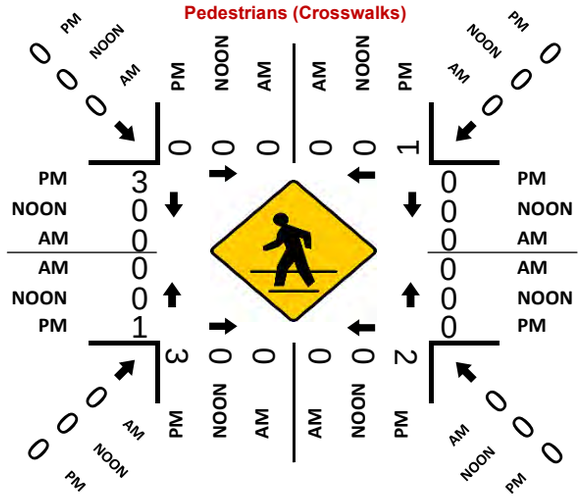
Total Bikes (NOON)



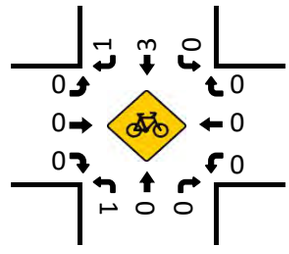
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kurtz St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040200-006
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS	
AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS	
AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

CONTROL: 1-Way Stop(WB)

	AM	NOON	PM
TEV	0	0	565
PHF			0.70

SOUTHBOUND (Kurtz St)

	Left	Thru	Right	Peds	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0

EASTBOUND (Hancock St)

	Left	Thru	Right	Peds	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	176	0	176

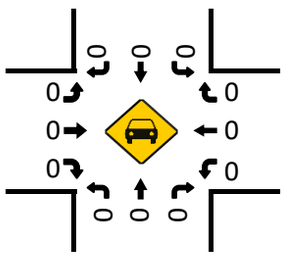
WESTBOUND (Hancock St)

	Left	Thru	Right	Peds	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	176	257	0	433

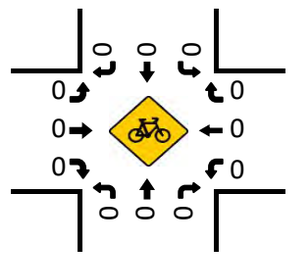
NORTHBOUND (Kurtz St)

	Left	Thru	Right	Peds	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	389	0	0	0	389

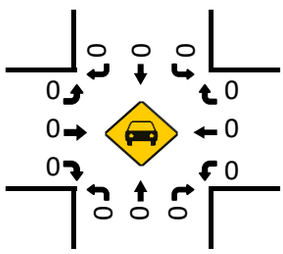
Totals (AM)



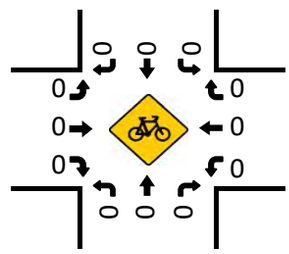
Total Bikes (AM)



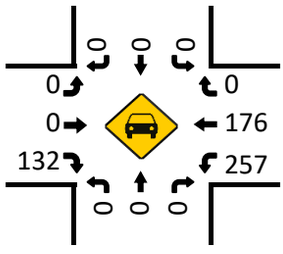
Totals (NOON)



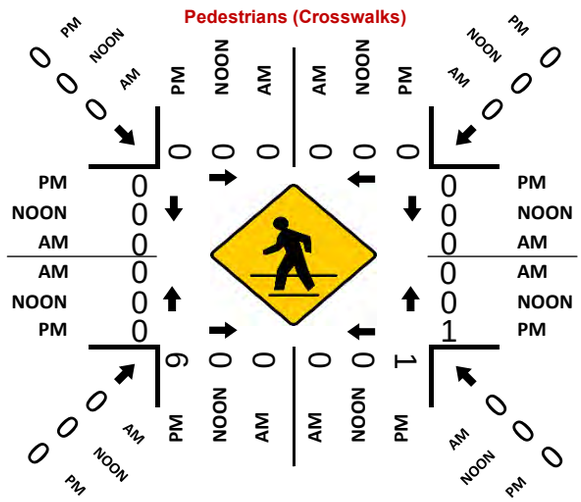
Total Bikes (NOON)



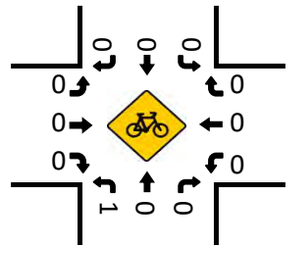
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sherman St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040200-007
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Sherman St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	170	2	77	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	0	72	0	
0	0	197	2	
0	0	0	0	
AM	NOON	PM		

WESTBOUND (Kurtz St)

0	3	0	0
0	0	0	0
0	0	0	0
0	1	0	0
	368	0	0
	PM	NOON	AM

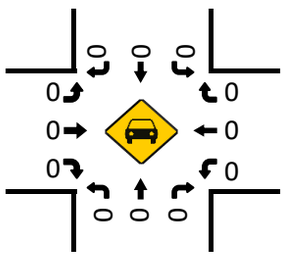
NORTHBOUND (Sherman St)

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM

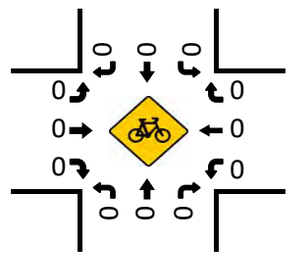
CONTROL: 2-Way Stop(SB/EB)

	AM	NOON	PM
TEV	0	0	445
PHF			0.84

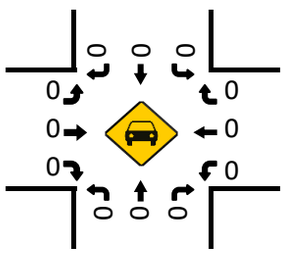
Totals (AM)



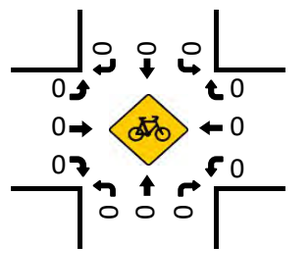
Total Bikes (AM)



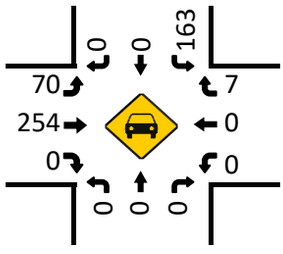
Totals (NOON)



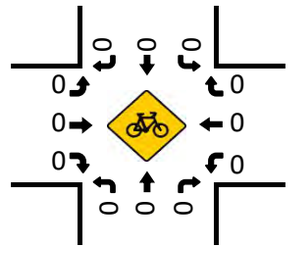
Total Bikes (NOON)



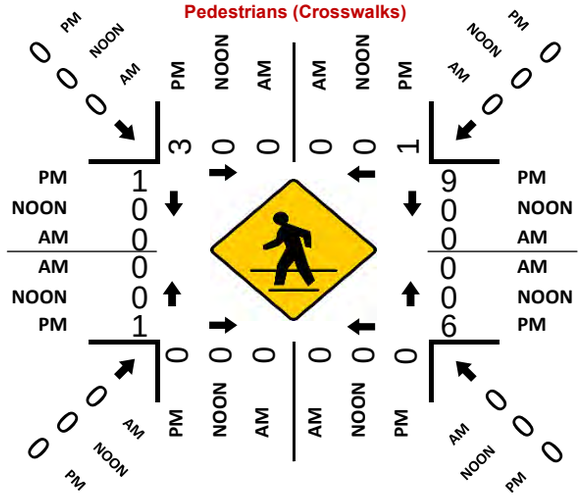
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Greenwood St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040200-009
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Greenwood St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	1	52	0	34	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	0	34	0	
0	0	271	2	
0	0	1	0	
AM	NOON	PM		

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
323	0	0	
PM	NOON	AM	

NORTHBOUND (Greenwood St)

PM	2	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

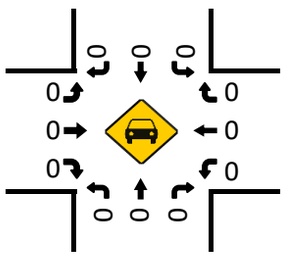
	0	1	0
	0	0	1

CONTROL

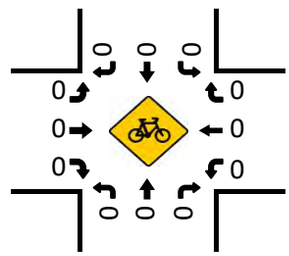
1-Way Stop (SB)

TEV	0 AM	0 NOON	359 PM
PHF			0.91

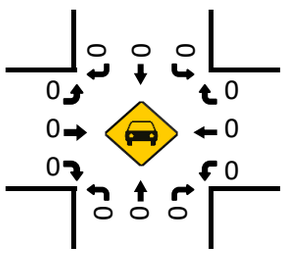
Totals (AM)



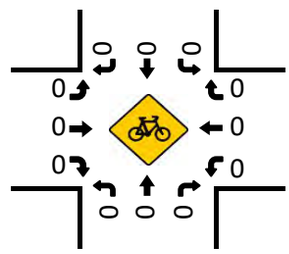
Total Bikes (AM)



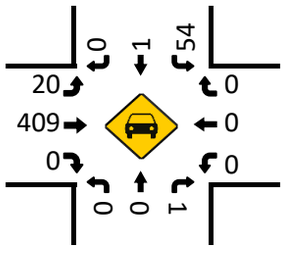
Totals (NOON)



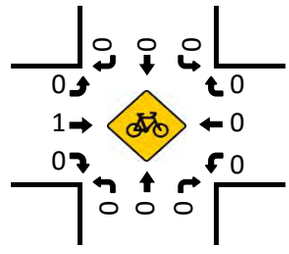
Total Bikes (NOON)



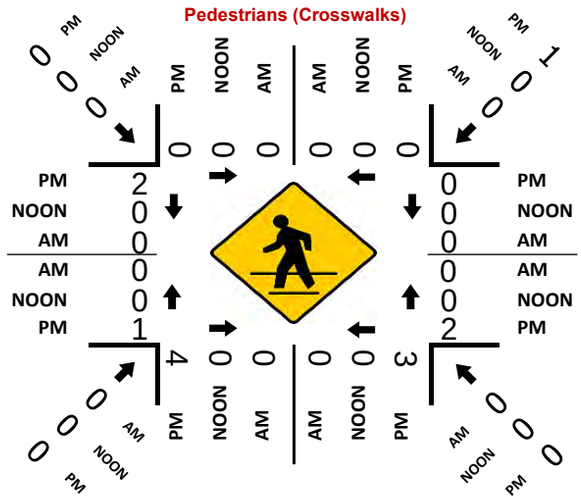
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Sherman St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040200-026
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Sherman St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	10	38	0	0	37	PM

Entering: 0 1 0 0

EASTBOUND (Hancock St)

AM	NOON	PM	
0	0	438	⇦
0	0	0	↶ 0
0	0	0	↱ 0
0	0	0	→ 0
0	0	0	↷ 0
AM	NOON	PM	

WESTBOUND (Hancock St)

PM	NOON	AM	
20	0	0	0 ↶
367	0	0	2 ←
132	0	0	0 ↷
0	0	0	0 ↱
0	0	0	⇨
PM	NOON	AM	

Entering: 0 0 1 0

NORTHBOUND (Sherman St)

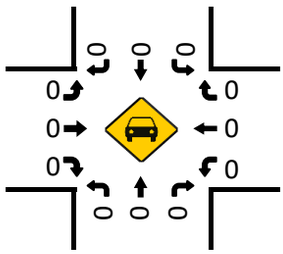
PM	170	0	61	17	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

CONTROL

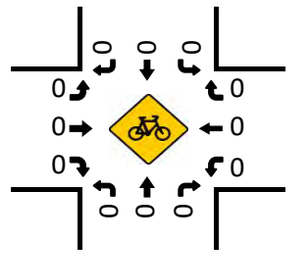
3-Way Stop(NB/SB/WB)

	AM	NOON	PM
TEV	0	0	645
PHF			0.62

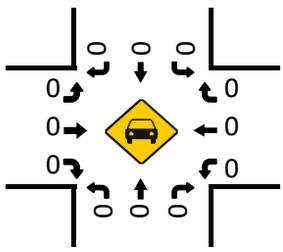
Totals (AM)



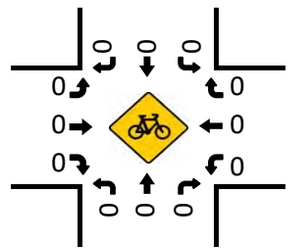
Total Bikes (AM)



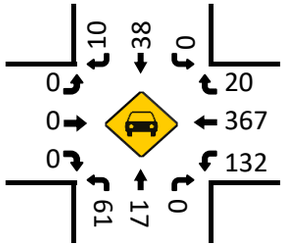
Totals (NOON)



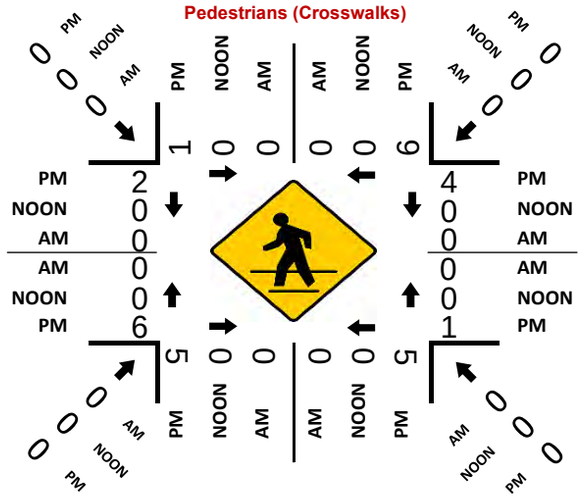
Total Bikes (NOON)



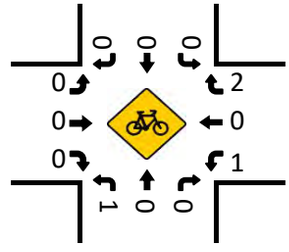
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Greenwood St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040200-008
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

NONE
NONE
06:00 PM - 07:00 PM

COUNT PERIODS

NONE
NONE
3:00 PM - 07:00 PM

SOUTHBOUND (Greenwood St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	109	27	0	0	19	PM

0 1 0 0

EASTBOUND (Hancock St)

AM	NOON	PM	
0	0	516	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Hancock St)

	PM	NOON	AM
0.5	16	0	0
1	378	0	0
0.5	30	0	0
0	0	0	0
	0	0	0
	PM	NOON	AM

CONTROL

2-Way Stop(NB/SB)

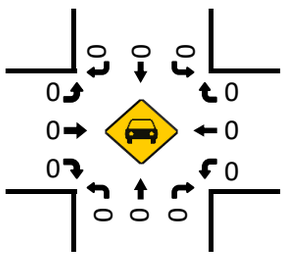
	AM	NOON	PM
TEV	0	0	592
PHF			0.58

0 0 1 0

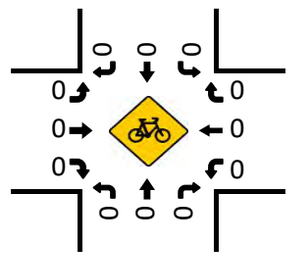
NORTHBOUND (Greenwood St)

PM	57	0	29	3	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

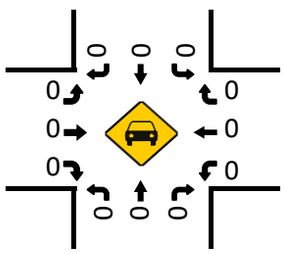
Totals (AM)



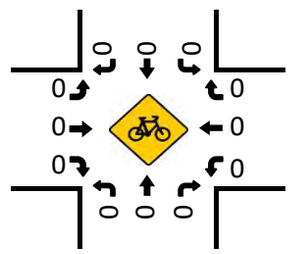
Total Bikes (AM)



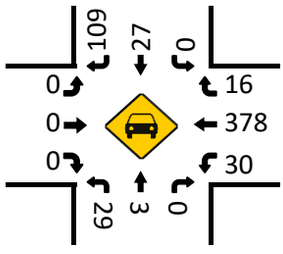
Totals (NOON)



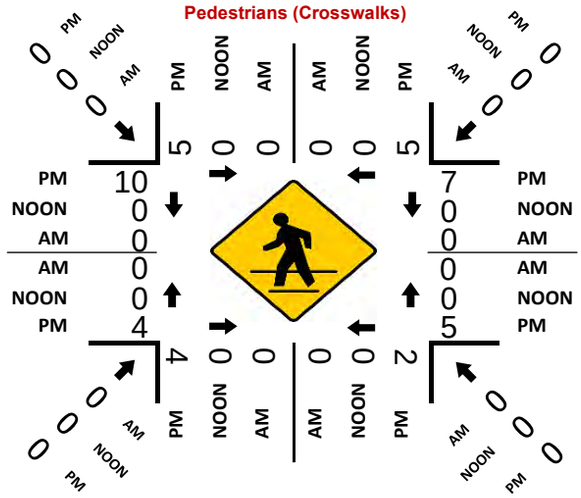
Total Bikes (NOON)



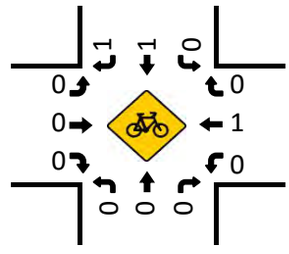
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Greenwood St/Moore St

Peak Hour Turning Movement Count

ID: 23-040200-010
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: 2-Way Stop(EB/WB)

TEV: AM 0 | NOON 0 | PM 3506
PHF: PM 0.95

SOUTHBOUND (Camino Del Rio W)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	131	1659	0	0	1692	PM
		0	3	0	0	

EASTBOUND (Greenwood St/Moore St)

AM	NOON	PM	
0	0	131	
0	0	0	0
0	0	0	0
0	0	0	1
0	0	11	0

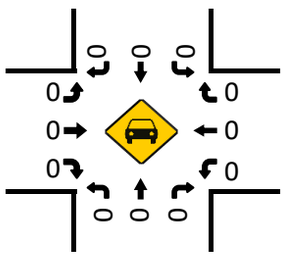
WESTBOUND (Greenwood St/Moore St)

	PM	NOON	AM
1	24	0	0
0	0	0	0
0	0	0	0
0	1	0	0
	13	0	0

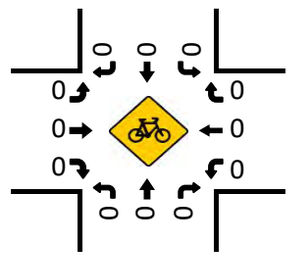
NORTHBOUND (Camino Del Rio W)

		0	0	3	0	
PM	1670	0	0	1668	12	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

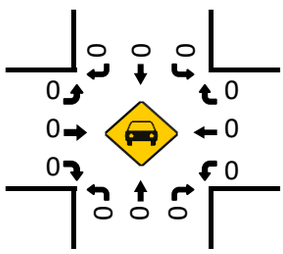
Totals (AM)



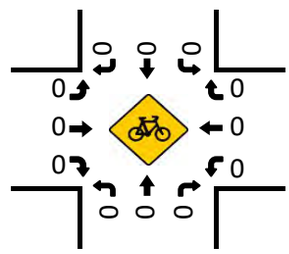
Total Bikes (AM)



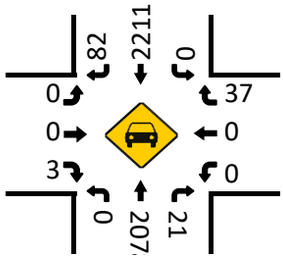
Totals (NOON)



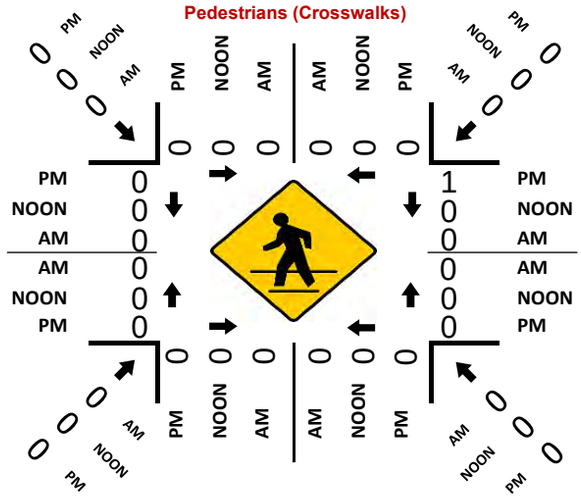
Total Bikes (NOON)



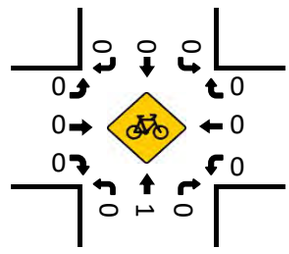
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W/Riley St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040200-011
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

TEV: AM 0 | NOON 0 | PM 3689
PHF: PM 0.96

SOUTHBOUND (Camino Del Rio W/Riley St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	187	1433	0	0	1678	PM
	1	3	0	0		

EASTBOUND (Hancock St)

AM	NOON	PM	
0	0	432	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

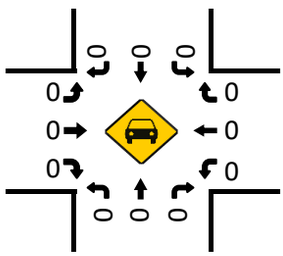
WESTBOUND (Hancock St)

PM	NOON	AM	
46	0	0	0
192	0	0	1.5
114	0	0	0.5
0	0	0	0
13	0	0	
PM	NOON	AM	

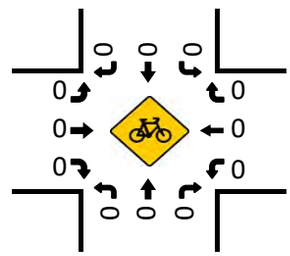
NORTHBOUND (Camino Del Rio W/Riley St)

	0	1	3	0		
PM	1566	19	53	1632	13	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

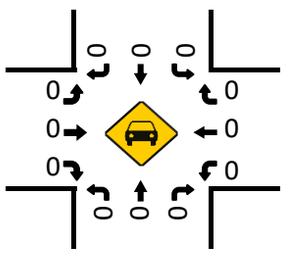
Totals (AM)



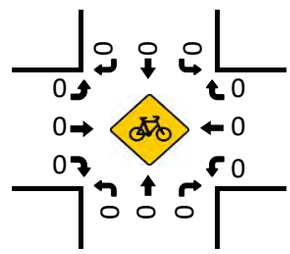
Total Bikes (AM)



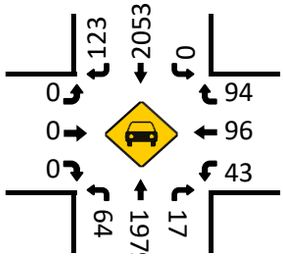
Totals (NOON)



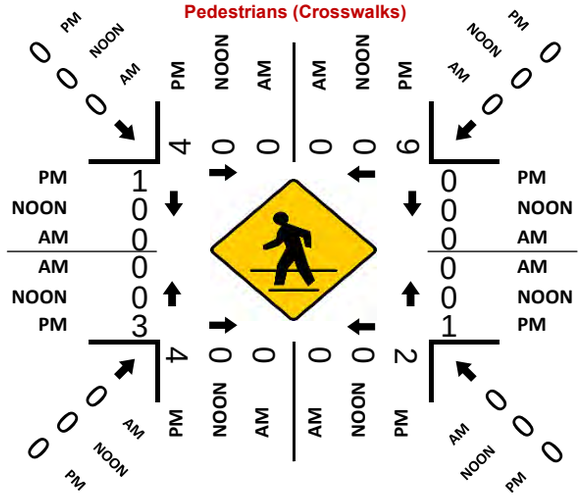
Total Bikes (NOON)



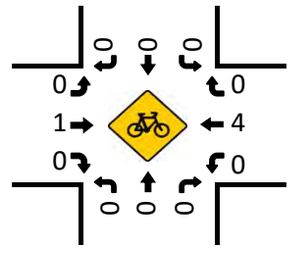
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Kurtz St/Gaines St

Peak Hour Turning Movement Count

ID: 23-040200-012
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

NONE
NONE
06:00 PM - 07:00 PM

COUNT PERIODS

NONE
NONE
3:00 PM - 07:00 PM

Camino Del Rio W

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	1494	31	18	1740	PM

0 4 1 0

EASTBOUND (Kurtz St/Gaines St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	0	191	1.5	
0	0	99	0.5	
0	0	87	1	
AM	NOON	PM		

WESTBOUND (Kurtz St/Gaines St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
145	0	0	
PM	NOON	AM	

CONTROL

Signalized

TEV	0 AM	0 NOON	3466 PM
PHF			0.89

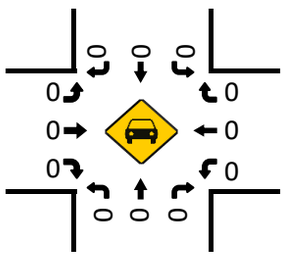
0 0 3 0

PM	1581	0	0	1531	15	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

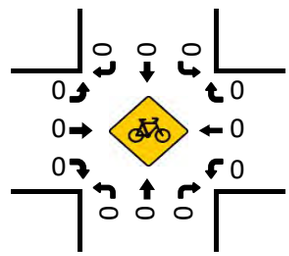
NORTHBOUND

Camino Del Rio W

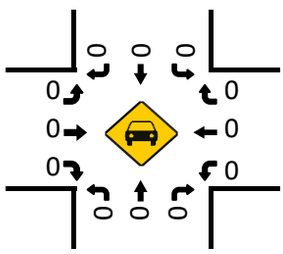
Totals (AM)



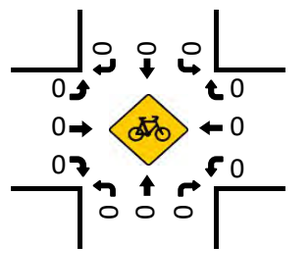
Total Bikes (AM)



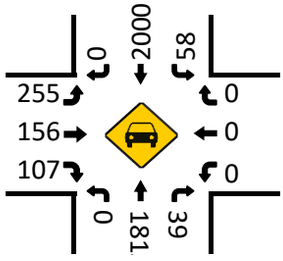
Totals (NOON)



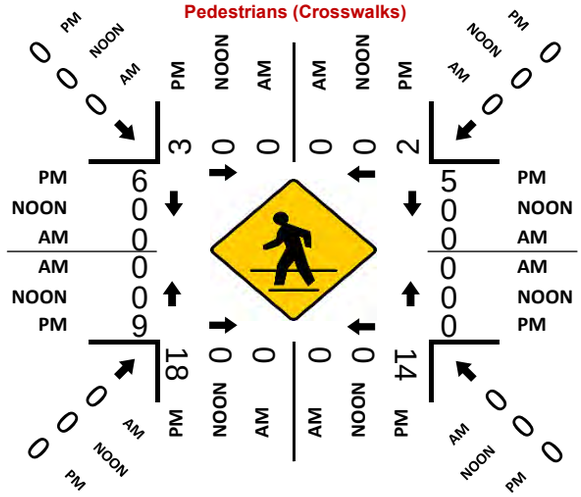
Total Bikes (NOON)



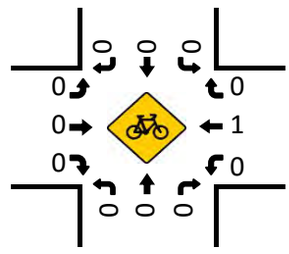
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St/Camino Del Rio W & Sports arena Blvd/Rosecrans St

Peak Hour Turning Movement Count

ID: 23-040200-019
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND — Rosecrans St/Camino Del Rio W

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	453	1108	0	0	1558	PM
	1	3	0	0		

EASTBOUND — Sports arena Blvd/Rosecrans St

AM	NOON	PM	
0	0	1088	
0	0	9	0
0	0	306	1.5
0	0	306	1.5
0	0	213	1

WESTBOUND — Sports arena Blvd/Rosecrans St

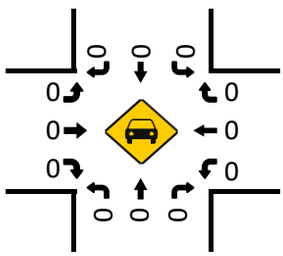
PM	NOON	AM	
9	0	0	0.5
238	0	0	1
180	0	0	1.5
1	0	0	0
536	0	0	

NORTHBOUND — Rosecrans St/Camino Del Rio W

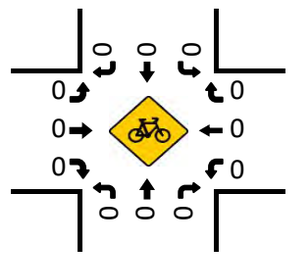
	0	2	3	1		
PM	1545	44	388	1243	229	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

CONTROL			
Signalized			
TEV	0 AM	0 NOON	4727 PM
PHF			0.86

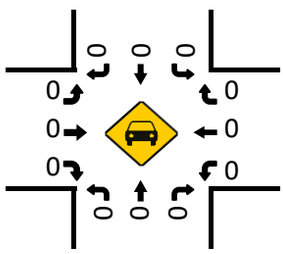
Totals (AM)



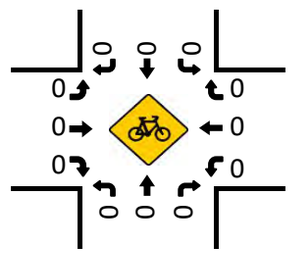
Total Bikes (AM)



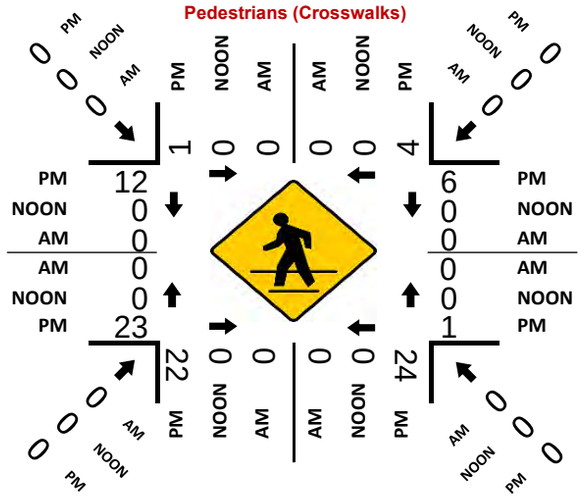
Totals (NOON)



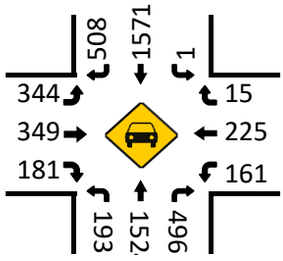
Total Bikes (NOON)



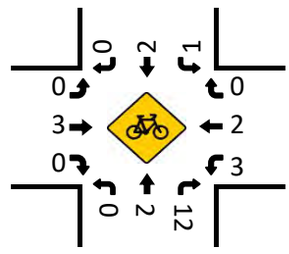
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040200-020
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	278	1033	176	54	1912	PM
	0	4	2	0		

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	0	1108	
0	0	7	0
0	0	185	2
0	0	397	2
0	0	241	1
AM	NOON	PM	

WESTBOUND (Midway Dr)

PM	NOON	AM	
289	0	0	1
528	0	0	2
78	0	0	1
0	0	0	0
667	0	0	
PM	NOON	AM	

CONTROL

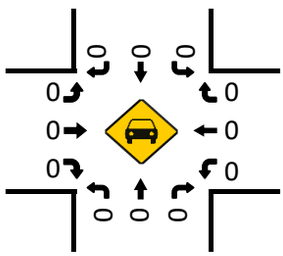
Signalized

	AM	NOON	PM
TEV	0	0	5085
PHF			0.90

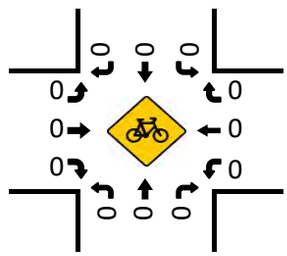
NORTHBOUND (Rosecrans St)

PM	1398	46	295	1384	94	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	2	3	0	

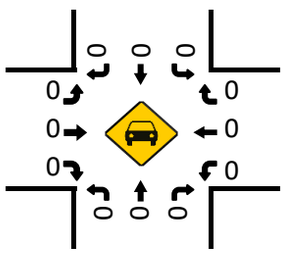
Totals (AM)



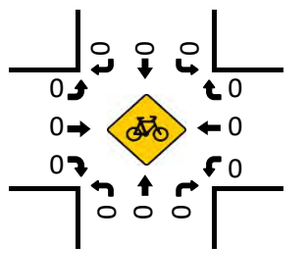
Total Bikes (AM)



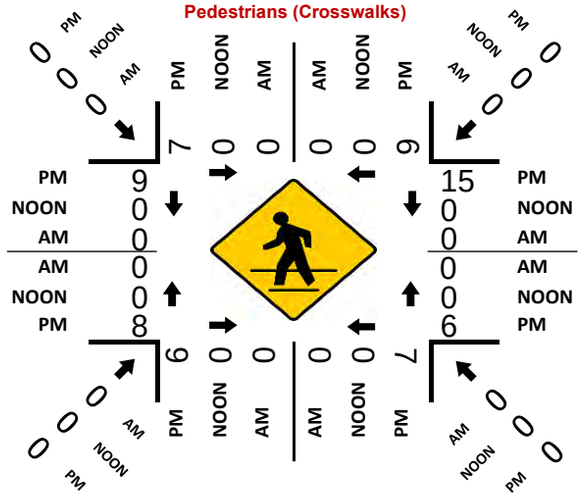
Totals (NOON)



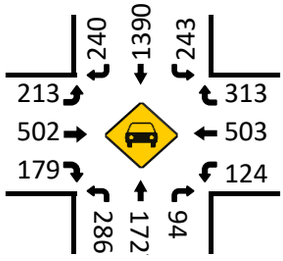
Total Bikes (NOON)



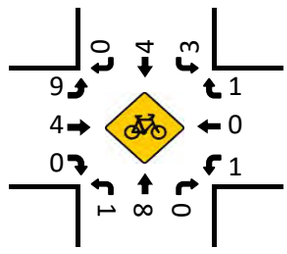
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & N Evergreen St

Peak Hour Turning Movement Count

ID: 23-040200-022
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS		COUNT PERIODS
AM	NONE	NONE
NOON	NONE	NONE
PM	06:00 PM - 07:00 PM	3:00 PM - 07:00 PM

SOUTHBOUND — Rosecrans St

	Right	Thru	Left	U-Turn	Out
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	32	1214	96	61	1762
Bikes/Peds	0	3	1	0	

EASTBOUND — N Evergreen St

	AM	NOON	PM	
Out	0	0	49	
U-Turn	0	0	0	0
Left	0	0	39	0
Thru	0	0	8	1
Right	0	0	9	0

WESTBOUND — N Evergreen St

		PM	NOON	AM
Right	0	78	0	0
Thru	1	10	0	0
Left	0	89	0	0
U-Turn	0	0	0	0
Out		119	0	0

NORTHBOUND — Rosecrans St

	Out	U-Turn	Left	Thru	Right
Bikes/Peds		0	1	4	0
PM	1322	10	7	1584	15
NOON	0	0	0	0	0
AM	0	0	0	0	0

CONTROL

Signalized

	AM	NOON	PM
TEV	0	0	3252
PHF			0.85

Totals (AM)

Approach	U-Turn	Left	Thru	Right
SB	0	0	0	0
EB		0	0	0
WB		0	0	0
NB	0	0	0	0

Totals (NOON)

Approach	U-Turn	Left	Thru	Right
SB	0	0	0	0
EB		0	0	0
WB		0	0	0
NB	0	0	0	0

Totals (PM)

Approach	Left	Thru	Right
SB	48	1496	99
EB	103	23	12
WB	111	11	84
NB	8	180	37

Total Bikes (AM)

Approach	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

Total Bikes (NOON)

Approach	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

Total Bikes (PM)

Approach	Left	Thru	Right
SB	0	2	0
EB	2	0	0
WB	0	0	0
NB	0	6	0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (west half)	0	0	1
North leg (east half)	0	0	8
West leg (north half)	0	0	1
West leg (south half)	0	0	1
East leg (north half)	0	0	10
East leg (south half)	0	0	3
South leg (west half)	0	0	0
South leg (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

Prepared by National Data & Surveying Services

Rosecrans St & Lytton St

Peak Hour Turning Movement Count

ID: 23-040200-021
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	239	985	76	7	1626	PM
	1	2	2	0		

EASTBOUND (Lytton St)

AM	NOON	PM		
0	0	543		
0	0	0	0	
0	0	149	1	
0	0	138	0.5	
0	0	7	0.5	
AM	NOON	PM		

CONTROL

Signalized

	AM	NOON	PM
TEV	0	0	4317
PHF			0.91

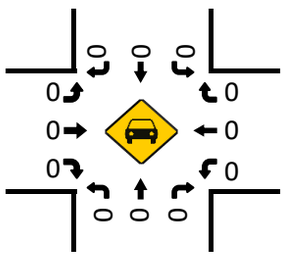
WESTBOUND (Lytton St)

PM	NOON	AM	
234	0	0	1
287	0	0	1
467	0	0	2
0	0	0	0
689	0	0	
PM	NOON	AM	

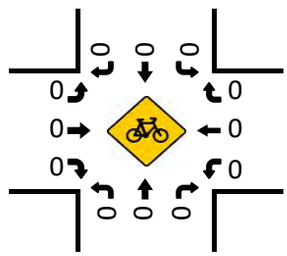
NORTHBOUND (Rosecrans St)

PM	1459	0	17	1236	475	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1	3	1	

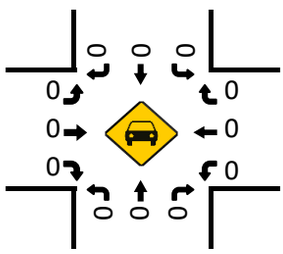
Totals (AM)



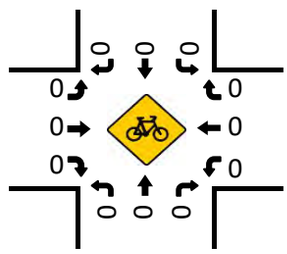
Total Bikes (AM)



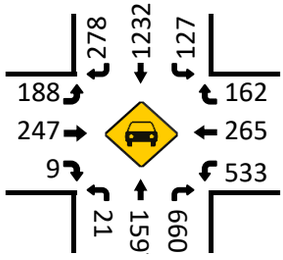
Totals (NOON)



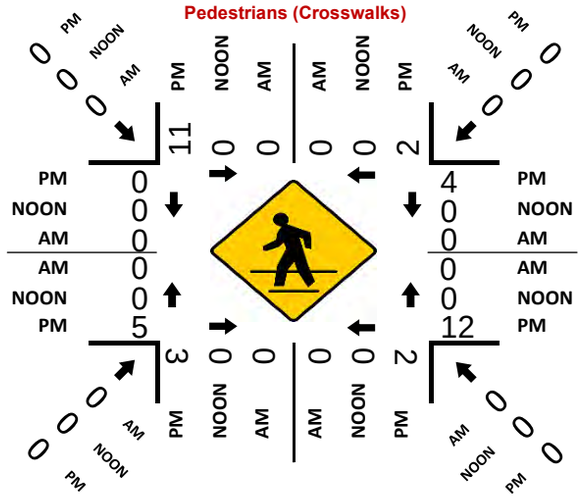
Total Bikes (NOON)



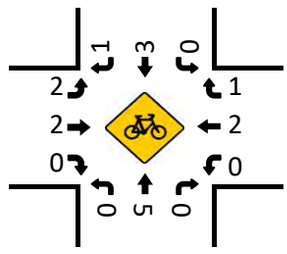
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040200-013
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	356	47	0	510	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	0	36	1	
0	0	104	0.5	
0	0	8	0.5	
AM	NOON	PM		

WESTBOUND (Kurtz St)

PM	NOON	AM	
75	0	0	1
0	0	0	0
57	0	0	1
0	0	0	0
350	0	0	
PM	NOON	AM	

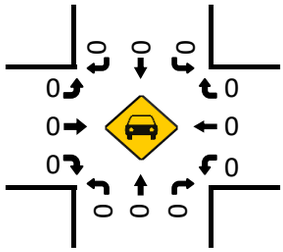
NORTHBOUND (Rosecrans St)

PM	421	0	0	399	199	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

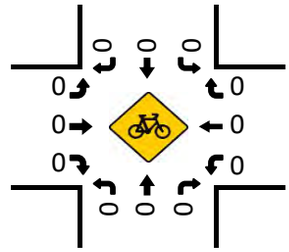
CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	1281
PHF			0.92

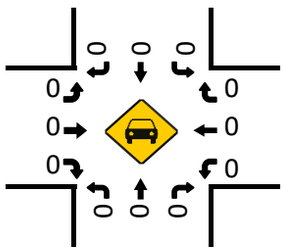
Totals (AM)



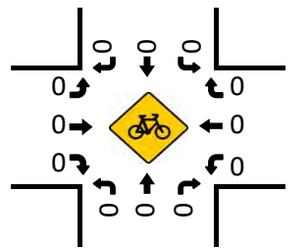
Total Bikes (AM)



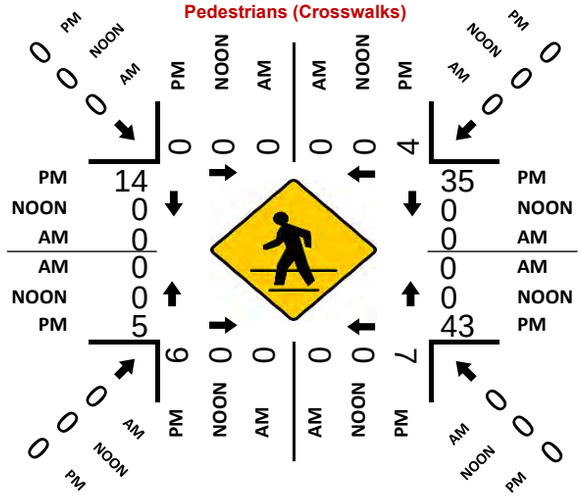
Totals (NOON)



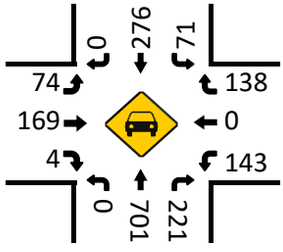
Total Bikes (NOON)



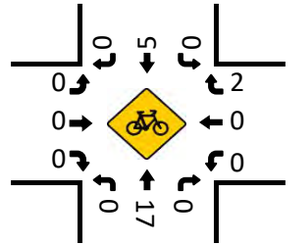
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040200-014
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	213	418	0	3	395	PM
	0	2	0	0		

EASTBOUND (Hancock St)

AM	NOON	PM	
0	0	323	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Hancock St)

	PM	NOON	AM
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
	0	0	0
	PM	NOON	AM

CONTROL

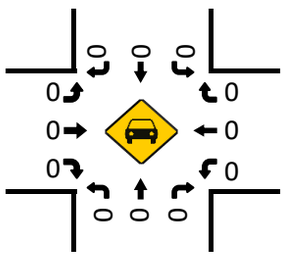
No Control

	AM	NOON	PM
TEV	0	0	1139
PHF			0.94

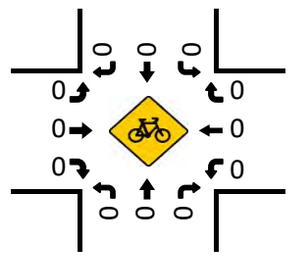
NORTHBOUND (Rosecrans St)

PM	421	3	110	392	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1	2	0	

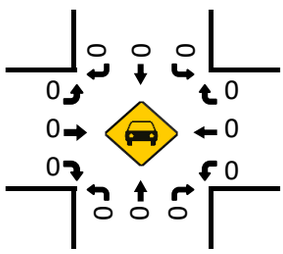
Totals (AM)



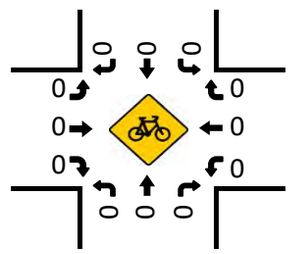
Total Bikes (AM)



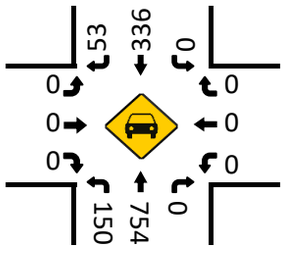
Totals (NOON)



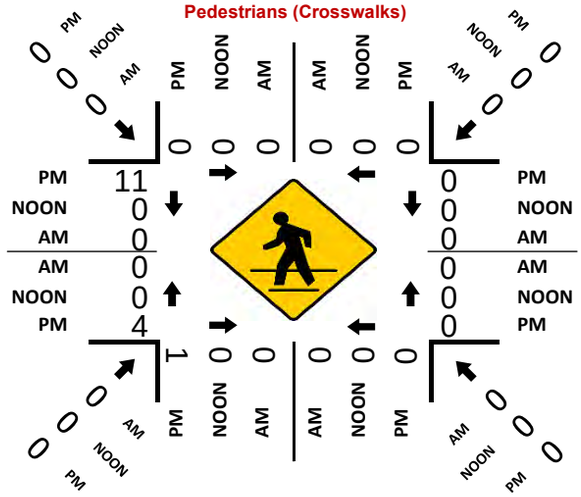
Total Bikes (NOON)



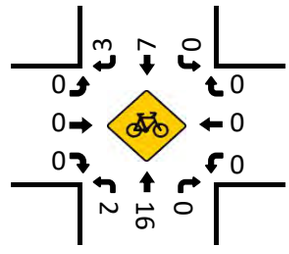
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Rosecrans St/Taylor St

Peak Hour Turning Movement Count

ID: 23-040200-015
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	110	93	50	0	188	PM
	1	2	2	0		

EASTBOUND (Rosecrans St/Taylor St)

AM	NOON	PM	
0	0	771	
0	0	0	0
0	0	34	1
0	0	306	4
0	0	87	1
AM	NOON	PM	

WESTBOUND (Rosecrans St/Taylor St)

PM	NOON	AM	
58	0	0	1
351	0	0	1
211	0	0	2
0	0	0	0
520	0	0	
PM	NOON	AM	

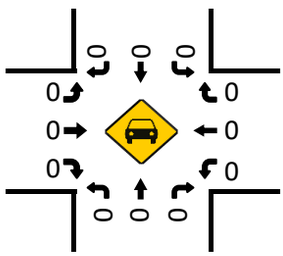
CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	1871
PHF			0.96

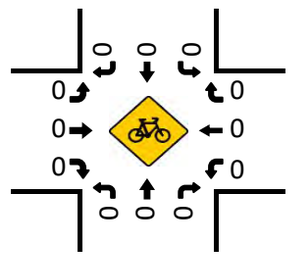
NORTHBOUND (Pacific Hwy)

PM	392	1	310	96	164	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	1	2	2	

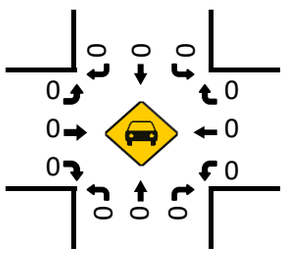
Totals (AM)



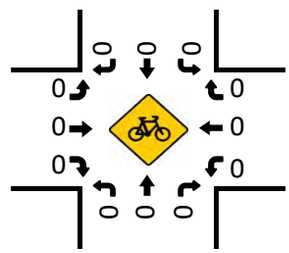
Total Bikes (AM)



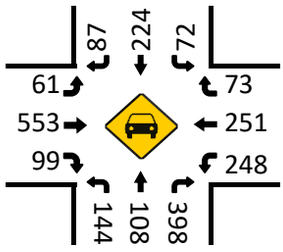
Totals (NOON)



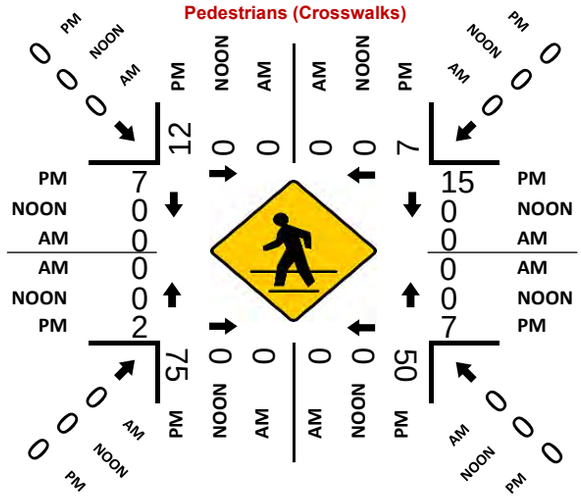
Total Bikes (NOON)



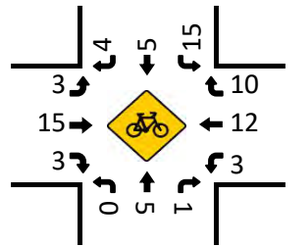
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040200-016
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	13	388	0	0	519	PM
	0	3	0	0		

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	0	242	
0	0	0	0
0	0	10	0
0	0	0	1
0	0	424	0

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

CONTROL

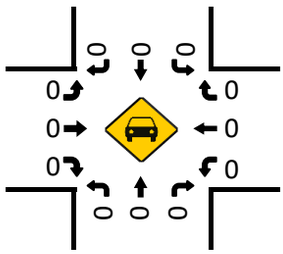
1-Way Stop(EB)

	AM	NOON	PM
TEV	0	0	1573
PHF			0.90

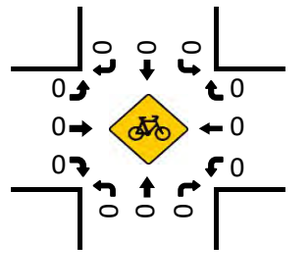
NORTHBOUND (Pacific Hwy)

	0	1	3	0		
PM	812	0	229	509	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

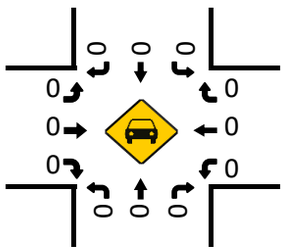
Totals (AM)



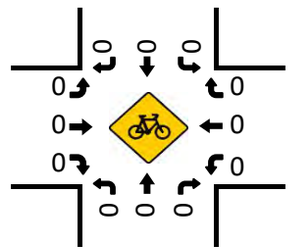
Total Bikes (AM)



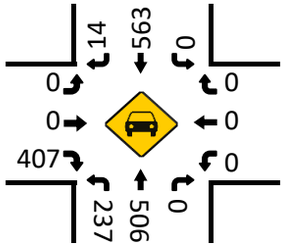
Totals (NOON)



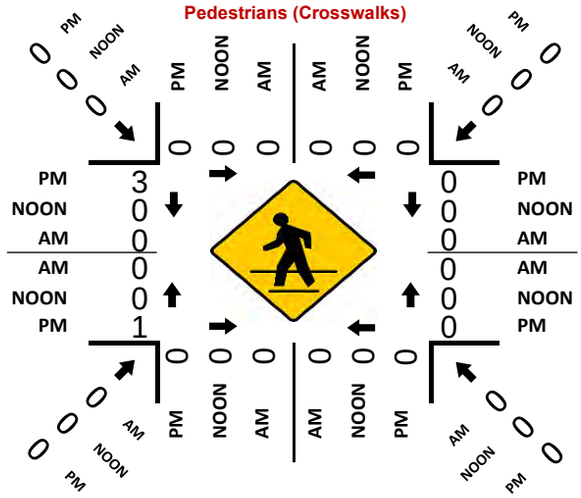
Total Bikes (NOON)



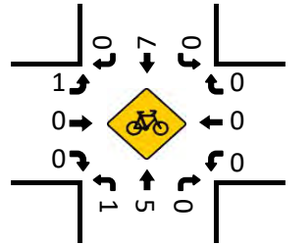
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Enterprise St

Peak Hour Turning Movement Count

ID: 23-040200-031
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	132	723	0	14	763	PM

EASTBOUND (Enterprise St)

AM	NOON	PM	
0	0	364	
0	0	0	0
0	0	43	1
0	0	3	1
0	0	31	1

WESTBOUND (Enterprise St)

	PM	NOON	AM
1	1	0	0
1	1	0	0
1	14	0	0
0	0	0	0
	6	0	0

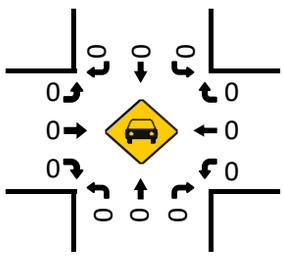
NORTHBOUND (Pacific Hwy)

PM	830	62	231	705	3	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

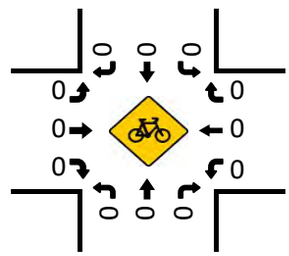
0 2 1 0 (SB turning movements) | 0 1 2 1 (NB turning movements)

CONTROL			
Signalized			
TEV	0 AM	0 NOON	1963 PM
PHF			0.89

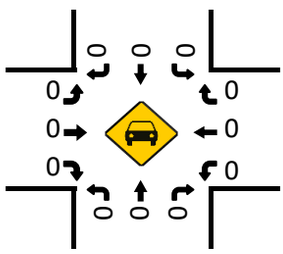
Totals (AM)



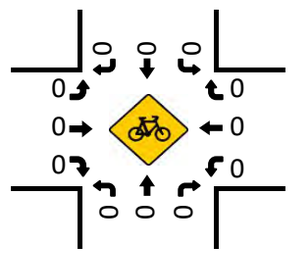
Total Bikes (AM)



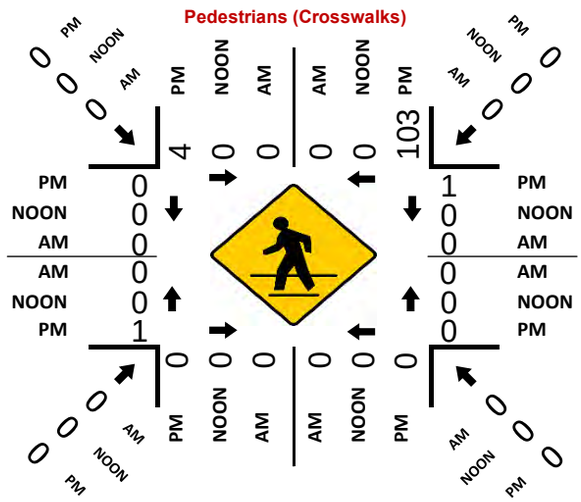
Totals (NOON)



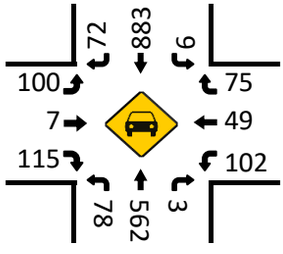
Total Bikes (NOON)



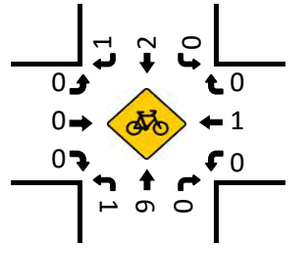
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Enterprise St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040200-018
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Enterprise St)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	263	0	0	5	11	PM

EASTBOUND (Midway Dr)

AM	NOON	PM		
0	0	1022	⇦	
0	0	0	↶	0
0	0	0	↱	0
0	0	735	→	2
0	0	0	↴	0
AM	NOON	PM		

WESTBOUND (Midway Dr)

	PM	NOON	AM	
0	6	0	0	↰
2	759	0	0	←
0	0	0	0	↰
0	0	0	0	↶
⇨	735	0	0	
	PM	NOON	AM	

NORTHBOUND (Enterprise St)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

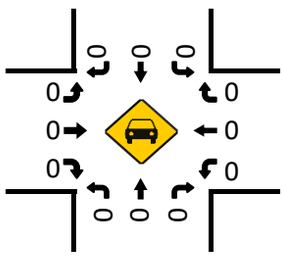
	1	0	0	0
	0	0	0	0

CONTROL

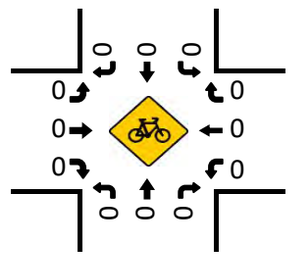
1-Way Stop(SB)

	AM	NOON	PM
TEV	0	0	1768
PHF			0.90

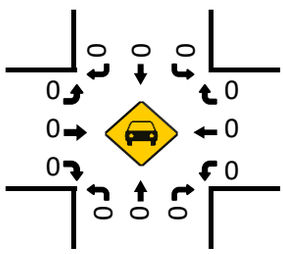
Totals (AM)



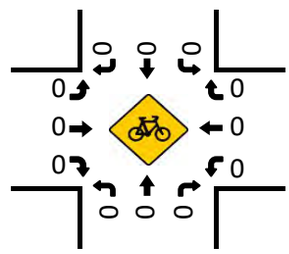
Total Bikes (AM)



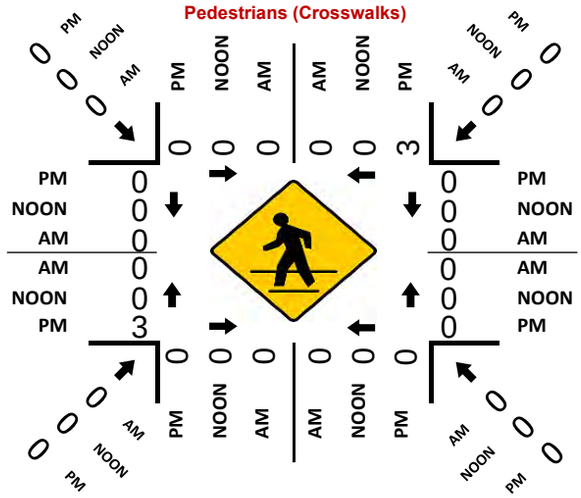
Totals (NOON)



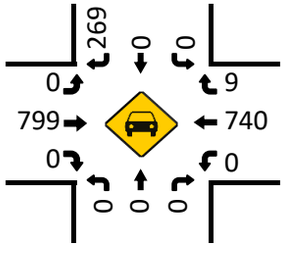
Total Bikes (NOON)



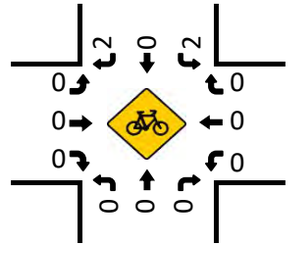
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Barnett Ave & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040200-017
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	3421
PHF			0.96

SOUTHBOUND (Barnett Ave)

	Left	Thru	Thru	Right	Total	
AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	768	1079	0	1	1472	PM
	1	2	0	0		

EASTBOUND (Midway Dr)

	AM	NOON	PM	
	0	0	768	
	0	0	0	0
	0	0	632	0
	0	0	0	2
	0	0	102	1
	AM	NOON	PM	

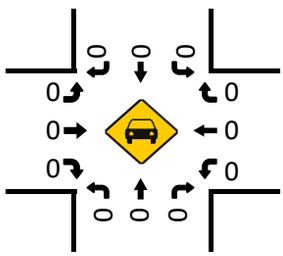
WESTBOUND (Midway Dr)

	PM	NOON	AM	
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
	0	0	0	
	PM	NOON	AM	

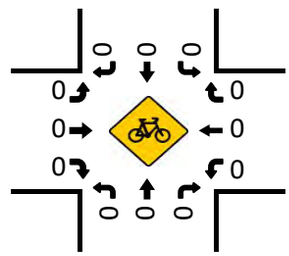
NORTHBOUND (Barnett Ave)

	Left	Thru	Thru	Right	Total	
PM	1181	0	0	839	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM
		0	0	2	0	

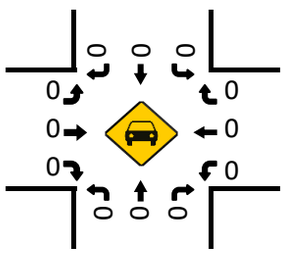
Totals (AM)



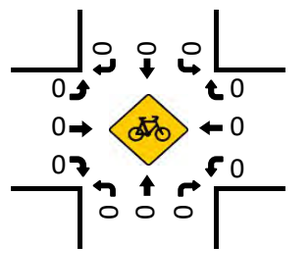
Total Bikes (AM)



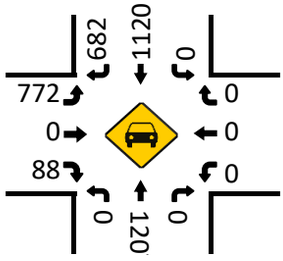
Totals (NOON)



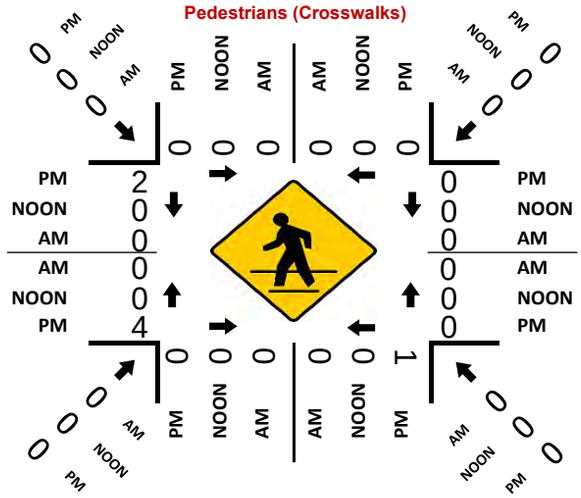
Total Bikes (NOON)



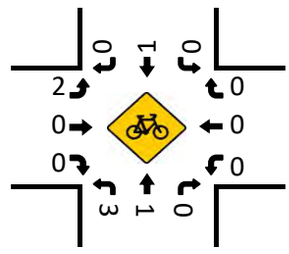
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sea World Dr & Friars Rd

Peak Hour Turning Movement Count

ID: 23-040200-027
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Sea World Dr)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	1324	113	5	739	PM

EASTBOUND (Friars Rd)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
AM	NOON	PM		

WESTBOUND (Friars Rd)

PM	NOON	AM	
0	0	0	1.5
0	0	0	0
0	0	0	1.5
0	0	0	0
278	0	0	
PM	NOON	AM	

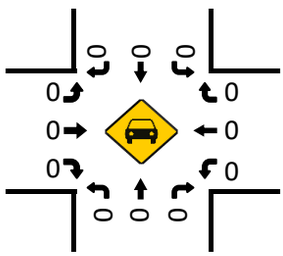
NORTHBOUND (Sea World Dr)

PM	1324	0	0	734	165	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

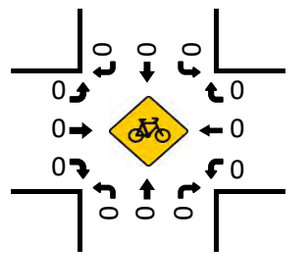
	0	2	2	0
	0	0	2	1

CONTROL			
Signalized			
TEV	0 AM	0 NOON	2341 PM
PHF			0.92

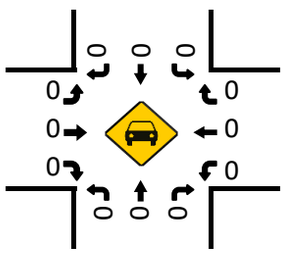
Totals (AM)



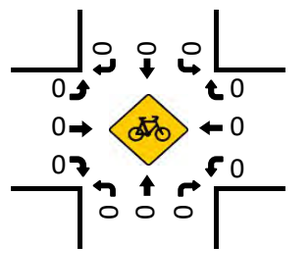
Total Bikes (AM)



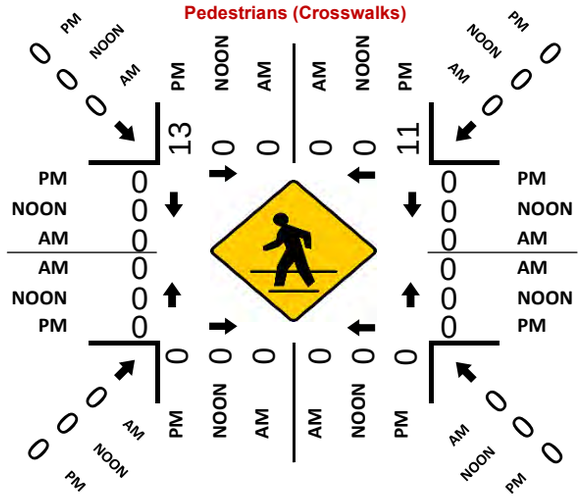
Totals (NOON)



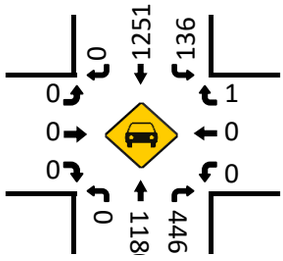
Total Bikes (NOON)



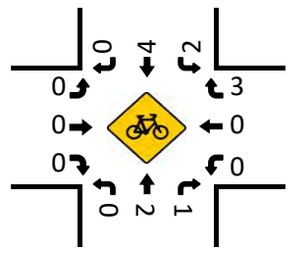
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sea World Dr & Pacific Hwy

Peak Hour Turning Movement Count

ID: 23-040200-028
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM	NONE
NOON	NONE
PM	06:00 PM - 07:00 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	3:00 PM - 07:00 PM

SOUTHBOUND (Sea World Dr)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	172	1273	118	0	873	PM
	1	2	1	0		

EASTBOUND (Pacific Hwy)

AM	NOON	PM	
0	0	248	
0	0	0	0
0	0	157	2
0	0	48	1
0	0	125	1

WESTBOUND (Pacific Hwy)

	PM	NOON	AM
1	56	0	0
1	29	0	0
1	47	0	0
0	0	0	0
	193	0	0

CONTROL

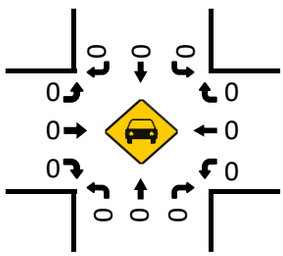
Signalized

	AM	NOON	PM
TEV	0	0	2759
PHF			0.96

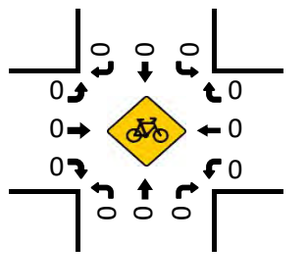
NORTHBOUND (Sea World Dr)

	0	2	2	0		
PM	1445	0	47	660	27	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

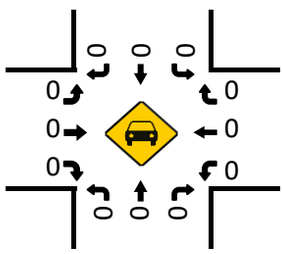
Totals (AM)



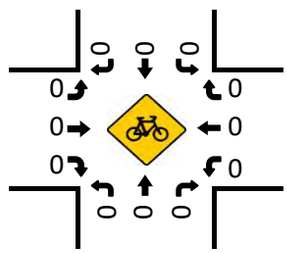
Total Bikes (AM)



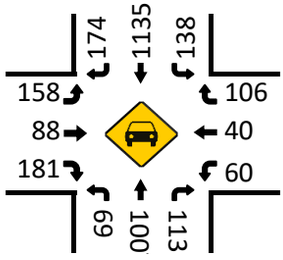
Totals (NOON)



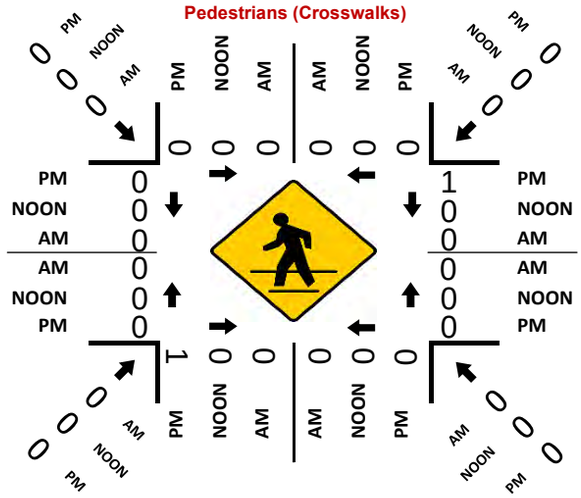
Total Bikes (NOON)



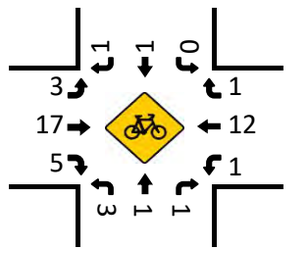
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

I-5 SB Ramps & Sea World Dr

Peak Hour Turning Movement Count

ID: 23-040200-029
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

CONTROL: Signalized

TEV: AM 0 | NOON 0 | PM 2895
PHF: PM 0.94

SOUTHBOUND (I-5 SB Ramps)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	1044	0	192	0	0	PM

EASTBOUND (Sea World Dr)

AM	NOON	PM	
0	0	1547	⇦
0	0	0	↶ 0
0	0	0	↱ 0
0	0	707	→ 2
0	0	165	↴ 1

WESTBOUND (Sea World Dr)

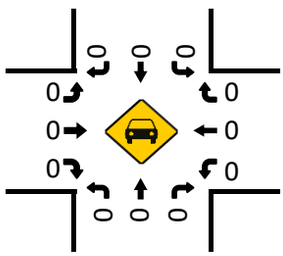
	PM	NOON	AM
0 ↰	0	0	0
2 ←	503	0	0
2 ↶	284	0	0
0 ↱	0	0	0
⇨	899	0	0

NORTHBOUND (I-5 SB Ramps)

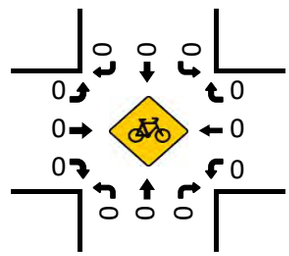
PM	449	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

1 0 1 0 — 0 0 0 0

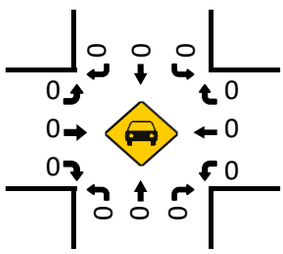
Totals (AM)



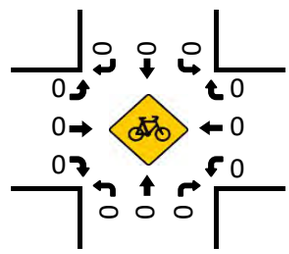
Total Bikes (AM)



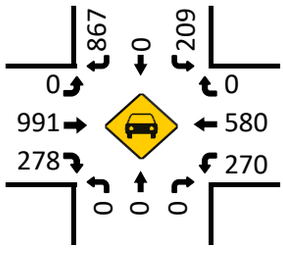
Totals (NOON)



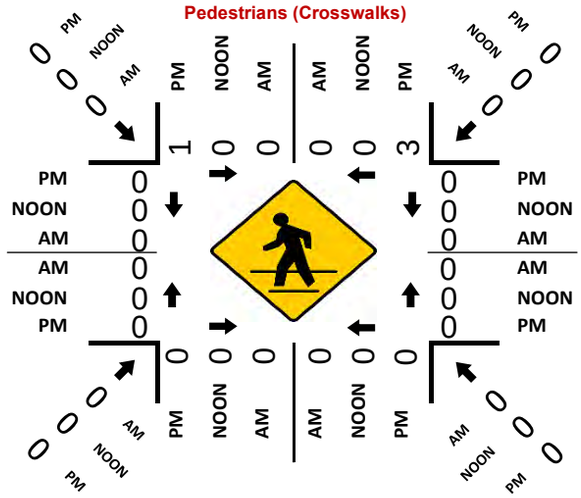
Total Bikes (NOON)



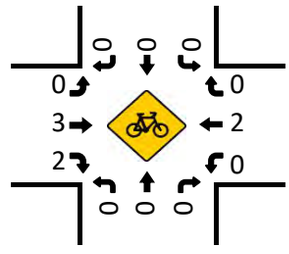
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sports Arena Blvd & I-8 EB On-Ramp

Peak Hour Turning Movement Count

ID: 23-040200-036
City: San Diego

Day: Thursday
Date: 9/21/2023

PEAK HOURS

AM: NONE
NOON: NONE
PM: 06:00 PM - 07:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 3:00 PM - 07:00 PM

SOUTHBOUND (Sports Arena Blvd)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	1394	2	0	482	PM

EASTBOUND (I-8 EB On-Ramp)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

0 3 0 0

CONTROL

No Control

	AM	NOON	PM
TEV	0	0	2525
PHF			0.96

WESTBOUND (I-8 EB On-Ramp)

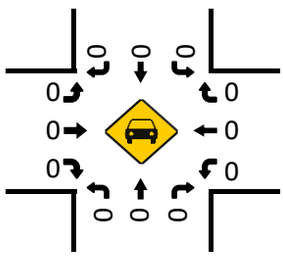
PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
649	0	0	
PM	NOON	AM	

0 0 1.5 1.5

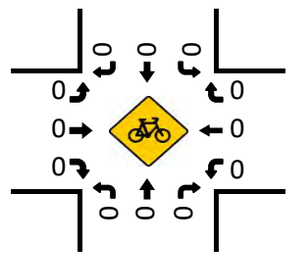
NORTHBOUND (Sports Arena Blvd)

PM	1394	0	0	482	647	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

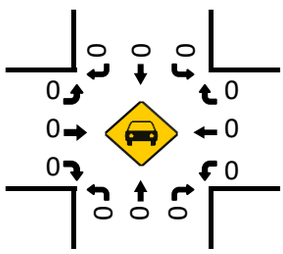
Totals (AM)



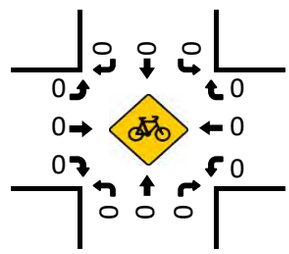
Total Bikes (AM)



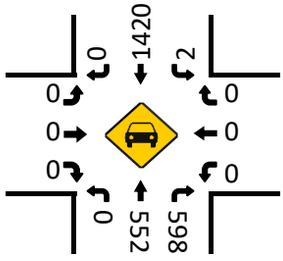
Totals (NOON)



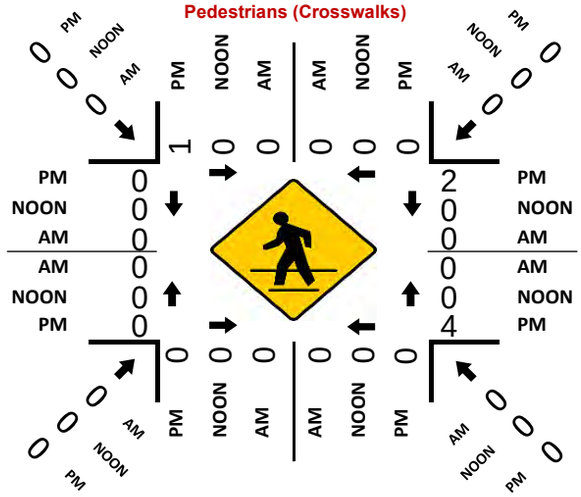
Total Bikes (NOON)



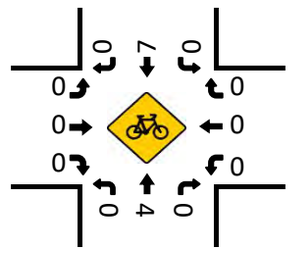
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

W Mission Bay Dr & I-8/Kumeyaay Hwy WB Off Ramp

Peak Hour Turning Movement Count

ID: 23-040246-001
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:15 AM - 12:15 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — W Mission Bay Dr

AM	0	0	0	0	0	AM
NOON	0	1653	0	0	2309	NOON
PM	0	0	0	0	0	PM

0 4 0 0

EASTBOUND — I-8/Kumeyaay Hwy WB Off Ramp

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND — I-8/Kumeyaay Hwy WB Off Ramp

PM	NOON	AM	
0	1706	0	2
0	0	0	0
0	516	0	2
0	0	0	0
0	0	0	
PM	NOON	AM	

NORTHBOUND — W Mission Bay Dr

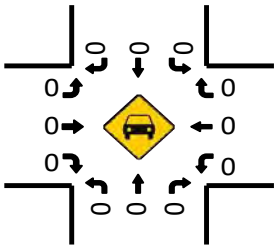
0 0 3 0

PM	0	0	0	0	0	PM
NOON	2169	0	0	603	0	NOON
AM	0	0	0	0	0	AM

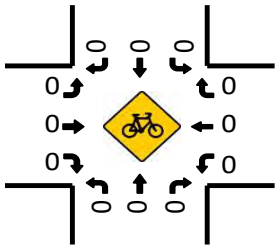
CONTROL: Signalized

	AM	NOON	PM
TEV	0	4478	0
PHF		0.93	

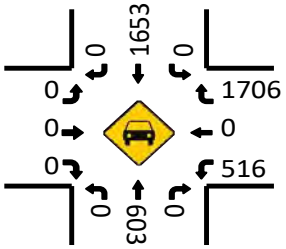
Totals (AM)



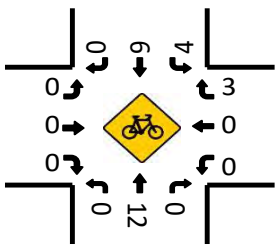
Total Bikes (AM)



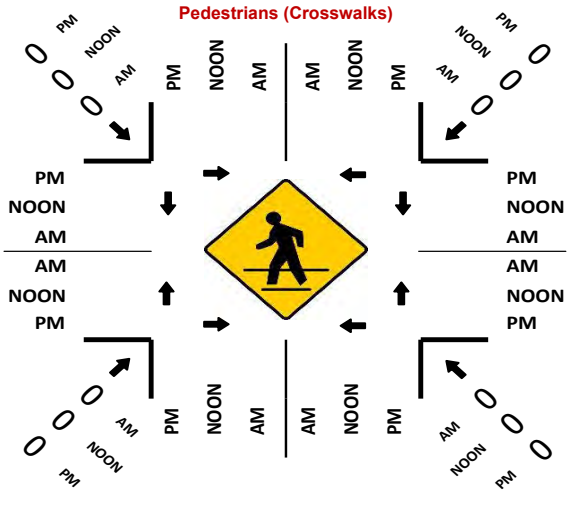
Totals (NOON)



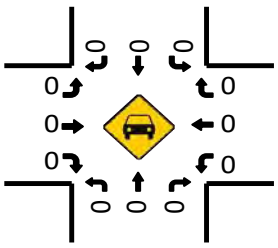
Total Bikes (NOON)



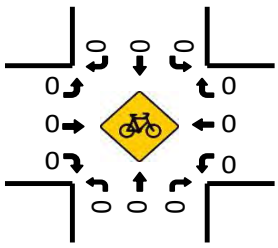
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sports Arena Blvd/Midway Dr & W Point Loma Blvd/Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-002
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:15 AM - 12:15 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Sports Arena Blvd/Midway Dr

AM	0	0	0	0	0	AM
NOON	198	414	453	0	1482	NOON
PM	0	0	0	0	0	PM

EASTBOUND — W Point Loma Blvd/Sports Arena Blvd

AM	NOON	PM	
0	748	0	
0	0	0	0
0	368	0	1.5
0	294	0	0.5
0	328	0	1
AM	NOON	PM	

WESTBOUND — W Point Loma Blvd/Sports Arena Blvd

PM	NOON	AM	
0	641	0	1
0	281	0	2
0	32	0	1
0	0	0	0
0	767	0	
PM	NOON	AM	

0.5 1.5 1 0

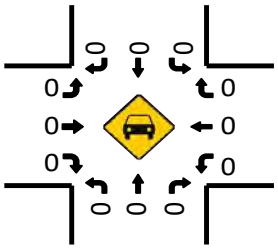
0 1 1.5 0.5

CONTROL			
Signalized			
TEV	0 AM	3771 NOON	0 PM
PHF		0.98	

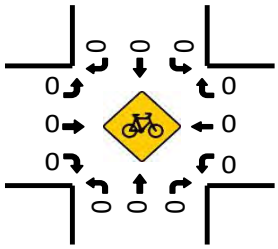
NORTHBOUND — Sports Arena Blvd/Midway Dr

PM	0	0	0	0	0	PM
NOON	774	0	269	473	20	NOON
AM	0	0	0	0	0	AM

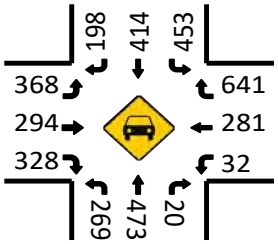
Totals (AM)



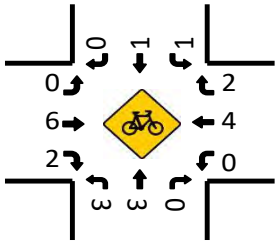
Total Bikes (AM)



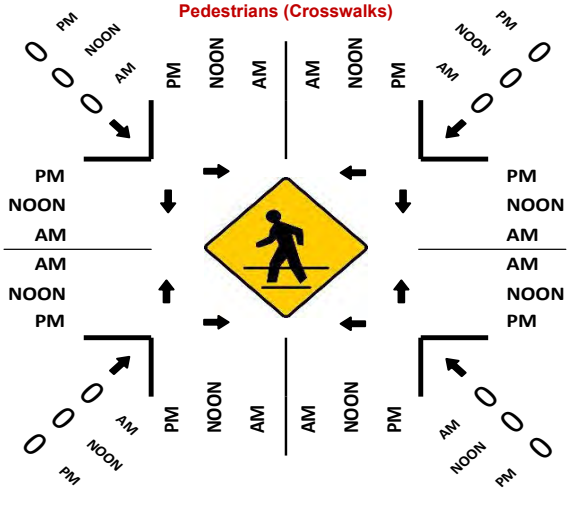
Totals (NOON)



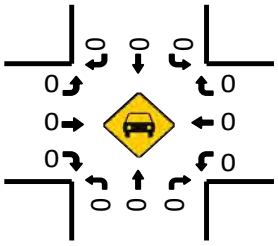
Total Bikes (NOON)



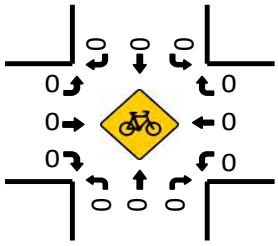
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kemper St & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-032
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
12:00 PM - 01:00 PM	11:00 AM - 01:00 PM
NONE	NONE

CONTROL: Signalized

	AM	NOON	PM
TEV	0	2249	0
PHF		0.97	

SOUTHBOUND (Kemper St)

	Left	Thru	Thru	Right	Total	
AM	0	0	0	0	0	AM
NOON	104	29	43	1	277	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	1032	0	
0	10	0	0
0	110	0	2
0	484	0	2
0	109	0	0
AM	NOON	PM	

WESTBOUND (Sports Arena Blvd)

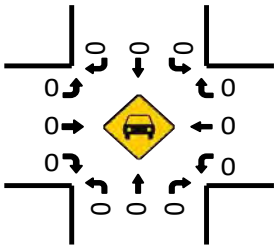
PM	NOON	AM	
0	97	0	0
0	787	0	3
0	134	0	1
0	24	0	0
0	668	0	
PM	NOON	AM	

NORTHBOUND (Kemper St)

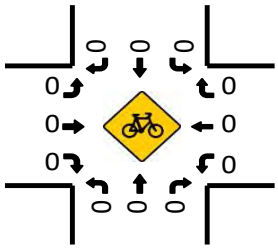
	Left	Thru	Thru	Right	Total	
PM	0	0	0	0	0	PM
NOON	272	0	131	69	117	NOON
AM	0	0	0	0	0	AM

1 0.5 0.5 0 — 0 1 1 0

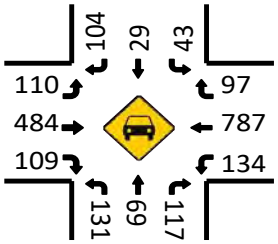
Totals (AM)



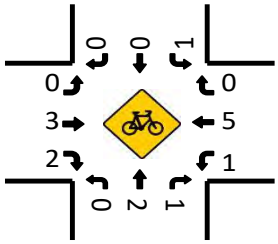
Total Bikes (AM)



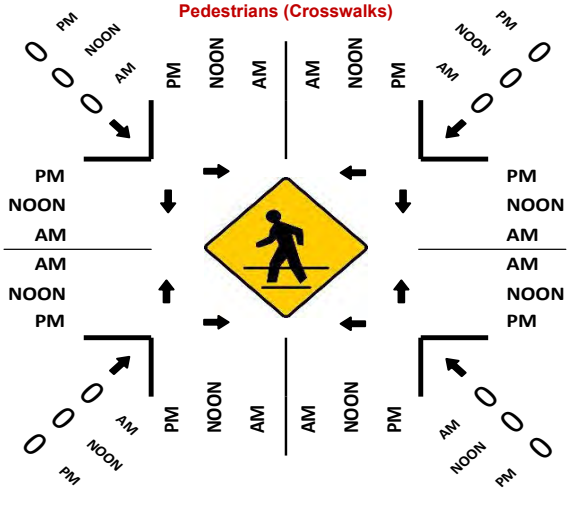
Totals (NOON)



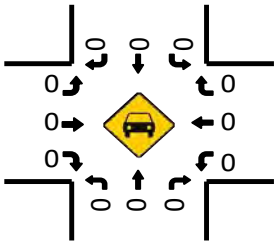
Total Bikes (NOON)



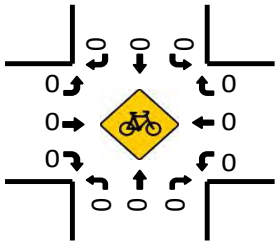
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

West Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-033
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

West Dr

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	299	69	263	0	433	NOON
PM	0	0	0	0	0	PM
	0.5	1	0.5	0		

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	1027	0	
0	7	0	0
0	57	0	2
0	531	0	2
0	108	0	0
AM	NOON	PM	

WESTBOUND (Sports Arena Blvd)

PM	NOON	AM	
0	328	0	0
0	592	0	3
0	137	0	1
0	6	0	0
0	914	0	
PM	NOON	AM	

CONTROL

Signalized

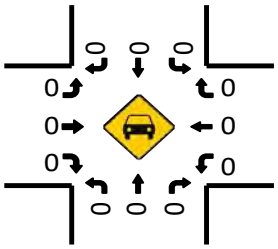
	AM	NOON	PM
TEV	0	2688	0
PHF		0.98	

PM	0	0	0	0	0	PM
NOON	314	0	129	48	114	NOON
AM	0	0	0	0	0	AM
	0	0	1	0		

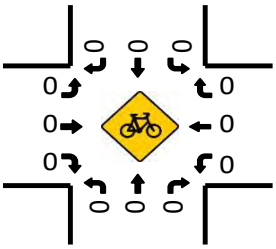
NORTHBOUND

West Dr

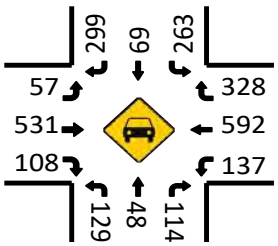
Totals (AM)



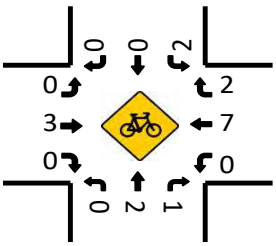
Total Bikes (AM)



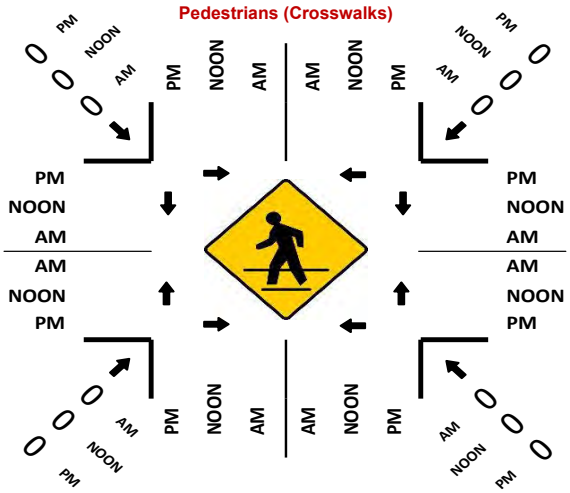
Totals (NOON)



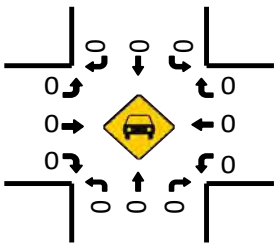
Total Bikes (NOON)



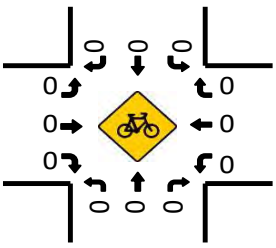
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Wine & Spirits Pkg Dwy/Target Department Store Dwy & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-034
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Wine & Spirits Pkg Dwy/Target Department Store Dwy

AM	0	0	0	0	0	AM
NOON	25	6	0	1	12	NOON
PM	0	0	0	0	0	PM

0 1 0 0

EASTBOUND — Sports Arena Blvd

AM	NOON	PM	
0	1063	0	
0	5	0	0
0	7	0	1
0	921	0	3
0	28	0	0
AM	NOON	PM	

WESTBOUND — Sports Arena Blvd

PM	NOON	AM	
0	4	0	0
0	1032	0	3
0	239	0	1
0	17	0	0
0	1134	0	
PM	NOON	AM	

0 0 0 1

CONTROL

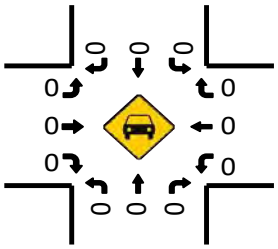
1-Way Stop(NB)

TEV	0 AM	2482 NOON	0 PM
PHF		0.96	

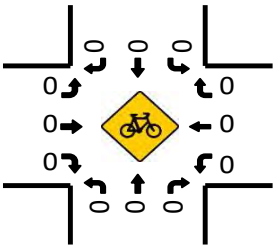
NORTHBOUND — Wine & Spirits Pkg Dwy/Target Department Store Dwy

PM	0	0	0	0	0	PM
NOON	273	0	1	0	196	NOON
AM	0	0	0	0	0	AM

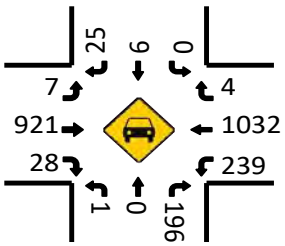
Totals (AM)



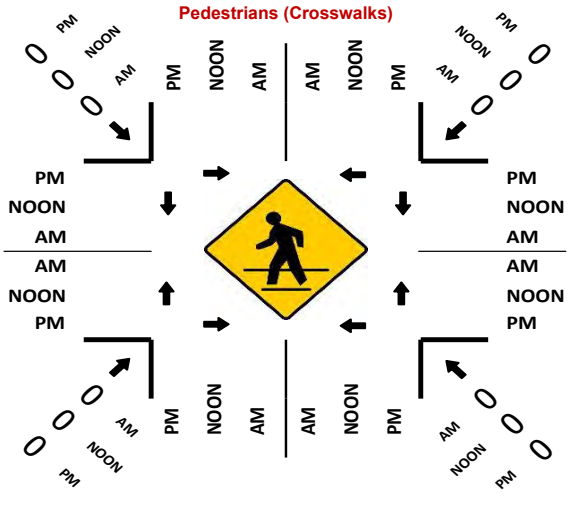
Total Bikes (AM)



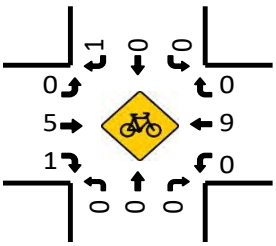
Totals (NOON)



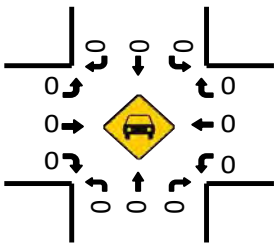
Pedestrians (Crosswalks)



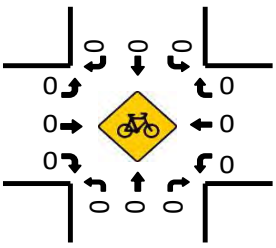
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

East Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-004
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

CONTROL: Signalized

	AM	NOON	PM
TEV	0	2794	0
PHF		0.96	

SOUTHBOUND (East Dr)

AM	0	0	0	0	0	AM
NOON	3	0	0	0	46	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	1238	0	
0	13	0	0
0	18	0	1
0	1059	0	3
0	38	0	0

WESTBOUND (Sports Arena Blvd)

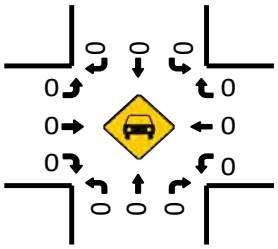
	PM	NOON	AM
0	0	22	0
3	0	1159	0
1	0	165	0
0	0	58	0
	0	1307	0

NORTHBOUND (East Dr)

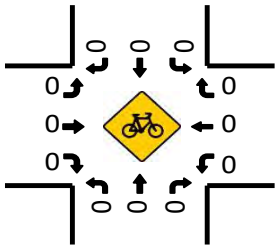
PM	0	0	0	0	0	PM
NOON	203	0	63	6	190	NOON
AM	0	0	0	0	0	AM

0 0 0 0 | 0 0.5 0.5 1

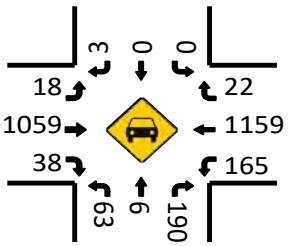
Totals (AM)



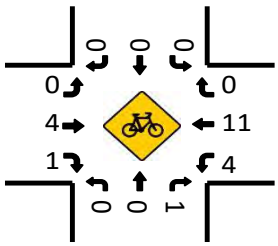
Total Bikes (AM)



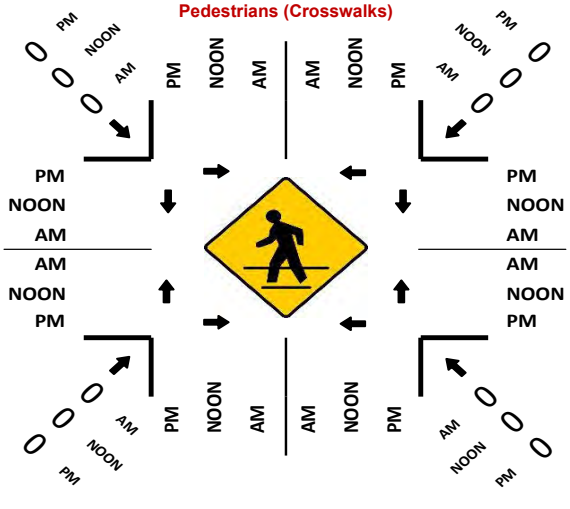
Totals (NOON)



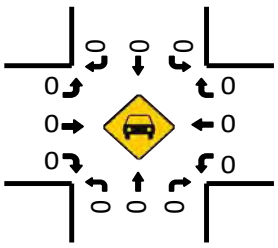
Total Bikes (NOON)



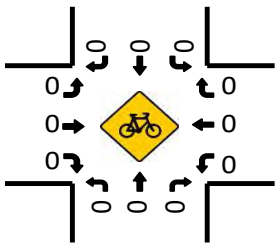
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kemper St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-024
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Kemper St)

AM	0	0	0	0	0	AM
NOON	102	146	66	0	383	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	741	0	
0	46	0	0
0	110	0	1
0	516	0	2
0	104	0	1

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	78	0	0
0	442	0	2
0	178	0	2
0	0	0	0
0	754	0	

NORTHBOUND (Kemper St)

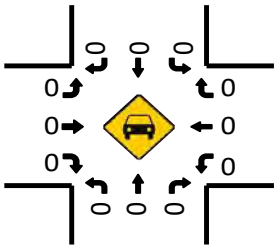
PM	0	0	0	0	0	PM
NOON	429	1	151	195	172	NOON
AM	0	0	0	0	0	AM

1	1	1	0
0	1.5	0.5	1

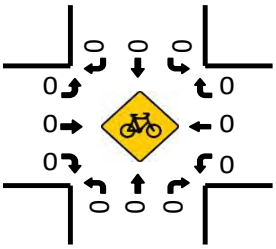
CONTROL: Signalized

TEV	0 AM	2307 NOON	0 PM
PHF		0.95	

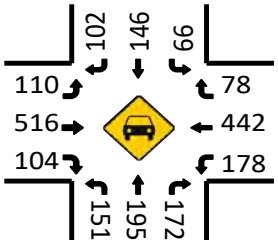
Totals (AM)



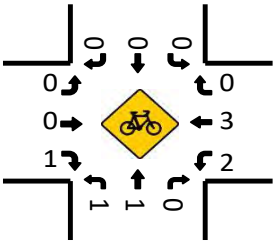
Total Bikes (AM)



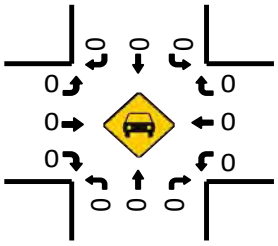
Totals (NOON)



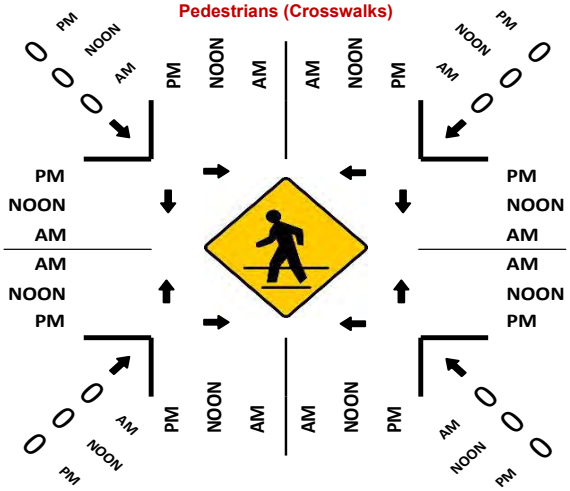
Total Bikes (NOON)



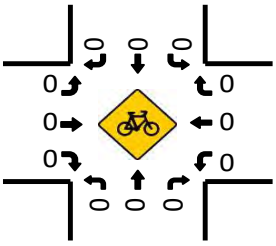
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

East Dr & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-023
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (East Dr)

AM	0	0	0	0	0	AM
NOON	92	11	230	0	445	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	868	0	
0	0	0	0
0	68	0	1
0	757	0	2
0	15	0	0
AM	NOON	PM	

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	372	0	0
0	764	0	2
0	26	0	1
0	8	0	0
0	1008	0	
PM	NOON	AM	

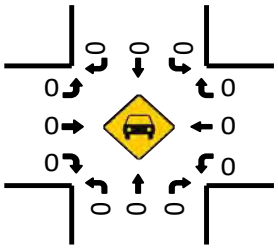
NORTHBOUND (East Dr)

PM	0	0	0	0	0	PM
NOON	52	0	12	5	13	NOON
AM	0	0	0	0	0	AM

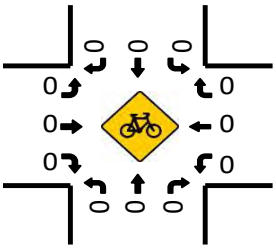
	0	1	0	0
	0	0	1	0

CONTROL			
Signalized			
TEV	0 AM	2373 NOON	0 PM
PHF		0.98	

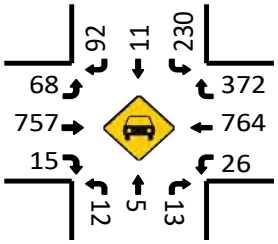
Totals (AM)



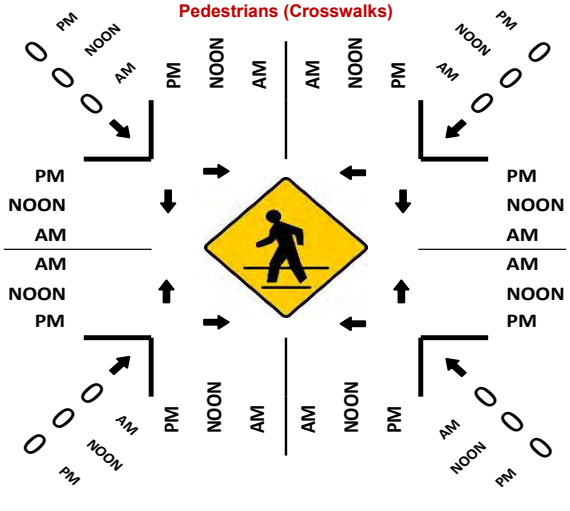
Total Bikes (AM)



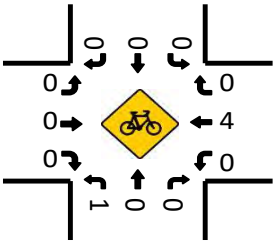
Totals (NOON)



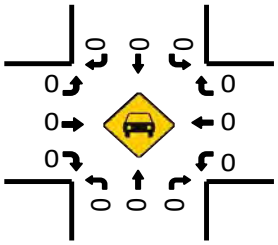
Pedestrians (Crosswalks)



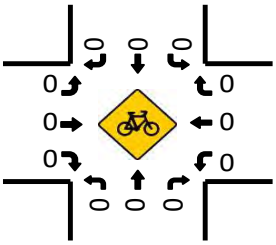
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Hancock St & Channel Way

Peak Hour Turning Movement Count

ID: 23-040246-005
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM: NONE
NOON: 12:00 PM - 01:00 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

SOUTHBOUND (Hancock St)

AM	0	0	0	0	0	AM
NOON	29	145	0	0	147	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Channel Way)

AM	NOON	PM	
0	40	0	
0	0	0	0
0	15	0	0
0	0	0	1
0	19	0	0

WESTBOUND (Channel Way)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

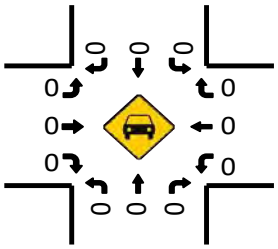
NORTHBOUND (Hancock St)

PM	0	0	0	0	0	PM
NOON	165	1	11	132	0	NOON
AM	0	0	0	0	0	AM

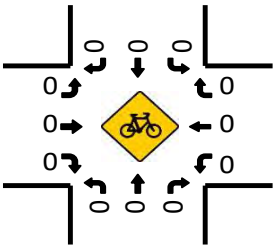
CONTROL: 3-Way Stop(NB/SB/EB)

	AM	NOON	PM
TEV	0	352	0
PHF		0.89	

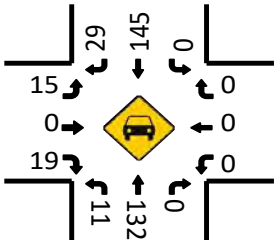
Totals (AM)



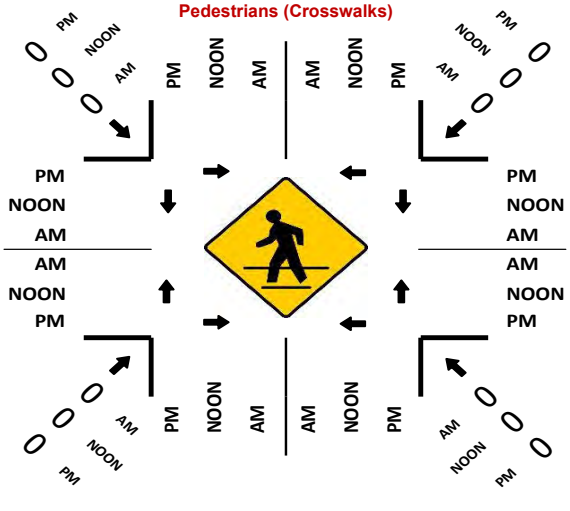
Total Bikes (AM)



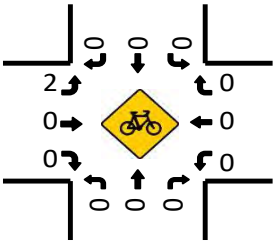
Totals (NOON)



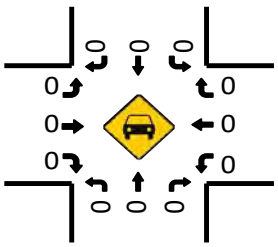
Pedestrians (Crosswalks)



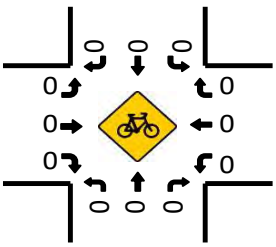
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kurtz St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-006
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:45 AM - 12:45 PM	11:00 AM - 01:00 PM
NONE	NONE

CONTROL: 1-Way Stop(WB)

	AM	NOON	PM
TEV	0	468	0
PHF		0.90	

SOUTHBOUND (Kurtz St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0

EASTBOUND (Hancock St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	0	2	0	0	2
PM	0	150	0	1	151

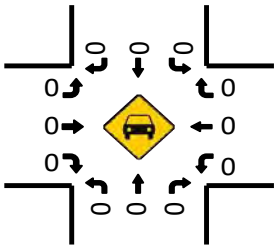
WESTBOUND (Hancock St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	1	165	0	0	166
PM	0	0	0	0	0

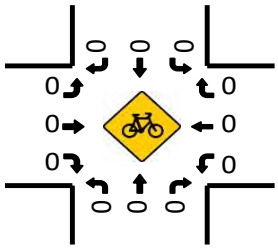
NORTHBOUND (Kurtz St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	301	0	0	0	301
PM	0	0	0	0	0

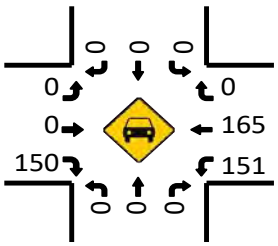
Totals (AM)



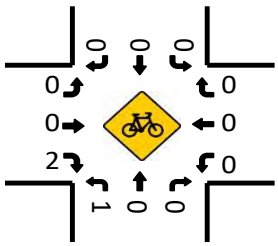
Total Bikes (AM)



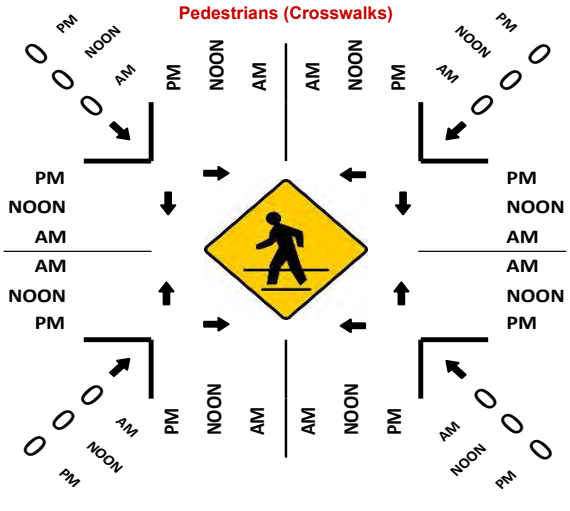
Totals (NOON)



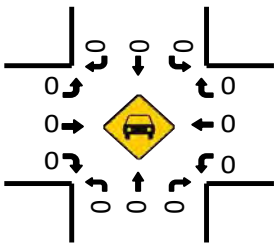
Total Bikes (NOON)



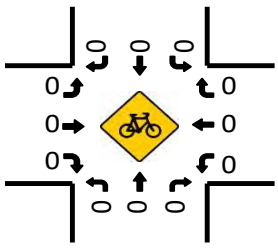
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sherman St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-007
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Sherman St)

AM	0	0	0	0	0	AM
NOON	0	0	83	0	74	NOON
PM	0	0	0	0	0	PM

Southbound turning movements: 0 | 1 | 0 | 0

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	70	0	0
0	321	0	2
0	0	0	0
AM	NOON	PM	

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	4	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	404	0	
PM	NOON	AM	

CONTROL

2-Way Stop(SB/EB)

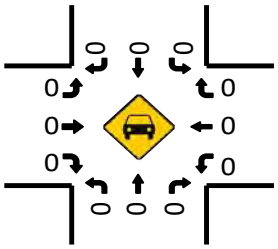
	AM	NOON	PM
TEV	0	478	0
PHF		0.96	

NORTHBOUND (Sherman St)

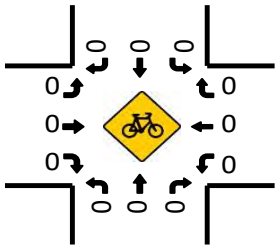
Northbound turning movements: 0 | 0 | 0 | 0

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM

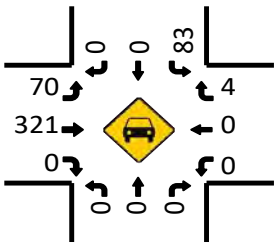
Totals (AM)



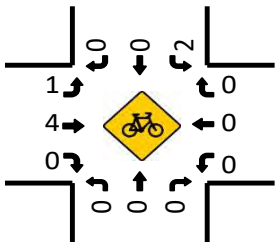
Total Bikes (AM)



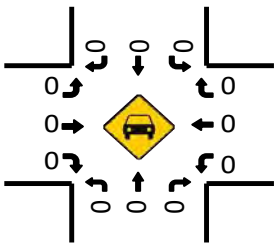
Totals (NOON)



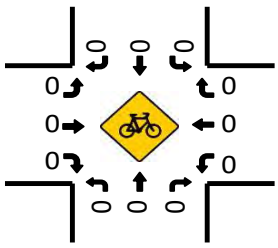
Total Bikes (NOON)



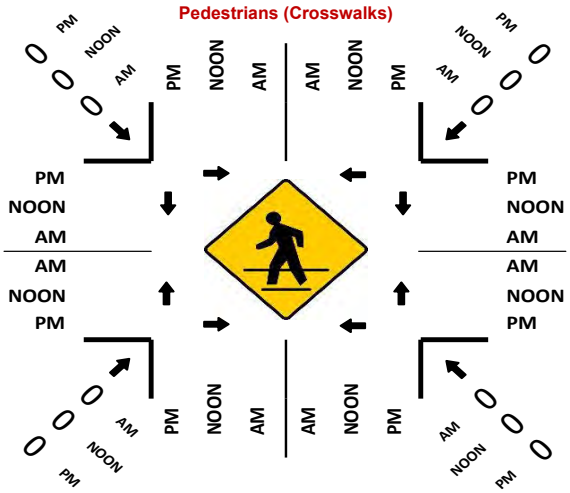
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Greenwood St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-009
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Greenwood St)

AM	0	0	0	0	0	AM
NOON	0	3	50	0	9	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	9	0	0
0	425	0	2
0	0	0	0
AM	NOON	PM	

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	477	0	
PM	NOON	AM	

NORTHBOUND (Greenwood St)

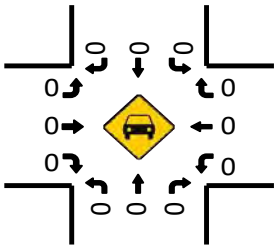
PM	0	0	0	0	0	PM
NOON	3	0	0	0	2	NOON
AM	0	0	0	0	0	AM

	0	1	0	0
	0	0	1	0

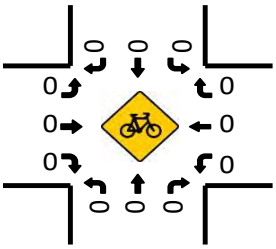
CONTROL
1-Way Stop (SB)

	AM	NOON	PM
TEV	0	489	0
PHF		0.96	

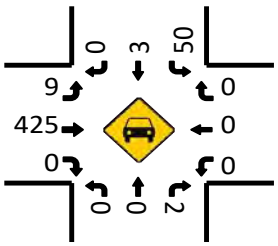
Totals (AM)



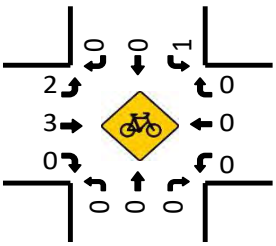
Total Bikes (AM)



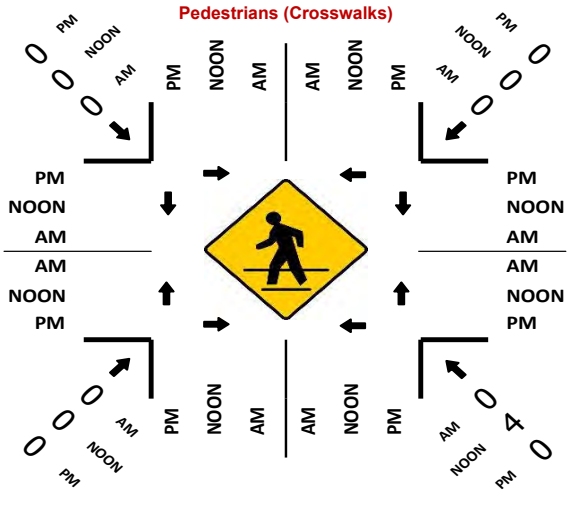
Totals (NOON)



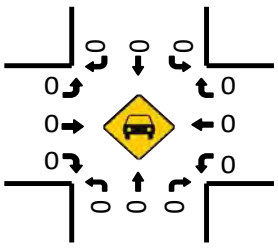
Total Bikes (NOON)



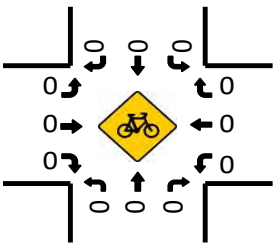
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sherman St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-026
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Sherman St)

AM	0	0	0	0	0	AM
NOON	4	43	0	0	41	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Hancock St)

AM	NOON	PM	
0	306	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
AM	NOON	PM	

WESTBOUND (Hancock St)

PM	NOON	AM	
0	26	0	0
0	257	0	2
0	37	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

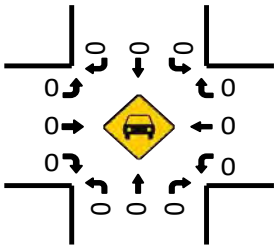
NORTHBOUND (Sherman St)

PM	0	0	0	0	0	PM
NOON	82	1	45	15	0	NOON
AM	0	0	0	0	0	AM

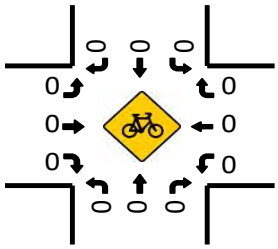
0 1 0 0 (SB) — 0 0 1 0 (NB)

CONTROL			
3-Way Stop(NB/SB/WB)			
TEV	0 AM	429 NOON	0 PM
PHF		0.86	

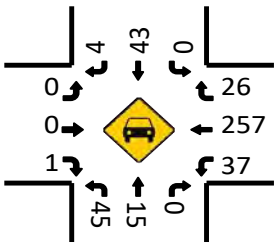
Totals (AM)



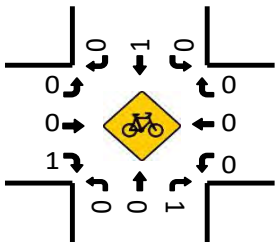
Total Bikes (AM)



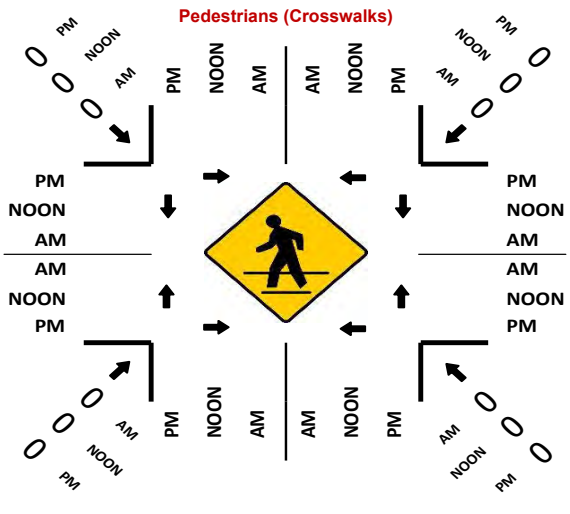
Totals (NOON)



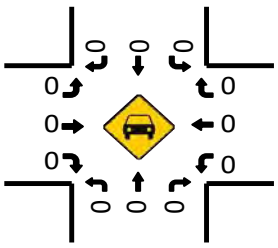
Total Bikes (NOON)



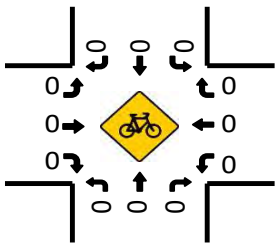
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Greenwood St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-008
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM: NONE
NOON: 11:00 AM - 12:00 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

SOUTHBOUND (Greenwood St)

AM	0	0	0	0	0	AM
NOON	85	48	4	0	30	NOON
PM	0	0	0	0	0	PM

0 1 0 0

EASTBOUND (Hancock St)

AM	NOON	PM	
0	309	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

CONTROL

2-Way Stop(NB/SB)

TEV	0 AM	413 NOON	0 PM
PHF		0.79	

WESTBOUND (Hancock St)

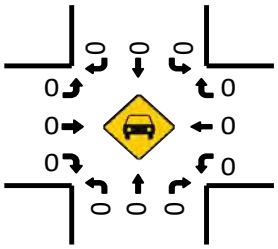
PM	NOON	AM	
0	24	0	0.5
0	218	0	1
0	22	0	0.5
0	0	0	0
0	4	0	
PM	NOON	AM	

0 0 1 0

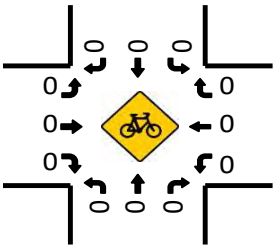
NORTHBOUND (Greenwood St)

PM	0	0	0	0	0	PM
NOON	70	0	6	6	0	NOON
AM	0	0	0	0	0	AM

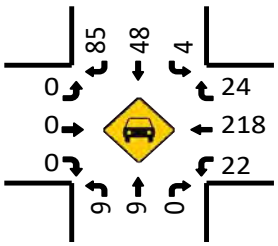
Totals (AM)



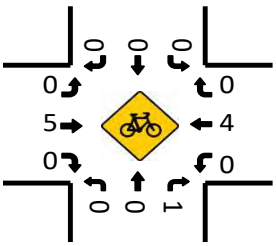
Total Bikes (AM)



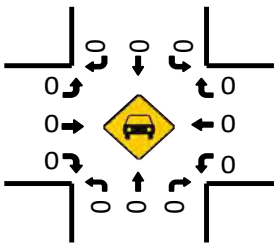
Totals (NOON)



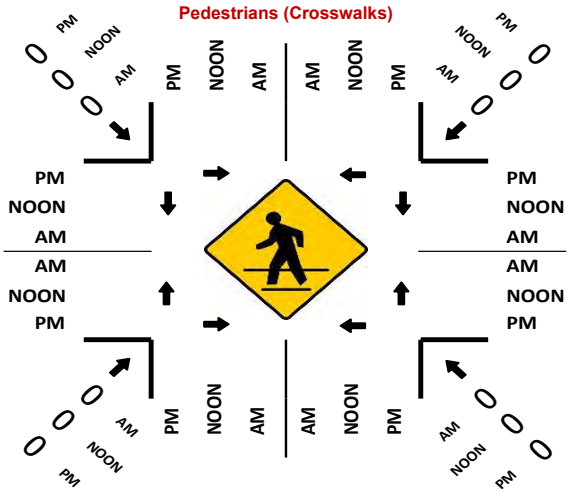
Total Bikes (NOON)



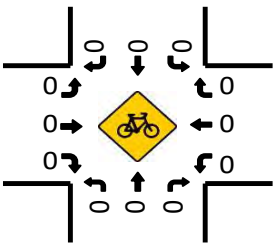
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Greenwood St/Moore St

Peak Hour Turning Movement Count

ID: 23-040246-010
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:45 AM - 12:45 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND (Camino Del Rio W)

AM	0	0	0	0	0	AM
NOON	9	2409	0	0	2314	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Greenwood St/Moore St)

AM	NOON	PM	
0	9	0	
0	0	0	0
0	0	0	0
0	0	0	1
0	9	0	0
AM	NOON	PM	

WESTBOUND (Greenwood St/Moore St)

PM	NOON	AM	
0	43	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	10	0	
PM	NOON	AM	

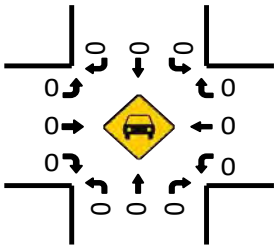
NORTHBOUND (Camino Del Rio W)

PM	0	0	0	0	0	PM
NOON	2418	0	0	2271	10	NOON
AM	0	0	0	0	0	AM

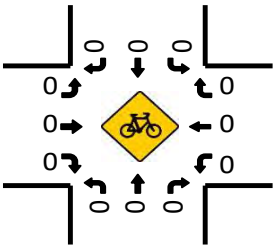
	0	3	0	0
	0	0	3	0

CONTROL			
2-Way Stop(EB/WB)			
TEV	0 AM	4751 NOON	0 PM
PHF		0.95	

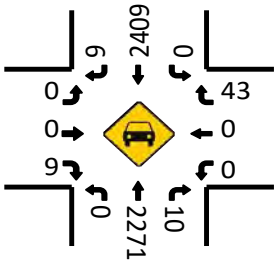
Totals (AM)



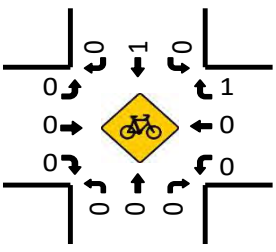
Total Bikes (AM)



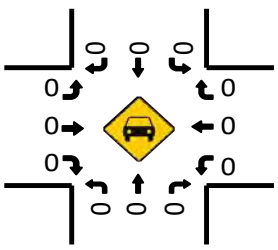
Totals (NOON)



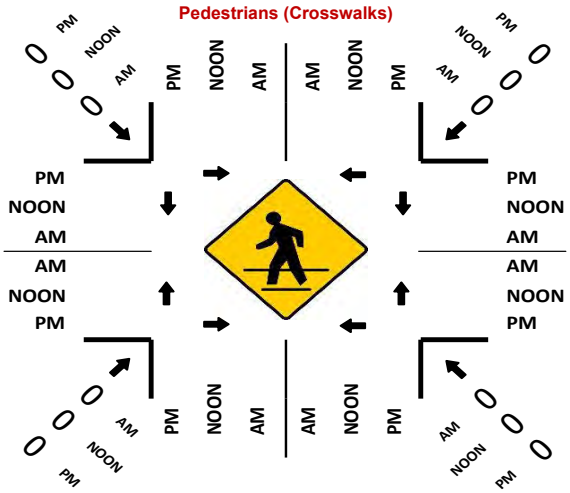
Total Bikes (NOON)



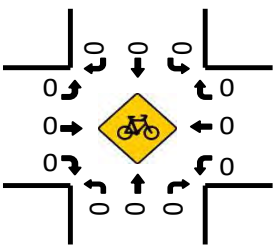
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W/Riley St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-011
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Camino Del Rio W/Riley St

AM	0	0	0	0	0	AM
NOON	171	2276	0	0	2299	NOON
PM	0	0	0	0	0	PM

1 3 0 0

EASTBOUND — Hancock St

AM	NOON	PM	
0	270	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
AM	NOON	PM	

WESTBOUND — Hancock St

PM	NOON	AM	
0	125	0	0
0	54	0	1.5
0	34	0	0.5
0	0	0	0
PM	NOON	AM	
0	8	0	

CONTROL: Signalized

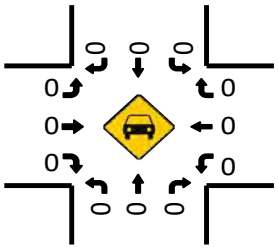
TEV	0 AM	4909 NOON	0 PM
PHF		0.96	

0 1 3 0

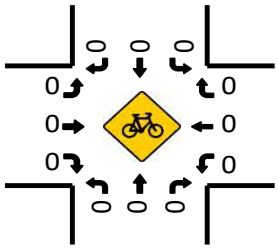
NORTHBOUND — Camino Del Rio W/Riley St

PM	0	0	0	0	0	PM
NOON	2332	21	45	2174	8	NOON
AM	0	0	0	0	0	AM

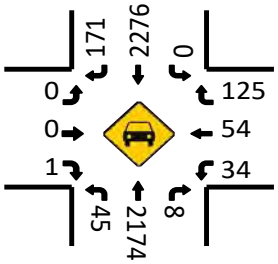
Totals (AM)



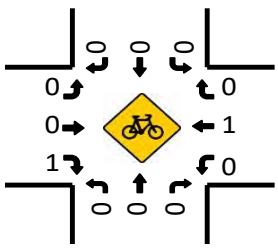
Total Bikes (AM)



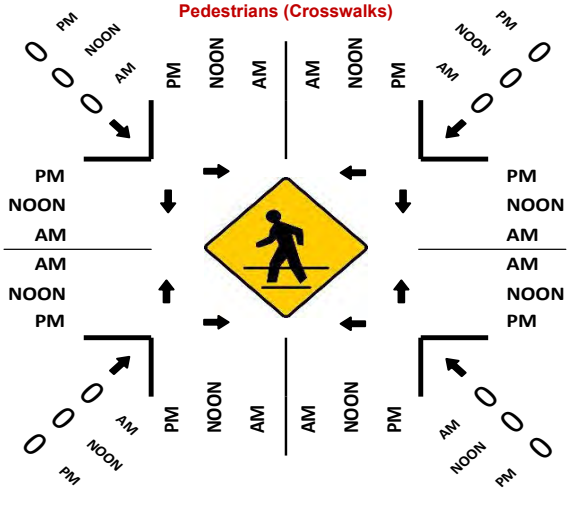
Totals (NOON)



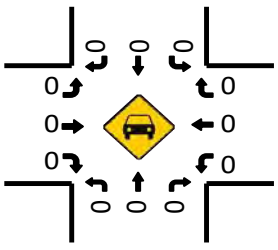
Total Bikes (NOON)



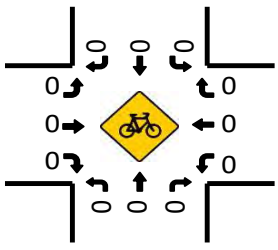
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Kurtz St/Gaines St

Peak Hour Turning Movement Count

ID: 23-040246-012
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:45 AM - 12:45 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND (Camino Del Rio W)

AM	0	0	0	0	0	AM
NOON	0	2181	86	39	2274	NOON
PM	0	0	0	0	0	PM

0 4 1 0

EASTBOUND (Kurtz St/Gaines St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	298	0	1.5	
0	126	0	0.5	
0	108	0	1	
AM	NOON	PM		

WESTBOUND (Kurtz St/Gaines St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	245	0	
PM	NOON	AM	

CONTROL

Signalized

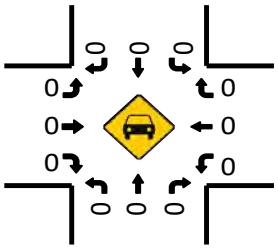
TEV	0 AM	4808 NOON	0 PM
PHF		0.98	

0 0 3 0

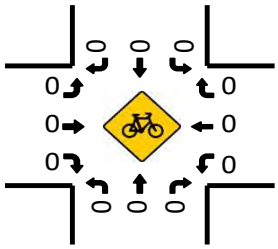
NORTHBOUND (Camino Del Rio W)

PM	0	0	0	0	PM
NOON	2289	0	0	1937	33 NOON
AM	0	0	0	0	AM

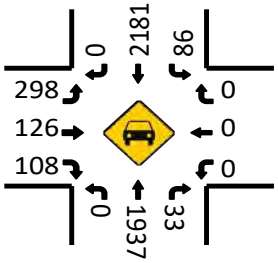
Totals (AM)



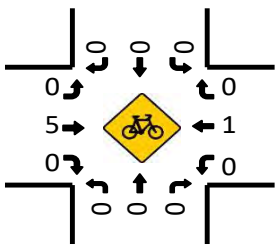
Total Bikes (AM)



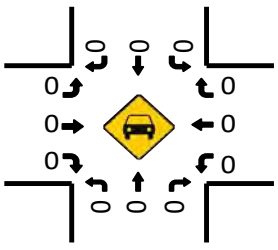
Totals (NOON)



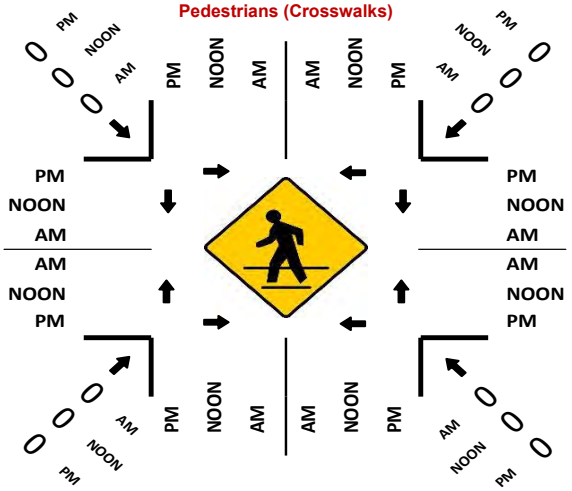
Total Bikes (NOON)



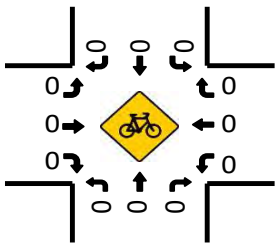
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St/Camino Del Rio W & Sports arena Blvd/Rosecrans St

Peak Hour Turning Movement Count

ID: 23-040246-019
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Rosecrans St/Camino Del Rio W

AM	0	0	0	0	0	AM
NOON	799	1472	0	0	1893	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Sports arena Blvd/Rosecrans St

AM	NOON	PM		
0	1427	0		
0	9	0	0	
0	509	0	1.5	
0	398	0	1.5	
0	291	0	1	
AM	NOON	PM		

WESTBOUND — Sports arena Blvd/Rosecrans St

PM	NOON	AM	
0	20	0	0.5
0	287	0	1
0	196	0	1.5
0	0	0	0
0	720	0	
PM	NOON	AM	

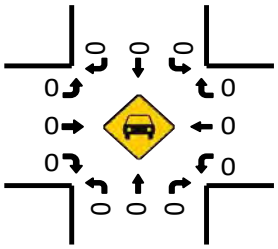
NORTHBOUND — Rosecrans St/Camino Del Rio W

PM	0	0	0	0	0	PM
NOON	2035	76	332	1364	322	NOON
AM	0	0	0	0	0	AM

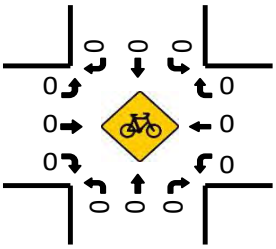
1	3	0	0
0	2	3	1

CONTROL			
Signalized			
TEV	0 AM	6075 NOON	0 PM
PHF		0.97	

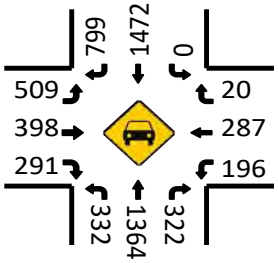
Totals (AM)



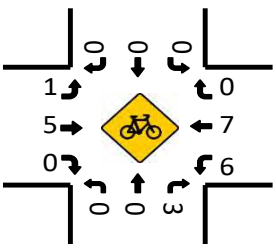
Total Bikes (AM)



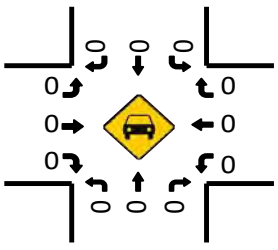
Totals (NOON)



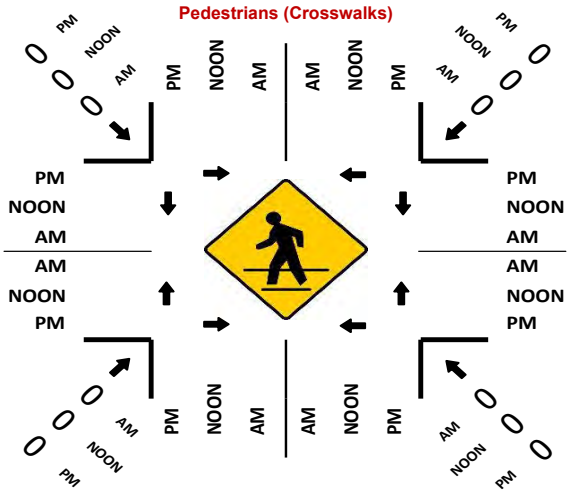
Total Bikes (NOON)



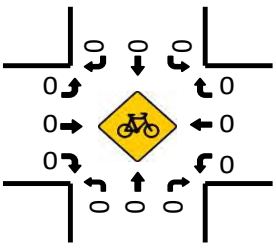
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-020
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	287	1352	347	98	2220	NOON
PM	0	0	0	0	0	PM

0 4 2 0

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	1205	0	
0	8	0	0
0	276	0	2
0	502	0	2
0	263	0	1

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	358	0	1
0	577	0	2
0	138	0	1
0	0	0	0
0	974	0	

CONTROL

Signalized

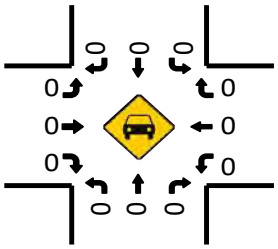
	AM	NOON	PM
TEV	0	6195	0
PHF		0.99	

0 2 3 0

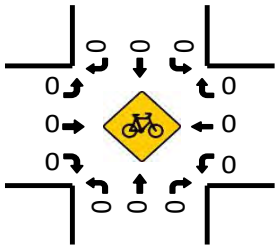
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	1796	43	333	1488	125	NOON
AM	0	0	0	0	0	AM

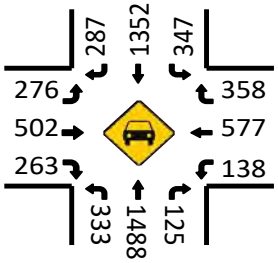
Totals (AM)



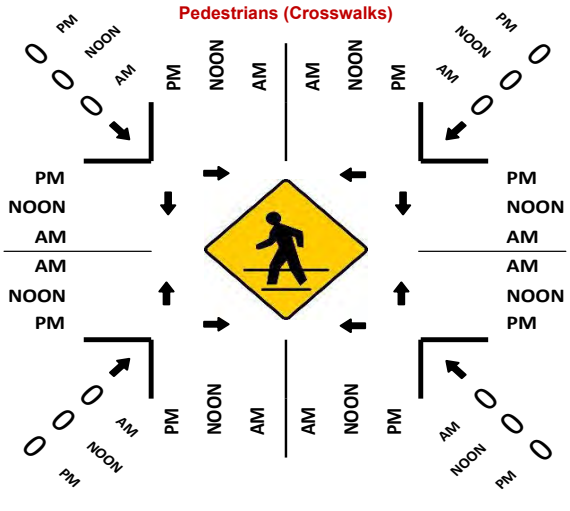
Total Bikes (AM)



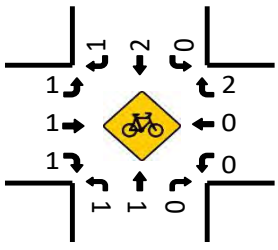
Totals (NOON)



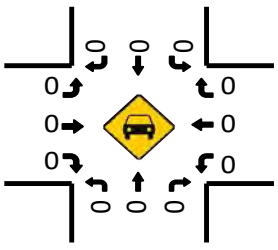
Pedestrians (Crosswalks)



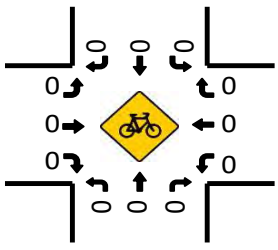
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & N Evergreen St/Shoup Dr

Peak Hour Turning Movement Count

ID: 23-040246-022
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	45	1597	103	87	2007	NOON
PM	0	0	0	0	0	PM

0 3 1 0

EASTBOUND (N Evergreen St/Shoup Dr)

AM	NOON	PM	
0	62	0	
0	0	0	0
0	36	0	0
0	5	0	1
0	4	0	0
AM	NOON	PM	

WESTBOUND (N Evergreen St/Shoup Dr)

PM	NOON	AM	
0	96	0	0
0	10	0	1
0	97	0	0
0	0	0	0
0	140	0	
PM	NOON	AM	

0 1 4 0

NORTHBOUND (Rosecrans St)

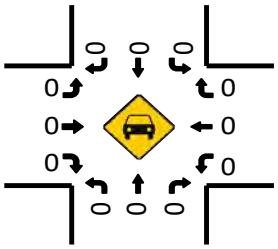
PM	0	0	0	0	0	PM
NOON	1712	14	7	1788	32	NOON
AM	0	0	0	0	0	AM

CONTROL

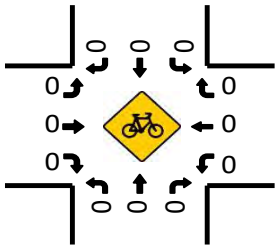
Signalized

	AM	NOON	PM
TEV	0	3921	0
PHF		0.99	

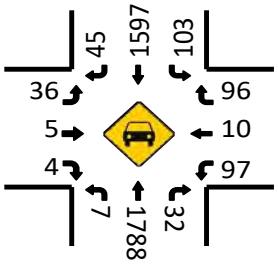
Totals (AM)



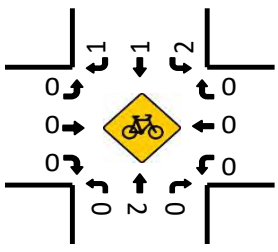
Total Bikes (AM)



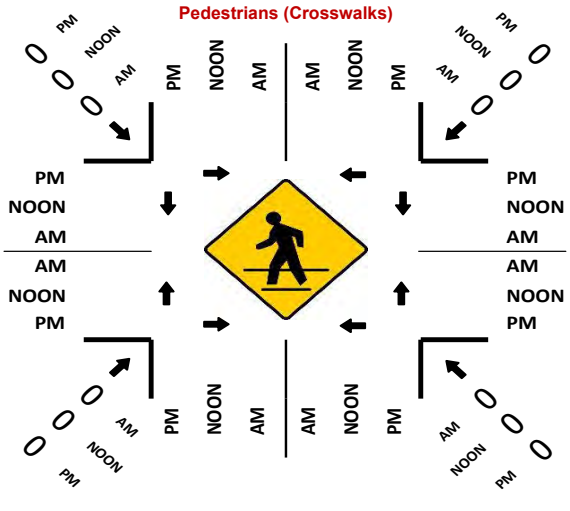
Totals (NOON)



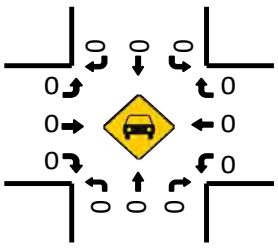
Total Bikes (NOON)



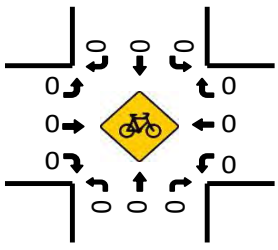
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Lytton St

Peak Hour Turning Movement Count

ID: 23-040246-021
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	278	1167	206	24	1884	NOON
PM	0	0	0	0	0	PM

1 2 2 0

EASTBOUND (Lytton St)

AM	NOON	PM	
0	488	0	
0	0	0	0
0	245	0	1
0	146	0	0.5
0	18	0	0.5
AM	NOON	PM	

WESTBOUND (Lytton St)

PM	NOON	AM	
0	219	0	1
0	191	0	1
0	357	0	2
0	0	0	0
PM	NOON	AM	
0	777	0	

CONTROL

Signalized

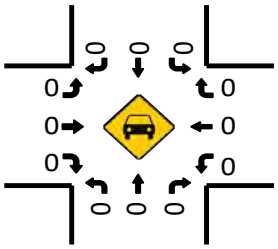
	AM	NOON	PM
TEV	0	4691	0
PHF		0.99	

0 1 3 1

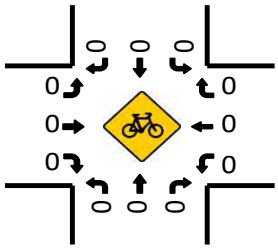
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	1542	0	19	1396	425	NOON
AM	0	0	0	0	0	AM

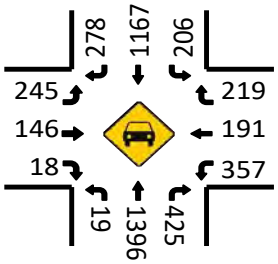
Totals (AM)



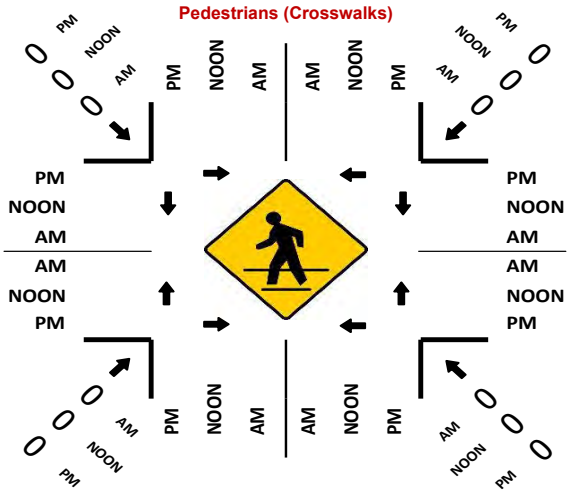
Total Bikes (AM)



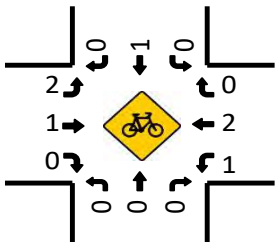
Totals (NOON)



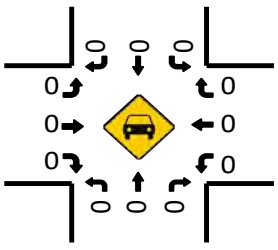
Pedestrians (Crosswalks)



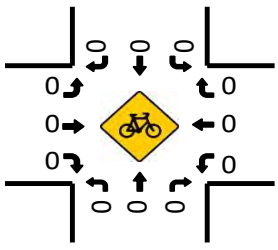
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-013
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	0	299	41	0	678	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	52	0	1	
0	188	0	0.5	
0	11	0	0.5	
AM	NOON	PM		

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	115	0	1
0	0	0	0
0	172	0	1
0	0	0	0
0	476	0	
PM	NOON	AM	

NORTHBOUND (Rosecrans St)

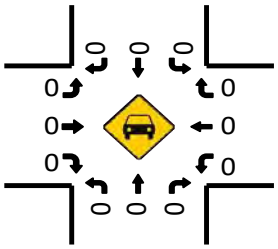
PM	0	0	0	0	0	PM
NOON	484	2	0	511	247	NOON
AM	0	0	0	0	0	AM

	0	2	1	0
	0	0	2	0

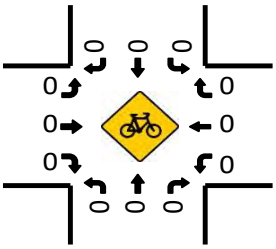
CONTROL: Signalized

TEV	0 AM	1638 NOON	0 PM
PHF		0.94	

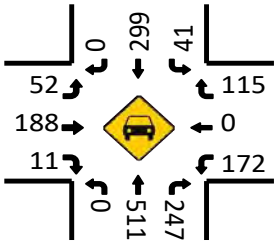
Totals (AM)



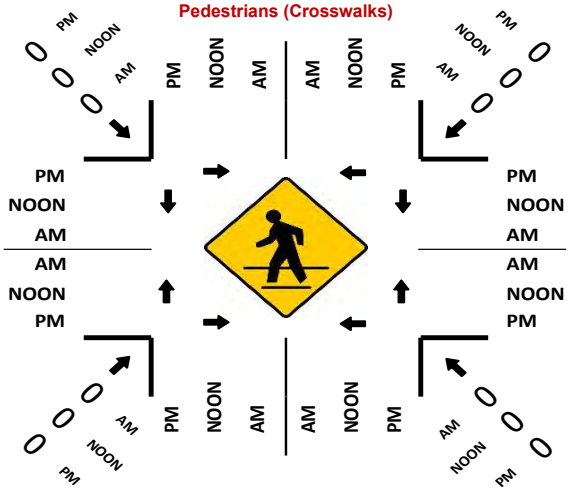
Total Bikes (AM)



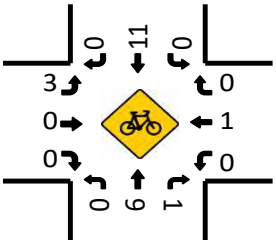
Totals (NOON)



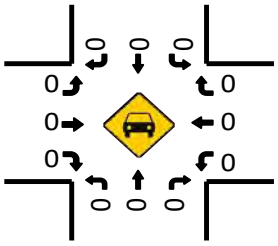
Pedestrians (Crosswalks)



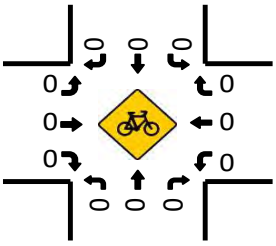
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-014
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	38	306	0	0	537	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Hancock St)

AM	NOON	PM
0	180	0
0	0	0
0	0	0
0	0	0
0	0	0

WESTBOUND (Hancock St)

PM	NOON	AM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

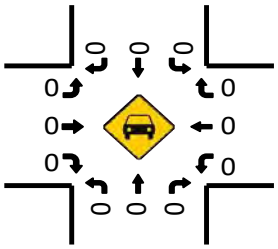
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	324	18	142	537	0	NOON
AM	0	0	0	0	0	AM

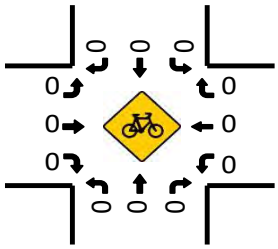
CONTROL: No Control

	AM	NOON	PM
TEV	0	1041	0
PHF		0.89	

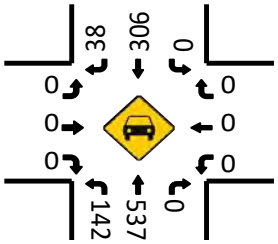
Totals (AM)



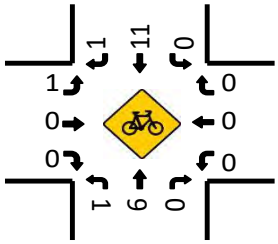
Total Bikes (AM)



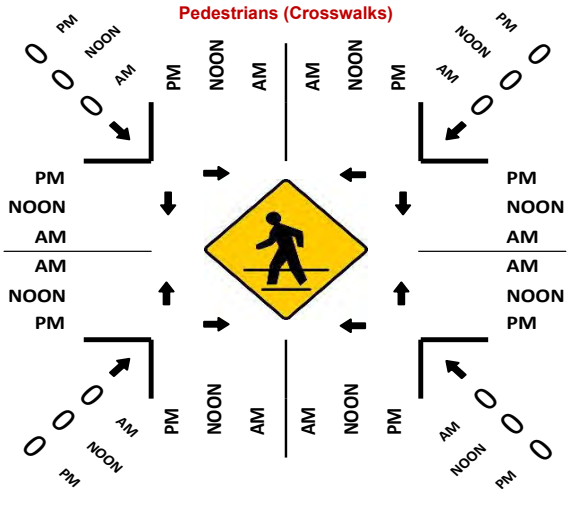
Totals (NOON)



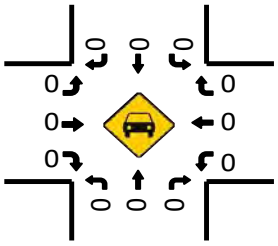
Total Bikes (NOON)



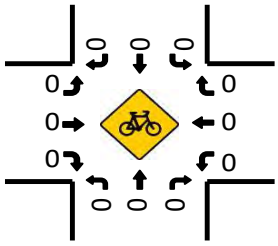
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Rosecrans St/Taylor St

Peak Hour Turning Movement Count

ID: 23-040246-015
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
AM: NONE	AM: NONE
NOON: 11:15 AM - 12:15 PM	NOON: 11:00 AM - 01:00 PM
PM: NONE	PM: NONE

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	88	89	60	1	197	NOON
PM	0	0	0	0	0	PM

1 2 2 0

EASTBOUND (Rosecrans St/Taylor St)

AM	NOON	PM	
0	406	0	
0	0	0	0
0	47	0	1
0	302	0	4
0	94	0	1
AM	NOON	PM	

WESTBOUND (Rosecrans St/Taylor St)

PM	NOON	AM	
0	58	0	1
0	218	0	1
0	143	0	2
0	0	0	0
0	502	0	
PM	NOON	AM	

1 1 2 0

CONTROL

Signalized

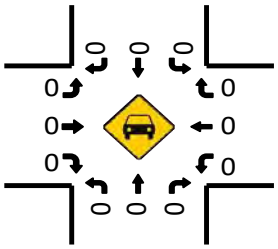
	AM	NOON	PM
TEV	0	1431	0
PHF		0.96	

0 1 2 2

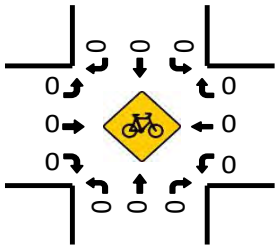
NORTHBOUND (Pacific Hwy)

PM	0	0	0	0	0	PM
NOON	326	0	100	91	140	NOON
AM	0	0	0	0	0	AM

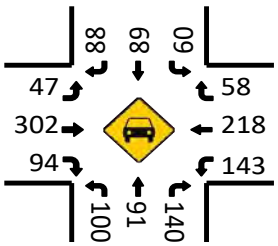
Totals (AM)



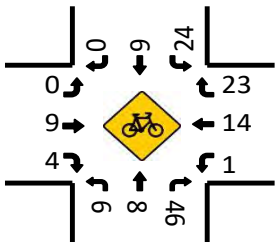
Total Bikes (AM)



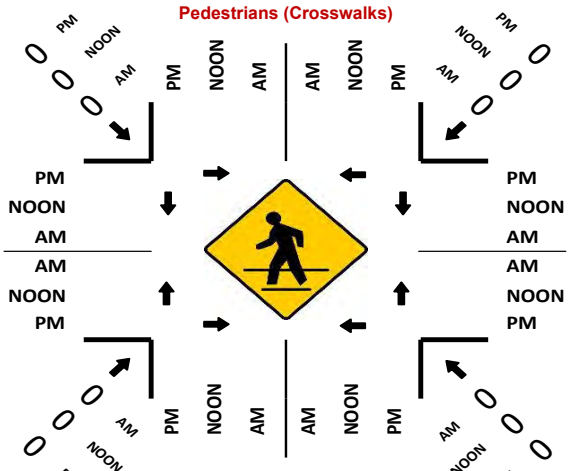
Totals (NOON)



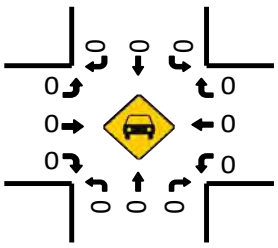
Total Bikes (NOON)



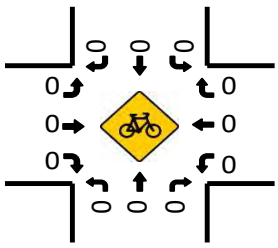
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-016
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:00 AM - 12:00 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	12	276	0	0	310	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	240	0	
0	0	0	0
0	0	0	0
0	0	0	1
0	382	0	0
AM	NOON	PM	

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

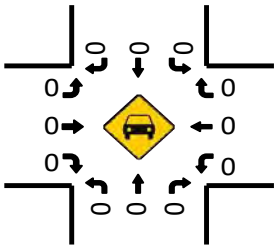
NORTHBOUND (Pacific Hwy)

PM	0	0	0	0	0	PM
NOON	658	0	228	310	0	NOON
AM	0	0	0	0	0	AM

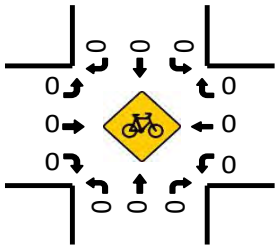
	0	3	0	0
	0	1	3	0

CONTROL			
1-Way Stop(EB)			
TEV	0 AM	1208 NOON	0 PM
PHF		0.95	

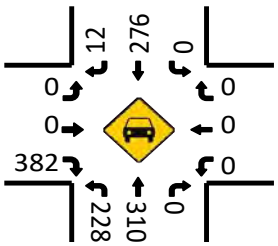
Totals (AM)



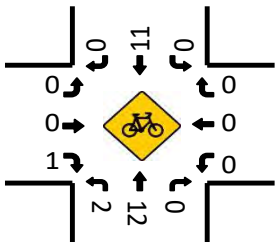
Total Bikes (AM)



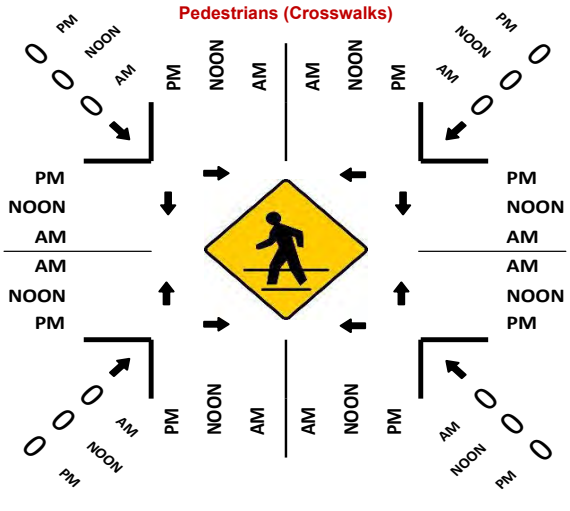
Totals (NOON)



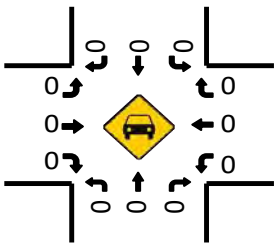
Total Bikes (NOON)



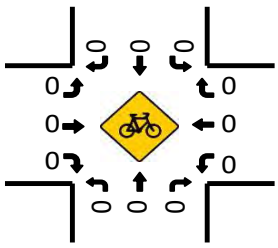
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Enterprise St

Peak Hour Turning Movement Count

ID: 23-040246-031
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:15 AM - 12:15 PM	11:00 AM - 01:00 PM
NONE	NONE

CONTROL: Signalized

	AM	NOON	PM
TEV	0	1481	0
PHF		0.94	

SOUTHBOUND (Pacific Hwy)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	79	666	3	4	529	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Enterprise St)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	0	17	3	17	201	NOON
PM	0	0	0	0	0	PM

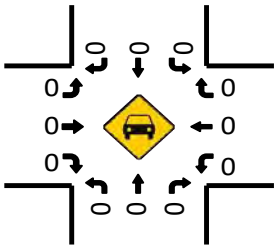
WESTBOUND (Enterprise St)

	L	T	R	U	Total	
AM	1	0	0	0	0	AM
NOON	1	2	6	0	2	NOON
PM	1	0	0	0	0	PM

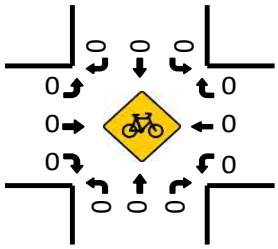
NORTHBOUND (Pacific Hwy)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	745	61	120	506	0	NOON
PM	0	0	0	0	0	PM

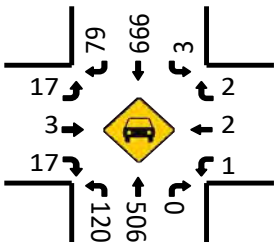
Totals (AM)



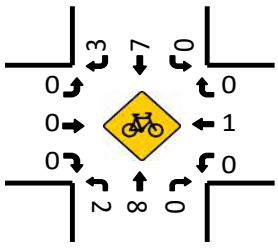
Total Bikes (AM)



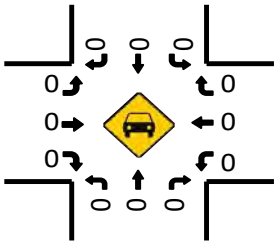
Totals (NOON)



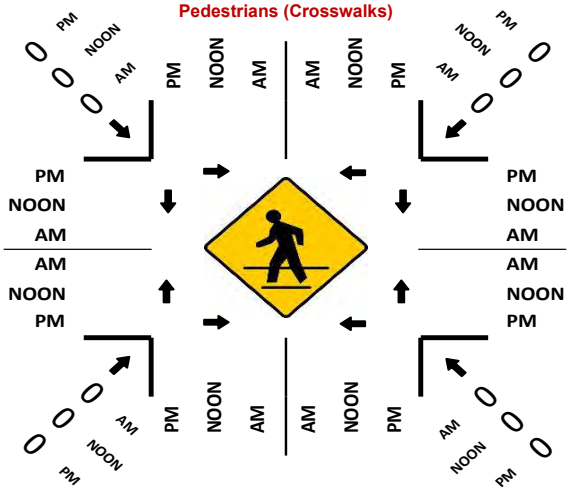
Total Bikes (NOON)



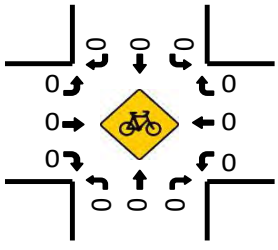
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Enterprise St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-018
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Enterprise St)

AM	0	0	0	0	0	AM
NOON	147	0	0	0	11	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	974	0	
0	0	0	0
0	0	0	0
0	765	0	2
0	0	0	0
AM	NOON	PM	

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	11	0	0
0	827	0	2
0	0	0	0
0	0	0	0
0	765	0	
PM	NOON	AM	

NORTHBOUND (Enterprise St)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

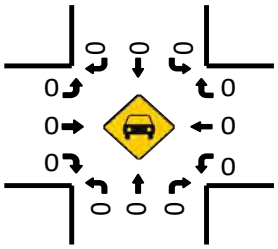
1	0	0	0
0	0	0	0

CONTROL

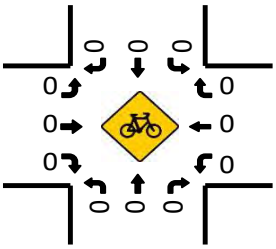
1-Way Stop(SB)

TEV	0 AM	1750 NOON	0 PM
PHF		0.91	

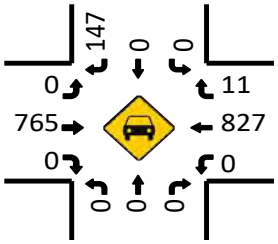
Totals (AM)



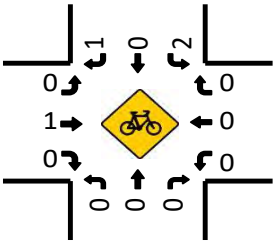
Total Bikes (AM)



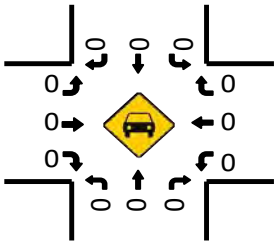
Totals (NOON)



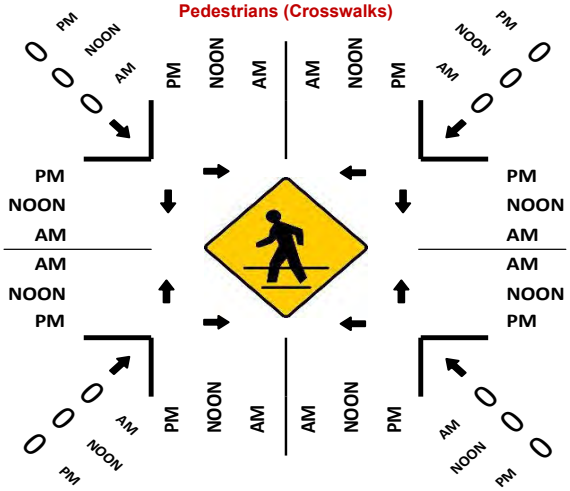
Total Bikes (NOON)



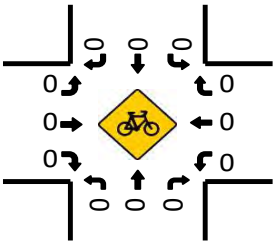
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Barnett Ave & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-017
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM: NONE
NOON: 11:45 AM - 12:45 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

Barnett Ave

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	838	846	0	0	1446	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	838	0	
0	0	0	0
0	665	0	0
0	0	0	2
0	101	0	1

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

1 2 0 0

0 0 2 0

CONTROL: Signalized

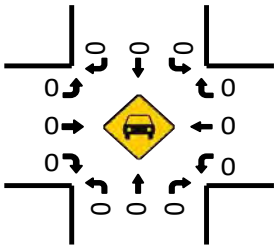
	AM	NOON	PM
TEV	0	3231	0
PHF		0.97	

PM	0	0	0	0	0	PM
NOON	947	0	0	781	0	NOON
AM	0	0	0	0	0	AM

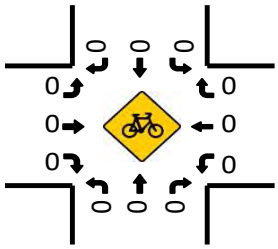
NORTHBOUND

Barnett Ave

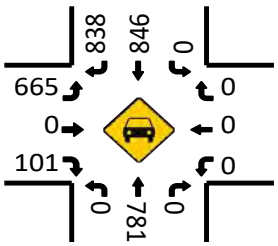
Totals (AM)



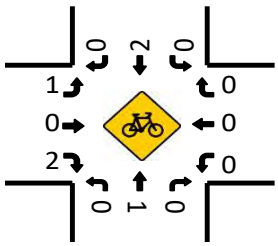
Total Bikes (AM)



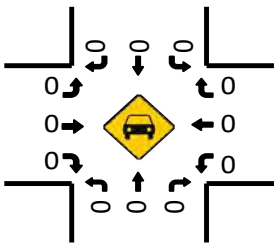
Totals (NOON)



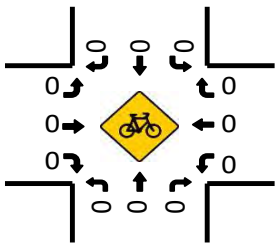
Total Bikes (NOON)



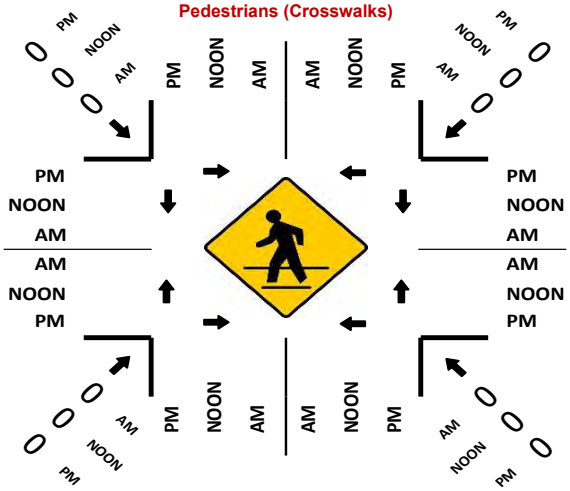
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Sea World Dr & Friars Rd

Peak Hour Turning Movement Count

ID: 23-040246-027
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:00 AM - 12:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Sea World Dr)

AM	0	0	0	0	0	AM
NOON	0	1320	94	7	874	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Friars Rd)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Friars Rd)

PM	NOON	AM	
0	0	0	1.5
0	0	0	0
0	0	0	1.5
0	0	0	0
0	293	0	
PM	NOON	AM	

NORTHBOUND (Sea World Dr)

PM	0	0	0	0	0	PM
NOON	1320	0	0	867	199	NOON
AM	0	0	0	0	0	AM

	0	2	2
	0	0	2

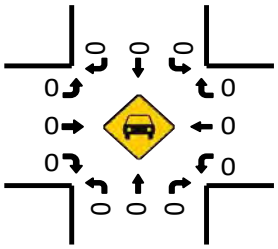
	0	0	1

CONTROL

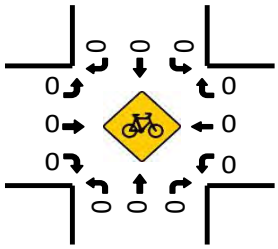
Signalized

	AM	NOON	PM
TEV	0	2487	0
PHF		0.91	

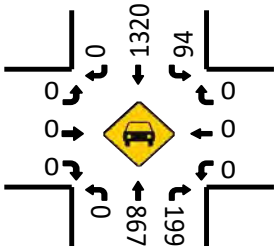
Totals (AM)



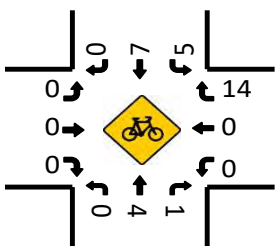
Total Bikes (AM)



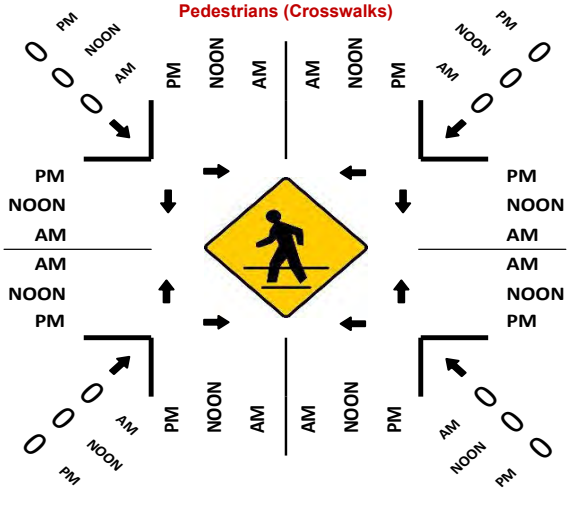
Totals (NOON)



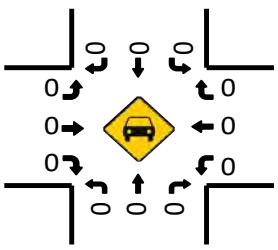
Total Bikes (NOON)



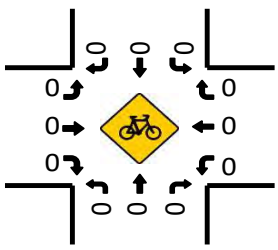
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sea World Dr & Pacific Hwy/E Mission Bay Dr

Peak Hour Turning Movement Count

ID: 23-040246-028
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:00 AM - 12:00 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND — Sea World Dr

AM	0	0	0	0	0	AM
NOON	239	1250	85	0	1105	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Pacific Hwy/E Mission Bay Dr

AM	NOON	PM	
0	350	0	
0	0	0	0
0	253	0	2
0	56	0	1
0	148	0	1
AM	NOON	PM	

WESTBOUND — Pacific Hwy/E Mission Bay Dr

PM	NOON	AM	
0	76	0	1
0	36	0	1
0	33	0	1
0	0	0	0
0	164	0	
PM	NOON	AM	

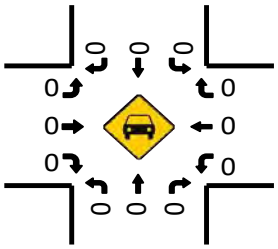
NORTHBOUND — Sea World Dr

PM	0	0	0	0	0	PM
NOON	1431	0	75	776	23	NOON
AM	0	0	0	0	0	AM

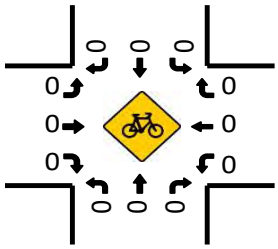
1	2	1	0
0	2	2	0

CONTROL			
Signalized			
TEV	0 AM	3050 NOON	0 PM
PHF		0.96	

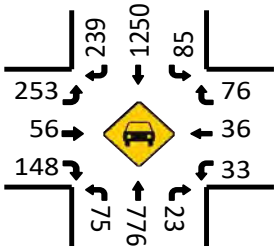
Totals (AM)



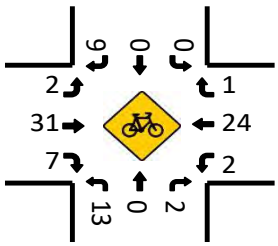
Total Bikes (AM)



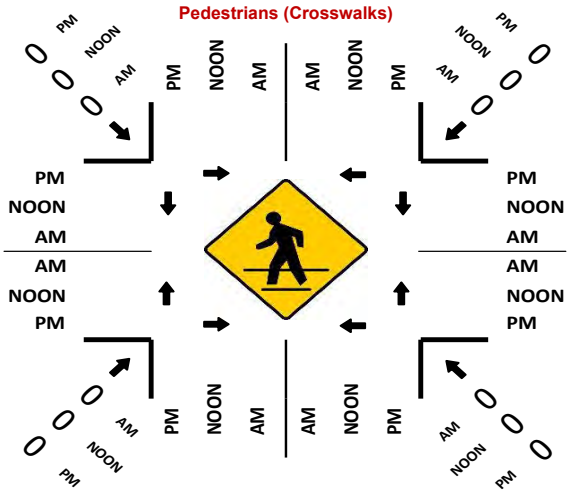
Totals (NOON)



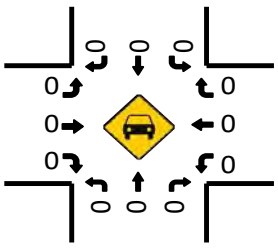
Total Bikes (NOON)



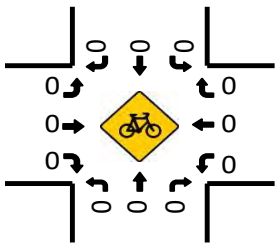
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

I-5/San Diego Fwy SB Ramps & Sea World Dr

Peak Hour Turning Movement Count

ID: 23-040246-029
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:15 AM - 12:15 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND — I-5/San Diego Fwy SB Ramps

AM	0	0	0	0	0	AM
NOON	952	2	192	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Sea World Dr

AM	NOON	PM	
0	1545	0	
0	0	0	0
0	0	0	0
0	887	0	2
0	251	0	1
AM	NOON	PM	

WESTBOUND — Sea World Dr

PM	NOON	AM	
0	0	0	0
0	593	0	2
0	259	0	2
0	1	0	0
0	1080	0	
PM	NOON	AM	

NORTHBOUND — I-5/San Diego Fwy SB Ramps

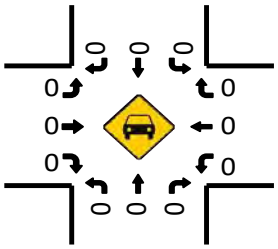
PM	0	0	0	0	0	PM
NOON	512	0	0	0	0	NOON
AM	0	0	0	0	0	AM

	1	0	1	0
	0	0	0	0

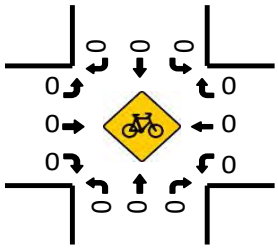
CONTROL: Signalized

TEV	0 AM	3137 NOON	0 PM
PHF		0.96	

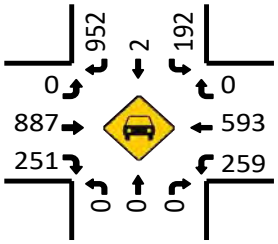
Totals (AM)



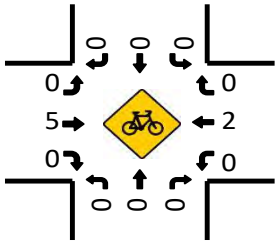
Total Bikes (AM)



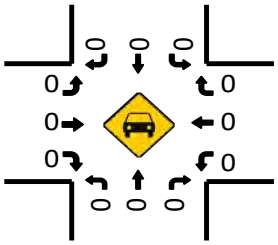
Totals (NOON)



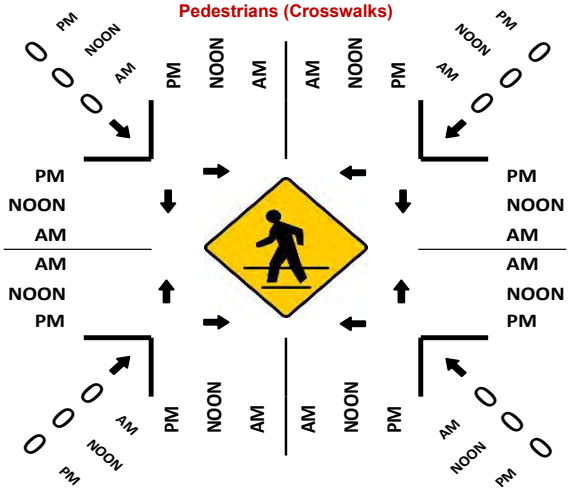
Total Bikes (NOON)



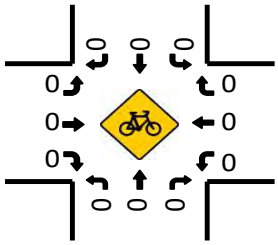
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by NDS/ATD

VOLUME

Sports Arena Blvd Bet. Rosecrans St & Pacific Hwy

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	828	563	1,391

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		0		0		12:00			18		9		27	
00:15			0		0		0		12:15			16		14		30	
00:30			1		0		1		12:30			19		11		30	
00:45			1	2	1	1	2	3	12:45			20	73	17	51	37	124
01:00			1		0		1		13:00			22		21		43	
01:15			0		0		0		13:15			23		12		35	
01:30			1		0		1		13:30			26		15		41	
01:45			0	2	1	1	1	3	13:45			13	84	16	64	29	148
02:00			0		0		0		14:00			12		16		28	
02:15			0		1		1		14:15			16		16		32	
02:30			2		0		2		14:30			22		21		43	
02:45			0	2	0	1	0	3	14:45			20	70	13	66	33	136
03:00			0		1		1		15:00			18		18		36	
03:15			1		1		2		15:15			18		21		39	
03:30			0		0		0		15:30			12		14		26	
03:45			1	2	1	3	2	5	15:45			15	63	10	63	25	126
04:00			3		0		3		16:00			19		24		43	
04:15			0		1		1		16:15			16		17		33	
04:30			1		1		2		16:30			22		14		36	
04:45			0	4	1	3	1	7	16:45			12	69	11	66	23	135
05:00			0		0		0		17:00			13		17		30	
05:15			2		1		3		17:15			13		16		29	
05:30			3		1		4		17:30			23		7		30	
05:45			4	9	0	2	4	11	17:45			23	72	8	48	31	120
06:00			3		0		3		18:00			8		3		11	
06:15			3		0		3		18:15			8		3		11	
06:30			7		0		7		18:30			9		8		17	
06:45			9	22	0		9	22	18:45			11	36	5	19	16	55
07:00			6		4		10		19:00			11		2		13	
07:15			9		1		10		19:15			5		2		7	
07:30			12		3		15		19:30			3		2		5	
07:45			11	38	1	9	12	47	19:45			2	21	1	7	3	28
08:00			12		5		17		20:00			8		1		9	
08:15			7		2		9		20:15			0		5		5	
08:30			13		8		21		20:30			14		1		15	
08:45			11	43	11	26	22	69	20:45			8	30	3	10	11	40
09:00			9		5		14		21:00			1		2		3	
09:15			17		5		22		21:15			1		0		1	
09:30			4		11		15		21:30			3		1		4	
09:45			13	43	10	31	23	74	21:45			0	5	2	5	2	10
10:00			11		8		19		22:00			2		0		2	
10:15			13		9		22		22:15			1		1		2	
10:30			11		9		20		22:30			0		0		0	
10:45			17	52	10	36	27	88	22:45			1	4	1	2	2	6
11:00			26		16		42		23:00			2		1		3	
11:15			17		7		24		23:15			0		0		0	
11:30			14		12		26		23:30			1		1		2	
11:45			22	79	11	46	33	125	23:45			0	3	1	3	1	6
TOTALS				298		159		457	TOTALS				530		404		934
SPLIT %				65.2%		34.8%		32.9%	SPLIT %				56.7%		43.3%		67.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	828	563	1,391

AM Peak Hour			11:00	11:00	11:00	PM Peak Hour	12:45	14:30	12:45
AM Pk Volume			79	46	125	PM Pk Volume	91	73	156
Pk Hr Factor			0.760	0.719	0.744	Pk Hr Factor	0.875	0.869	0.907
7 - 9 Volume	0	0	81	35	116	4 - 6 Volume	0	0	141	114	255
7 - 9 Peak Hour			07:15	08:00	08:00	4 - 6 Peak Hour			17:00	16:00	16:00
7 - 9 Pk Volume	0	0	44	26	69	4 - 6 Pk Volume	0	0	72	66	135
Pk Hr Factor	0.000	0.000	0.917	0.591	0.784	Pk Hr Factor	0.000	0.000	0.783	0.688	0.785

Prepared by NDS/ATD

VOLUME

Kemper St Bet. Midway Dr & Sports Arena Blvd

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_002

DAILY TOTALS	NB	SB	EB	WB	Total
	3,279	2,872	0	0	6,151

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
0:00	4		2				6		12:00	70		63				133	
0:15	4		4				8		12:15	71		57				128	
0:30	1		0				1		12:30	67		58				125	
0:45	1	10	2	8			3	18	12:45	75	283	60	238			135	521
1:00	1		3				4		13:00	68		47				115	
1:15	0		4				4		13:15	78		53				131	
1:30	3		1				4		13:30	69		52				121	
1:45	0	4	1	9			1	13	13:45	66	281	56	208			122	489
2:00	3		3				6		14:00	57		58				115	
2:15	5		1				6		14:15	54		48				102	
2:30	1		0				1		14:30	66		57				123	
2:45	2	11	0	4			2	15	14:45	66	243	52	215			118	458
3:00	1		1				2		15:00	81		58				139	
3:15	1		4				5		15:15	65		60				125	
3:30	1		0				1		15:30	61		60				121	
3:45	4	7	1	6			5	13	15:45	71	278	69	247			140	525
4:00	0		2				2		16:00	87		64				151	
4:15	3		7				10		16:15	62		72				134	
4:30	1		1				2		16:30	56		51				107	
4:45	2	6	6	16			8	22	16:45	74	279	58	245			132	524
5:00	5		4				9		17:00	67		50				117	
5:15	5		1				6		17:15	86		71				157	
5:30	5		5				10		17:30	49		59				108	
5:45	14	29	11	21			25	50	17:45	69	271	66	246			135	517
6:00	8		10				18		18:00	69		55				124	
6:15	14		26				40		18:15	50		59				109	
6:30	12		8				20		18:30	73		31				104	
6:45	16	50	30	74			46	124	18:45	53	245	38	183			91	428
7:00	26		22				48		19:00	56		32				88	
7:15	22		22				44		19:15	30		34				64	
7:30	25		28				53		19:30	27		24				51	
7:45	31	104	20	92			51	196	19:45	37	150	22	112			59	262
8:00	34		22				56		20:00	24		32				56	
8:15	36		30				66		20:15	15		17				32	
8:30	47		42				89		20:30	29		31				60	
8:45	38	155	46	140			84	295	20:45	19	87	22	102			41	189
9:00	41		35				76		21:00	13		15				28	
9:15	51		29				80		21:15	11		19				30	
9:30	62		49				111		21:30	12		31				43	
9:45	48	202	44	157			92	359	21:45	16	52	20	85			36	137
10:00	62		37				99		22:00	2		20				22	
10:15	49		42				91		22:15	5		9				14	
10:30	45		43				88		22:30	4		10				14	
10:45	61	217	39	161			100	378	22:45	8	19	10	49			18	68
11:00	58		54				112		23:00	7		9				16	
11:15	61		62				123		23:15	3		9				12	
11:30	98		49				147		23:30	3		6				9	
11:45	64	281	62	227			126	508	23:45	2	15	3	27			5	42
TOTALS		1076		915				1991	TOTALS		2203		1957				4160
SPLIT %		54.0%		46.0%				32.4%	SPLIT %		53.0%		47.0%				67.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	3,279	2,872	0	0	6,151

AM Peak Hour	11:30	11:45			11:30	PM Peak Hour	12:45	15:30			15:30
AM Pk Volume	303	240			534	PM Pk Volume	290	265			546
Pk Hr Factor	0.773	0.952			0.908	Pk Hr Factor	0.929	0.920			0.904
7 - 9 Volume	259	232	0	0	491	4 - 6 Volume	550	491	0	0	1041
7 - 9 Peak Hour	8:00	8:00			8:00	4 - 6 Peak Hour	16:30	17:00			16:00
7 - 9 Pk Volume	155	140	0	0	295	4 - 6 Pk Volume	283	246	0	0	524
Pk Hr Factor	0.824	0.761	0.000	0.000	0.829	Pk Hr Factor	0.823	0.866	0.000	0.000	0.868

Prepared by NDS/ATD

VOLUME

Camino del Rio W Bet. Hancock St & Kurtz St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_003

DAILY TOTALS	NB	SB	EB	WB	Total
	27,437	23,561	0	0	50,998

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	56		42				98		12:00	442		379				821	
00:15	39		34				73		12:15	405		423				828	
00:30	48		18				66		12:30	467		382				849	
00:45	35	178	10	104			45	282	12:45	408	1722	408	1592			816	3314
01:00	34		13				47		13:00	472		416				888	
01:15	28		16				44		13:15	538		373				911	
01:30	27		16				43		13:30	465		398				863	
01:45	22	111	14	59			36	170	13:45	487	1962	414	1601			901	3563
02:00	25		16				41		14:00	529		388				917	
02:15	22		10				32		14:15	543		436				979	
02:30	17		10				27		14:30	585		417				1002	
02:45	24	88	14	50			38	138	14:45	560	2217	461	1702			1021	3919
03:00	26		15				41		15:00	579		376				955	
03:15	22		17				39		15:15	506		387				893	
03:30	22		22				44		15:30	585		422				1007	
03:45	16	86	34	88			50	174	15:45	588	2258	391	1576			979	3834
04:00	21		31				52		16:00	556		409				965	
04:15	34		30				64		16:15	591		391				982	
04:30	38		48				86		16:30	548		400				948	
04:45	44	137	74	183			118	320	16:45	512	2207	444	1644			956	3851
05:00	59		63				122		17:00	500		385				885	
05:15	77		74				151		17:15	528		455				983	
05:30	85		122				207		17:30	520		446				966	
05:45	106	327	179	438			285	765	17:45	470	2018	435	1721			905	3739
06:00	118		156				274		18:00	486		419				905	
06:15	129		199				328		18:15	382		432				814	
06:30	199		224				423		18:30	375		429				804	
06:45	198	644	297	876			495	1520	18:45	318	1561	381	1661			699	3222
07:00	245		257				502		19:00	394		322				716	
07:15	270		319				589		19:15	318		215				533	
07:30	335		372				707		19:30	280		240				520	
07:45	365	1215	417	1365			782	2580	19:45	289	1281	222	999			511	2280
08:00	401		452				853		20:00	255		182				437	
08:15	398		408				806		20:15	262		177				439	
08:30	417		438				855		20:30	330		149				479	
08:45	373	1589	405	1703			778	3292	20:45	252	1099	148	656			400	1755
09:00	388		295				683		21:00	263		134				397	
09:15	312		345				657		21:15	235		130				365	
09:30	341		414				755		21:30	355		104				459	
09:45	313	1354	452	1506			765	2860	21:45	478	1331	123	491			601	1822
10:00	358		348				706		22:00	247		86				333	
10:15	366		368				734		22:15	141		80				221	
10:30	315		327				642		22:30	112		62				174	
10:45	389	1428	430	1473			819	2901	22:45	100	600	63	291			163	891
11:00	389		403				792		23:00	137		50				187	
11:15	409		395				804		23:15	100		50				150	
11:30	417		340				757		23:30	70		48				118	
11:45	420	1635	450	1588			870	3223	23:45	82	389	46	194			128	583
TOTALS		8792		9433				18225	TOTALS		18645		14128				32773
SPLIT %		48.2%		51.8%				35.7%	SPLIT %		56.9%		43.1%				64.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	27,437	23,561	0	0	50,998

AM Peak Hour	11:45		07:45					11:45	PM Peak Hour	15:30		17:15					14:15
AM Pk Volume	1734		1715					3368	PM Pk Volume	2320		1755					3957
Pk Hr Factor	0.928		0.949					0.968	Pk Hr Factor	0.981		0.964					0.969
7 - 9 Volume	2804		3068		0		0	5872	4 - 6 Volume	4225		3365		0		0	7590
7 - 9 Peak Hour	08:00		07:45					07:45	4 - 6 Peak Hour	16:00		16:45					16:00
7 - 9 Pk Volume	1589		1715		0		0	3296	4 - 6 Pk Volume	2207		1730		0		0	3851
Pk Hr Factor	0.953		0.949		0.000		0.000	0.964	Pk Hr Factor	0.934		0.951		0.000		0.000	0.980

Prepared by NDS/ATD

VOLUME

Camino del Rio W Bet. Hancock St & Greenwood St/Moore St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_004

DAILY TOTALS	NB	SB	EB	WB	Total
	28,323	32,510	0	0	60,833

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
0:00	57		53				110		12:00	448		517				965	
0:15	40		48				88		12:15	393		560				953	
0:30	46		39				85		12:30	488		545				1033	
0:45	37	180	30	170			67	350	12:45	429	1758	515	2137			944	3895
1:00	32		21				53		13:00	500		506				1006	
1:15	32		30				62		13:15	555		510				1065	
1:30	26		24				50		13:30	483		506				989	
1:45	21	111	24	99			45	210	13:45	503	2041	556	2078			1059	4119
2:00	28		38				66		14:00	551		535				1086	
2:15	20		17				37		14:15	574		593				1167	
2:30	17		35				52		14:30	611		533				1144	
2:45	22	87	37	127			59	214	14:45	587	2323	591	2252			1178	4575
3:00	23		30				53		15:00	616		489				1105	
3:15	22		28				50		15:15	555		546				1101	
3:30	23		35				58		15:30	613		561				1174	
3:45	16	84	68	161			84	245	15:45	621	2405	561	2157			1182	4562
4:00	20		54				74		16:00	594		571				1165	
4:15	26		69				95		16:15	609		523				1132	
4:30	38		101				139		16:30	591		543				1134	
4:45	45	129	150	374			195	503	16:45	563	2357	583	2220			1146	4577
5:00	58		121				179		17:00	542		521				1063	
5:15	63		164				227		17:15	560		632				1192	
5:30	76		254				330		17:30	542		584				1126	
5:45	103	300	340	879			443	1179	17:45	493	2137	576	2313			1069	4450
6:00	98		291				389		18:00	516		554				1070	
6:15	129		380				509		18:15	402		562				964	
6:30	196		420				616		18:30	391		570				961	
6:45	198	621	497	1588			695	2209	18:45	332	1641	535	2221			867	3862
7:00	248		473				721		19:00	386		436				822	
7:15	271		542				813		19:15	324		324				648	
7:30	331		581				912		19:30	284		289				573	
7:45	333	1183	615	2211			948	3394	19:45	302	1296	269	1318			571	2614
8:00	406		610				1016		20:00	262		247				509	
8:15	399		547				946		20:15	282		251				533	
8:30	438		576				1014		20:30	340		219				559	
8:45	372	1615	534	2267			906	3882	20:45	264	1148	187	904			451	2052
9:00	384		408				792		21:00	278		183				461	
9:15	327		435				762		21:15	225		167				392	
9:30	337		501				838		21:30	389		145				534	
9:45	329	1377	529	1873			858	3250	21:45	488	1380	149	644			637	2024
10:00	365		452				817		22:00	267		111				378	
10:15	369		464				833		22:15	144		113				257	
10:30	336		451				787		22:30	121		74				195	
10:45	398	1468	542	1909			940	3377	22:45	93	625	88	386			181	1011
11:00	398		466				864		23:00	141		69				210	
11:15	405		477				882		23:15	101		68				169	
11:30	422		450				872		23:30	73		83				156	
11:45	435	1660	550	1943			985	3603	23:45	82	397	59	279			141	676
TOTALS		8815		13601				22416	TOTALS		19508		18909				38417
SPLIT %		39.3%		60.7%				36.8%	SPLIT %		50.8%		49.2%				63.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	28,323	32,510	0	0	60,833

AM Peak Hour	11:45	7:30						11:45	PM Peak Hour	15:30	17:15							15:30
AM Pk Volume	1764	2353						3936	PM Pk Volume	2437	2346							4653
Pk Hr Factor	0.904	0.957						0.953	Pk Hr Factor	0.981	0.928							0.984
7 - 9 Volume	2798	4478	0	0				7276	4 - 6 Volume	4494	4533	0	0					9027
7 - 9 Peak Hour	8:00	7:30						7:45	4 - 6 Peak Hour	16:00	16:45							16:00
7 - 9 Pk Volume	1615	2353	0	0				3924	4 - 6 Pk Volume	2357	2320	0	0					4577
Pk Hr Factor	0.922	0.957	0.000	0.000				0.966	Pk Hr Factor	0.968	0.918	0.000	0.000					0.982

Prepared by NDS/ATD

VOLUME

Sports Arena Blvd Bet. East Dr & Camino del Rio W/Rosecrans St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_006

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	11,256	11,935	23,191

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			20		26		46		12:00			222		223		445	
00:15			21		25		46		12:15			246		236		482	
00:30			10		16		26		12:30			249		208		457	
00:45			6	57	13	80	19	137	12:45			235	952	225	892	460	1844
01:00			13		13		26		13:00			278		243		521	
01:15			12		15		27		13:15			273		231		504	
01:30			8		5		13		13:30			212		215		427	
01:45			7	40	5	38	12	78	13:45			208	971	238	927	446	1898
02:00			5		11		16		14:00			208		221		429	
02:15			9		10		19		14:15			189		201		390	
02:30			7		6		13		14:30			190		208		398	
02:45			17	38	10	37	27	75	14:45			197	784	204	834	401	1618
03:00			13		9		22		15:00			184		175		359	
03:15			8		12		20		15:15			201		204		405	
03:30			4		7		11		15:30			228		184		412	
03:45			6	31	22	50	28	81	15:45			199	812	236	799	435	1611
04:00			7		15		22		16:00			269		217		486	
04:15			7		13		20		16:15			229		235		464	
04:30			12		5		17		16:30			227		245		472	
04:45			13	39	19	52	32	91	16:45			301	1026	286	983	587	2009
05:00			15		13		28		17:00			250		230		480	
05:15			19		18		37		17:15			231		233		464	
05:30			28		35		63		17:30			266		254		520	
05:45			41	103	46	112	87	215	17:45			224	971	283	1000	507	1971
06:00			42		68		110		18:00			229		284		513	
06:15			37		55		92		18:15			182		268		450	
06:30			64		83		147		18:30			191		311		502	
06:45			67	210	106	312	173	522	18:45			221	823	266	1129	487	1952
07:00			76		93		169		19:00			176		210		386	
07:15			73		91		164		19:15			164		156		320	
07:30			92		119		211		19:30			171		139		310	
07:45			71	312	142	445	213	757	19:45			146	657	125	630	271	1287
08:00			70		96		166		20:00			159		109		268	
08:15			102		119		221		20:15			119		93		212	
08:30			96		131		227		20:30			89		90		179	
08:45			119	387	134	480	253	867	20:45			105	472	90	382	195	854
09:00			120		149		269		21:00			89		93		182	
09:15			125		139		264		21:15			75		86		161	
09:30			126		153		279		21:30			87		88		175	
09:45			133	504	168	609	301	1113	21:45			81	332	93	360	174	692
10:00			140		135		275		22:00			77		51		128	
10:15			141		163		304		22:15			55		30		85	
10:30			165		187		352		22:30			51		39		90	
10:45			179	625	175	660	354	1285	22:45			42	225	35	155	77	380
11:00			164		198		362		23:00			63		34		97	
11:15			185		188		373		23:15			40		33		73	
11:30			179		201		380		23:30			14		37		51	
11:45			221	749	255	842	476	1591	23:45			19	136	23	127	42	263
TOTALS				3095		3717		6812	TOTALS				8161		8218		16379
SPLIT %				45.4%		54.6%		29.4%	SPLIT %				49.8%		50.2%		70.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	11,256	11,935	23,191

AM Peak Hour			11:45	11:45	11:45	PM Peak Hour	16:45	17:45	16:45
AM Pk Volume			938	922	1860	PM Pk Volume	1048	1146	2051
Pk Hr Factor			0.942	0.904	0.965	Pk Hr Factor	0.870	0.921	0.874
7 - 9 Volume	0	0	699	925	1624	4 - 6 Volume	0	0	1997	1983	3980
7 - 9 Peak Hour			08:00	07:45	08:00	4 - 6 Peak Hour			16:45	16:45	16:45
7 - 9 Pk Volume	0	0	387	488	867	4 - 6 Pk Volume	0	0	1048	1003	2051
Pk Hr Factor	0.000	0.000	0.813	0.859	0.857	Pk Hr Factor	0.000	0.000	0.870	0.877	0.874

Prepared by NDS/ATD

VOLUME

Sports Arena Blvd Bet. I-8 WB Off-Ramp & I-8 EB On-Ramp

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_007

DAILY TOTALS	NB	SB	EB	WB	Total
	6,392	6,801	0	0	13,193

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	8		9				17		12:00	113		110				223	
00:15	9		5				14		12:15	116		124				240	
00:30	6		8				14		12:30	114		103				217	
00:45	6	29	3	25			9	54	12:45	123	466	107	444			230	910
01:00	6		7				13		13:00	134		98				232	
01:15	8		2				10		13:15	113		119				232	
01:30	4		5				9		13:30	122		113				235	
01:45	4	22	4	18			8	40	13:45	108	477	121	451			229	928
02:00	3		3				6		14:00	114		100				214	
02:15	4		1				5		14:15	133		118				251	
02:30	1		5				6		14:30	102		123				225	
02:45	5	13	5	14			10	27	14:45	109	458	138	479			247	937
03:00	4		3				7		15:00	117		130				247	
03:15	3		3				6		15:15	107		133				240	
03:30	7		2				9		15:30	102		136				238	
03:45	2	16	12	20			14	36	15:45	127	453	178	577			305	1030
04:00	3		2				5		16:00	128		148				276	
04:15	2		5				7		16:15	120		207				327	
04:30	6		10				16		16:30	121		173				294	
04:45	4	15	18	35			22	50	16:45	101	470	192	720			293	1190
05:00	9		12				21		17:00	118		174				292	
05:15	5		18				23		17:15	124		217				341	
05:30	20		21				41		17:30	142		172				314	
05:45	26	60	33	84			59	144	17:45	106	490	155	718			261	1208
06:00	32		49				81		18:00	114		113				227	
06:15	32		22				54		18:15	112		112				224	
06:30	46		33				79		18:30	86		108				194	
06:45	52	162	74	178			126	340	18:45	101	413	107	440			208	853
07:00	72		82				154		19:00	85		91				176	
07:15	71		81				152		19:15	69		73				142	
07:30	79		64				143		19:30	73		78				151	
07:45	93	315	98	325			191	640	19:45	64	291	77	319			141	610
08:00	100		79				179		20:00	64		46				110	
08:15	96		119				215		20:15	59		58				117	
08:30	93		75				168		20:30	78		63				141	
08:45	88	377	92	365			180	742	20:45	56	257	44	211			100	468
09:00	95		71				166		21:00	48		69				117	
09:15	68		73				141		21:15	48		56				104	
09:30	88		93				181		21:30	63		42				105	
09:45	110	361	106	343			216	704	21:45	77	236	41	208			118	444
10:00	96		80				176		22:00	44		23				67	
10:15	83		76				159		22:15	29		18				47	
10:30	109		97				206		22:30	23		18				41	
10:45	100	388	84	337			184	725	22:45	19	115	14	73			33	188
11:00	99		97				196		23:00	18		16				34	
11:15	116		93				209		23:15	17		7				24	
11:30	108		81				189		23:30	20		10				30	
11:45	108	431	107	378			215	809	23:45	22	77	6	39			28	116
TOTALS		2189		2122				4311	TOTALS		4203		4679				8882
SPLIT %		50.8%		49.2%				32.7%	SPLIT %		47.3%		52.7%				67.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	6,392	6,801	0	0	13,193

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	15:45	16:30			16:45
AM Pk Volume	451	444			895	PM Pk Volume	496	756			1240
Pk Hr Factor	0.972	0.895			0.932	Pk Hr Factor	0.969	0.871			0.909
7 - 9 Volume	692	690	0	0	1382	4 - 6 Volume	960	1438	0	0	2398
7 - 9 Peak Hour	07:45	07:45			07:45	4 - 6 Peak Hour	17:00	16:30			16:45
7 - 9 Pk Volume	382	371	0	0	753	4 - 6 Pk Volume	490	756	0	0	1240
Pk Hr Factor	0.955	0.779	0.000	0.000	0.876	Pk Hr Factor	0.863	0.871	0.000	0.000	0.909

Prepared by NDS/ATD

VOLUME

Sports Arena Blvd Bet. I-8 EB On-Ramp & W Point Loma Blvd

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_008

DAILY TOTALS	NB	SB	EB	WB	Total
	15,630	12,334	0	0	27,964

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	25		26				51		12:00	258		205				463	
00:15	20		15				35		12:15	263		245				508	
00:30	25		11				36		12:30	283		196				479	
00:45	17	87	12	64			29	151	12:45	291	1095	193	839			484	1934
01:00	20		11				31		13:00	312		214				526	
01:15	20		9				29		13:15	274		212				486	
01:30	16		12				28		13:30	296		223				519	
01:45	14	70	7	39			21	109	13:45	286	1168	205	854			491	2022
02:00	15		11				26		14:00	295		210				505	
02:15	9		3				12		14:15	287		204				491	
02:30	7		5				12		14:30	279		245				524	
02:45	10	41	5	24			15	65	14:45	290	1151	217	876			507	2027
03:00	14		5				19		15:00	278		220				498	
03:15	13		4				17		15:15	262		239				501	
03:30	9		8				17		15:30	254		247				501	
03:45	11	47	8	25			19	72	15:45	251	1045	254	960			505	2005
04:00	18		13				31		16:00	288		246				534	
04:15	10		10				20		16:15	215		261				476	
04:30	16		12				28		16:30	242		279				521	
04:45	23	67	21	56			44	123	16:45	215	960	252	1038			467	1998
05:00	37		22				59		17:00	220		277				497	
05:15	50		32				82		17:15	217		294				511	
05:30	74		41				115		17:30	279		256				535	
05:45	70	231	65	160			135	391	17:45	231	947	260	1087			491	2034
06:00	86		73				159		18:00	247		247				494	
06:15	104		56				160		18:15	242		254				496	
06:30	134		72				206		18:30	241		233				474	
06:45	160	484	122	323			282	807	18:45	234	964	236	970			470	1934
07:00	173		101				274		19:00	232		182				414	
07:15	182		128				310		19:15	195		154				349	
07:30	237		145				382		19:30	182		132				314	
07:45	247	839	178	552			425	1391	19:45	173	782	130	598			303	1380
08:00	273		157				430		20:00	191		110				301	
08:15	202		176				378		20:15	153		120				273	
08:30	214		191				405		20:30	173		104				277	
08:45	223	912	193	717			416	1629	20:45	164	681	91	425			255	1106
09:00	214		148				362		21:00	141		112				253	
09:15	197		172				369		21:15	127		101				228	
09:30	206		168				374		21:30	244		67				311	
09:45	207	824	209	697			416	1521	21:45	267	779	78	358			345	1137
10:00	212		176				388		22:00	137		48				185	
10:15	202		180				382		22:15	88		33				121	
10:30	241		174				415		22:30	79		28				107	
10:45	243	898	198	728			441	1626	22:45	43	347	28	137			71	484
11:00	253		175				428		23:00	48		27				75	
11:15	243		182				425		23:15	46		16				62	
11:30	253		170				423		23:30	45		18				63	
11:45	273	1022	205	732			478	1754	23:45	50	189	14	75			64	264
TOTALS		5522		4117				9639	TOTALS		10108		8217				18325
SPLIT %		57.3%		42.7%				34.5%	SPLIT %		55.2%		44.8%				65.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	15,630	12,334	0	0	27,964

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	12:45	16:30			15:15
AM Pk Volume	1077	851			1928	PM Pk Volume	1173	1102			2041
Pk Hr Factor	0.951	0.868			0.949	Pk Hr Factor	0.940	0.937			0.956
7 - 9 Volume	1751	1269	0	0	3020	4 - 6 Volume	1907	2125	0	0	4032
7 - 9 Peak Hour	07:30	08:00			07:45	4 - 6 Peak Hour	16:00	16:30			17:00
7 - 9 Pk Volume	959	717	0	0	1638	4 - 6 Pk Volume	960	1102	0	0	2034
Pk Hr Factor	0.878	0.929	0.000	0.000	0.952	Pk Hr Factor	0.833	0.937	0.000	0.000	0.950

Prepared by NDS/ATD

VOLUME

Midway Dr Bet. W Point Loma Blvd/Sports Arena Blvd & Duke St

Day: Wednesday
Date: 1/25/2023

City: San Diego
Project #: CA23_040002_009

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	8,019	8,823	16,842

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			17		17		34		12:00			154		165		319	
00:15			12		23		35		12:15			163		191		354	
00:30			10		16		26		12:30			148		174		322	
00:45			14	53	12	68	26	121	12:45			151	616	189	719	340	1335
01:00			6		20		26		13:00			143		165		308	
01:15			8		17		25		13:15			154		159		313	
01:30			5		12		17		13:30			143		173		316	
01:45			9	28	14	63	23	91	13:45			158	598	181	678	339	1276
02:00			7		22		29		14:00			149		167		316	
02:15			3		5		8		14:15			146		154		300	
02:30			5		17		22		14:30			146		158		304	
02:45			4	19	14	58	18	77	14:45			152	593	191	670	343	1263
03:00			4		4		8		15:00			147		156		303	
03:15			3		3		6		15:15			151		145		296	
03:30			10		6		16		15:30			152		149		301	
03:45			7	24	3	16	10	40	15:45			169	619	161	611	330	1230
04:00			6		4		10		16:00			140		172		312	
04:15			6		11		17		16:15			182		135		317	
04:30			9		7		16		16:30			160		137		297	
04:45			18	39	9	31	27	70	16:45			192	674	131	575	323	1249
05:00			17		8		25		17:00			189		136		325	
05:15			23		14		37		17:15			203		139		342	
05:30			29		12		41		17:30			178		157		335	
05:45			39	108	26	60	65	168	17:45			167	737	158	590	325	1327
06:00			39		23		62		18:00			143		176		319	
06:15			34		28		62		18:15			152		133		285	
06:30			33		30		63		18:30			112		149		261	
06:45			71	177	59	140	130	317	18:45			113	520	158	616	271	1136
07:00			64		95		159		19:00			107		147		254	
07:15			69		74		143		19:15			71		107		178	
07:30			68		114		182		19:30			64		102		166	
07:45			89	290	81	364	170	654	19:45			62	304	107	463	169	767
08:00			110		105		215		20:00			57		115		172	
08:15			113		109		222		20:15			39		111		150	
08:30			127		100		227		20:30			49		87		136	
08:45			143	493	91	405	234	898	20:45			58	203	105	418	163	621
09:00			113		101		214		21:00			56		70		126	
09:15			105		98		203		21:15			51		57		108	
09:30			106		139		245		21:30			42		56		98	
09:45			137	461	122	460	259	921	21:45			53	202	67	250	120	452
10:00			127		142		269		22:00			41		52		93	
10:15			105		128		233		22:15			44		52		96	
10:30			134		129		263		22:30			28		32		60	
10:45			126	492	144	543	270	1035	22:45			31	144	31	167	62	311
11:00			132		187		319		23:00			26		35		61	
11:15			143		186		329		23:15			25		37		62	
11:30			142		196		338		23:30			20		18		38	
11:45			119	536	155	724	274	1260	23:45			18	89	44	134	62	223
TOTALS				2720		2932		5652	TOTALS				5299		5891		11190
SPLIT %				48.1%		51.9%		33.6%	SPLIT %				47.4%		52.6%		66.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	8,019	8,823	16,842

AM Peak Hour			11:45	11:00	11:30	PM Peak Hour	16:45	12:00	12:00
AM Pk Volume			584	724	1285	PM Pk Volume	762	719	1335
Pk Hr Factor			0.896	0.923	0.907	Pk Hr Factor	0.938	0.941	0.943
7 - 9 Volume	0	0	783	769	1552	4 - 6 Volume	1411	1165	2576
7 - 9 Peak Hour			08:00	07:30	08:00	4 - 6 Peak Hour	16:45	17:00	17:00
7 - 9 Pk Volume	0	0	493	409	898	4 - 6 Pk Volume	762	590	1327
Pk Hr Factor	0.000	0.000	0.862	0.897	0.959	Pk Hr Factor	0.938	0.934	0.970

Prepared by National Data & Surveying Services

VOLUME

Midway Dr Bet. East Dr & Rosecrans St

Day: Tuesday
Date: 2/14/2023

City: San Diego
Project #: CA23_040002_010

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,035	12,297	24,332

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			29		40		69		12:00			244		258		502	
0:15			23		29		52		12:15			232		262		494	
0:30			21		20		41		12:30			254		244		498	
0:45			22	95	23	112	45	207	12:45			221	951	269	1033	490	1984
1:00			23		17		40		13:00			242		234		476	
1:15			16		14		30		13:15			240		233		473	
1:30			12		18		30		13:30			239		224		463	
1:45			19	70	13	62	32	132	13:45			230	951	251	942	481	1893
2:00			32		13		45		14:00			244		208		452	
2:15			24		14		38		14:15			215		196		411	
2:30			29		9		38		14:30			221		208		429	
2:45			15	100	8	44	23	144	14:45			230	910	225	837	455	1747
3:00			13		16		29		15:00			241		236		477	
3:15			12		6		18		15:15			239		201		440	
3:30			6		7		13		15:30			226		205		431	
3:45			10	41	14	43	24	84	15:45			239	945	236	878	475	1823
4:00			8		9		17		16:00			272		253		525	
4:15			14		15		29		16:15			250		246		496	
4:30			12		24		36		16:30			246		231		477	
4:45			11	45	27	75	38	120	16:45			257	1025	257	987	514	2012
5:00			16		25		41		17:00			256		240		496	
5:15			22		20		42		17:15			229		226		455	
5:30			37		23		60		17:30			227		236		463	
5:45			43	118	64	132	107	250	17:45			217	929	224	926	441	1855
6:00			55		48		103		18:00			220		206		426	
6:15			51		54		105		18:15			188		188		376	
6:30			52		56		108		18:30			191		179		370	
6:45			72	230	87	245	159	475	18:45			152	751	185	758	337	1509
7:00			87		103		190		19:00			140		134		274	
7:15			91		91		182		19:15			144		136		280	
7:30			111		102		213		19:30			152		122		274	
7:45			132	421	148	444	280	865	19:45			137	573	117	509	254	1082
8:00			123		184		307		20:00			133		111		244	
8:15			154		161		315		20:15			121		105		226	
8:30			132		180		312		20:30			115		106		221	
8:45			155	564	208	733	363	1297	20:45			101	470	97	419	198	889
9:00			156		198		354		21:00			80		85		165	
9:15			170		179		349		21:15			71		64		135	
9:30			152		188		340		21:30			70		59		129	
9:45			166	644	219	784	385	1428	21:45			55	276	66	274	121	550
10:00			167		196		363		22:00			49		54		103	
10:15			184		200		384		22:15			42		49		91	
10:30			217		227		444		22:30			39		32		71	
10:45			201	769	238	861	439	1630	22:45			40	170	26	161	66	331
11:00			221		233		454		23:00			32		44		76	
11:15			215		234		449		23:15			26		31		57	
11:30			209		213		422		23:30			28		24		52	
11:45			225	870	227	907	452	1777	23:45			31	117	32	131	63	248
TOTALS				3967		4442		8409	TOTALS				8068		7855		15923
SPLIT %				47.2%		52.8%		34.6%	SPLIT %				50.7%		49.3%		65.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,035	12,297	24,332

AM Peak Hour				11:45		11:45		11:45	PM Peak Hour				16:00		12:00		16:00
AM Pk Volume				955		991		1946	PM Pk Volume				1025		1033		2012
Pk Hr Factor				0.940		0.946		0.969	Pk Hr Factor				0.942		0.960		0.958
7 - 9 Volume	0	0		985		1177		2162	4 - 6 Volume	0	0		1954		1913		3867
7 - 9 Peak Hour				8:00		8:00		8:00	4 - 6 Peak Hour				16:00		16:00		16:00
7 - 9 Pk Volume	0	0		564		733		1297	4 - 6 Pk Volume	0	0		1025		987		2012
Pk Hr Factor	0.000	0.000		0.910		0.881		0.893	Pk Hr Factor	0.000	0.000		0.942		0.960		0.958

Prepared by NDS/ATD

VOLUME

Rosecrans St Bet. Midway Dr & Sports Arena Blvd

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_011

DAILY TOTALS	NB	SB	EB	WB	Total
	26,805	27,273	0	0	54,078

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	47		39				86		12:00	425		426				851	
00:15	33		33				66		12:15	461		509				970	
00:30	45		29				74		12:30	504		511				1015	
00:45	32	157	25	126			57	283	12:45	437	1827	503	1949			940	3776
01:00	30		17				47		13:00	521		444				965	
01:15	29		27				56		13:15	507		471				978	
01:30	25		21				46		13:30	482		449				931	
01:45	18	102	14	79			32	181	13:45	495	2005	477	1841			972	3846
02:00	27		21				48		14:00	509		422				931	
02:15	24		12				36		14:15	547		478				1025	
02:30	14		25				39		14:30	553		456				1009	
02:45	18	83	17	75			35	158	14:45	568	2177	503	1859			1071	4036
03:00	17		18				35		15:00	540		456				996	
03:15	23		10				33		15:15	537		479				1016	
03:30	17		22				39		15:30	544		490				1034	
03:45	17	74	23	73			40	147	15:45	588	2209	443	1868			1031	4077
04:00	26		38				64		16:00	553		512				1065	
04:15	36		40				76		16:15	544		483				1027	
04:30	41		76				117		16:30	538		459				997	
04:45	48	151	85	239			133	390	16:45	507	2142	508	1962			1015	4104
05:00	50		98				148		17:00	514		467				981	
05:15	79		111				190		17:15	520		498				1018	
05:30	84		192				276		17:30	490		483				973	
05:45	107	320	213	614			320	934	17:45	501	2025	473	1921			974	3946
06:00	130		188				318		18:00	460		457				917	
06:15	113		276				389		18:15	395		418				813	
06:30	188		325				513		18:30	400		380				780	
06:45	185	616	366	1155			551	1771	18:45	369	1624	362	1617			731	3241
07:00	228		343				571		19:00	388		328				716	
07:15	260		465				725		19:15	317		313				630	
07:30	287		461				748		19:30	232		279				511	
07:45	360	1135	513	1782			873	2917	19:45	295	1232	233	1153			528	2385
08:00	400		504				904		20:00	244		237				481	
08:15	430		535				965		20:15	271		242				513	
08:30	414		521				935		20:30	263		218				481	
08:45	380	1624	458	2018			838	3642	20:45	210	988	192	889			402	1877
09:00	387		384				771		21:00	220		172				392	
09:15	337		357				694		21:15	207		137				344	
09:30	343		366				709		21:30	178		157				335	
09:45	333	1400	422	1529			755	2929	21:45	203	808	161	627			364	1435
10:00	380		370				750		22:00	182		102				284	
10:15	385		388				773		22:15	123		96				219	
10:30	360		356				716		22:30	89		87				176	
10:45	395	1520	434	1548			829	3068	22:45	81	475	60	345			141	820
11:00	427		450				877		23:00	124		64				188	
11:15	433		397				830		23:15	86		58				144	
11:30	434		432				866		23:30	69		70				139	
11:45	462	1756	481	1760			943	3516	23:45	76	355	52	244			128	599
TOTALS		8938		10998				19936	TOTALS		17867		16275				34142
SPLIT %		44.8%		55.2%				36.9%	SPLIT %		52.3%		47.7%				63.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	26,805	27,273	0	0	54,078

AM Peak Hour	11:45	07:45					11:45		PM Peak Hour	15:30	12:15					15:30		
AM Pk Volume	1852	2073					3779		PM Pk Volume	2229	1967					4157		
Pk Hr Factor	0.919	0.969					0.931		Pk Hr Factor	0.948	0.962					0.976		
7 - 9 Volume	2759	3800	0	0			6559		4 - 6 Volume	4167	3883	0	0			8050		
7 - 9 Peak Hour	08:00	07:45					07:45		4 - 6 Peak Hour	16:00	16:00					16:00		
7 - 9 Pk Volume	1624	2073	0	0			3677		4 - 6 Pk Volume	2142	1962	0	0			4104		
Pk Hr Factor	0.944	0.969	0.000	0.000			0.953		Pk Hr Factor	0.968	0.958	0.000	0.000			0.963		

Prepared by NDS/ATD

VOLUME

Rosecrans St Bet. Midway Dr & Cauby St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_012

DAILY TOTALS	NB	SB	EB	WB	Total
	22,067	21,805	0	0	43,872

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
0:00	33		28				61		12:00	362		330				692	
0:15	26		16				42		12:15	354		399				753	
0:30	34		23				57		12:30	393		381				774	
0:45	27	120	11	78			38	198	12:45	312	1421	414	1524			726	2945
1:00	20		14				34		13:00	503		328				831	
1:15	19		19				38		13:15	397		358				755	
1:30	11		10				21		13:30	379		345				724	
1:45	14	64	9	52			23	116	13:45	413	1692	383	1414			796	3106
2:00	17		11				28		14:00	441		319				760	
2:15	12		7				19		14:15	469		370				839	
2:30	5		8				13		14:30	482		364				846	
2:45	8	42	9	35			17	77	14:45	459	1851	409	1462			868	3313
3:00	14		11				25		15:00	472		361				833	
3:15	14		8				22		15:15	429		390				819	
3:30	13		18				31		15:30	431		398				829	
3:45	10	51	19	56			29	107	15:45	482	1814	374	1523			856	3337
4:00	21		33				54		16:00	404		373				777	
4:15	25		35				60		16:15	413		387				800	
4:30	37		61				98		16:30	447		381				828	
4:45	34	117	68	197			102	314	16:45	408	1672	401	1542			809	3214
5:00	47		73				120		17:00	368		381				749	
5:15	62		108				170		17:15	392		379				771	
5:30	72		162				234		17:30	417		408				825	
5:45	72	253	157	500			229	753	17:45	414	1591	401	1569			815	3160
6:00	113		164				277		18:00	357		373				730	
6:15	108		234				342		18:15	295		354				649	
6:30	154		255				409		18:30	310		300				610	
6:45	147	522	278	931			425	1453	18:45	269	1231	287	1314			556	2545
7:00	203		270				473		19:00	280		262				542	
7:15	243		414				657		19:15	261		237				498	
7:30	265		431				696		19:30	209		230				439	
7:45	321	1032	439	1554			760	2586	19:45	245	995	189	918			434	1913
8:00	342		427				769		20:00	215		191				406	
8:15	408		465				873		20:15	223		170				393	
8:30	403		471				874		20:30	220		176				396	
8:45	357	1510	422	1785			779	3295	20:45	198	856	153	690			351	1546
9:00	341		307				648		21:00	188		139				327	
9:15	291		298				589		21:15	172		107				279	
9:30	309		272				581		21:30	152		115				267	
9:45	290	1231	345	1222			635	2453	21:45	162	674	112	473			274	1147
10:00	298		309				607		22:00	149		84				233	
10:15	311		259				570		22:15	114		77				191	
10:30	313		303				616		22:30	68		59				127	
10:45	295	1217	345	1216			640	2433	22:45	57	388	54	274			111	662
11:00	379		318				697		23:00	103		45				148	
11:15	355		312				667		23:15	75		45				120	
11:30	326		332				658		23:30	47		44				91	
11:45	375	1435	342	1304			717	2739	23:45	63	288	38	172			101	460
TOTALS		7594		8930				**16524**	**TOTALS**		14473		12875				**27348**
SPLIT %		46.0%		54.0%				**37.7%**	**SPLIT %**		52.9%		47.1%				**62.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	22,067	21,805	0	0	43,872

AM Peak Hour	8:00	7:45			**8:00**		**PM Peak Hour**	14:15	16:45			**14:15**
AM Pk Volume	1510	1802			**3295**		**PM Pk Volume**	1882	1569			**3386**
Pk Hr Factor	0.925	0.956			**0.943**		**Pk Hr Factor**	0.976	0.961			**0.975**
7 - 9 Volume	2542	3339	0	0	**5881**		**4 - 6 Volume**	3263	3111	0	0	**6374**
7 - 9 Peak Hour	8:00	7:45			**8:00**		**4 - 6 Peak Hour**	16:00	16:45			**16:00**
7 - 9 Pk Volume	1510	1802	0	0	**3295**		**4 - 6 Pk Volume**	1672	1569	0	0	**3214**
Pk Hr Factor	0.925	0.956	0.000	0.000	**0.943**		**Pk Hr Factor**	0.935	0.961	0.000	0.000	**0.970**

Prepared by NDS/ATD

VOLUME

Midway Dr Bet. Rosecrans St & Barnett Ave

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_013

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	9,342	10,811	20,153

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			20		23		43		12:00			198		209		407	
0:15			19		18		37		12:15			209		213		422	
0:30			19		18		37		12:30			170		199		369	
0:45			22	80	9	68	31	148	12:45			191	768	207	828	398	1596
1:00			6		10		16		13:00			182		204		386	
1:15			10		13		23		13:15			186		198		384	
1:30			7		16		23		13:30			221		191		412	
1:45			7	30	11	50	18	80	13:45			178	767	181	774	359	1541
2:00			12		10		22		14:00			159		196		355	
2:15			5		13		18		14:15			175		208		383	
2:30			10		10		20		14:30			167		202		369	
2:45			13	40	14	47	27	87	14:45			172	673	220	826	392	1499
3:00			8		5		13		15:00			152		201		353	
3:15			8		9		17		15:15			186		189		375	
3:30			7		4		11		15:30			159		218		377	
3:45			4	27	25	43	29	70	15:45			164	661	223	831	387	1492
4:00			9		13		22		16:00			183		221		404	
4:15			9		10		19		16:15			178		224		402	
4:30			12		13		25		16:30			188		200		388	
4:45			10	40	24	60	34	100	16:45			199	748	183	828	382	1576
5:00			12		18		30		17:00			192		180		372	
5:15			29		27		56		17:15			174		179		353	
5:30			34		31		65		17:30			180		214		394	
5:45			22	97	61	137	83	234	17:45			177	723	193	766	370	1489
6:00			39		57		96		18:00			170		183		353	
6:15			65		52		117		18:15			163		142		305	
6:30			70		72		142		18:30			151		174		325	
6:45			70	244	83	264	153	508	18:45			129	613	154	653	283	1266
7:00			75		91		166		19:00			163		141		304	
7:15			69		85		154		19:15			113		118		231	
7:30			83		115		198		19:30			111		106		217	
7:45			89	316	127	418	216	734	19:45			86	473	115	480	201	953
8:00			92		133		225		20:00			107		93		200	
8:15			114		157		271		20:15			104		81		185	
8:30			107		160		267		20:30			95		93		188	
8:45			100	413	159	609	259	1022	20:45			93	399	68	335	161	734
9:00			117		182		299		21:00			79		86		165	
9:15			94		150		244		21:15			78		81		159	
9:30			96		152		248		21:30			67		64		131	
9:45			115	422	189	673	304	1095	21:45			67	291	45	276	112	567
10:00			106		163		269		22:00			51		52		103	
10:15			147		187		334		22:15			51		31		82	
10:30			154		191		345		22:30			39		32		71	
10:45			150	557	210	751	360	1308	22:45			33	174	28	143	61	317
11:00			145		192		337		23:00			35		41		76	
11:15			182		206		388		23:15			22		23		45	
11:30			173		226		399		23:30			29		30		59	
11:45			175	675	207	831	382	1506	23:45			25	111	26	120	51	231
TOTALS				2941		3951		6892	TOTALS				6401		6860		13261
SPLIT %				42.7%		57.3%		34.2%	SPLIT %				48.3%		51.7%		65.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	9,342	10,811	20,153

AM Peak Hour			11:30	11:30	11:30	PM Peak Hour	12:45	15:30	12:00
AM Pk Volume			755	855	1610	PM Pk Volume	780	886	1596
Pk Hr Factor			0.903	0.946	0.954	Pk Hr Factor	0.882	0.989	0.945
7 - 9 Volume	0	0	729	1027	1756	4 - 6 Volume	1471	1594	3065
7 - 9 Peak Hour			8:00	8:00	8:00	4 - 6 Peak Hour	16:15	16:00	16:00
7 - 9 Pk Volume	0	0	413	609	1022	4 - 6 Pk Volume	757	828	1576
Pk Hr Factor	0.000	0.000	0.906	0.952	0.943	Pk Hr Factor	0.951	0.924	0.975

Prepared by NDS/ATD

VOLUME

Sports Arena Blvd Bet. West Dr & Target Dwy

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_014

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	8,998	9,664	18,662

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			11		17		28		12:00			173		177		350	
00:15			7		21		28		12:15			182		198		380	
00:30			3		12		15		12:30			176		154		330	
00:45			5	26	9	59	14	85	12:45			152	683	181	710	333	1393
01:00			8		12		20		13:00			173		192		365	
01:15			7		13		20		13:15			176		164		340	
01:30			6		5		11		13:30			178		164		342	
01:45			4	25	5	35	9	60	13:45			162	689	171	691	333	1380
02:00			4		6		10		14:00			171		185		356	
02:15			5		9		14		14:15			143		171		314	
02:30			5		5		10		14:30			176		175		351	
02:45			6	20	9	29	15	49	14:45			142	632	159	690	301	1322
03:00			8		6		14		15:00			151		148		299	
03:15			3		8		11		15:15			163		160		323	
03:30			5		5		10		15:30			181		141		322	
03:45			10	26	11	30	21	56	15:45			166	661	178	627	344	1288
04:00			7		12		19		16:00			195		178		373	
04:15			8		3		11		16:15			208		171		379	
04:30			11		4		15		16:30			142		176		318	
04:45			8	34	16	35	24	69	16:45			161	706	221	746	382	1452
05:00			16		10		26		17:00			180		192		372	
05:15			26		16		42		17:15			207		180		387	
05:30			20		22		42		17:30			181		199		380	
05:45			24	86	31	79	55	165	17:45			184	752	244	815	428	1567
06:00			31		50		81		18:00			181		237		418	
06:15			36		44		80		18:15			144		246		390	
06:30			56		69		125		18:30			137		237		374	
06:45			63	186	82	245	145	431	18:45			120	582	250	970	370	1552
07:00			63		70		133		19:00			120		182		302	
07:15			77		64		141		19:15			119		142		261	
07:30			62		99		161		19:30			106		131		237	
07:45			76	278	124	357	200	635	19:45			92	437	116	571	208	1008
08:00			85		87		172		20:00			115		98		213	
08:15			94		92		186		20:15			118		78		196	
08:30			87		102		189		20:30			98		95		193	
08:45			102	368	111	392	213	760	20:45			88	419	79	350	167	769
09:00			92		124		216		21:00			65		82		147	
09:15			102		109		211		21:15			68		78		146	
09:30			108		116		224		21:30			209		86		295	
09:45			109	411	117	466	226	877	21:45			183	525	91	337	274	862
10:00			109		119		228		22:00			61		46		107	
10:15			135		117		252		22:15			45		37		82	
10:30			128		134		262		22:30			33		39		72	
10:45			148	520	137	507	285	1027	22:45			34	173	26	148	60	321
11:00			139		156		295		23:00			39		31		70	
11:15			154		156		310		23:15			19		27		46	
11:30			186		151		337		23:30			7		31		38	
11:45			209	688	207	670	416	1358	23:45			6	71	16	105	22	176
TOTALS				2668		2904		**5572**	**TOTALS**				6330		6760		**13090**
SPLIT %				47.9%		52.1%		**29.9%**	**SPLIT %**				48.4%		51.6%		**70.1%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	8,998	9,664	18,662

AM Peak Hour			11:30	11:45	**11:30**	**PM Peak Hour**	17:15	18:00	**17:30**
AM Pk Volume			750	736	**1483**	**PM Pk Volume**	753	970	**1616**
Pk Hr Factor			0.897	0.889	**0.891**	**Pk Hr Factor**	0.909	0.970	**0.944**
7 - 9 Volume	0	0	646	749	**1395**	**4 - 6 Volume**	1458	1561	**3019**
7 - 9 Peak Hour			08:00	07:45	**08:00**	**4 - 6 Peak Hour**	17:00	17:00	**17:00**
7 - 9 Pk Volume	0	0	368	405	**760**	**4 - 6 Pk Volume**	752	815	**1567**
Pk Hr Factor	0.000	0.000	0.902	0.817	**0.892**	**Pk Hr Factor**	0.908	0.835	**0.915**

Prepared by NDS/ATD

VOLUME

Sports Arena Blvd Bet. Midway Dr & Hancock St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_015

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,865	9,871	17,736

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			10		16		26		12:00			168		200		368	
0:15			6		15		21		12:15			164		198		362	
0:30			2		15		17		12:30			136		179		315	
0:45			5	23	12	58	17	81	12:45			133	601	199	776	332	1377
1:00			6		7		13		13:00			130		195		325	
1:15			6		9		15		13:15			143		166		309	
1:30			8		6		14		13:30			140		182		322	
1:45			0	20	7	29	7	49	13:45			153	566	193	736	346	1302
2:00			2		11		13		14:00			139		198		337	
2:15			6		7		13		14:15			129		190		319	
2:30			3		3		6		14:30			160		190		350	
2:45			8	19	6	27	14	46	14:45			131	559	181	759	312	1318
3:00			2		4		6		15:00			135		167		302	
3:15			7		7		14		15:15			140		164		304	
3:30			2		3		5		15:30			148		139		287	
3:45			6	17	4	18	10	35	15:45			156	579	150	620	306	1199
4:00			10		10		20		16:00			163		151		314	
4:15			10		1		11		16:15			165		150		315	
4:30			12		8		20		16:30			146		166		312	
4:45			8	40	11	30	19	70	16:45			190	664	176	643	366	1307
5:00			15		13		28		17:00			183		185		368	
5:15			24		11		35		17:15			196		165		361	
5:30			26		24		50		17:30			164		165		329	
5:45			31	96	21	69	52	165	17:45			202	745	175	690	377	1435
6:00			40		21		61		18:00			162		184		346	
6:15			41		40		81		18:15			169		168		337	
6:30			46		68		114		18:30			162		183		345	
6:45			64	191	60	189	124	380	18:45			158	651	186	721	344	1372
7:00			42		56		98		19:00			113		155		268	
7:15			75		51		126		19:15			95		147		242	
7:30			79		89		168		19:30			80		123		203	
7:45			84	280	98	294	182	574	19:45			67	355	104	529	171	884
8:00			102		101		203		20:00			59		118		177	
8:15			90		80		170		20:15			71		109		180	
8:30			108		105		213		20:30			60		112		172	
8:45			120	420	101	387	221	807	20:45			55	245	128	467	183	712
9:00			100		135		235		21:00			43		99		142	
9:15			106		108		214		21:15			47		112		159	
9:30			94		124		218		21:30			31		266		297	
9:45			126	426	128	495	254	921	21:45			53	174	269	746	322	920
10:00			120		135		255		22:00			30		111		141	
10:15			125		126		251		22:15			20		66		86	
10:30			131		155		286		22:30			21		50		71	
10:45			151	527	141	557	292	1084	22:45			17	88	20	247	37	335
11:00			127		168		295		23:00			12		31		43	
11:15			101		166		267		23:15			7		28		35	
11:30			156		169		325		23:30			9		31		40	
11:45			160	544	172	675	332	1219	23:45			7	35	19	109	26	144
TOTALS				2603		2828		5431	TOTALS				5262		7043		12305
SPLIT %				47.9%		52.1%		30.6%	SPLIT %				42.8%		57.2%		69.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,865	9,871	17,736

AM Peak Hour			11:30	11:45	11:30	PM Peak Hour	17:00	12:00	17:00
AM Pk Volume			648	749	1387	PM Pk Volume	745	776	1435
Pk Hr Factor			0.964	0.936	0.942	Pk Hr Factor	0.922	0.970	0.952
7 - 9 Volume	0	0	700	681	1381	4 - 6 Volume	0	0	1409	1333	2742
7 - 9 Peak Hour			8:00	8:00	8:00	4 - 6 Peak Hour			17:00	16:30	17:00
7 - 9 Pk Volume	0	0	420	387	807	4 - 6 Pk Volume	0	0	745	692	1435
Pk Hr Factor	0.000	0.000	0.875	0.921	0.913	Pk Hr Factor	0.000	0.000	0.922	0.935	0.952

Prepared by National Data & Surveying Services

VOLUME

Hancock St Bet. Sports Arena Blvd & Channel Way

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_016

DAILY TOTALS	NB	SB	EB	WB	Total
	1,683	1,769	0	0	3,452

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
0:00	3		1				4		12:00	41		42				83	
0:15	4		1				5		12:15	37		33				70	
0:30	2		3				5		12:30	35		41				76	
0:45	1	10	2	7			3	17	12:45	36	149	35	151			71	300
1:00	3		1				4		13:00	26		30				56	
1:15	2		0				2		13:15	29		36				65	
1:30	2		0				2		13:30	33		41				74	
1:45	1	8	3	4			4	12	13:45	35	123	34	141			69	264
2:00	0		2				2		14:00	26		40				66	
2:15	2		0				2		14:15	30		38				68	
2:30	2		1				3		14:30	21		32				53	
2:45	1	5	1	4			2	9	14:45	25	102	28	138			53	240
3:00	0		0				0		15:00	34		35				69	
3:15	2		2				4		15:15	27		42				69	
3:30	2		0				2		15:30	40		28				68	
3:45	4	8	1	3			5	11	15:45	32	133	40	145			72	278
4:00	4		3				7		16:00	47		28				75	
4:15	3		4				7		16:15	41		36				77	
4:30	2		3				5		16:30	36		42				78	
4:45	2	11	4	14			6	25	16:45	46	170	29	135			75	305
5:00	3		2				5		17:00	46		35				81	
5:15	5		3				8		17:15	33		40				73	
5:30	2		4				6		17:30	33		40				73	
5:45	8	18	3	12			11	30	17:45	36	148	26	141			62	289
6:00	8		8				16		18:00	41		30				71	
6:15	9		7				16		18:15	33		27				60	
6:30	8		11				19		18:30	24		27				51	
6:45	10	35	12	38			22	73	18:45	26	124	25	109			51	233
7:00	8		14				22		19:00	23		25				48	
7:15	14		8				22		19:15	15		16				31	
7:30	19		20				39		19:30	19		12				31	
7:45	26	67	21	63			47	130	19:45	10	67	14	67			24	134
8:00	23		23				46		20:00	11		12				23	
8:15	21		18				39		20:15	10		13				23	
8:30	25		19				44		20:30	8		10				18	
8:45	22	91	20	80			42	171	20:45	10	39	20	55			30	94
9:00	32		24				56		21:00	6		9				15	
9:15	28		19				47		21:15	6		11				17	
9:30	27		28				55		21:30	3		27				30	
9:45	20	107	23	94			43	201	21:45	6	21	17	64			23	85
10:00	30		22				52		22:00	3		18				21	
10:15	26		27				53		22:15	3		5				8	
10:30	21		45				66		22:30	3		7				10	
10:45	33	110	36	130			69	240	22:45	1	10	0	30			1	40
11:00	35		35				70		23:00	4		2				6	
11:15	15		25				40		23:15	1		4				5	
11:30	33		30				63		23:30	4		2				6	
11:45	31	114	43	133			74	247	23:45	4	13	3	11			7	24
TOTALS		584		582				1166	TOTALS		1099		1187				2286
SPLIT %		50.1%		49.9%				33.8%	SPLIT %		48.1%		51.9%				66.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	1,683	1,769	0	0	3,452

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	16:00	13:30			16:15
AM Pk Volume	144	159			303	PM Pk Volume	170	153			311
Pk Hr Factor	0.878	0.924			0.913	Pk Hr Factor	0.904	0.933			0.960
7 - 9 Volume	158	143	0	0	301	4 - 6 Volume	318	276	0	0	594
7 - 9 Peak Hour	7:45	7:30			7:45	4 - 6 Peak Hour	16:00	16:30			16:15
7 - 9 Pk Volume	95	82	0	0	176	4 - 6 Pk Volume	170	146	0	0	311
Pk Hr Factor	0.913	0.891	0.000	0.000	0.936	Pk Hr Factor	0.904	0.869	0.000	0.000	0.960

Prepared by National Data & Surveying Services

VOLUME

Hancock St Bet. Channel Way & Kurtz St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_017

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,459	1,889	3,348

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			4		4		8		12:00			31		49		80	
0:15			3		4		7		12:15			29		32		61	
0:30			1		1		2		12:30			27		42		69	
0:45			1	9	2	11	3	20	12:45			22	109	39	162	61	271
1:00			2		1		3		13:00			23		29		52	
1:15			1		1		2		13:15			33		38		71	
1:30			0		1		1		13:30			25		46		71	
1:45			2	5	0	3	2	8	13:45			27	108	39	152	66	260
2:00			1		1		2		14:00			29		40		69	
2:15			2		0		2		14:15			18		47		65	
2:30			2		1		3		14:30			17		29		46	
2:45			1	6	0	2	1	8	14:45			19	83	22	138	41	221
3:00			0		1		1		15:00			32		39		71	
3:15			1		1		2		15:15			27		37		64	
3:30			2		0		2		15:30			36		33		69	
3:45			1	4	3	5	4	9	15:45			30	125	36	145	66	270
4:00			2		1		3		16:00			44		33		77	
4:15			3		1		4		16:15			35		32		67	
4:30			1		5		6		16:30			38		46		84	
4:45			1	7	14	21	15	28	16:45			38	155	31	142	69	297
5:00			2		2		4		17:00			40		25		65	
5:15			8		2		10		17:15			34		35		69	
5:30			3		7		10		17:30			30		33		63	
5:45			7	20	6	17	13	37	17:45			30	134	36	129	66	263
6:00			7		9		16		18:00			44		27		71	
6:15			10		16		26		18:15			29		31		60	
6:30			7		12		19		18:30			15		24		39	
6:45			12	36	22	59	34	95	18:45			24	112	28	110	52	222
7:00			7		20		27		19:00			24		24		48	
7:15			11		12		23		19:15			16		12		28	
7:30			14		26		40		19:30			13		18		31	
7:45			23	55	24	82	47	137	19:45			12	65	14	68	26	133
8:00			23		30		53		20:00			7		13		20	
8:15			14		15		29		20:15			7		17		24	
8:30			25		28		53		20:30			7		7		14	
8:45			12	74	18	91	30	165	20:45			7	28	22	59	29	87
9:00			21		32		53		21:00			3		8		11	
9:15			22		23		45		21:15			4		13		17	
9:30			30		42		72		21:30			3		24		27	
9:45			23	96	29	126	52	222	21:45			3	13	25	70	28	83
10:00			18		28		46		22:00			2		13		15	
10:15			20		21		41		22:15			2		4		6	
10:30			24		44		68		22:30			2		6		8	
10:45			31	93	34	127	65	220	22:45			1	7	0	23	1	30
11:00			30		31		61		23:00			4		3		7	
11:15			16		31		47		23:15			4		3		7	
11:30			34		29		63		23:30			2		2		4	
11:45			19	99	42	133	61	232	23:45			6	16	6	14	12	30
TOTALS				504		677		1181	TOTALS				955		1212		2167
SPLIT %				42.7%		57.3%		35.3%	SPLIT %				44.1%		55.9%		64.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,459	1,889	3,348

AM Peak Hour			11:30	11:45	11:45	PM Peak Hour			16:00	13:30	16:00
AM Pk Volume			113	165	271	PM Pk Volume			155	172	297
Pk Hr Factor			0.831	0.842	0.847	Pk Hr Factor			0.881	0.915	0.884
7 - 9 Volume	0	0	129	173	302	4 - 6 Volume	0	0	289	271	560
7 - 9 Peak Hour			7:45	7:45	7:45	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	85	97	182	4 - 6 Pk Volume	0	0	155	142	297
Pk Hr Factor	0.000	0.000	0.850	0.808	0.858	Pk Hr Factor	0.000	0.000	0.881	0.772	0.884

Prepared by NDS/ATD

VOLUME

Kurtz St Bet. Hancock St & Sherman St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_018

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	3,160	0	3,160

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			7		7	12:00			64		64
00:15			4		4	12:15			47		47
00:30			0		0	12:30			49		49
00:45			4	15	4 15	12:45			41	201	41 201
01:00			3		3	13:00			49		49
01:15			1		1	13:15			63		63
01:30			6		6	13:30			52		52
01:45			1	11	1 11	13:45			52	216	52 216
02:00			4		4	14:00			64		64
02:15			2		2	14:15			51		51
02:30			4		4	14:30			49		49
02:45			4	14	4 14	14:45			46	210	46 210
03:00			2		2	15:00			52		52
03:15			1		1	15:15			59		59
03:30			6		6	15:30			75		75
03:45			5	14	5 14	15:45			71	257	71 257
04:00			7		7	16:00			97		97
04:15			6		6	16:15			67		67
04:30			3		3	16:30			84		84
04:45			1	17	1 17	16:45			85	333	85 333
05:00			4		4	17:00			85		85
05:15			12		12	17:15			58		58
05:30			11		11	17:30			68		68
05:45			14	41	14 41	17:45			45	256	45 256
06:00			17		17	18:00			52		52
06:15			27		27	18:15			50		50
06:30			16		16	18:30			51		51
06:45			34	94	34 94	18:45			45	198	45 198
07:00			33		33	19:00			40		40
07:15			41		41	19:15			23		23
07:30			43		43	19:30			27		27
07:45			50	167	50 167	19:45			17	107	17 107
08:00			48		48	20:00			11		11
08:15			31		31	20:15			15		15
08:30			43		43	20:30			16		16
08:45			19	141	19 141	20:45			18	60	18 60
09:00			35		35	21:00			18		18
09:15			36		36	21:15			14		14
09:30			34		34	21:30			119		119
09:45			41	146	41 146	21:45			94	245	94 245
10:00			41		41	22:00			18		18
10:15			43		43	22:15			10		10
10:30			48		48	22:30			6		6
10:45			58	190	58 190	22:45			2	36	2 36
11:00			43		43	23:00			7		7
11:15			34		34	23:15			1		1
11:30			49		49	23:30			6		6
11:45			45	171	45 171	23:45			6	20	6 20
TOTALS				1021	1021	TOTALS				2139	2139
SPLIT %				100.0%	32.3%	SPLIT %				100.0%	67.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	3,160	0	3,160

AM Peak Hour			11:30		11:30	PM Peak Hour			16:00		16:00
AM Pk Volume			205		205	PM Pk Volume			333		333
Pk Hr Factor			0.801		0.801	Pk Hr Factor			0.858		0.858
7 - 9 Volume	0	0	308	0	308	4 - 6 Volume	0	0	589	0	589
7 - 9 Peak Hour			07:15		07:15	4 - 6 Peak Hour			16:00		16:00
7 - 9 Pk Volume	0	0	182	0	182	4 - 6 Pk Volume	0	0	333	0	333
Pk Hr Factor	0.000	0.000	0.910	0.000	0.910	Pk Hr Factor	0.000	0.000	0.858	0.000	0.858

Prepared by NDS/ATD

VOLUME

Hancock St Bet. Sherman St & Greenwood St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_019

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	0	4,248	4,248

AM Period	NB	SB	EB	WB		TOTAL		PM Period	NB	SB	EB	WB		TOTAL	
0:00			0	4		4		12:00			0	67		67	
0:15			0	5		5		12:15			0	53		53	
0:30			0	2		2		12:30			0	72		72	
0:45			0	5	16	5	16	12:45			0	88	280	88	280
1:00			0	1		1		13:00			0	52		52	
1:15			0	8		8		13:15			0	63		63	
1:30			0	2		2		13:30			0	76		76	
1:45			0	5	16	5	16	13:45			0	67	258	67	258
2:00			0	13		13		14:00			0	52		52	
2:15			0	3		3		14:15			0	63		63	
2:30			0	7		7		14:30			0	74		74	
2:45			0	13	36	13	36	14:45			0	71	260	71	260
3:00			0	7		7		15:00			0	64		64	
3:15			0	6		6		15:15			0	69		69	
3:30			0	4		4		15:30			0	97		97	
3:45			0	20	37	20	37	15:45			0	79	309	79	309
4:00			0	14		14		16:00			0	60		60	
4:15			0	9		9		16:15			0	59		59	
4:30			0	25		25		16:30			0	84		84	
4:45			0	25	73	25	73	16:45			0	70	273	70	273
5:00			0	20		20		17:00			0	73		73	
5:15			0	23		23		17:15			0	54		54	
5:30			0	30		30		17:30			0	53		53	
5:45			0	49	122	49	122	17:45			0	78	258	78	258
6:00			0	62		62		18:00			0	84		84	
6:15			0	38		38		18:15			0	75		75	
6:30			0	62		62		18:30			0	86		86	
6:45			0	69	231	69	231	18:45			0	92	337	92	337
7:00			0	64		64		19:00			0	55		55	
7:15			0	48		48		19:15			0	33		33	
7:30			0	58		58		19:30			0	24		24	
7:45			0	67	237	67	237	19:45			0	24	136	24	136
8:00			0	89		89		20:00			0	28		28	
8:15			0	82		82		20:15			0	28		28	
8:30			0	60		60		20:30			0	20		20	
8:45			0	66	297	66	297	20:45			0	17	93	17	93
9:00			0	68		68		21:00			0	10		10	
9:15			0	70		70		21:15			0	14		14	
9:30			0	79		79		21:30			0	15		15	
9:45			0	66	283	66	283	21:45			0	12	51	12	51
10:00			0	69		69		22:00			0	10		10	
10:15			0	82		82		22:15			0	9		9	
10:30			0	53		53		22:30			0	4		4	
10:45			0	83	287	83	287	22:45			0	5	28	5	28
11:00			0	71		71		23:00			0	5		5	
11:15			0	78		78		23:15			0	7		7	
11:30			0	67		67		23:30			0	11		11	
11:45			0	84	300	84	300	23:45			0	7	30	7	30
TOTALS					1935		**1935**	**TOTALS**					2313		**2313**
SPLIT %					100.0%		**45.6%**	**SPLIT %**					100.0%		**54.4%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	0	4,248	4,248

AM Peak Hour					11:00	**11:00**	**PM Peak Hour**					18:00	**18:00**
AM Pk Volume					300	**300**	**PM Pk Volume**					337	**337**
Pk Hr Factor					0.893	**0.893**	**Pk Hr Factor**					0.916	**0.916**
7 - 9 Volume	0	0	0		534	**534**	**4 - 6 Volume**	0	0	0		531	**531**
7 - 9 Peak Hour					7:45	**7:45**	**4 - 6 Peak Hour**					16:15	**16:15**
7 - 9 Pk Volume	0	0	0		298	**298**	**4 - 6 Pk Volume**	0	0	0		286	**286**
Pk Hr Factor	0.000	0.000	0.000		0.837	**0.837**	**Pk Hr Factor**	0.000	0.000	0.000		0.851	**0.851**

Prepared by NDS/ATD

VOLUME

Rosecrans St Bet. Kurtz St & Jefferson St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_020

DAILY TOTALS	NB	SB	EB	WB	Total
	4,256	5,566	0	0	9,822

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	11		17				28		12:00	77		89				166	
00:15	4		7				11		12:15	71		98				169	
00:30	9		12				21		12:30	89		120				209	
00:45	3	27	8	44			11	71	12:45	105	342	88	395			193	737
01:00	5		7				12		13:00	61		83				144	
01:15	4		9				13		13:15	76		95				171	
01:30	7		6				13		13:30	77		110				187	
01:45	3	19	3	25			6	44	13:45	81	295	102	390			183	685
02:00	5		6				11		14:00	83		91				174	
02:15	3		3				6		14:15	73		99				172	
02:30	6		4				10		14:30	102		94				196	
02:45	1	15	4	17			5	32	14:45	79	337	110	394			189	731
03:00	2		5				7		15:00	96		117				213	
03:15	5		8				13		15:15	87		122				209	
03:30	3		0				3		15:30	92		121				213	
03:45	7	17	3	16			10	33	15:45	77	352	137	497			214	849
04:00	7		5				12		16:00	83		131				214	
04:15	3		6				9		16:15	76		150				226	
04:30	5		7				12		16:30	98		103				201	
04:45	0	15	8	26			8	41	16:45	89	346	134	518			223	864
05:00	5		5				10		17:00	80		122				202	
05:15	8		13				21		17:15	94		127				221	
05:30	13		11				24		17:30	87		132				219	
05:45	12	38	11	40			23	78	17:45	61	322	103	484			164	806
06:00	24		17				41		18:00	74		94				168	
06:15	19		32				51		18:15	48		86				134	
06:30	33		22				55		18:30	72		69				141	
06:45	31	107	38	109			69	216	18:45	44	238	80	329			124	567
07:00	49		46				95		19:00	40		72				112	
07:15	35		46				81		19:15	51		64				115	
07:30	47		62				109		19:30	37		51				88	
07:45	73	204	60	214			133	418	19:45	36	164	59	246			95	410
08:00	66		81				147		20:00	29		61				90	
08:15	72		79				151		20:15	20		51				71	
08:30	85		61				146		20:30	32		47				79	
08:45	64	287	75	296			139	583	20:45	20	101	44	203			64	304
09:00	71		68				139		21:00	27		34				61	
09:15	63		67				130		21:15	18		42				60	
09:30	69		66				135		21:30	25		38				63	
09:45	78	281	82	283			160	564	21:45	20	90	53	167			73	257
10:00	68		79				147		22:00	18		39				57	
10:15	63		75				138		22:15	13		32				45	
10:30	70		85				155		22:30	11		30				41	
10:45	60	261	98	337			158	598	22:45	16	58	13	114			29	172
11:00	65		89				154		23:00	5		21				26	
11:15	90		85				175		23:15	7		20				27	
11:30	69		95				164		23:30	9		10				19	
11:45	88	312	94	363			182	675	23:45	7	28	8	59			15	87
TOTALS		1583		1770				3353	TOTALS		2673		3796				6469
SPLIT %		47.2%		52.8%				34.1%	SPLIT %		41.3%		58.7%				65.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	4,256	5,566	0	0	9,822

AM Peak Hour	11:45	11:45				11:45	PM Peak Hour	14:30	15:30				15:30
AM Pk Volume	325	401				726	PM Pk Volume	364	539				867
Pk Hr Factor	0.913	0.835				0.868	Pk Hr Factor	0.892	0.898				0.959
7 - 9 Volume	491	510	0	0		1001	4 - 6 Volume	668	1002	0	0		1670
7 - 9 Peak Hour	07:45	08:00				08:00	4 - 6 Peak Hour	16:30	16:00				16:45
7 - 9 Pk Volume	296	296	0	0		583	4 - 6 Pk Volume	361	518	0	0		865
Pk Hr Factor	0.871	0.914	0.000	0.000		0.965	Pk Hr Factor	0.921	0.863	0.000	0.000		0.970

Prepared by NDS/ATD

VOLUME

Greenwood St N/O Hancock St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_021

DAILY TOTALS	NB	SB	EB	WB	Total
	384	252	0	0	636

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		4				4		12:00	6		6				12	
00:15	1		1				2		12:15	5		2				7	
00:30	0		1				1		12:30	3		5				8	
00:45	1	2	2	8			3	10	12:45	4	18	3	16			7	34
01:00	0		2				2		13:00	6		6				12	
01:15	0		1				1		13:15	4		2				6	
01:30	0		0				0		13:30	1		6				7	
01:45	0		1	4			1	4	13:45	3	14	2	16			5	30
02:00	0		0				0		14:00	3		2				5	
02:15	0		0				0		14:15	10		4				14	
02:30	1		0				1		14:30	3		2				5	
02:45	1	2	3	3			4	5	14:45	3	19	5	13			8	32
03:00	0		2				2		15:00	3		7				10	
03:15	0		0				0		15:15	9		2				11	
03:30	0		0				0		15:30	10		1				11	
03:45	1	1	0	2			1	3	15:45	0	22	4	14			4	36
04:00	1		1				2		16:00	8		2				10	
04:15	0		1				1		16:15	0		2				2	
04:30	1		0				1		16:30	3		0				3	
04:45	0	2	1	3			1	5	16:45	11	22	1	5			12	27
05:00	0		1				1		17:00	12		4				16	
05:15	0		4				4		17:15	11		2				13	
05:30	1		0				1		17:30	18		2				20	
05:45	1	2	1	6			2	8	17:45	20	61	5	13			25	74
06:00	0		3				3		18:00	14		2				16	
06:15	0		7				7		18:15	10		2				12	
06:30	0		2				2		18:30	17		6				23	
06:45	3	3	3	15			6	18	18:45	13	54	5	15			18	69
07:00	4		2				6		19:00	11		5				16	
07:15	1		4				5		19:15	2		5				7	
07:30	8		2				10		19:30	4		1				5	
07:45	10	23	7	15			17	38	19:45	6	23	3	14			9	37
08:00	12		4				16		20:00	4		0				4	
08:15	6		4				10		20:15	1		2				3	
08:30	5		1				6		20:30	2		3				5	
08:45	6	29	2	11			8	40	20:45	1	8	5	10			6	18
09:00	7		3				10		21:00	0		1				1	
09:15	3		3				6		21:15	0		0				0	
09:30	3		2				5		21:30	2		3				5	
09:45	6	19	1	9			7	28	21:45	1	3	4	8			5	11
10:00	4		2				6		22:00	2		1				3	
10:15	8		2				10		22:15	0		2				2	
10:30	3		8				11		22:30	1		2				3	
10:45	4	19	7	19			11	38	22:45	5	8	5	10			10	18
11:00	7		3				10		23:00	3		3				6	
11:15	3		4				7		23:15	0		2				2	
11:30	5		4				9		23:30	3		1				4	
11:45	9	24	5	16			14	40	23:45	0	6	1	7			1	13
TOTALS		126		111				237	TOTALS		258		141				399
SPLIT %		53.2%		46.8%				37.3%	SPLIT %		64.7%		35.3%				62.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	384	252	0	0	636

AM Peak Hour	07:30	10:30			07:30	PM Peak Hour	17:15	18:30			17:45
AM Pk Volume	36	22			53	PM Pk Volume	63	21			76
Pk Hr Factor	0.750	0.688			0.779	Pk Hr Factor	0.788	0.875			0.760
7 - 9 Volume	52	26	0	0	78	4 - 6 Volume	83	18	0	0	101
7 - 9 Peak Hour	07:30	07:15			07:30	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	36	17	0	0	53	4 - 6 Pk Volume	61	13	0	0	74
Pk Hr Factor	0.750	0.607	0.000	0.000	0.779	Pk Hr Factor	0.763	0.650	0.000	0.000	0.740

Prepared by NDS/ATD

VOLUME

Kurtz St Bet. Camino del Rio W & Greenwood St

Day: Wednesday
Date: 1/11/2023

City: San Diego
Project #: CA23_040002_022

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,031	0	5,031

AM Period	NB	SB	EB		WB	TOTAL		PM Period	NB	SB	EB		WB	TOTAL	
00:00			16		0	16		12:00			95		0	95	
00:15			6		0	6		12:15			65		0	65	
00:30			7		0	7		12:30			91		0	91	
00:45			8	37	0	8	37	12:45			73	324	0	73	324
01:00			9		0	9		13:00			76		0	76	
01:15			3		0	3		13:15			75		0	75	
01:30			5		0	5		13:30			69		0	69	
01:45			4	21	0	4	21	13:45			80	300	0	80	300
02:00			4		0	4		14:00			78		0	78	
02:15			2		0	2		14:15			98		0	98	
02:30			3		0	3		14:30			82		0	82	
02:45			9	18	0	9	18	14:45			76	334	0	76	334
03:00			6		0	6		15:00			102		0	102	
03:15			7		0	7		15:15			84		0	84	
03:30			3		0	3		15:30			122		0	122	
03:45			9	25	0	9	25	15:45			102	410	0	102	410
04:00			8		0	8		16:00			132		0	132	
04:15			5		0	5		16:15			93		0	93	
04:30			7		0	7		16:30			132		0	132	
04:45			5	25	0	5	25	16:45			111	468	0	111	468
05:00			7		0	7		17:00			126		0	126	
05:15			8		0	8		17:15			80		0	80	
05:30			16		0	16		17:30			98		0	98	
05:45			16	47	0	16	47	17:45			77	381	0	77	381
06:00			23		0	23		18:00			71		0	71	
06:15			29		0	29		18:15			66		0	66	
06:30			24		0	24		18:30			63		0	63	
06:45			34	110	0	34	110	18:45			55	255	0	55	255
07:00			36		0	36		19:00			73		0	73	
07:15			43		0	43		19:15			40		0	40	
07:30			43		0	43		19:30			36		0	36	
07:45			49	171	0	49	171	19:45			40	189	0	40	189
08:00			49		0	49		20:00			38		0	38	
08:15			46		0	46		20:15			37		0	37	
08:30			54		0	54		20:30			35		0	35	
08:45			43	192	0	43	192	20:45			49	159	0	49	159
09:00			71		0	71		21:00			37		0	37	
09:15			50		0	50		21:15			43		0	43	
09:30			50		0	50		21:30			229		0	229	
09:45			57	228	0	57	228	21:45			203	512	0	203	512
10:00			65		0	65		22:00			84		0	84	
10:15			62		0	62		22:15			29		0	29	
10:30			63		0	63		22:30			25		0	25	
10:45			81	271	0	81	271	22:45			22	160	0	22	160
11:00			74		0	74		23:00			19		0	19	
11:15			76		0	76		23:15			7		0	7	
11:30			89		0	89		23:30			16		0	16	
11:45			97	336	0	97	336	23:45			16	58	0	16	58
TOTALS			1481			1481		TOTALS			3550			3550	
SPLIT %			100.0%			29.4%		SPLIT %			100.0%			70.6%	

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,031	0	5,031

AM Peak Hour			11:15		11:15			PM Peak Hour			21:15		21:15		
AM Pk Volume			357		357			PM Pk Volume			559		559		
Pk Hr Factor			0.920		0.920			Pk Hr Factor			0.610		0.610		
7 - 9 Volume	0	0	363	0	363			4 - 6 Volume	0	0	849	0	849		
7 - 9 Peak Hour			07:45		07:45			4 - 6 Peak Hour			16:00		16:00		
7 - 9 Pk Volume	0	0	198	0	198			4 - 6 Pk Volume	0	0	468	0	468		
Pk Hr Factor	0.000	0.000	0.917	0.000	0.917			Pk Hr Factor	0.000	0.000	0.886	0.000	0.886		

Prepared by National Data & Surveying Services

W Mission Bay Dr & I-8/Kumeyaay Hwy WB Off Ramp

Peak Hour Turning Movement Count

ID: 23-040246-001
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:15 AM - 12:15 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — W Mission Bay Dr

AM	0	0	0	0	0	AM
NOON	0	1653	0	0	2309	NOON
PM	0	0	0	0	0	PM

0 4 0 0

EASTBOUND — I-8/Kumeyaay Hwy WB Off Ramp

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND — I-8/Kumeyaay Hwy WB Off Ramp

PM	NOON	AM	
0	1706	0	2
0	0	0	0
0	516	0	2
0	0	0	0
0	0	0	
PM	NOON	AM	

NORTHBOUND — W Mission Bay Dr

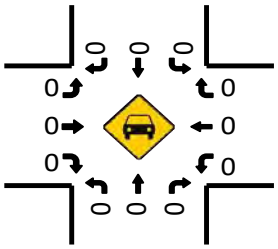
0 0 3 0

PM	0	0	0	0	0	PM
NOON	2169	0	0	603	0	NOON
AM	0	0	0	0	0	AM

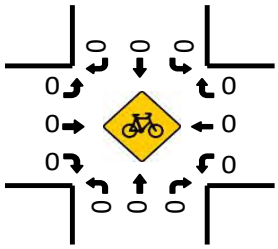
CONTROL: Signalized

	AM	NOON	PM
TEV	0	4478	0
PHF		0.93	

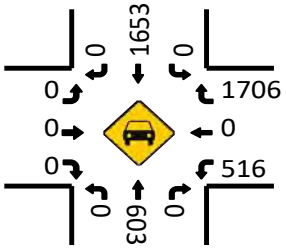
Totals (AM)



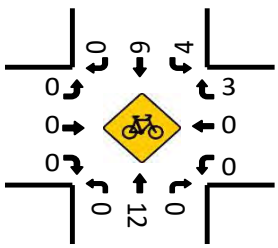
Total Bikes (AM)



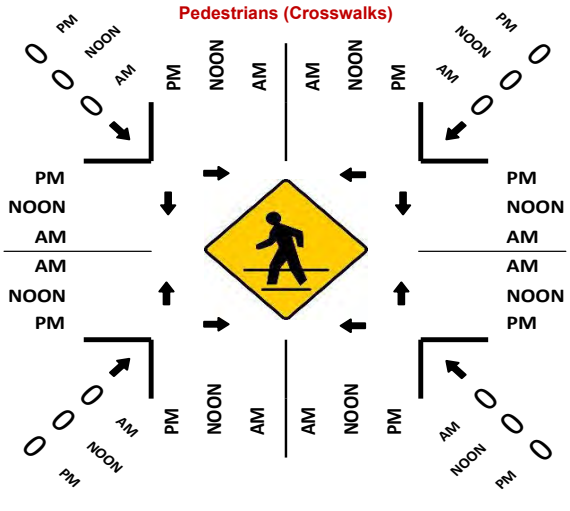
Totals (NOON)



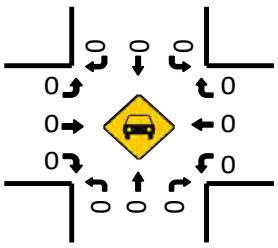
Total Bikes (NOON)



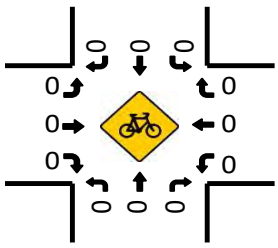
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sports Arena Blvd/Midway Dr & W Point Loma Blvd/Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-002
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:15 AM - 12:15 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Sports Arena Blvd/Midway Dr

AM	0	0	0	0	0	AM
NOON	198	414	453	0	1482	NOON
PM	0	0	0	0	0	PM

EASTBOUND — W Point Loma Blvd/Sports Arena Blvd

AM	NOON	PM	
0	748	0	
0	0	0	0
0	368	0	1.5
0	294	0	0.5
0	328	0	1
AM	NOON	PM	

WESTBOUND — W Point Loma Blvd/Sports Arena Blvd

PM	NOON	AM	
0	641	0	1
0	281	0	2
0	32	0	1
0	0	0	0
0	767	0	
PM	NOON	AM	

0.5 1.5 1 0

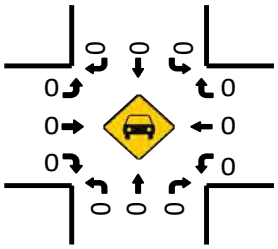
0 1 1.5 0.5

CONTROL			
Signalized			
TEV	0 AM	3771 NOON	0 PM
PHF		0.98	

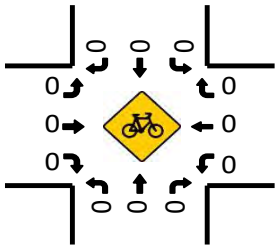
NORTHBOUND — Sports Arena Blvd/Midway Dr

PM	0	0	0	0	0	PM
NOON	774	0	269	473	20	NOON
AM	0	0	0	0	0	AM

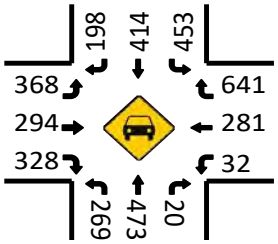
Totals (AM)



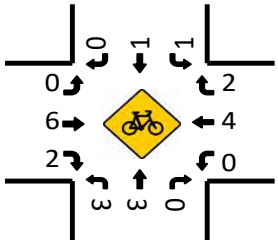
Total Bikes (AM)



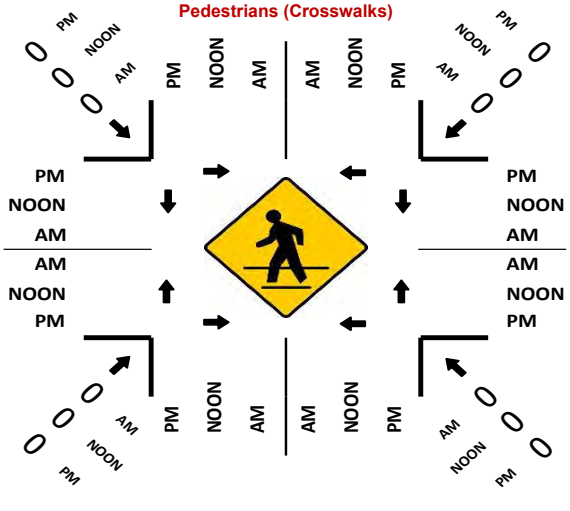
Totals (NOON)



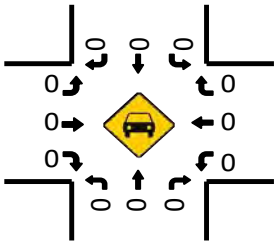
Total Bikes (NOON)



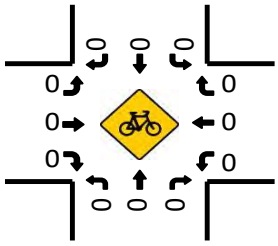
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kemper St & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-032
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
12:00 PM - 01:00 PM	11:00 AM - 01:00 PM
NONE	NONE

CONTROL: Signalized

	AM	NOON	PM
TEV	0	2249	0
PHF		0.97	

SOUTHBOUND (Kemper St)

	Left	Thru	Thru	Right	Total	
AM	0	0	0	0	0	AM
NOON	104	29	43	1	277	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	1032	0	
0	10	0	0
0	110	0	2
0	484	0	2
0	109	0	0
AM	NOON	PM	

WESTBOUND (Sports Arena Blvd)

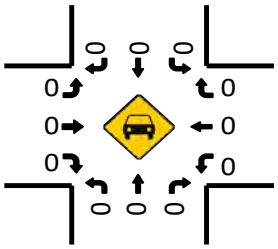
PM	NOON	AM	
0	97	0	0
0	787	0	3
0	134	0	1
0	24	0	0
0	668	0	
PM	NOON	AM	

NORTHBOUND (Kemper St)

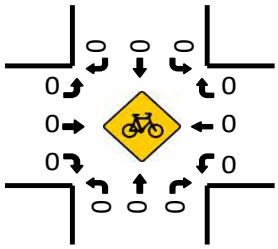
	Left	Thru	Thru	Right	Total	
PM	0	0	0	0	0	PM
NOON	272	0	131	69	117	NOON
AM	0	0	0	0	0	AM

1 0.5 0.5 0 — 0 1 1 0

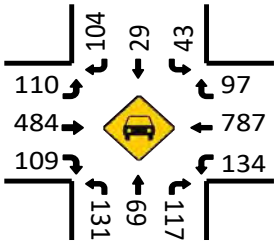
Totals (AM)



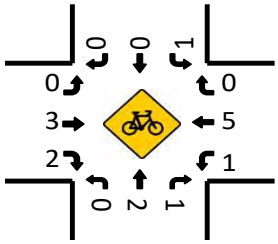
Total Bikes (AM)



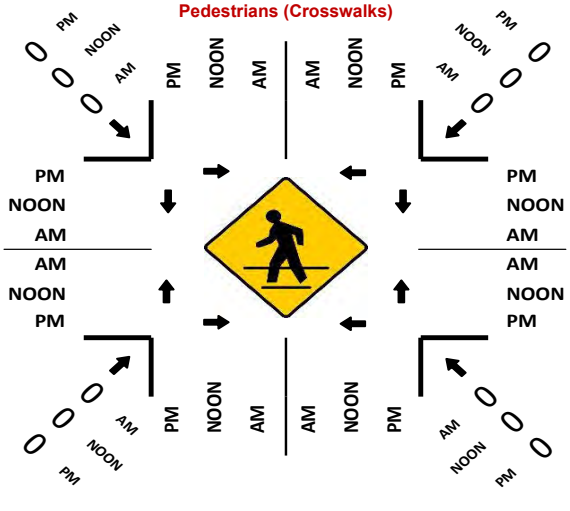
Totals (NOON)



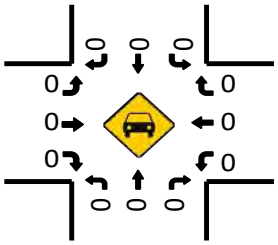
Total Bikes (NOON)



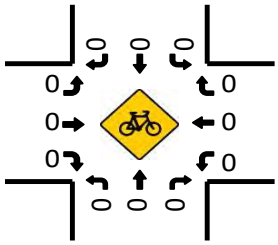
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

West Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-033
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

West Dr

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	299	69	263	0	433	NOON
PM	0	0	0	0	0	PM
	0.5	1	0.5	0		

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	1027	0	
0	7	0	0
0	57	0	2
0	531	0	2
0	108	0	0
AM	NOON	PM	

WESTBOUND (Sports Arena Blvd)

PM	NOON	AM	
0	328	0	0
0	592	0	3
0	137	0	1
0	6	0	0
0	914	0	
PM	NOON	AM	

CONTROL

Signalized

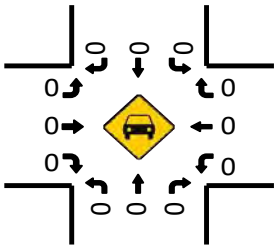
	AM	NOON	PM
TEV	0	2688	0
PHF		0.98	

PM	0	0	0	0	0	PM
NOON	314	0	129	48	114	NOON
AM	0	0	0	0	0	AM
	0	0	1	0		

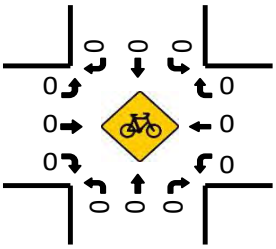
NORTHBOUND

West Dr

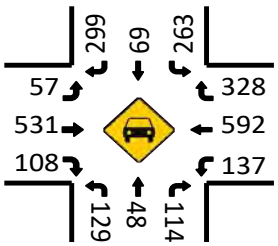
Totals (AM)



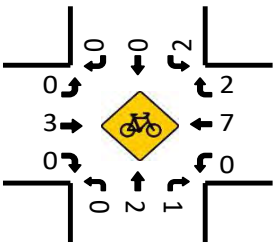
Total Bikes (AM)



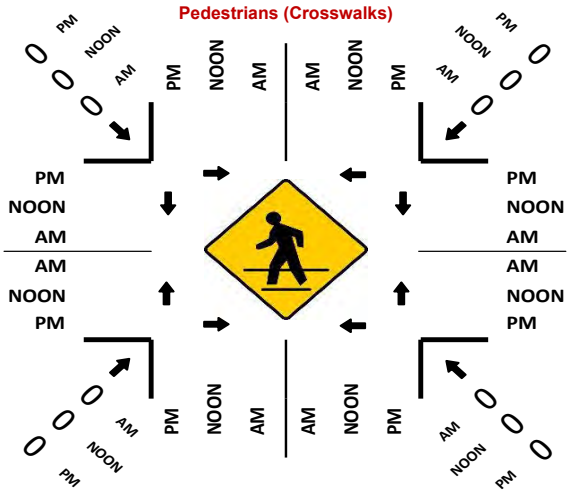
Totals (NOON)



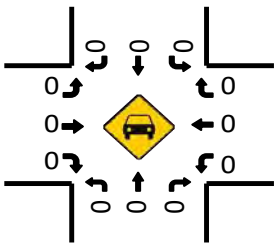
Total Bikes (NOON)



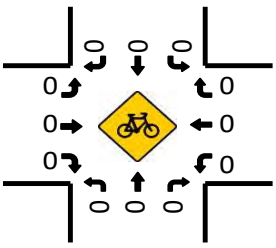
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Wine & Spirits Pkg Dwy/Target Department Store Dwy & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-034
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Wine & Spirits Pkg Dwy/Target Department Store Dwy

AM	0	0	0	0	0	AM
NOON	25	6	0	1	12	NOON
PM	0	0	0	0	0	PM

0 1 0 0

EASTBOUND — Sports Arena Blvd

AM	NOON	PM	
0	1063	0	
0	5	0	0
0	7	0	1
0	921	0	3
0	28	0	0
AM	NOON	PM	

WESTBOUND — Sports Arena Blvd

PM	NOON	AM	
0	4	0	0
0	1032	0	3
0	239	0	1
0	17	0	0
0	1134	0	
PM	NOON	AM	

0 0 0 1

CONTROL

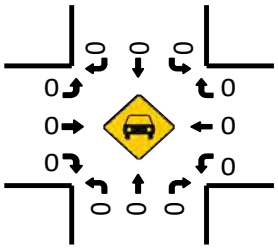
1-Way Stop(NB)

TEV	0 AM	2482 NOON	0 PM
PHF		0.96	

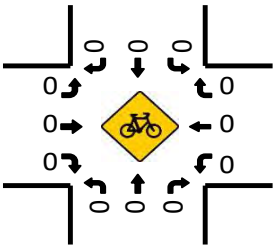
NORTHBOUND — Wine & Spirits Pkg Dwy/Target Department Store Dwy

PM	0	0	0	0	0	PM
NOON	273	0	1	0	196	NOON
AM	0	0	0	0	0	AM

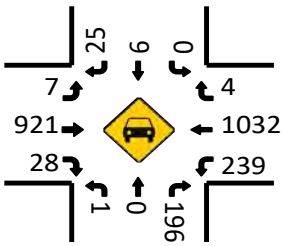
Totals (AM)



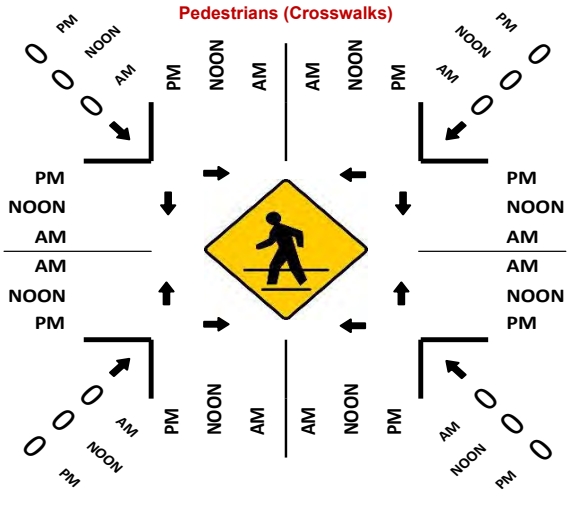
Total Bikes (AM)



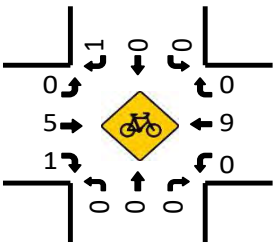
Totals (NOON)



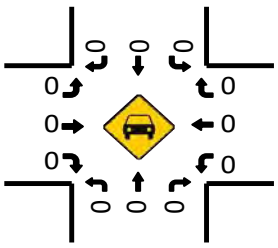
Pedestrians (Crosswalks)



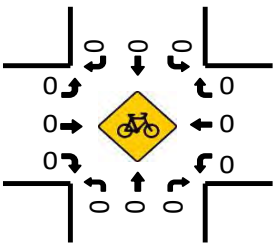
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

East Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-004
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

CONTROL: Signalized

	AM	NOON	PM
TEV	0	2794	0
PHF		0.96	

SOUTHBOUND (East Dr)

AM	0	0	0	0	0	AM
NOON	3	0	0	0	46	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	1238	0	
0	13	0	0
0	18	0	1
0	1059	0	3
0	38	0	0

WESTBOUND (Sports Arena Blvd)

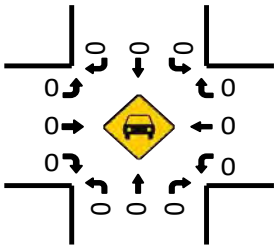
	PM	NOON	AM
0	0	22	0
3	0	1159	0
1	0	165	0
0	0	58	0
	0	1307	0

NORTHBOUND (East Dr)

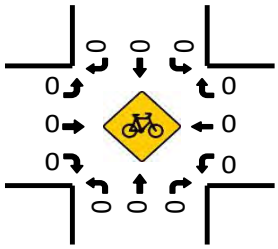
PM	0	0	0	0	0	PM
NOON	203	0	63	6	190	NOON
AM	0	0	0	0	0	AM

0 0 0 0 | 0 0.5 0.5 1

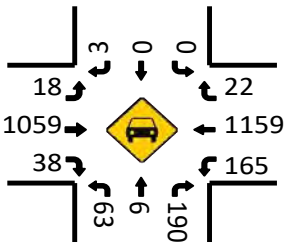
Totals (AM)



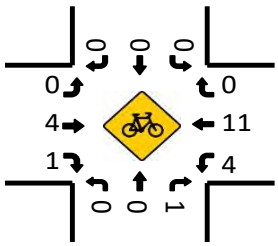
Total Bikes (AM)



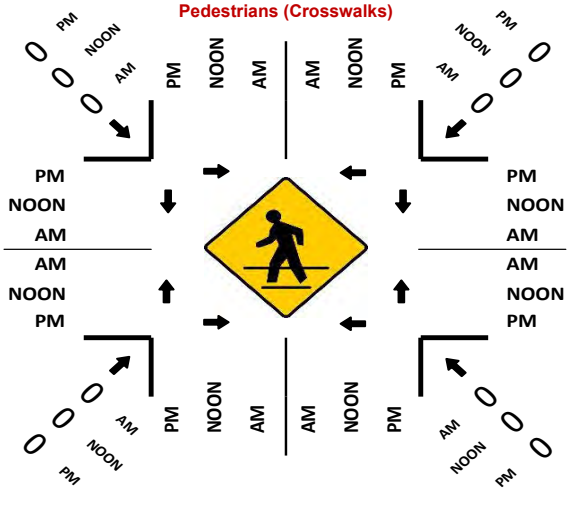
Totals (NOON)



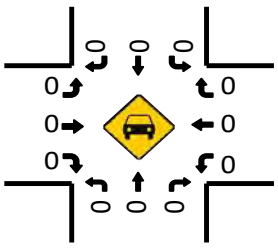
Total Bikes (NOON)



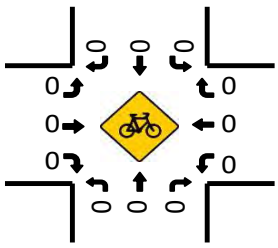
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kemper St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-024
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Kemper St)

AM	0	0	0	0	0	AM
NOON	102	146	66	0	383	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	741	0	
0	46	0	0
0	110	0	1
0	516	0	2
0	104	0	1

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	78	0	0
0	442	0	2
0	178	0	2
0	0	0	0
0	754	0	

NORTHBOUND (Kemper St)

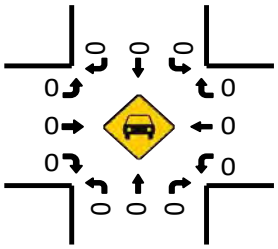
PM	0	0	0	0	0	PM
NOON	429	1	151	195	172	NOON
AM	0	0	0	0	0	AM

1	1	1	0
0	1.5	0.5	1

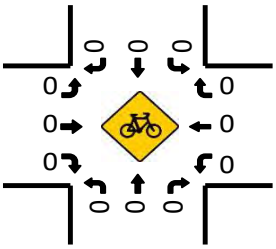
CONTROL: Signalized

TEV	0 AM	2307 NOON	0 PM
PHF		0.95	

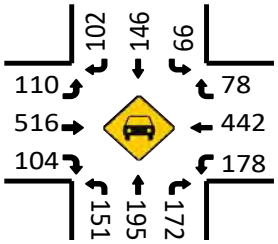
Totals (AM)



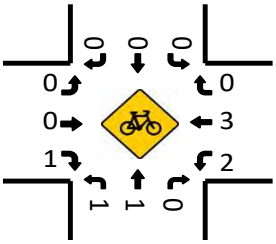
Total Bikes (AM)



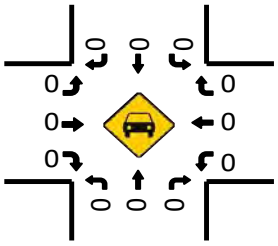
Totals (NOON)



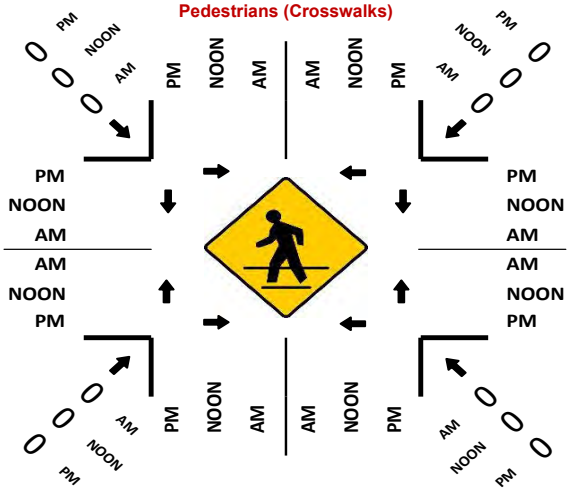
Total Bikes (NOON)



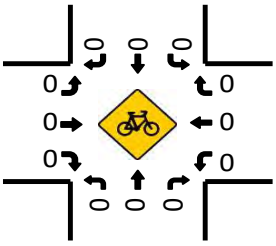
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

East Dr & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-023
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (East Dr)

AM	0	0	0	0	0	AM
NOON	92	11	230	0	445	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	868	0	
0	0	0	0
0	68	0	1
0	757	0	2
0	15	0	0
AM	NOON	PM	

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	372	0	0
0	764	0	2
0	26	0	1
0	8	0	0
0	1008	0	
PM	NOON	AM	

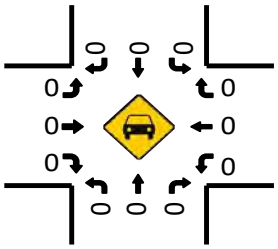
NORTHBOUND (East Dr)

PM	0	0	0	0	0	PM
NOON	52	0	12	5	13	NOON
AM	0	0	0	0	0	AM

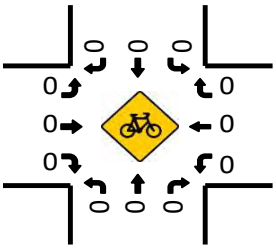
	0	1	0	0
	0	0	1	0

CONTROL			
Signalized			
TEV	0 AM	2373 NOON	0 PM
PHF		0.98	

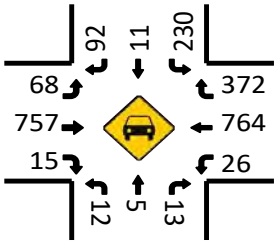
Totals (AM)



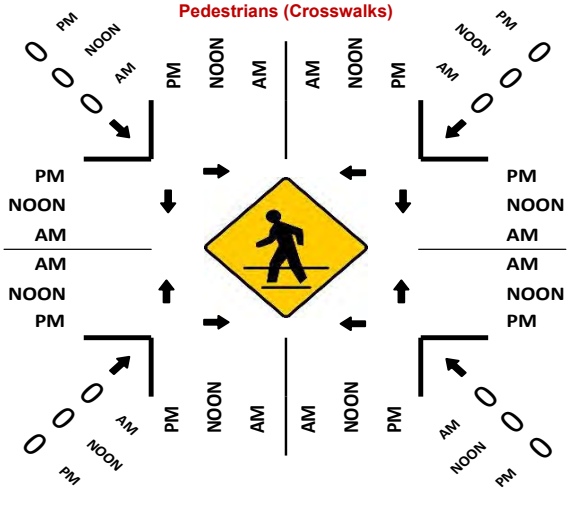
Total Bikes (AM)



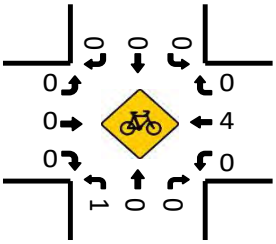
Totals (NOON)



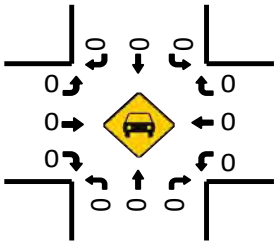
Pedestrians (Crosswalks)



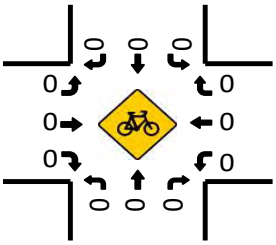
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Hancock St & Channel Way

Peak Hour Turning Movement Count

ID: 23-040246-005
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM: NONE
NOON: 12:00 PM - 01:00 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

SOUTHBOUND (Hancock St)

AM	0	0	0	0	0	AM
NOON	29	145	0	0	147	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Channel Way)

AM	NOON	PM	
0	40	0	
0	0	0	0
0	15	0	0
0	0	0	1
0	19	0	0

WESTBOUND (Channel Way)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

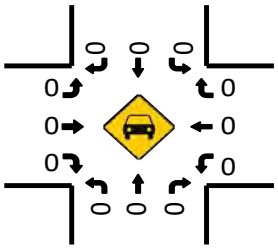
NORTHBOUND (Hancock St)

PM	0	0	0	0	0	PM
NOON	165	1	11	132	0	NOON
AM	0	0	0	0	0	AM

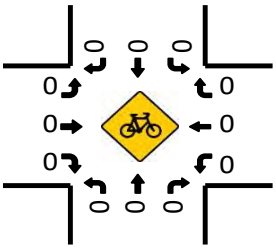
CONTROL: 3-Way Stop(NB/SB/EB)

	AM	NOON	PM
TEV	0	352	0
PHF		0.89	

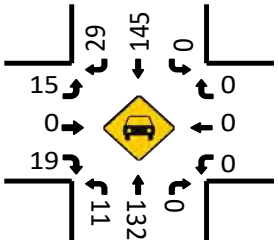
Totals (AM)



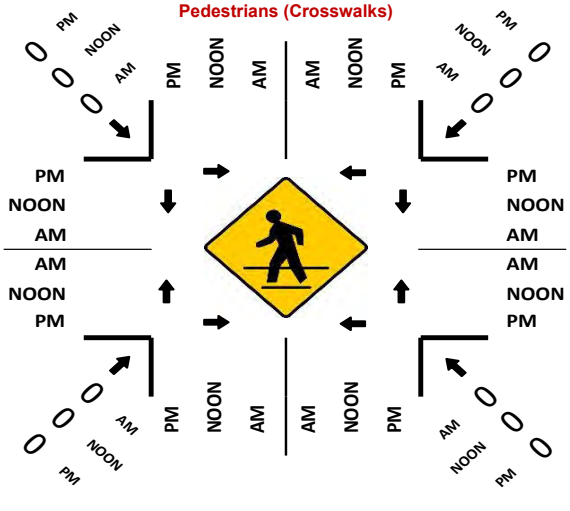
Total Bikes (AM)



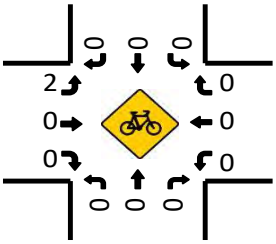
Totals (NOON)



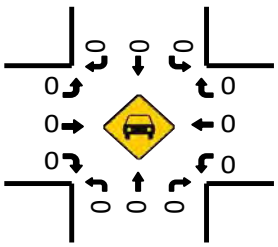
Pedestrians (Crosswalks)



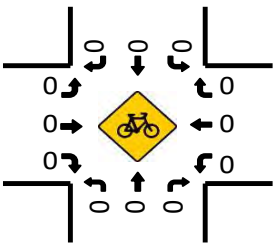
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kurtz St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-006
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:45 AM - 12:45 PM	11:00 AM - 01:00 PM
NONE	NONE

CONTROL: 1-Way Stop(WB)

	AM	NOON	PM
TEV	0	468	0
PHF		0.90	

SOUTHBOUND (Kurtz St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0

EASTBOUND (Hancock St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	0	2	0	0	2
PM	0	150	0	1	151

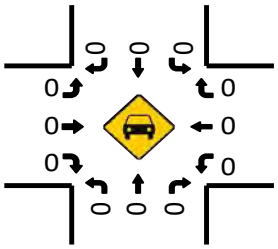
WESTBOUND (Hancock St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	1	165	0	0	166
PM	0	0	0	0	0

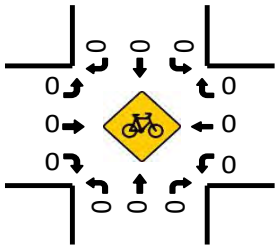
NORTHBOUND (Kurtz St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	301	0	0	0	301
PM	0	0	0	0	0

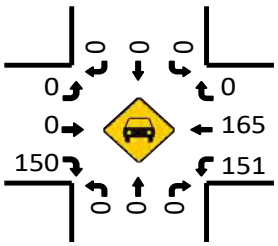
Totals (AM)



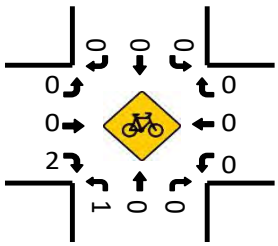
Total Bikes (AM)



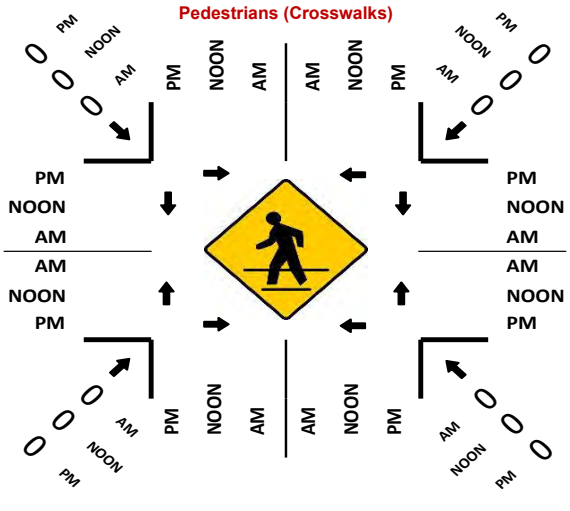
Totals (NOON)



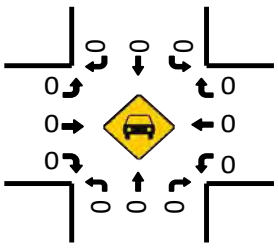
Total Bikes (NOON)



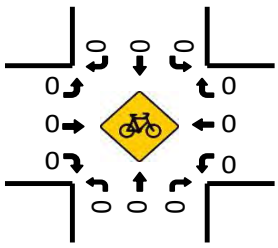
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sherman St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-007
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Sherman St)

AM	0	0	0	0	0	AM
NOON	0	0	83	0	74	NOON
PM	0	0	0	0	0	PM

Southbound turning movements: 0 | 1 | 0 | 0

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	70	0	0
0	321	0	2
0	0	0	0
AM	NOON	PM	

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	4	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	404	0	
PM	NOON	AM	

CONTROL

2-Way Stop(SB/EB)

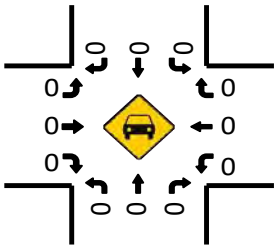
	AM	NOON	PM
TEV	0	478	0
PHF		0.96	

NORTHBOUND (Sherman St)

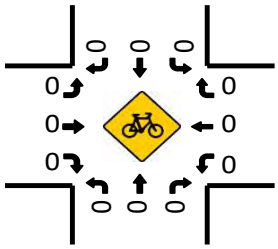
Northbound turning movements: 0 | 0 | 0 | 0

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM

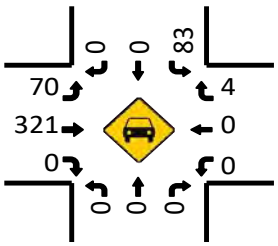
Totals (AM)



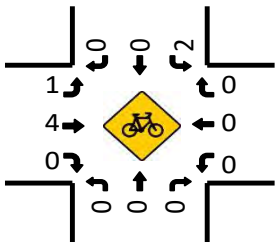
Total Bikes (AM)



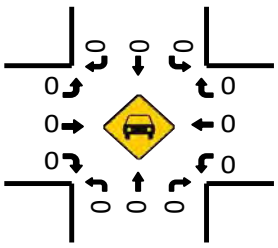
Totals (NOON)



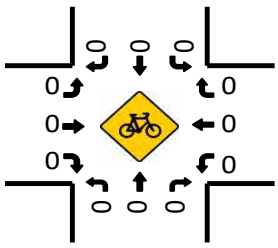
Total Bikes (NOON)



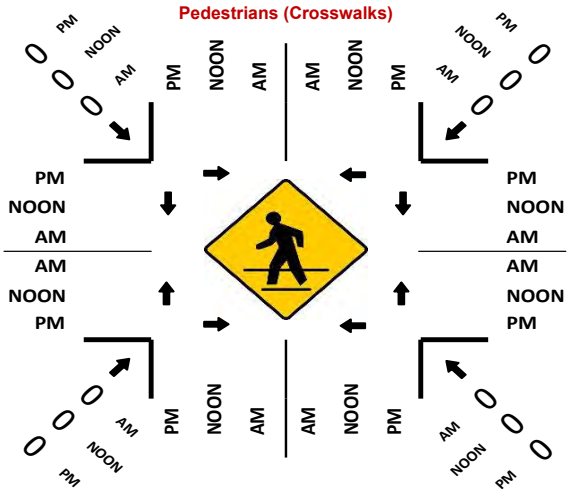
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Greenwood St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-009
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Greenwood St)

AM	0	0	0	0	0	AM
NOON	0	3	50	0	9	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	9	0	0
0	425	0	2
0	0	0	0
AM	NOON	PM	

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	477	0	
PM	NOON	AM	

NORTHBOUND (Greenwood St)

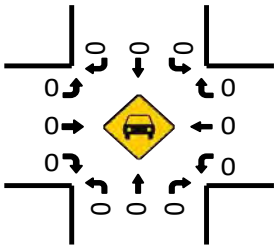
PM	0	0	0	0	0	PM
NOON	3	0	0	0	2	NOON
AM	0	0	0	0	0	AM

	0	1	0	0
	0	0	1	0

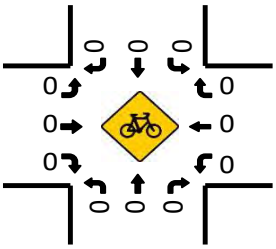
CONTROL
1-Way Stop (SB)

	AM	NOON	PM
TEV	0	489	0
PHF		0.96	

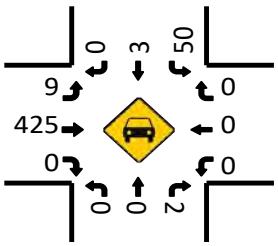
Totals (AM)



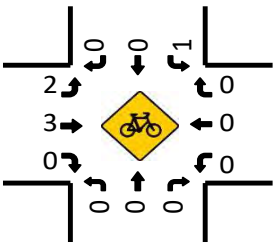
Total Bikes (AM)



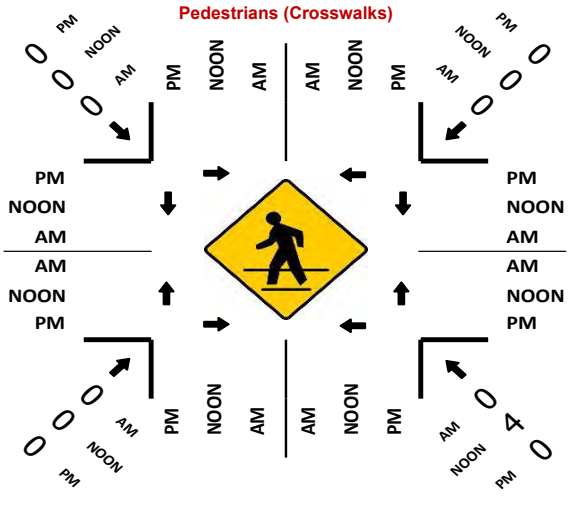
Totals (NOON)



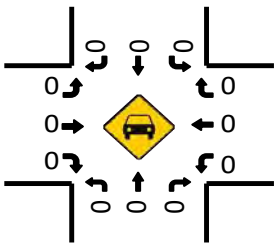
Total Bikes (NOON)



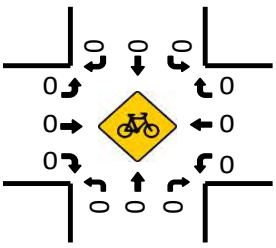
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sherman St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-026
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Sherman St)

AM	0	0	0	0	0	AM
NOON	4	43	0	0	41	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Hancock St)

AM	NOON	PM	
0	306	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
AM	NOON	PM	

WESTBOUND (Hancock St)

PM	NOON	AM	
0	26	0	0
0	257	0	2
0	37	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

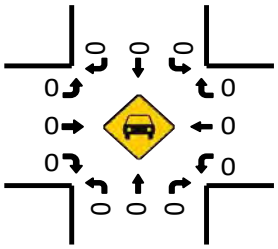
NORTHBOUND (Sherman St)

PM	0	0	0	0	0	PM
NOON	82	1	45	15	0	NOON
AM	0	0	0	0	0	AM

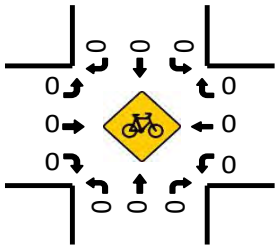
0 1 0 0 (SB) — 0 0 1 0 (NB)

CONTROL			
3-Way Stop(NB/SB/WB)			
TEV	0 AM	429 NOON	0 PM
PHF		0.86	

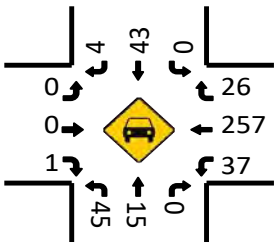
Totals (AM)



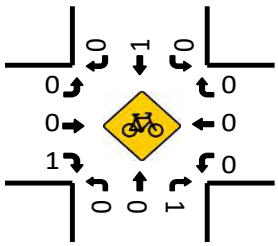
Total Bikes (AM)



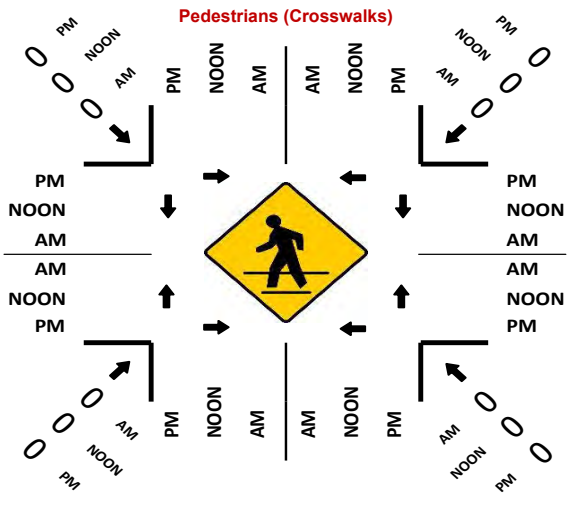
Totals (NOON)



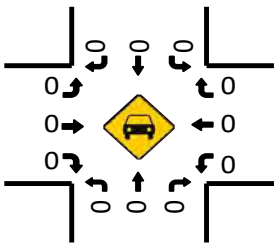
Total Bikes (NOON)



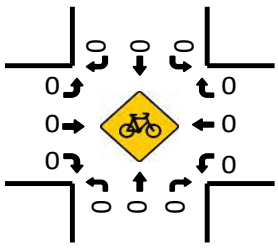
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Greenwood St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-008
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM: NONE
NOON: 11:00 AM - 12:00 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

SOUTHBOUND (Greenwood St)

AM	0	0	0	0	0	AM
NOON	85	48	4	0	30	NOON
PM	0	0	0	0	0	PM

0 1 0 0

EASTBOUND (Hancock St)

AM	NOON	PM	
0	309	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

CONTROL

2-Way Stop(NB/SB)

TEV	0 AM	413 NOON	0 PM
PHF		0.79	

WESTBOUND (Hancock St)

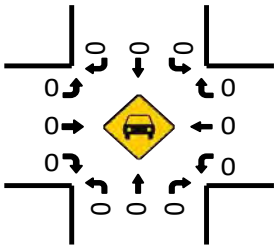
PM	NOON	AM	
0	24	0	0.5
0	218	0	1
0	22	0	0.5
0	0	0	0
0	4	0	
PM	NOON	AM	

0 0 1 0

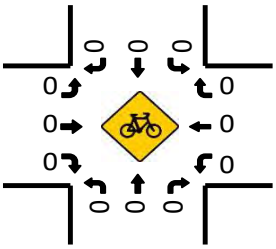
NORTHBOUND (Greenwood St)

PM	0	0	0	0	0	PM
NOON	70	0	6	6	0	NOON
AM	0	0	0	0	0	AM

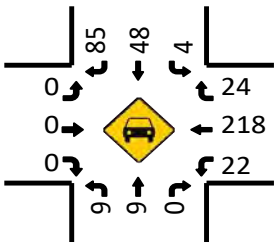
Totals (AM)



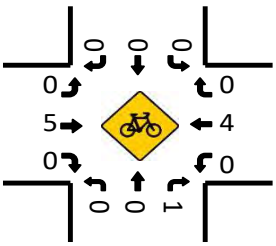
Total Bikes (AM)



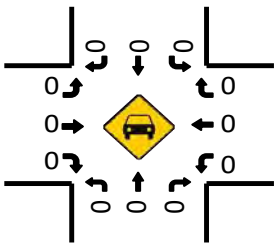
Totals (NOON)



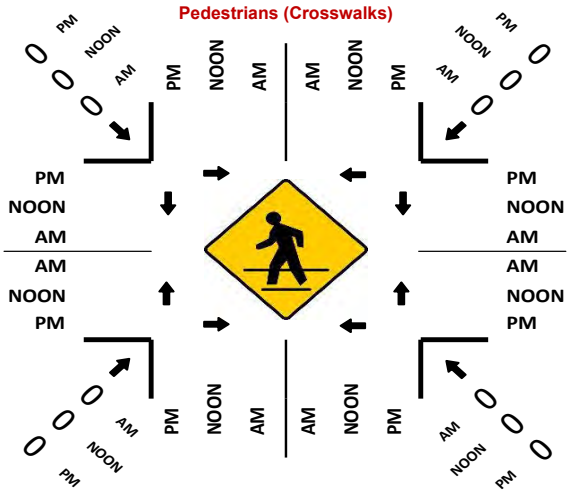
Total Bikes (NOON)



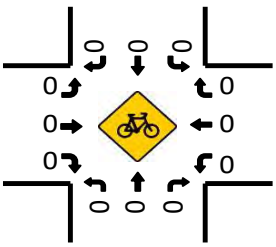
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Greenwood St/Moore St

Peak Hour Turning Movement Count

ID: 23-040246-010
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:45 AM - 12:45 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND (Camino Del Rio W)

AM	0	0	0	0	0	AM
NOON	9	2409	0	0	2314	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Greenwood St/Moore St)

AM	NOON	PM	
0	9	0	
0	0	0	0
0	0	0	0
0	0	0	1
0	9	0	0
AM	NOON	PM	

WESTBOUND (Greenwood St/Moore St)

PM	NOON	AM	
0	43	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	10	0	
PM	NOON	AM	

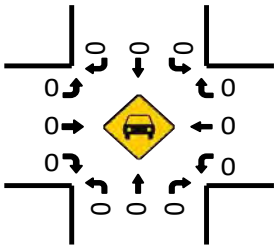
NORTHBOUND (Camino Del Rio W)

PM	0	0	0	0	0	PM
NOON	2418	0	0	2271	10	NOON
AM	0	0	0	0	0	AM

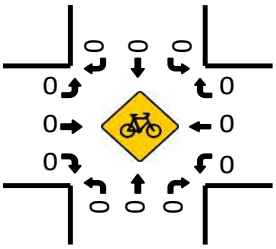
	0	3	0	0
	0	0	3	0

CONTROL			
2-Way Stop(EB/WB)			
TEV	0 AM	4751 NOON	0 PM
PHF		0.95	

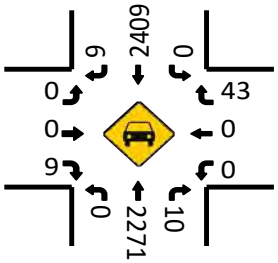
Totals (AM)



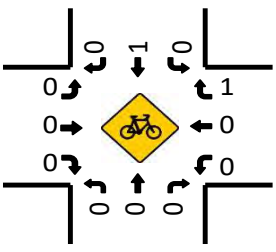
Total Bikes (AM)



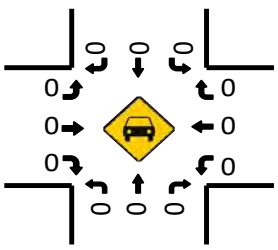
Totals (NOON)



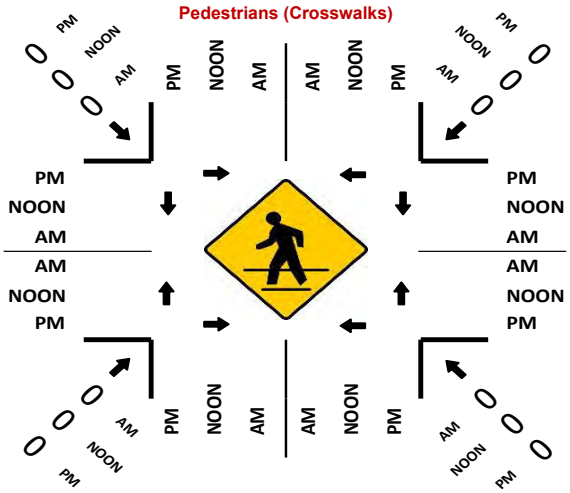
Total Bikes (NOON)



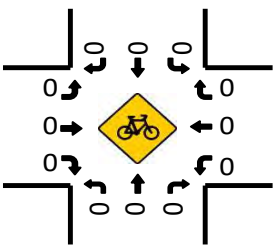
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W/Riley St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-011
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Camino Del Rio W/Riley St

AM	0	0	0	0	0	AM
NOON	171	2276	0	0	2299	NOON
PM	0	0	0	0	0	PM

1 3 0 0

EASTBOUND — Hancock St

AM	NOON	PM	
0	270	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
AM	NOON	PM	

WESTBOUND — Hancock St

PM	NOON	AM	
0	125	0	0
0	54	0	1.5
0	34	0	0.5
0	0	0	0
PM	NOON	AM	
0	8	0	

CONTROL: Signalized

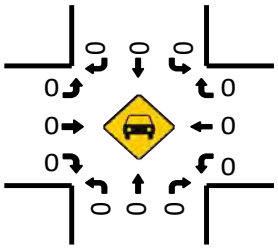
TEV	0 AM	4909 NOON	0 PM
PHF		0.96	

0 1 3 0

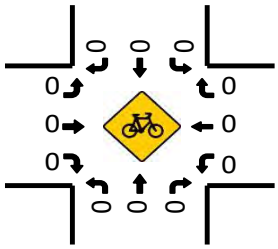
NORTHBOUND — Camino Del Rio W/Riley St

PM	0	0	0	0	0	PM
NOON	2332	21	45	2174	8	NOON
AM	0	0	0	0	0	AM

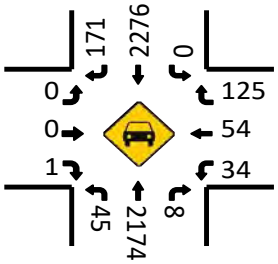
Totals (AM)



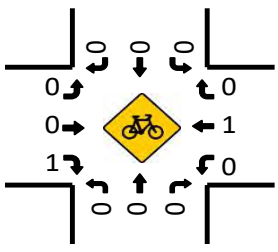
Total Bikes (AM)



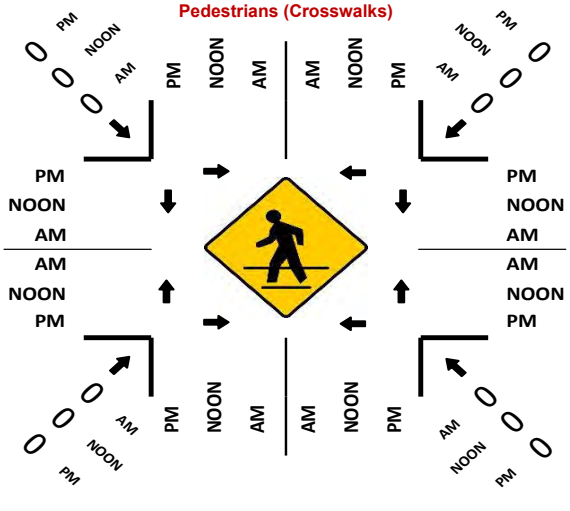
Totals (NOON)



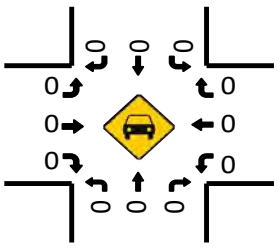
Total Bikes (NOON)



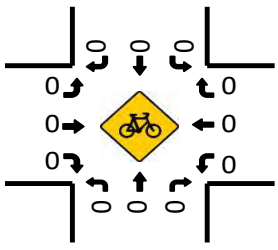
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Kurtz St/Gaines St

Peak Hour Turning Movement Count

ID: 23-040246-012
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:45 AM - 12:45 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND (Camino Del Rio W)

AM	0	0	0	0	0	AM
NOON	0	2181	86	39	2274	NOON
PM	0	0	0	0	0	PM

0 4 1 0

EASTBOUND (Kurtz St/Gaines St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	298	0	1.5	
0	126	0	0.5	
0	108	0	1	
AM	NOON	PM		

WESTBOUND (Kurtz St/Gaines St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	245	0	
PM	NOON	AM	

CONTROL

Signalized

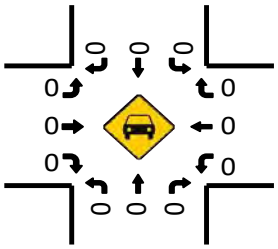
TEV	0 AM	4808 NOON	0 PM
PHF		0.98	

0 0 3 0

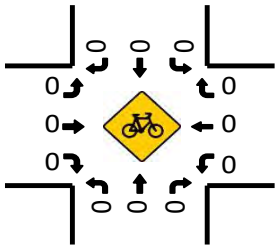
NORTHBOUND (Camino Del Rio W)

PM	0	0	0	0	PM
NOON	2289	0	0	1937	33 NOON
AM	0	0	0	0	AM

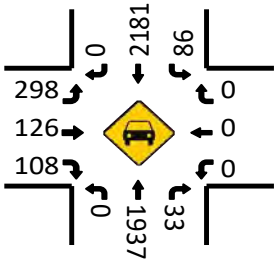
Totals (AM)



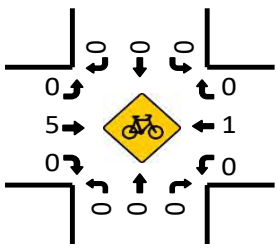
Total Bikes (AM)



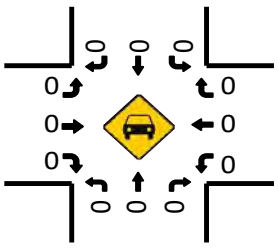
Totals (NOON)



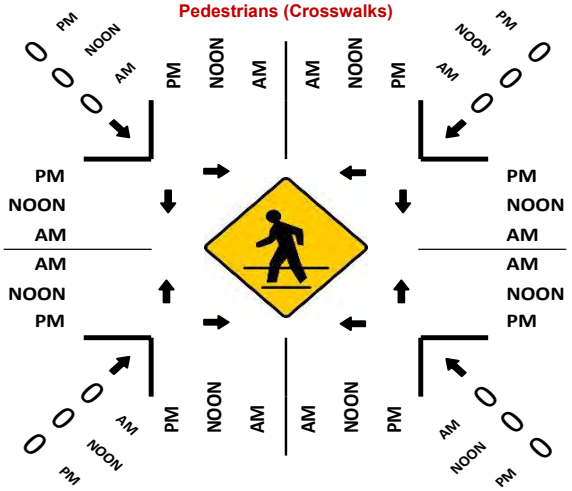
Total Bikes (NOON)



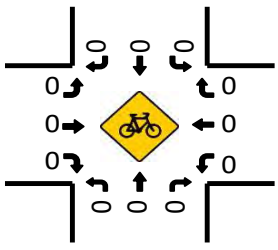
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St/Camino Del Rio W & Sports arena Blvd/Rosecrans St

Peak Hour Turning Movement Count

ID: 23-040246-019
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Rosecrans St/Camino Del Rio W

AM	0	0	0	0	0	AM
NOON	799	1472	0	0	1893	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Sports arena Blvd/Rosecrans St

AM	NOON	PM		
0	1427	0		
0	9	0	0	
0	509	0	1.5	
0	398	0	1.5	
0	291	0	1	
AM	NOON	PM		

WESTBOUND — Sports arena Blvd/Rosecrans St

PM	NOON	AM	
0	20	0	0.5
0	287	0	1
0	196	0	1.5
0	0	0	0
0	720	0	
PM	NOON	AM	

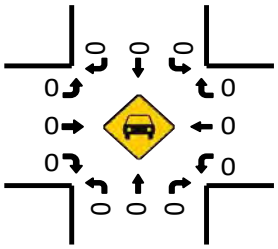
NORTHBOUND — Rosecrans St/Camino Del Rio W

PM	0	0	0	0	0	PM
NOON	2035	76	332	1364	322	NOON
AM	0	0	0	0	0	AM

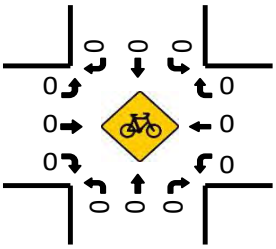
1	3	0	0
0	2	3	1

CONTROL			
Signalized			
TEV	0 AM	6075 NOON	0 PM
PHF		0.97	

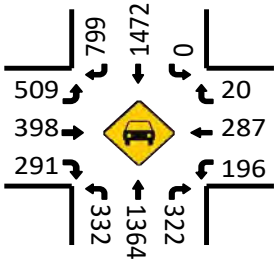
Totals (AM)



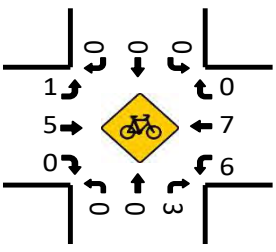
Total Bikes (AM)



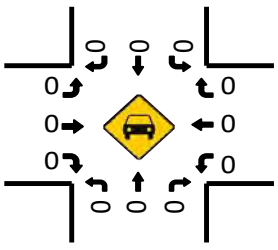
Totals (NOON)



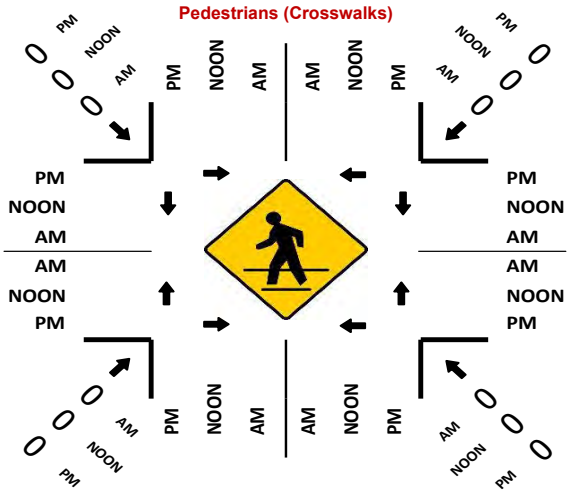
Total Bikes (NOON)



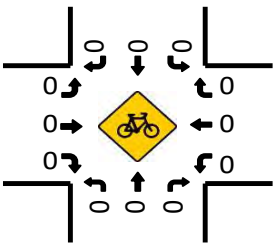
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-020
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	287	1352	347	98	2220	NOON
PM	0	0	0	0	0	PM

0 4 2 0

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	1205	0	
0	8	0	0
0	276	0	2
0	502	0	2
0	263	0	1

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	358	0	1
0	577	0	2
0	138	0	1
0	0	0	0
0	974	0	

CONTROL

Signalized

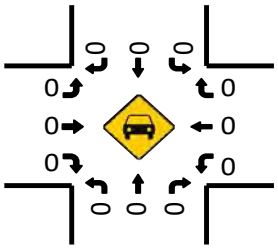
	AM	NOON	PM
TEV	0	6195	0
PHF		0.99	

0 2 3 0

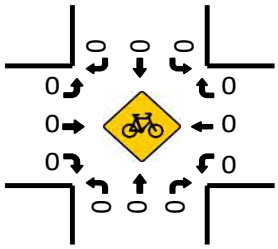
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	1796	43	333	1488	125	NOON
AM	0	0	0	0	0	AM

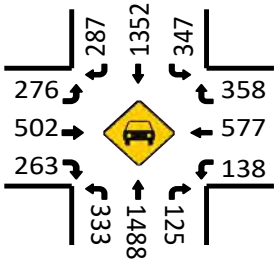
Totals (AM)



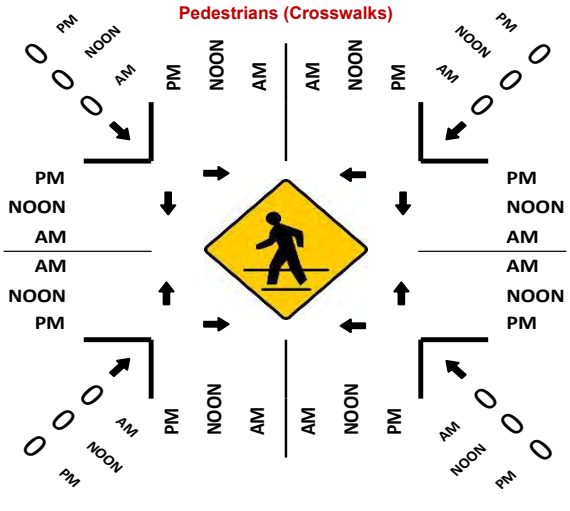
Total Bikes (AM)



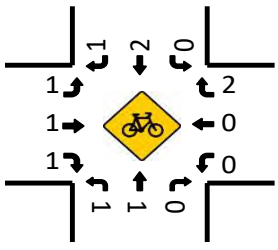
Totals (NOON)



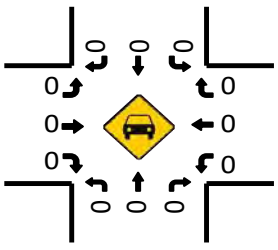
Pedestrians (Crosswalks)



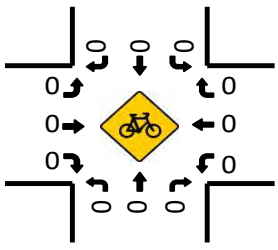
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & N Evergreen St/Shoup Dr

Peak Hour Turning Movement Count

ID: 23-040246-022
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	45	1597	103	87	2007	NOON
PM	0	0	0	0	0	PM

0 3 1 0

EASTBOUND (N Evergreen St/Shoup Dr)

AM	NOON	PM	
0	62	0	
0	0	0	0
0	36	0	0
0	5	0	1
0	4	0	0
AM	NOON	PM	

WESTBOUND (N Evergreen St/Shoup Dr)

PM	NOON	AM	
0	96	0	0
0	10	0	1
0	97	0	0
0	0	0	0
0	140	0	
PM	NOON	AM	

0 1 4 0

NORTHBOUND (Rosecrans St)

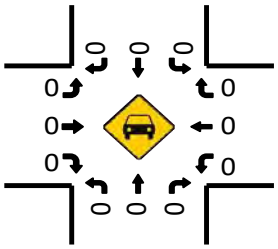
PM	0	0	0	0	0	PM
NOON	1712	14	7	1788	32	NOON
AM	0	0	0	0	0	AM

CONTROL

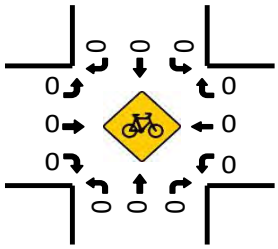
Signalized

	AM	NOON	PM
TEV	0	3921	0
PHF		0.99	

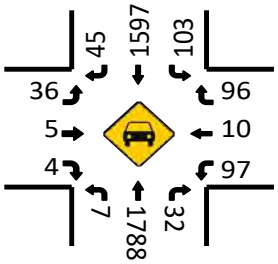
Totals (AM)



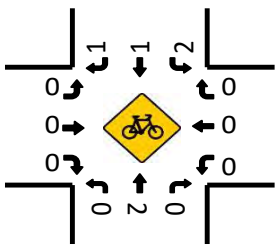
Total Bikes (AM)



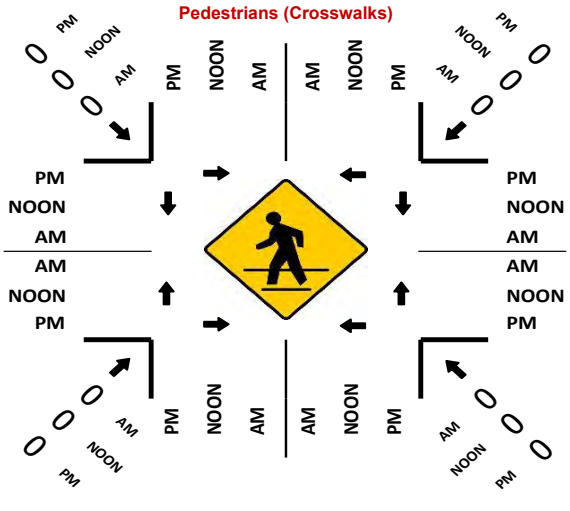
Totals (NOON)



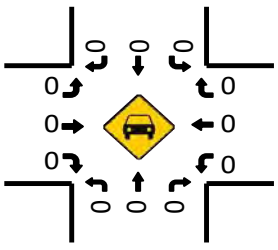
Total Bikes (NOON)



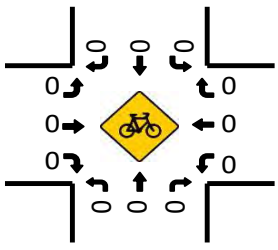
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Lytton St

Peak Hour Turning Movement Count

ID: 23-040246-021
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	278	1167	206	24	1884	NOON
PM	0	0	0	0	0	PM

1 2 2 0

EASTBOUND (Lytton St)

AM	NOON	PM	
0	488	0	
0	0	0	0
0	245	0	1
0	146	0	0.5
0	18	0	0.5
AM	NOON	PM	

WESTBOUND (Lytton St)

PM	NOON	AM	
0	219	0	1
0	191	0	1
0	357	0	2
0	0	0	0
PM	NOON	AM	
0	777	0	

CONTROL

Signalized

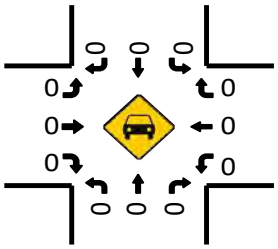
	AM	NOON	PM
TEV	0	4691	0
PHF		0.99	

0 1 3 1

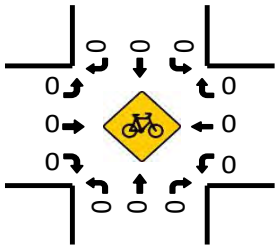
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	1542	0	19	1396	425	NOON
AM	0	0	0	0	0	AM

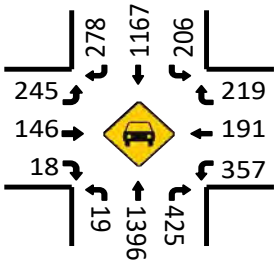
Totals (AM)



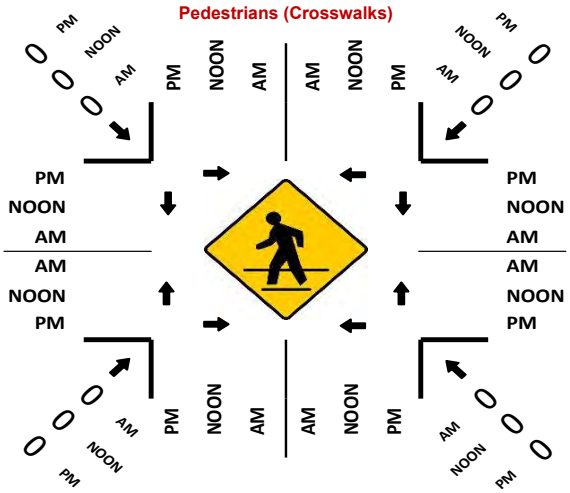
Total Bikes (AM)



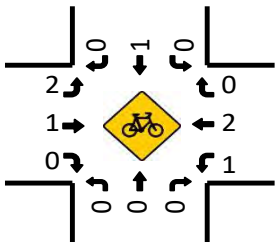
Totals (NOON)



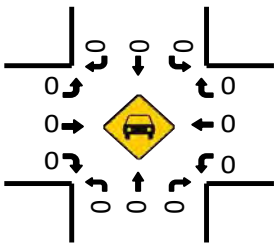
Pedestrians (Crosswalks)



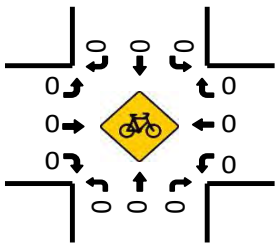
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-013
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	0	299	41	0	678	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	52	0	1	
0	188	0	0.5	
0	11	0	0.5	
AM	NOON	PM		

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	115	0	1
0	0	0	0
0	172	0	1
0	0	0	0
0	476	0	
PM	NOON	AM	

NORTHBOUND (Rosecrans St)

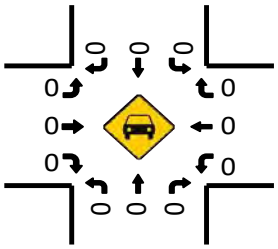
PM	0	0	0	0	0	PM
NOON	484	2	0	511	247	NOON
AM	0	0	0	0	0	AM

	0	2	1	0
	0	0	2	0

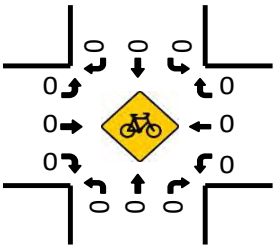
CONTROL: Signalized

TEV	0 AM	1638 NOON	0 PM
PHF		0.94	

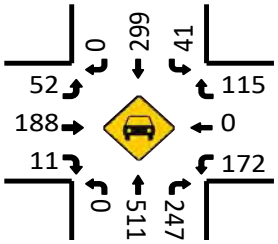
Totals (AM)



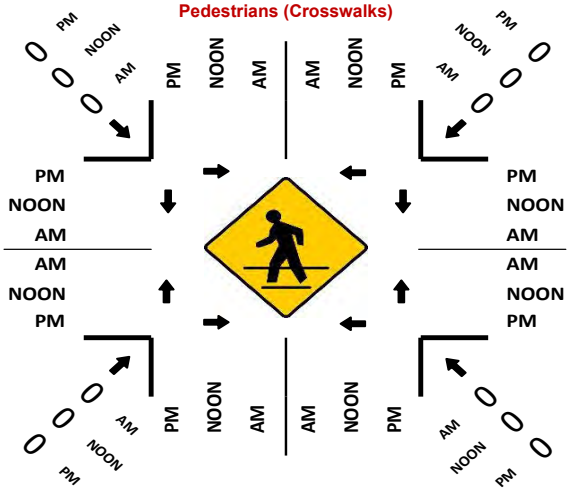
Total Bikes (AM)



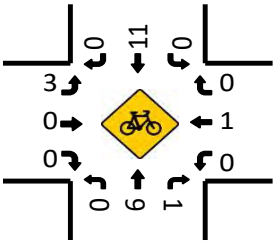
Totals (NOON)



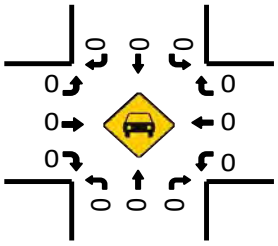
Pedestrians (Crosswalks)



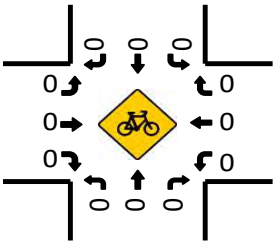
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-014
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	38	306	0	0	537	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Hancock St)

AM	NOON	PM
0	180	0
0	0	0
0	0	0
0	0	0
0	0	0

WESTBOUND (Hancock St)

PM	NOON	AM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

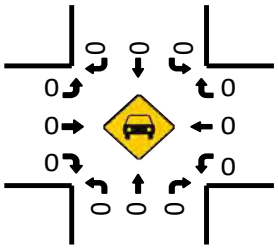
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	324	18	142	537	0	NOON
AM	0	0	0	0	0	AM

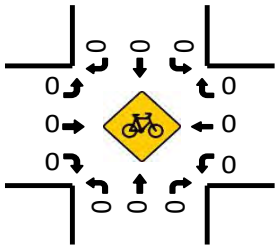
CONTROL: No Control

	AM	NOON	PM
TEV	0	1041	0
PHF		0.89	

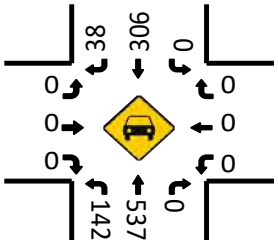
Totals (AM)



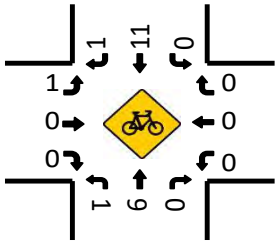
Total Bikes (AM)



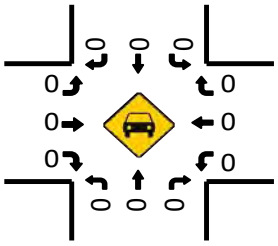
Totals (NOON)



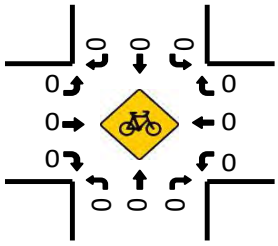
Total Bikes (NOON)



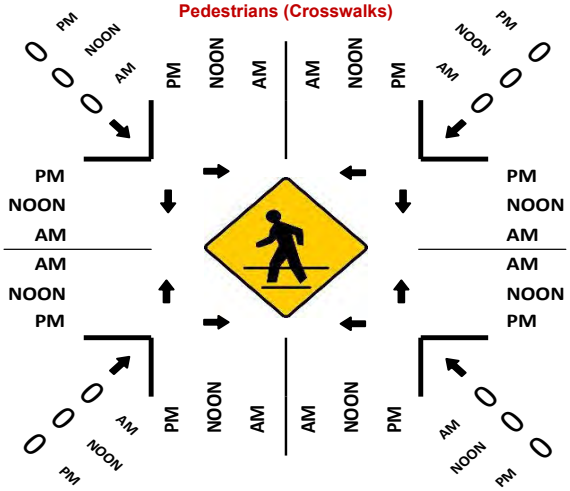
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Pacific Hwy & Rosecrans St/Taylor St

Peak Hour Turning Movement Count

ID: 23-040246-015
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
AM: NONE	AM: NONE
NOON: 11:15 AM - 12:15 PM	NOON: 11:00 AM - 01:00 PM
PM: NONE	PM: NONE

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	88	89	60	1	197	NOON
PM	0	0	0	0	0	PM

1 2 2 0

EASTBOUND (Rosecrans St/Taylor St)

AM	NOON	PM	
0	406	0	
0	0	0	0
0	47	0	1
0	302	0	4
0	94	0	1
AM	NOON	PM	

WESTBOUND (Rosecrans St/Taylor St)

PM	NOON	AM	
0	58	0	1
0	218	0	1
0	143	0	2
0	0	0	0
0	502	0	
PM	NOON	AM	

1 1 2 0

CONTROL

Signalized

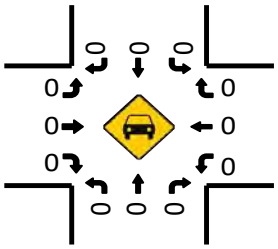
	AM	NOON	PM
TEV	0	1431	0
PHF		0.96	

0 1 2 2

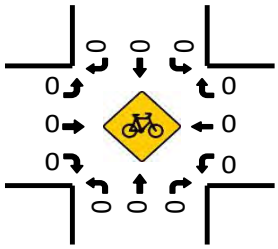
NORTHBOUND (Pacific Hwy)

PM	0	0	0	0	0	PM
NOON	326	0	100	91	140	NOON
AM	0	0	0	0	0	AM

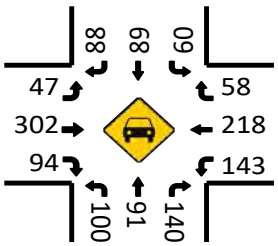
Totals (AM)



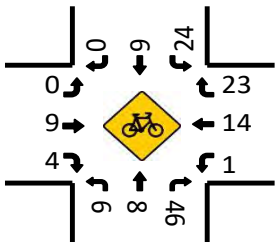
Total Bikes (AM)



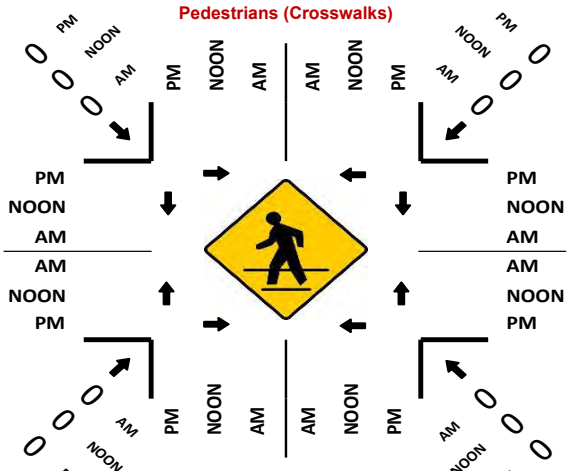
Totals (NOON)



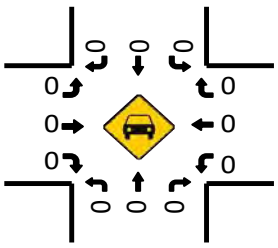
Total Bikes (NOON)



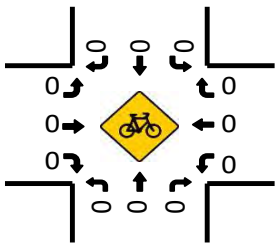
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-016
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:00 AM - 12:00 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	12	276	0	0	310	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	240	0	
0	0	0	0
0	0	0	0
0	0	0	1
0	382	0	0
AM	NOON	PM	

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

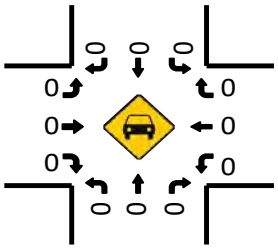
NORTHBOUND (Pacific Hwy)

PM	0	0	0	0	0	PM
NOON	658	0	228	310	0	NOON
AM	0	0	0	0	0	AM

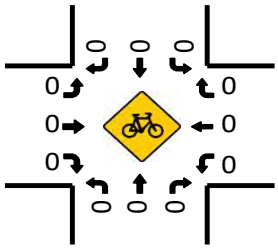
	0	3	0	0
	0	1	3	0

CONTROL			
1-Way Stop(EB)			
TEV	0 AM	1208 NOON	0 PM
PHF		0.95	

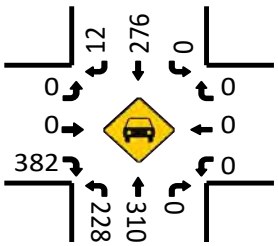
Totals (AM)



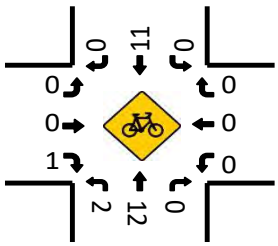
Total Bikes (AM)



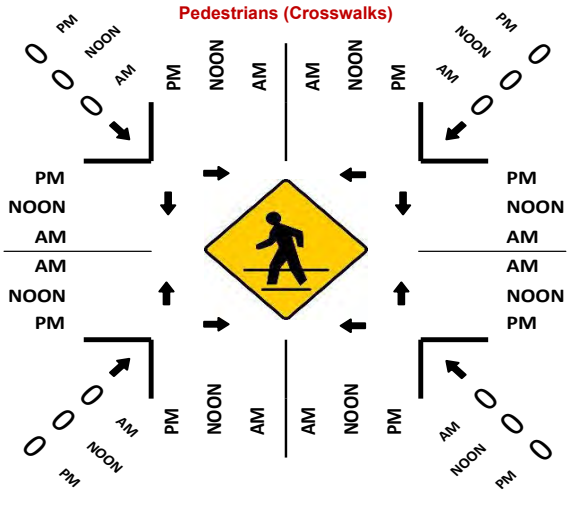
Totals (NOON)



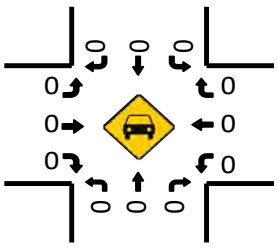
Total Bikes (NOON)



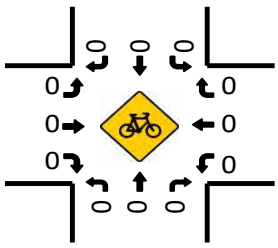
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Enterprise St

Peak Hour Turning Movement Count

ID: 23-040246-031
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:15 AM - 12:15 PM	11:00 AM - 01:00 PM
NONE	NONE

CONTROL: Signalized

	AM	NOON	PM
TEV	0	1481	0
PHF		0.94	

SOUTHBOUND (Pacific Hwy)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	79	666	3	4	529	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Enterprise St)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	0	17	3	17	201	NOON
PM	0	0	0	0	0	PM

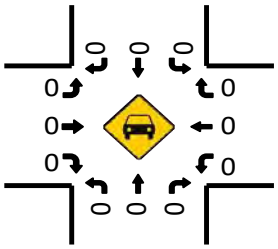
WESTBOUND (Enterprise St)

	L	T	R	U	Total	
AM	1	0	0	0	0	AM
NOON	1	2	6	0	2	NOON
PM	1	0	0	0	0	PM

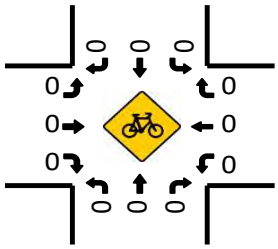
NORTHBOUND (Pacific Hwy)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	745	61	120	506	0	NOON
PM	0	0	0	0	0	PM

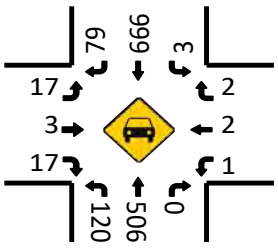
Totals (AM)



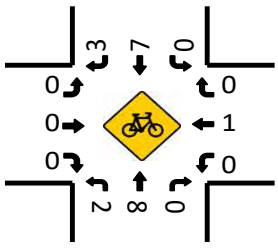
Total Bikes (AM)



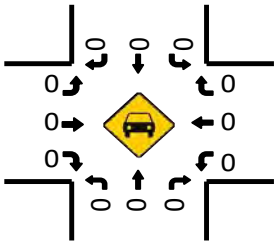
Totals (NOON)



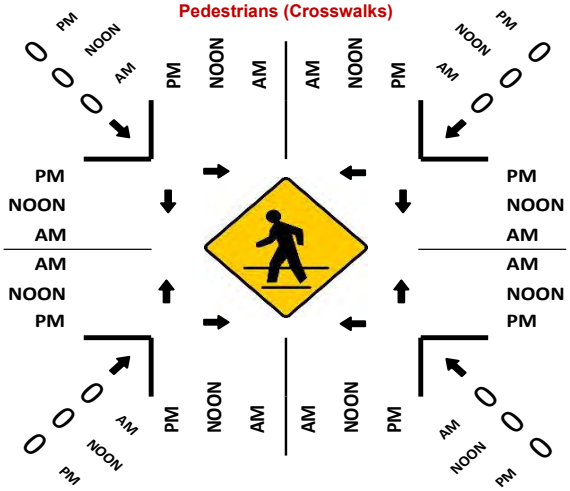
Total Bikes (NOON)



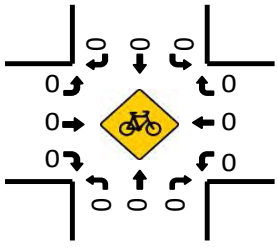
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Enterprise St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-018
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Enterprise St)

AM	0	0	0	0	0	AM
NOON	147	0	0	0	11	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	974	0	
0	0	0	0
0	0	0	0
0	765	0	2
0	0	0	0
AM	NOON	PM	

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	11	0	0
0	827	0	2
0	0	0	0
0	0	0	0
0	765	0	
PM	NOON	AM	

NORTHBOUND (Enterprise St)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

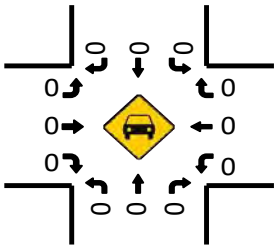
1	0	0	0
0	0	0	0

CONTROL

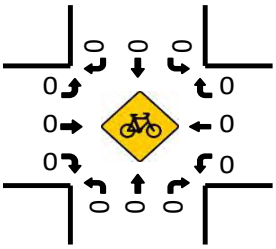
1-Way Stop(SB)

TEV	0 AM	1750 NOON	0 PM
PHF		0.91	

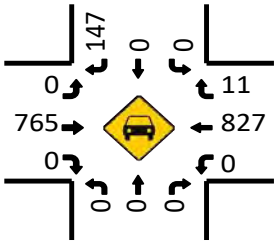
Totals (AM)



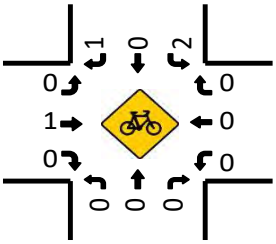
Total Bikes (AM)



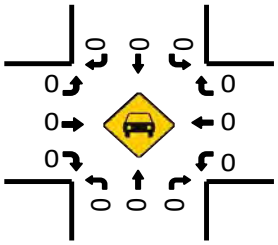
Totals (NOON)



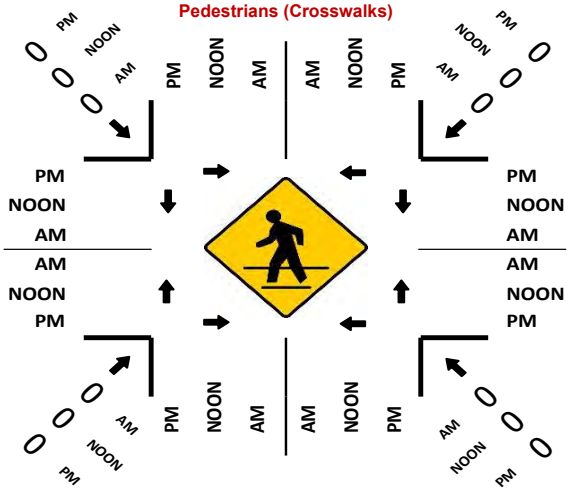
Total Bikes (NOON)



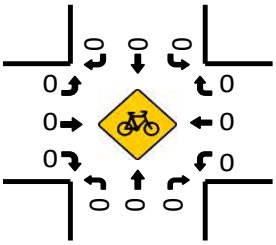
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Barnett Ave & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-017
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM: NONE
NOON: 11:45 AM - 12:45 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

Barnett Ave

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	838	846	0	0	1446	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	838	0	
0	0	0	0
0	665	0	0
0	0	0	2
0	101	0	1

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

1 2 0 0

0 0 2 0

CONTROL: Signalized

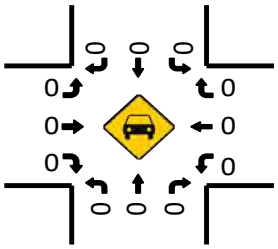
	AM	NOON	PM
TEV	0	3231	0
PHF		0.97	

PM	0	0	0	0	0	PM
NOON	947	0	0	781	0	NOON
AM	0	0	0	0	0	AM

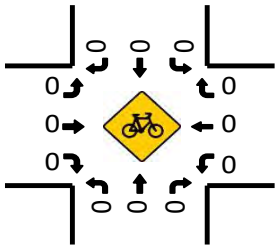
NORTHBOUND

Barnett Ave

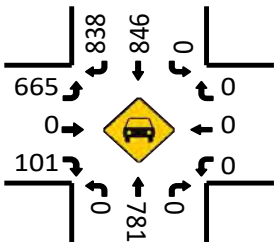
Totals (AM)



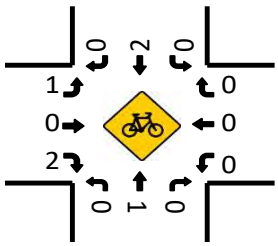
Total Bikes (AM)



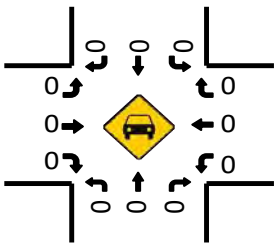
Totals (NOON)



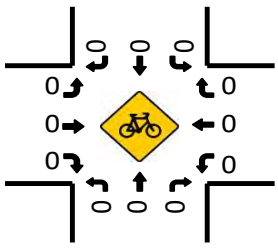
Total Bikes (NOON)



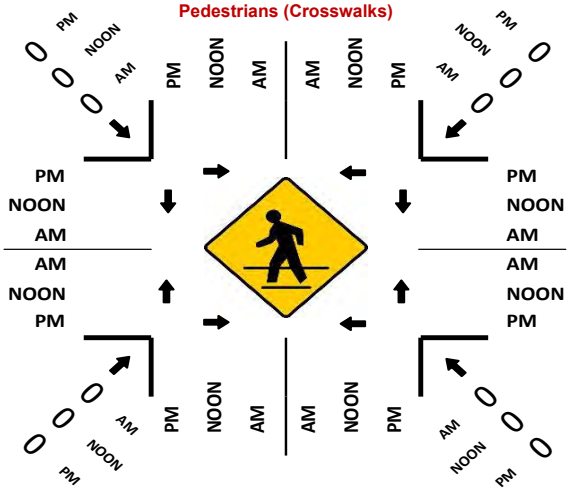
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Sea World Dr & Friars Rd

Peak Hour Turning Movement Count

ID: 23-040246-027
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:00 AM - 12:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Sea World Dr)

AM	0	0	0	0	0	AM
NOON	0	1320	94	7	874	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Friars Rd)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Friars Rd)

PM	NOON	AM	
0	0	0	1.5
0	0	0	0
0	0	0	1.5
0	0	0	0
0	293	0	
PM	NOON	AM	

NORTHBOUND (Sea World Dr)

PM	0	0	0	0	0	PM
NOON	1320	0	0	867	199	NOON
AM	0	0	0	0	0	AM

	0	2	2
	0	0	2

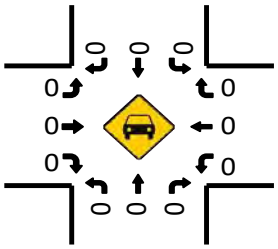
	0	0	1

CONTROL

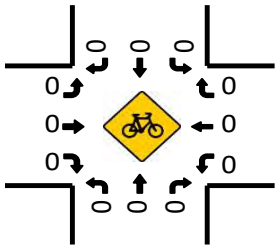
Signalized

	AM	NOON	PM
TEV	0	2487	0
PHF		0.91	

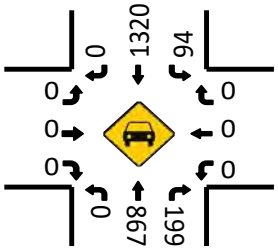
Totals (AM)



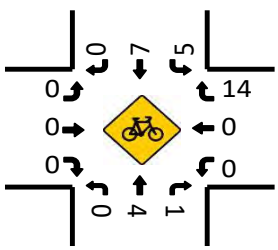
Total Bikes (AM)



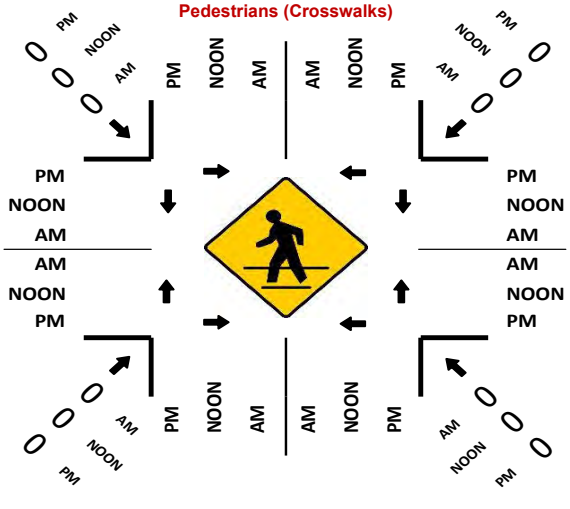
Totals (NOON)



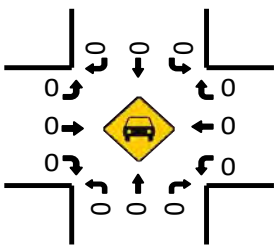
Total Bikes (NOON)



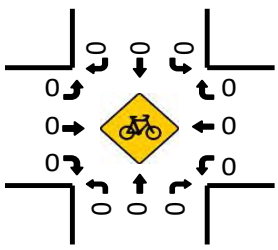
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sea World Dr & Pacific Hwy/E Mission Bay Dr

Peak Hour Turning Movement Count

ID: 23-040246-028
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:00 AM - 12:00 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND — Sea World Dr

AM	0	0	0	0	0	AM
NOON	239	1250	85	0	1105	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Pacific Hwy/E Mission Bay Dr

AM	NOON	PM	
0	350	0	
0	0	0	0
0	253	0	2
0	56	0	1
0	148	0	1
AM	NOON	PM	

WESTBOUND — Pacific Hwy/E Mission Bay Dr

PM	NOON	AM	
0	76	0	1
0	36	0	1
0	33	0	1
0	0	0	0
0	164	0	
PM	NOON	AM	

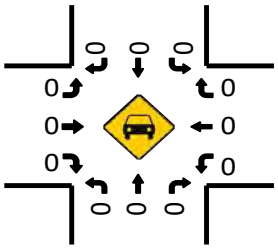
NORTHBOUND — Sea World Dr

PM	0	0	0	0	0	PM
NOON	1431	0	75	776	23	NOON
AM	0	0	0	0	0	AM

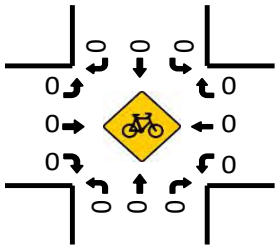
1	2	1	0
0	2	2	0

CONTROL			
Signalized			
TEV	0 AM	3050 NOON	0 PM
PHF		0.96	

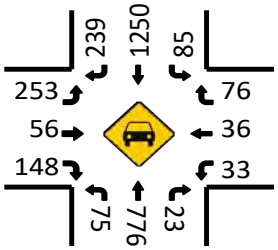
Totals (AM)



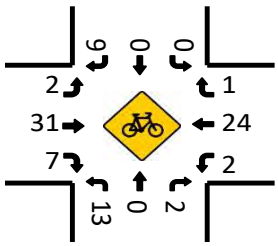
Total Bikes (AM)



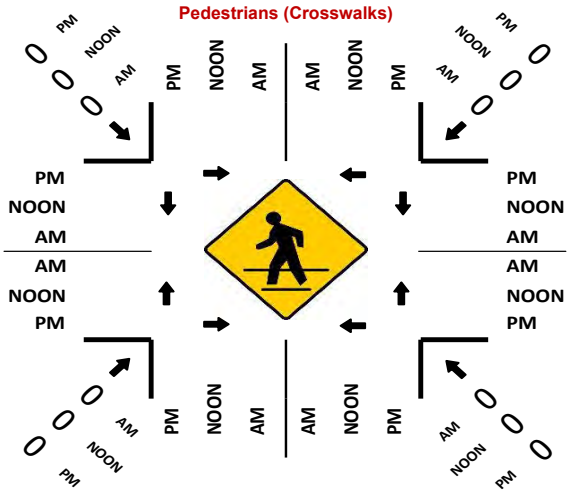
Totals (NOON)



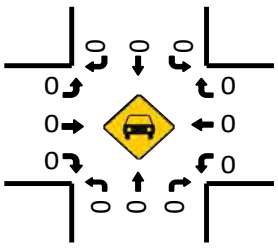
Total Bikes (NOON)



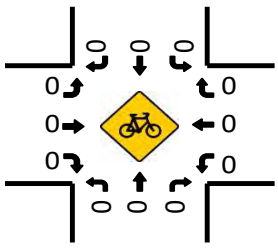
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

I-5/San Diego Fwy SB Ramps & Sea World Dr

Peak Hour Turning Movement Count

ID: 23-040246-029
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:15 AM - 12:15 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND — I-5/San Diego Fwy SB Ramps

AM	0	0	0	0	0	AM
NOON	952	2	192	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Sea World Dr

AM	NOON	PM	
0	1545	0	
0	0	0	0
0	0	0	0
0	887	0	2
0	251	0	1
AM	NOON	PM	

WESTBOUND — Sea World Dr

PM	NOON	AM	
0	0	0	0
0	593	0	2
0	259	0	2
0	1	0	0
0	1080	0	
PM	NOON	AM	

NORTHBOUND — I-5/San Diego Fwy SB Ramps

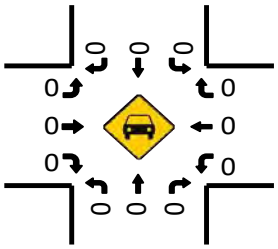
PM	0	0	0	0	0	PM
NOON	512	0	0	0	0	NOON
AM	0	0	0	0	0	AM

	1	0	1	0
	0	0	0	0

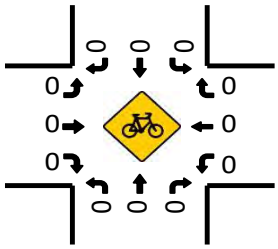
CONTROL: Signalized

TEV	0 AM	3137 NOON	0 PM
PHF		0.96	

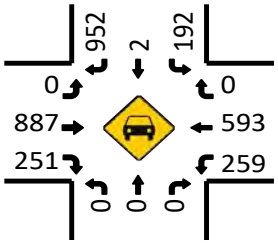
Totals (AM)



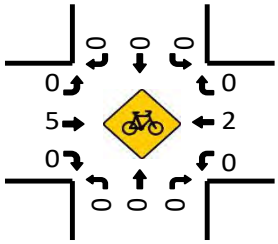
Total Bikes (AM)



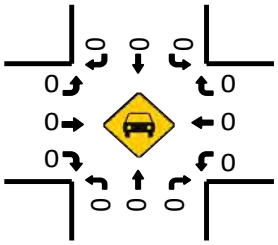
Totals (NOON)



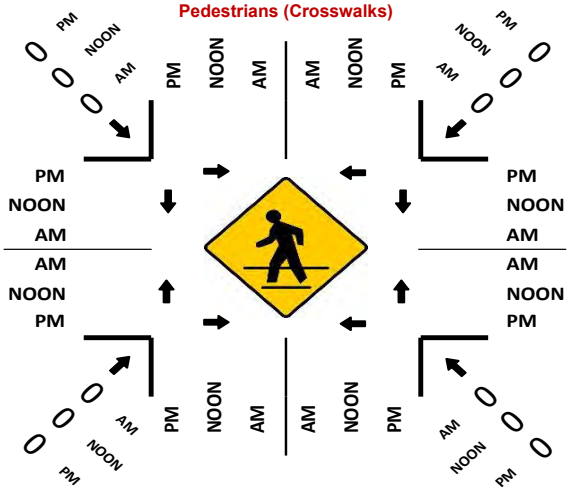
Total Bikes (NOON)



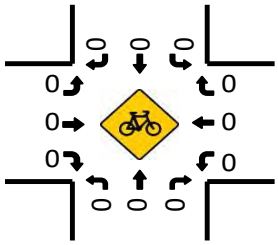
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

W Mission Bay Dr & I-8/Kumeyaay Hwy WB Off Ramp

Peak Hour Turning Movement Count

ID: 23-040246-001
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:15 AM - 12:15 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — W Mission Bay Dr

AM	0	0	0	0	0	AM
NOON	0	1653	0	0	2309	NOON
PM	0	0	0	0	0	PM

0 4 0 0

EASTBOUND — I-8/Kumeyaay Hwy WB Off Ramp

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND — I-8/Kumeyaay Hwy WB Off Ramp

PM	NOON	AM	
0	1706	0	2
0	0	0	0
0	516	0	2
0	0	0	0
0	0	0	
PM	NOON	AM	

NORTHBOUND — W Mission Bay Dr

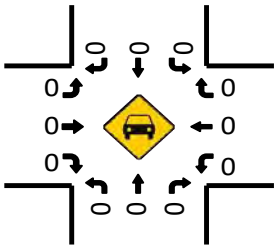
0 0 3 0

PM	0	0	0	0	0	PM
NOON	2169	0	0	603	0	NOON
AM	0	0	0	0	0	AM

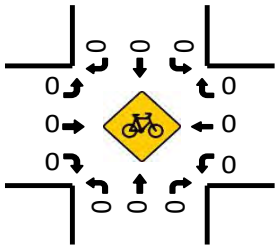
CONTROL: Signalized

	AM	NOON	PM
TEV	0	4478	0
PHF		0.93	

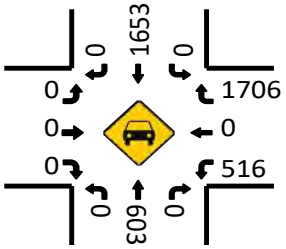
Totals (AM)



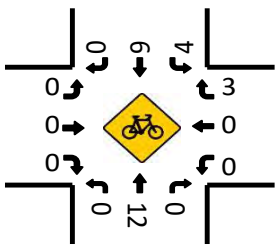
Total Bikes (AM)



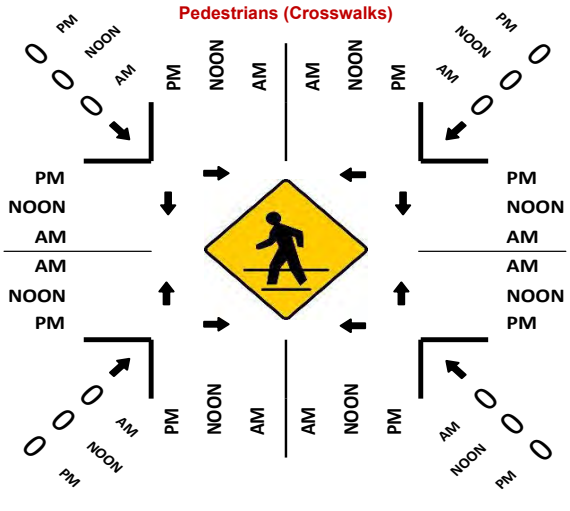
Totals (NOON)



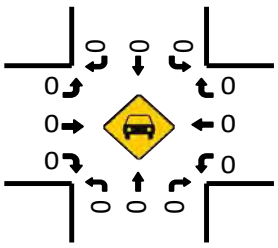
Total Bikes (NOON)



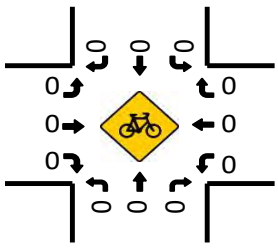
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sports Arena Blvd/Midway Dr & W Point Loma Blvd/Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-002
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:15 AM - 12:15 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Sports Arena Blvd/Midway Dr

AM	0	0	0	0	0	AM
NOON	198	414	453	0	1482	NOON
PM	0	0	0	0	0	PM

EASTBOUND — W Point Loma Blvd/Sports Arena Blvd

AM	NOON	PM	
0	748	0	
0	0	0	0
0	368	0	1.5
0	294	0	0.5
0	328	0	1
AM	NOON	PM	

WESTBOUND — W Point Loma Blvd/Sports Arena Blvd

PM	NOON	AM	
0	641	0	1
0	281	0	2
0	32	0	1
0	0	0	0
0	767	0	
PM	NOON	AM	

0.5 1.5 1 0

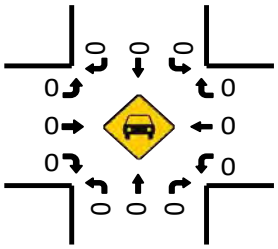
0 1 1.5 0.5

CONTROL			
Signalized			
TEV	0 AM	3771 NOON	0 PM
PHF		0.98	

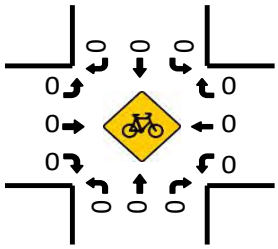
NORTHBOUND — Sports Arena Blvd/Midway Dr

PM	0	0	0	0	0	PM
NOON	774	0	269	473	20	NOON
AM	0	0	0	0	0	AM

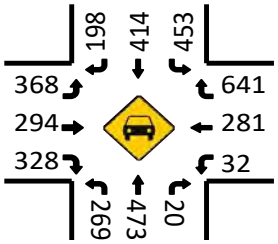
Totals (AM)



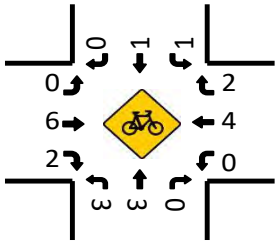
Total Bikes (AM)



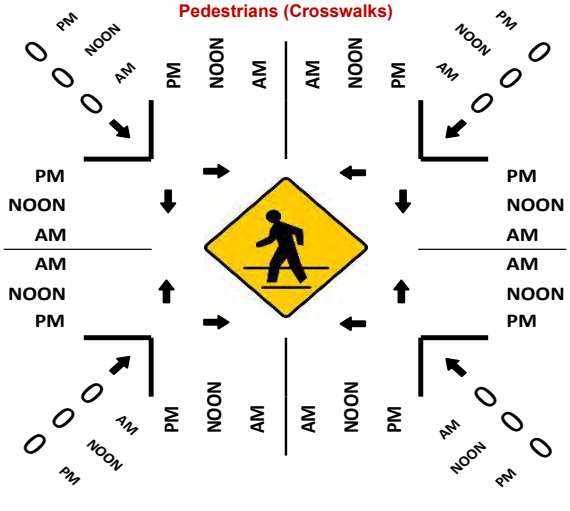
Totals (NOON)



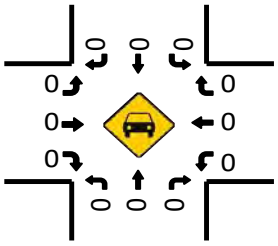
Total Bikes (NOON)



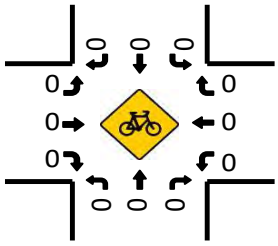
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kemper St & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-032
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
12:00 PM - 01:00 PM	11:00 AM - 01:00 PM
NONE	NONE

CONTROL: Signalized

	AM	NOON	PM
TEV	0	2249	0
PHF		0.97	

SOUTHBOUND (Kemper St)

	Left	Thru	Thru	Right	Total	
AM	0	0	0	0	0	AM
NOON	104	29	43	1	277	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	1032	0	
0	10	0	0
0	110	0	2
0	484	0	2
0	109	0	0
AM	NOON	PM	

WESTBOUND (Sports Arena Blvd)

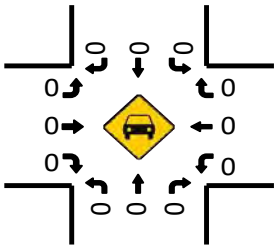
PM	NOON	AM	
0	97	0	0
0	787	0	3
0	134	0	1
0	24	0	0
0	668	0	
PM	NOON	AM	

NORTHBOUND (Kemper St)

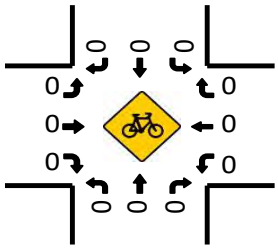
	Left	Thru	Thru	Right	Total	
PM	0	0	0	0	0	PM
NOON	272	0	131	69	117	NOON
AM	0	0	0	0	0	AM

1 0.5 0.5 0 — 0 1 1 0

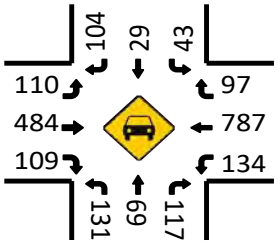
Totals (AM)



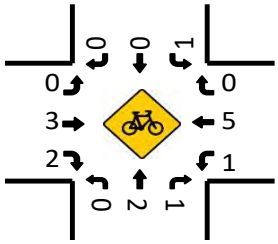
Total Bikes (AM)



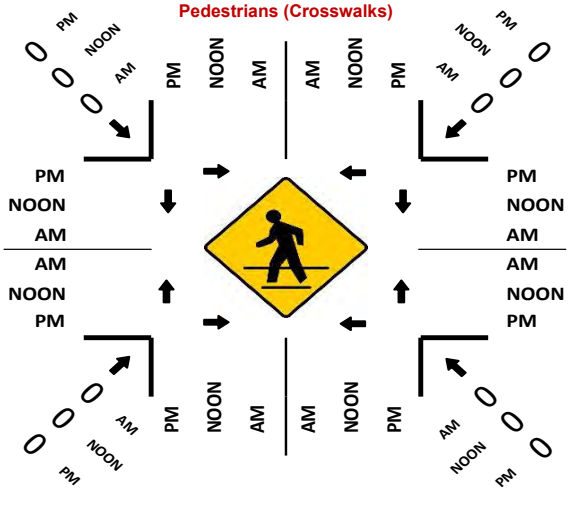
Totals (NOON)



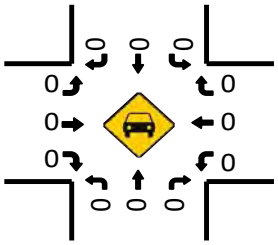
Total Bikes (NOON)



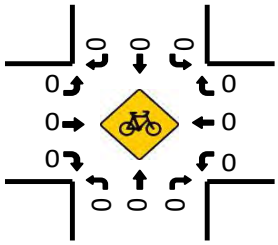
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

West Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-033
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

West Dr

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	299	69	263	0	433	NOON
PM	0	0	0	0	0	PM
	0.5	1	0.5	0		

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	1027	0	
0	7	0	0
0	57	0	2
0	531	0	2
0	108	0	0
AM	NOON	PM	

WESTBOUND (Sports Arena Blvd)

PM	NOON	AM	
0	328	0	0
0	592	0	3
0	137	0	1
0	6	0	0
0	914	0	
PM	NOON	AM	

CONTROL

Signalized

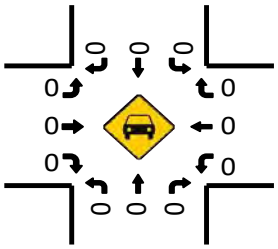
	AM	NOON	PM
TEV	0	2688	0
PHF		0.98	

PM	0	0	0	0	0	PM
NOON	314	0	129	48	114	NOON
AM	0	0	0	0	0	AM
	0	0	1	0		

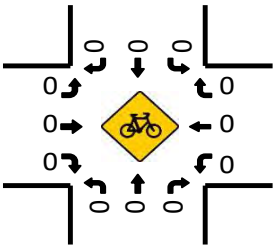
NORTHBOUND

West Dr

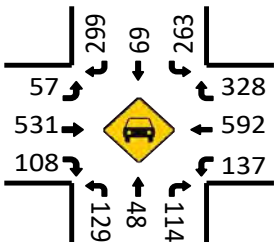
Totals (AM)



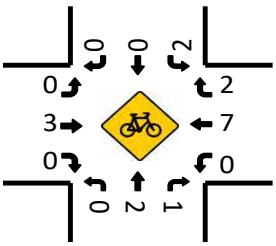
Total Bikes (AM)



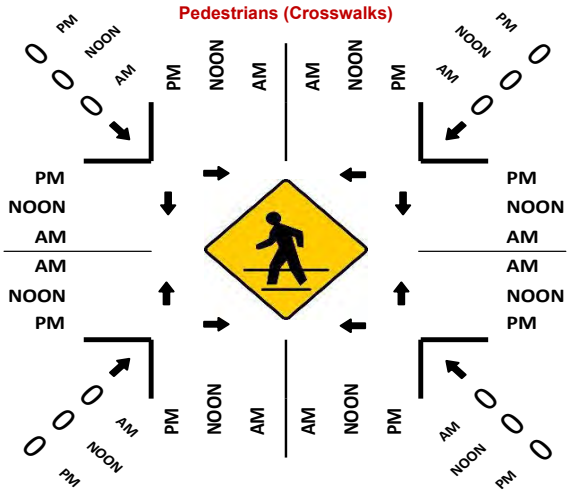
Totals (NOON)



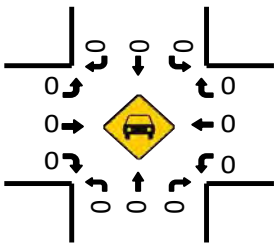
Total Bikes (NOON)



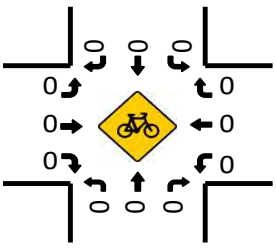
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Wine & Spirits Pkg Dwy/Target Department Store Dwy & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-034
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Wine & Spirits Pkg Dwy/Target Department Store Dwy

AM	0	0	0	0	0	AM
NOON	25	6	0	1	12	NOON
PM	0	0	0	0	0	PM

0 1 0 0

EASTBOUND — Sports Arena Blvd

AM	NOON	PM	
0	1063	0	
0	5	0	0
0	7	0	1
0	921	0	3
0	28	0	0
AM	NOON	PM	

WESTBOUND — Sports Arena Blvd

PM	NOON	AM	
0	4	0	0
0	1032	0	3
0	239	0	1
0	17	0	0
0	1134	0	
PM	NOON	AM	

0 0 0 1

CONTROL

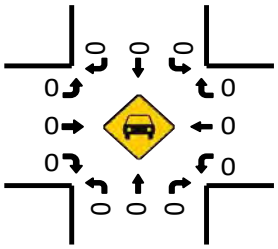
1-Way Stop(NB)

TEV	0 AM	2482 NOON	0 PM
PHF		0.96	

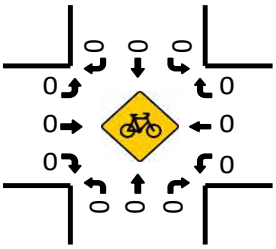
NORTHBOUND — Wine & Spirits Pkg Dwy/Target Department Store Dwy

PM	0	0	0	0	0	PM
NOON	273	0	1	0	196	NOON
AM	0	0	0	0	0	AM

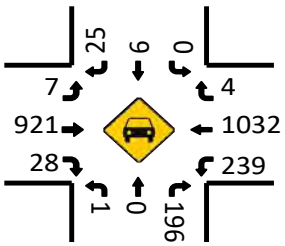
Totals (AM)



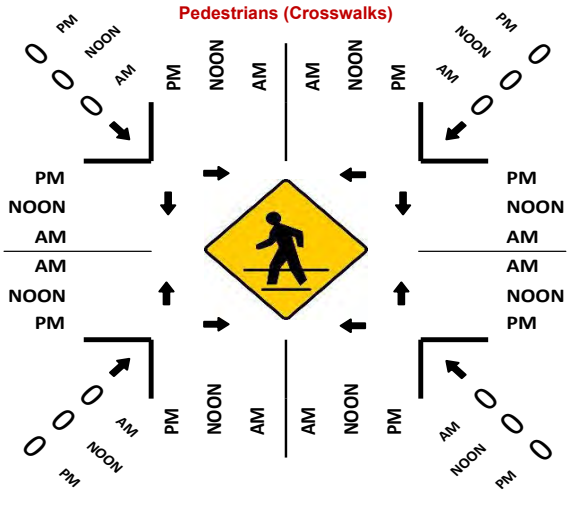
Total Bikes (AM)



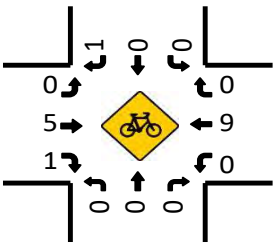
Totals (NOON)



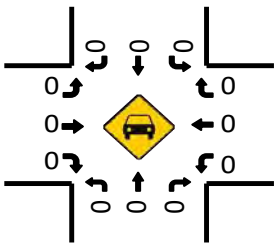
Pedestrians (Crosswalks)



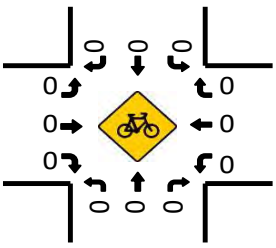
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

East Dr & Sports Arena Blvd

Peak Hour Turning Movement Count

ID: 23-040246-004
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

CONTROL: Signalized

	AM	NOON	PM
TEV	0	2794	0
PHF		0.96	

SOUTHBOUND (East Dr)

AM	0	0	0	0	0	AM
NOON	3	0	0	0	46	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Sports Arena Blvd)

AM	NOON	PM	
0	1238	0	
0	13	0	0
0	18	0	1
0	1059	0	3
0	38	0	0

WESTBOUND (Sports Arena Blvd)

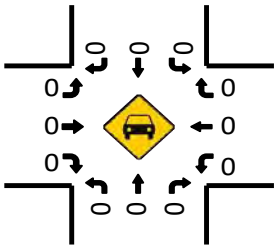
	PM	NOON	AM
0	0	22	0
3	0	1159	0
1	0	165	0
0	0	58	0
	0	1307	0

NORTHBOUND (East Dr)

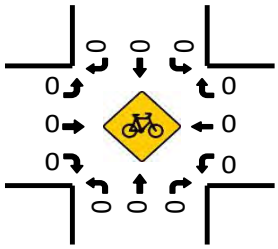
PM	0	0	0	0	0	PM
NOON	203	0	63	6	190	NOON
AM	0	0	0	0	0	AM

0 0 0 0 | 0 0.5 0.5 1

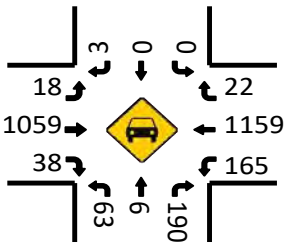
Totals (AM)



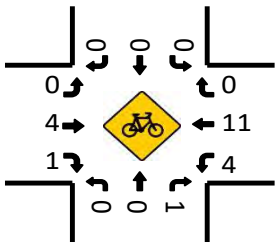
Total Bikes (AM)



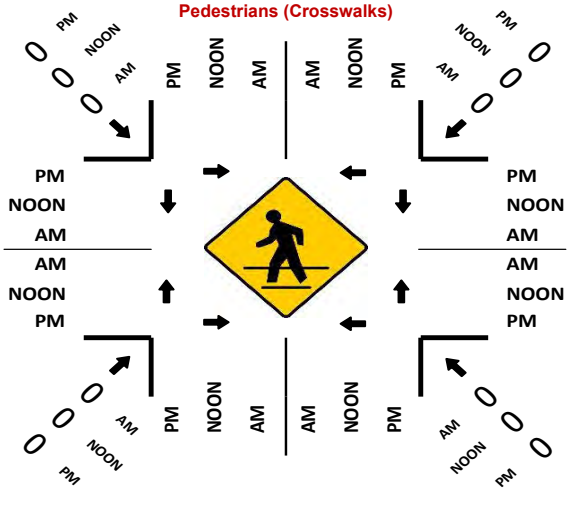
Totals (NOON)



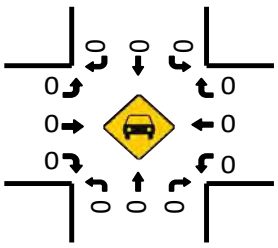
Total Bikes (NOON)



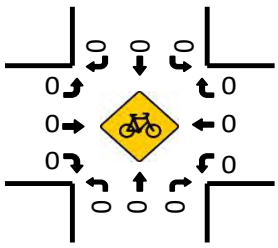
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kemper St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-024
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Kemper St)

AM	0	0	0	0	0	AM
NOON	102	146	66	0	383	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	741	0	
0	46	0	0
0	110	0	1
0	516	0	2
0	104	0	1

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	78	0	0
0	442	0	2
0	178	0	2
0	0	0	0
0	754	0	

NORTHBOUND (Kemper St)

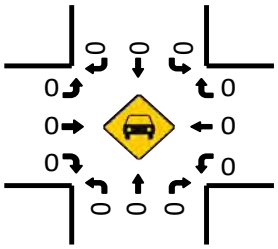
PM	0	0	0	0	0	PM
NOON	429	1	151	195	172	NOON
AM	0	0	0	0	0	AM

1	1	1	0
0	1.5	0.5	1

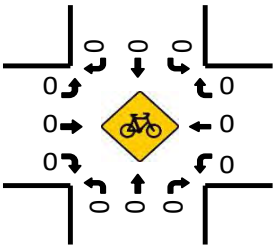
CONTROL: Signalized

TEV	0 AM	2307 NOON	0 PM
PHF		0.95	

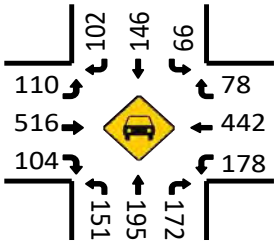
Totals (AM)



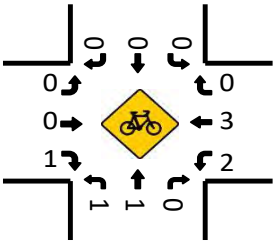
Total Bikes (AM)



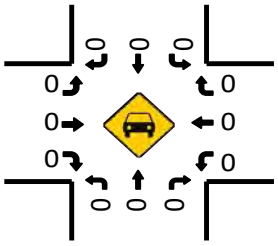
Totals (NOON)



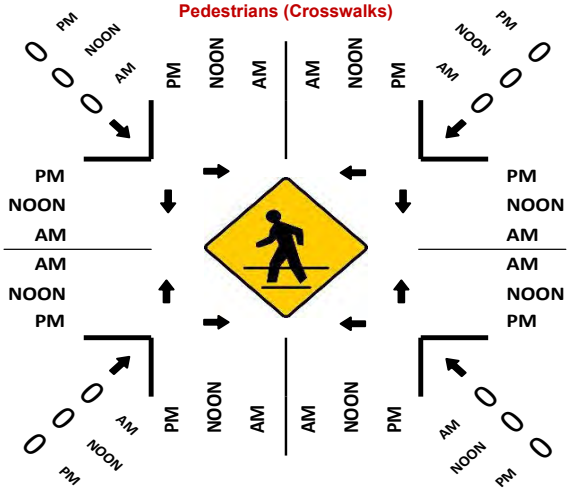
Total Bikes (NOON)



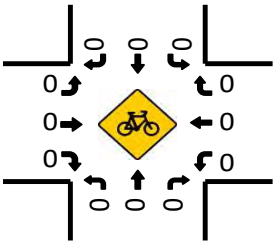
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

East Dr & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-023
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (East Dr)

AM	0	0	0	0	0	AM
NOON	92	11	230	0	445	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	868	0	
0	0	0	0
0	68	0	1
0	757	0	2
0	15	0	0
AM	NOON	PM	

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	372	0	0
0	764	0	2
0	26	0	1
0	8	0	0
0	1008	0	
PM	NOON	AM	

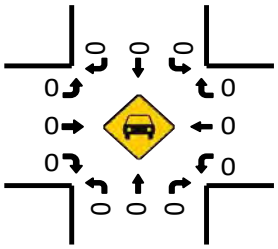
NORTHBOUND (East Dr)

PM	0	0	0	0	0	PM
NOON	52	0	12	5	13	NOON
AM	0	0	0	0	0	AM

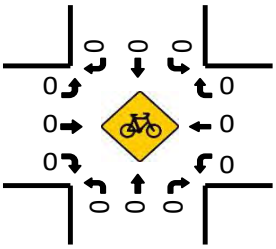
	0	1	0	0
	0	0	1	0

CONTROL			
Signalized			
TEV	0 AM	2373 NOON	0 PM
PHF		0.98	

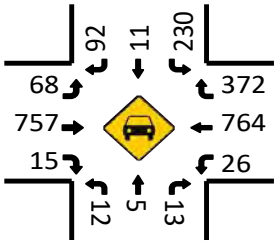
Totals (AM)



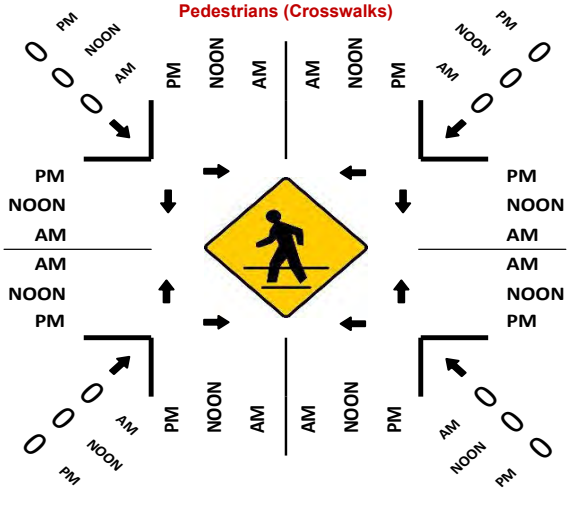
Total Bikes (AM)



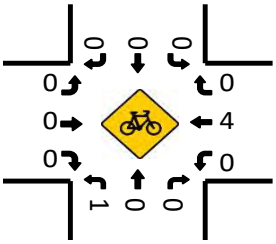
Totals (NOON)



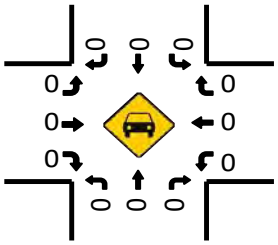
Pedestrians (Crosswalks)



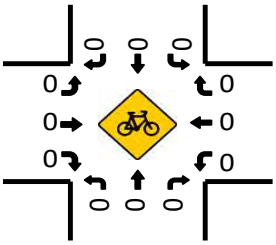
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Hancock St & Channel Way

Peak Hour Turning Movement Count

ID: 23-040246-005
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM: NONE
NOON: 12:00 PM - 01:00 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

SOUTHBOUND (Hancock St)

AM	0	0	0	0	0	AM
NOON	29	145	0	0	147	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Channel Way)

AM	NOON	PM	
0	40	0	
0	0	0	0
0	15	0	0
0	0	0	1
0	19	0	0

WESTBOUND (Channel Way)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

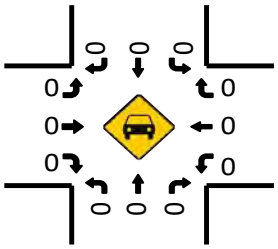
NORTHBOUND (Hancock St)

PM	0	0	0	0	0	PM
NOON	165	1	11	132	0	NOON
AM	0	0	0	0	0	AM

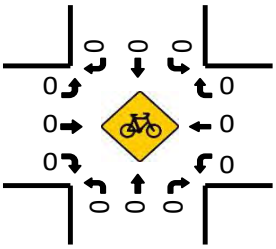
CONTROL: 3-Way Stop(NB/SB/EB)

	AM	NOON	PM
TEV	0	352	0
PHF		0.89	

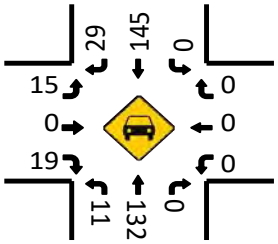
Totals (AM)



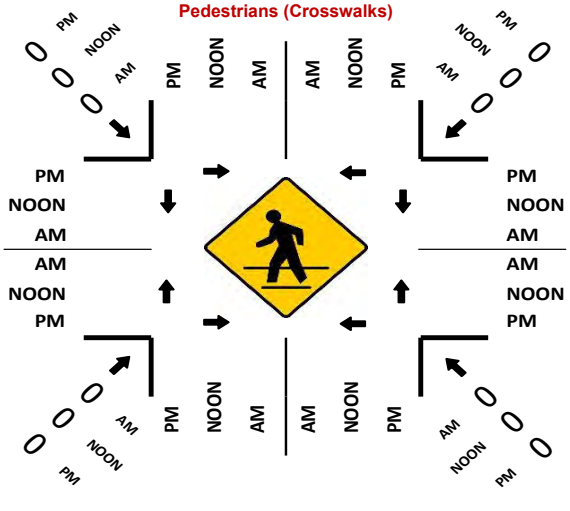
Total Bikes (AM)



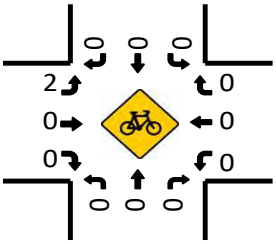
Totals (NOON)



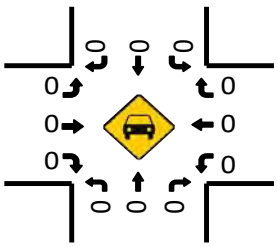
Pedestrians (Crosswalks)



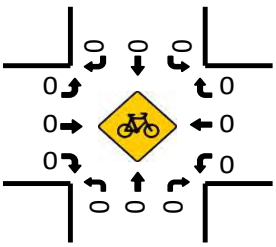
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Kurtz St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-006
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:45 AM - 12:45 PM	11:00 AM - 01:00 PM
NONE	NONE

CONTROL: 1-Way Stop(WB)

	AM	NOON	PM
TEV	0	468	0
PHF		0.90	

SOUTHBOUND (Kurtz St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0

EASTBOUND (Hancock St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	0	2	0	0	2
PM	0	150	0	1	151

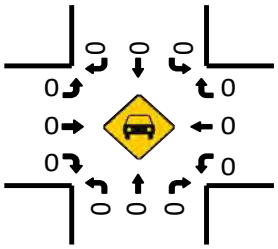
WESTBOUND (Hancock St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	1	165	0	0	166
PM	0	0	0	0	0

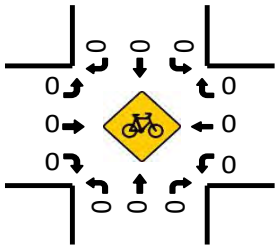
NORTHBOUND (Kurtz St)

	L	T	R	U	Total
AM	0	0	0	0	0
NOON	301	0	0	0	301
PM	0	0	0	0	0

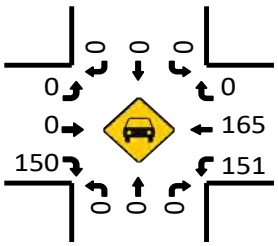
Totals (AM)



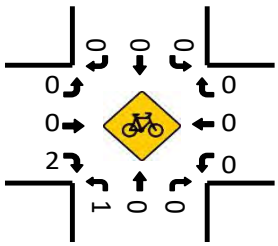
Total Bikes (AM)



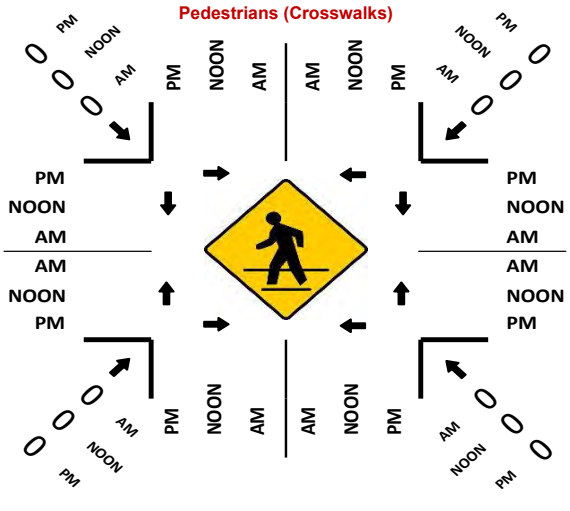
Totals (NOON)



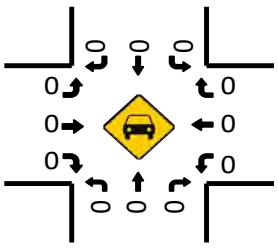
Total Bikes (NOON)



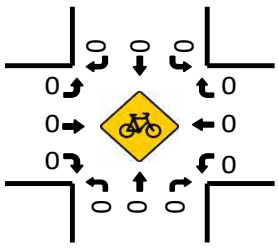
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sherman St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-007
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Sherman St)

AM	0	0	0	0	0	AM
NOON	0	0	83	0	74	NOON
PM	0	0	0	0	0	PM

Southbound turning movements: 0 | 1 | 0 | 0

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	70	0	0
0	321	0	2
0	0	0	0
AM	NOON	PM	

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	4	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	404	0	
PM	NOON	AM	

CONTROL

2-Way Stop(SB/EB)

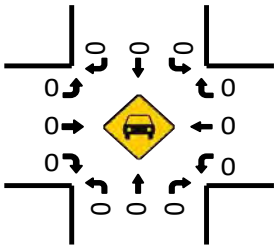
	AM	NOON	PM
TEV	0	478	0
PHF		0.96	

NORTHBOUND (Sherman St)

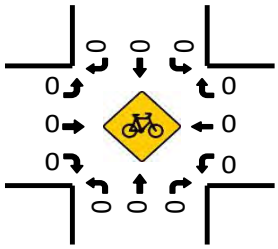
Northbound turning movements: 0 | 0 | 0 | 0

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM

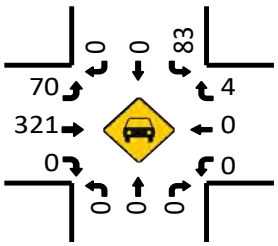
Totals (AM)



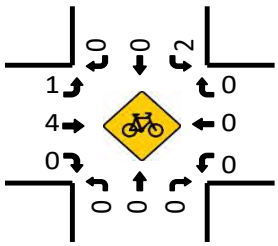
Total Bikes (AM)



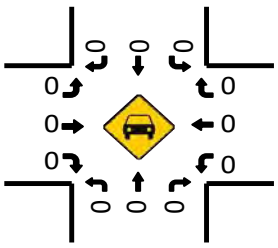
Totals (NOON)



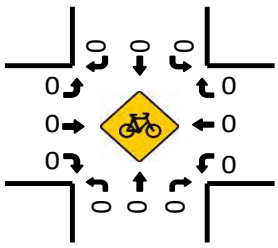
Total Bikes (NOON)



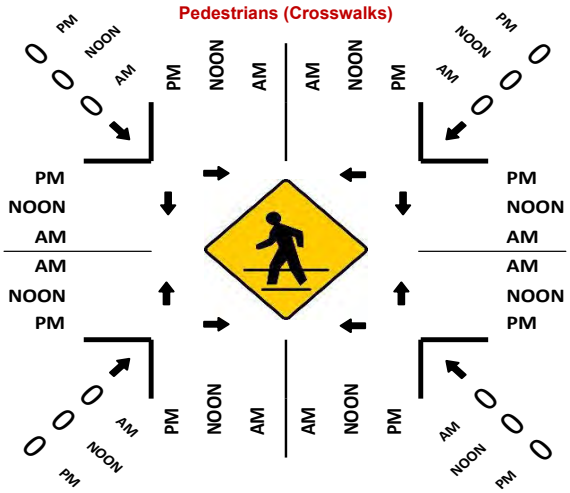
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Greenwood St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-009
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Greenwood St)

AM	0	0	0	0	0	AM
NOON	0	3	50	0	9	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	9	0	0
0	425	0	2
0	0	0	0
AM	NOON	PM	

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	477	0	
PM	NOON	AM	

NORTHBOUND (Greenwood St)

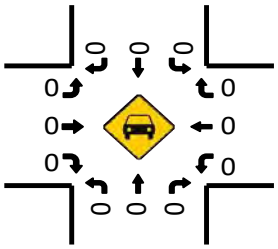
PM	0	0	0	0	0	PM
NOON	3	0	0	0	2	NOON
AM	0	0	0	0	0	AM

	0	1	0	0
	0	0	1	0

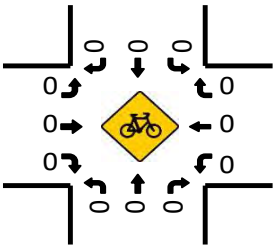
CONTROL
1-Way Stop (SB)

	AM	NOON	PM
TEV	0	489	0
PHF		0.96	

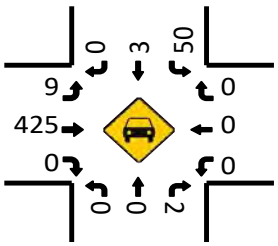
Totals (AM)



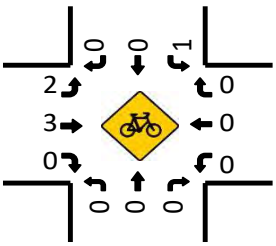
Total Bikes (AM)



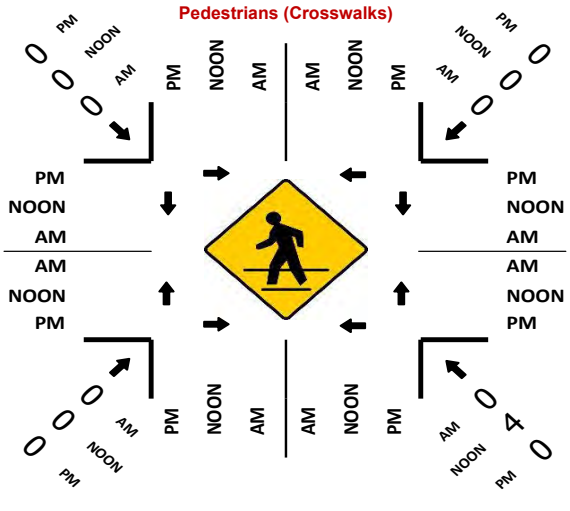
Totals (NOON)



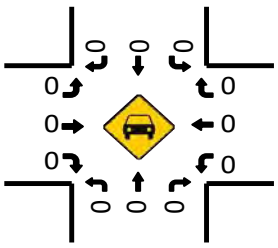
Total Bikes (NOON)



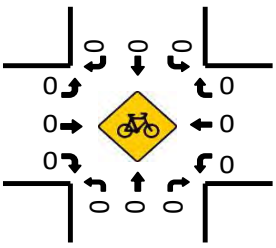
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sherman St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-026
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Sherman St)

AM	0	0	0	0	0	AM
NOON	4	43	0	0	41	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Hancock St)

AM	NOON	PM	
0	306	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
AM	NOON	PM	

WESTBOUND (Hancock St)

PM	NOON	AM	
0	26	0	0
0	257	0	2
0	37	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

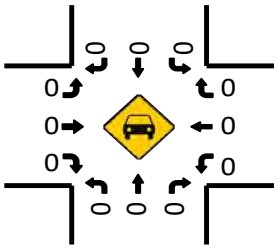
NORTHBOUND (Sherman St)

PM	0	0	0	0	0	PM
NOON	82	1	45	15	0	NOON
AM	0	0	0	0	0	AM

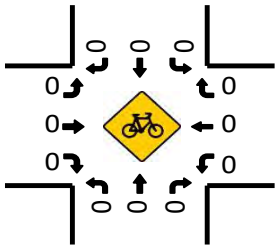
0 1 0 0 (SB) — 0 0 1 0 (NB)

CONTROL			
3-Way Stop(NB/SB/WB)			
TEV	0 AM	429 NOON	0 PM
PHF		0.86	

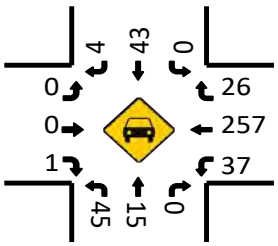
Totals (AM)



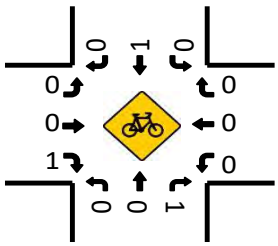
Total Bikes (AM)



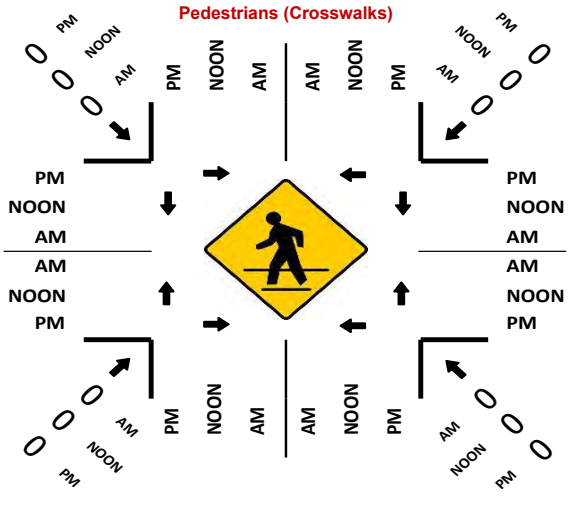
Totals (NOON)



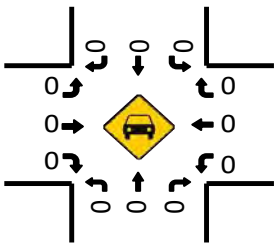
Total Bikes (NOON)



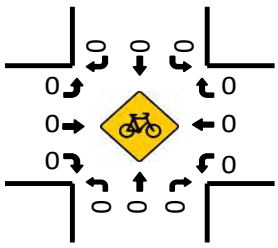
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Greenwood St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-008
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM: NONE
NOON: 11:00 AM - 12:00 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

SOUTHBOUND (Greenwood St)

AM	0	0	0	0	0	AM
NOON	85	48	4	0	30	NOON
PM	0	0	0	0	0	PM

0 1 0 0

EASTBOUND (Hancock St)

AM	NOON	PM	
0	309	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

CONTROL

2-Way Stop(NB/SB)

TEV	0 AM	413 NOON	0 PM
PHF		0.79	

WESTBOUND (Hancock St)

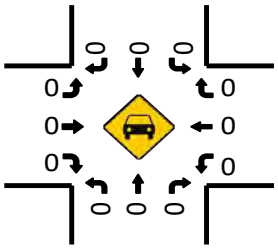
PM	NOON	AM	
0	24	0	0.5
0	218	0	1
0	22	0	0.5
0	0	0	0
0	4	0	
PM	NOON	AM	

0 0 1 0

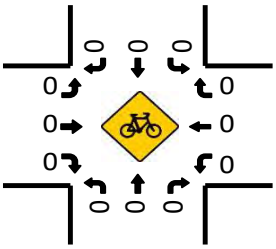
NORTHBOUND (Greenwood St)

PM	0	0	0	0	0	PM
NOON	70	0	6	6	0	NOON
AM	0	0	0	0	0	AM

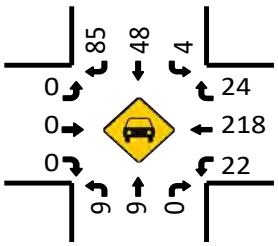
Totals (AM)



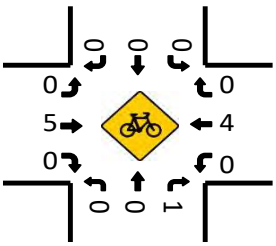
Total Bikes (AM)



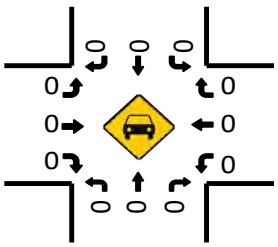
Totals (NOON)



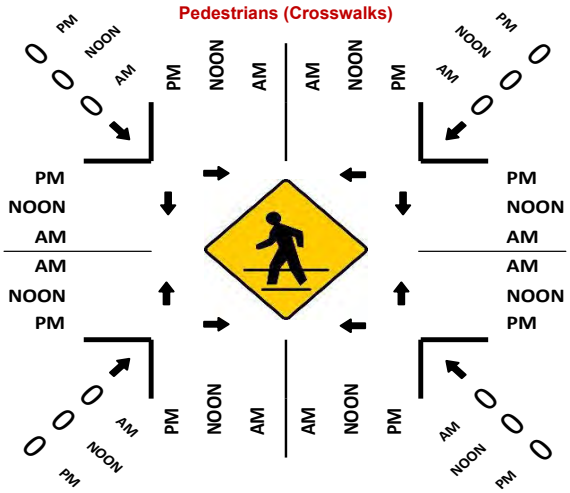
Total Bikes (NOON)



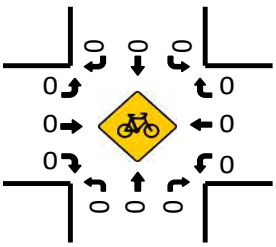
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Greenwood St/Moore St

Peak Hour Turning Movement Count

ID: 23-040246-010
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:45 AM - 12:45 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND (Camino Del Rio W)

AM	0	0	0	0	0	AM
NOON	9	2409	0	0	2314	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Greenwood St/Moore St)

AM	NOON	PM	
0	9	0	
0	0	0	0
0	0	0	0
0	0	0	1
0	9	0	0
AM	NOON	PM	

WESTBOUND (Greenwood St/Moore St)

PM	NOON	AM	
0	43	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	10	0	
PM	NOON	AM	

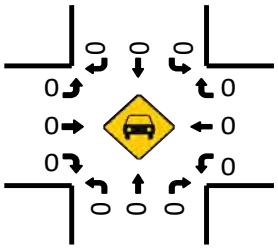
NORTHBOUND (Camino Del Rio W)

PM	0	0	0	0	0	PM
NOON	2418	0	0	2271	10	NOON
AM	0	0	0	0	0	AM

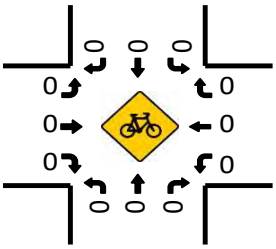
	0	3	0	0
	0	0	3	0

CONTROL			
2-Way Stop(EB/WB)			
TEV	0 AM	4751 NOON	0 PM
PHF		0.95	

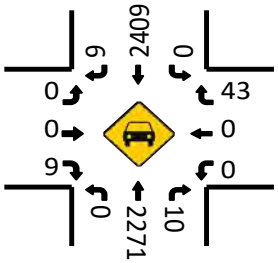
Totals (AM)



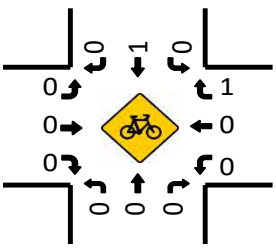
Total Bikes (AM)



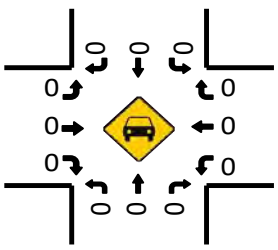
Totals (NOON)



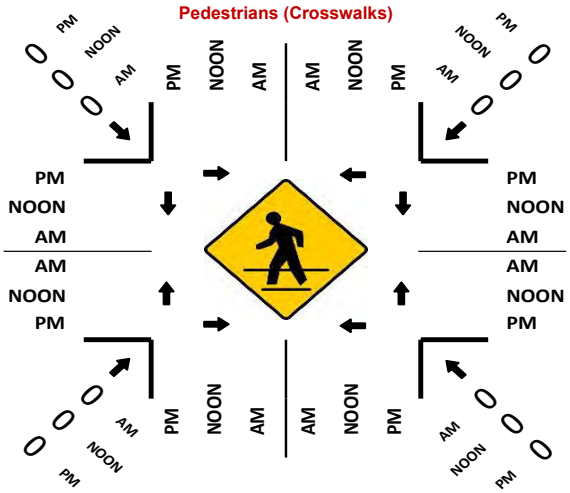
Total Bikes (NOON)



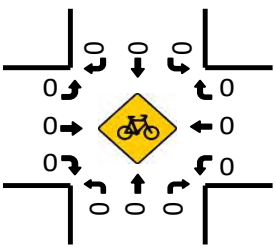
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W/Riley St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-011
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Camino Del Rio W/Riley St

AM	0	0	0	0	0	AM
NOON	171	2276	0	0	2299	NOON
PM	0	0	0	0	0	PM

1 3 0 0

EASTBOUND — Hancock St

AM	NOON	PM	
0	270	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
AM	NOON	PM	

WESTBOUND — Hancock St

PM	NOON	AM	
0	125	0	0
0	54	0	1.5
0	34	0	0.5
0	0	0	0
PM	NOON	AM	
0	8	0	

CONTROL: Signalized

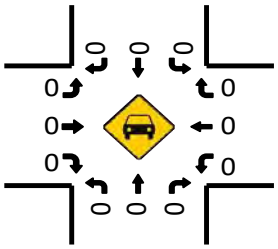
TEV	0 AM	4909 NOON	0 PM
PHF		0.96	

0 1 3 0

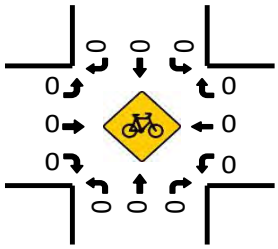
NORTHBOUND — Camino Del Rio W/Riley St

PM	0	0	0	0	0	PM
NOON	2332	21	45	2174	8	NOON
AM	0	0	0	0	0	AM

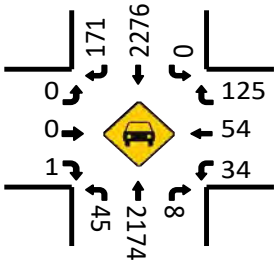
Totals (AM)



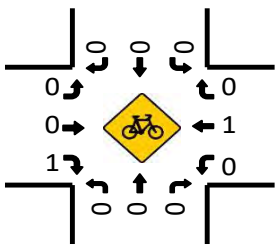
Total Bikes (AM)



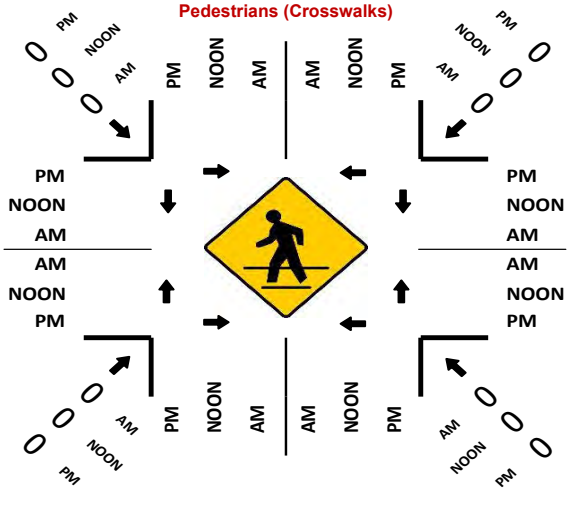
Totals (NOON)



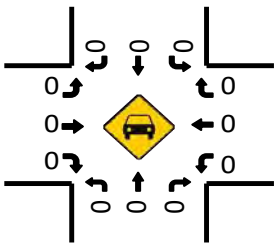
Total Bikes (NOON)



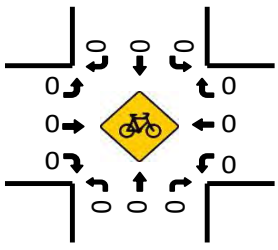
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Camino Del Rio W & Kurtz St/Gaines St

Peak Hour Turning Movement Count

ID: 23-040246-012
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:45 AM - 12:45 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND (Camino Del Rio W)

AM	0	0	0	0	0	AM
NOON	0	2181	86	39	2274	NOON
PM	0	0	0	0	0	PM

0 4 1 0

EASTBOUND (Kurtz St/Gaines St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	298	0	1.5	
0	126	0	0.5	
0	108	0	1	
AM	NOON	PM		

WESTBOUND (Kurtz St/Gaines St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	245	0	
PM	NOON	AM	

CONTROL

Signalized

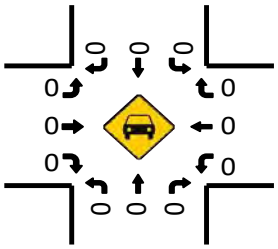
TEV	0 AM	4808 NOON	0 PM
PHF		0.98	

0 0 3 0

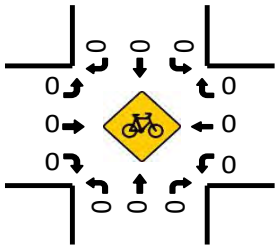
NORTHBOUND (Camino Del Rio W)

PM	0	0	0	0	PM
NOON	2289	0	0	1937	33 NOON
AM	0	0	0	0	AM

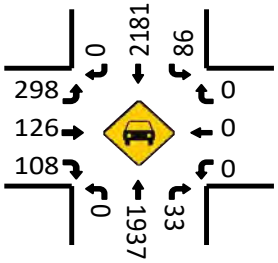
Totals (AM)



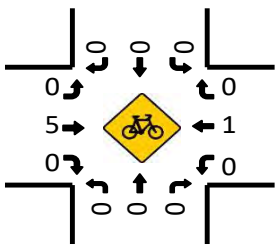
Total Bikes (AM)



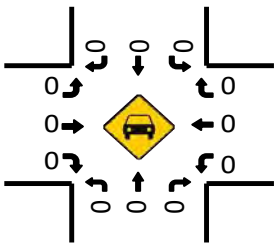
Totals (NOON)



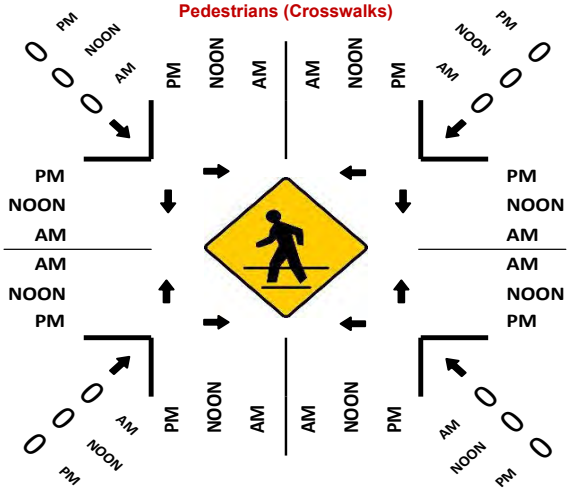
Total Bikes (NOON)



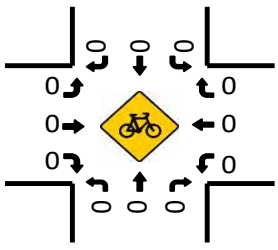
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St/Camino Del Rio W & Sports arena Blvd/Rosecrans St

Peak Hour Turning Movement Count

ID: 23-040246-019
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — Rosecrans St/Camino Del Rio W

AM	0	0	0	0	0	AM
NOON	799	1472	0	0	1893	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Sports arena Blvd/Rosecrans St

AM	NOON	PM		
0	1427	0		
0	9	0	0	
0	509	0	1.5	
0	398	0	1.5	
0	291	0	1	
AM	NOON	PM		

WESTBOUND — Sports arena Blvd/Rosecrans St

PM	NOON	AM	
0	20	0	0.5
0	287	0	1
0	196	0	1.5
0	0	0	0
0	720	0	
PM	NOON	AM	

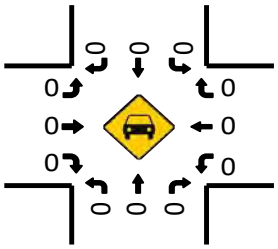
NORTHBOUND — Rosecrans St/Camino Del Rio W

PM	0	0	0	0	0	PM
NOON	2035	76	332	1364	322	NOON
AM	0	0	0	0	0	AM

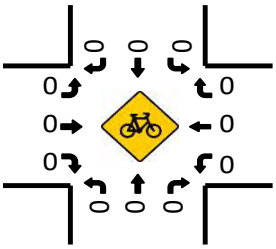
1	3	0	0
0	2	3	1

CONTROL			
Signalized			
TEV	0 AM	6075 NOON	0 PM
PHF		0.97	

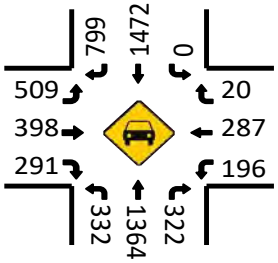
Totals (AM)



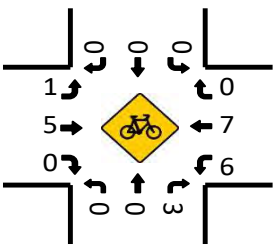
Total Bikes (AM)



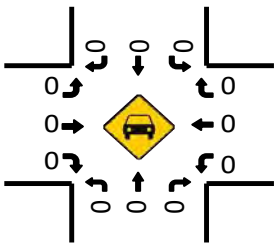
Totals (NOON)



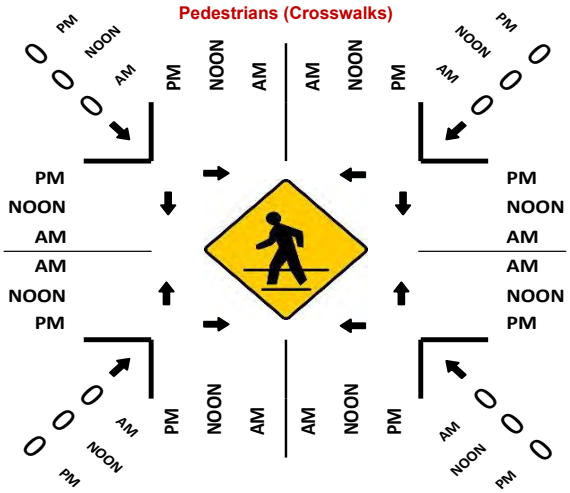
Total Bikes (NOON)



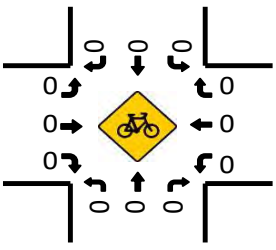
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-020
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	287	1352	347	98	2220	NOON
PM	0	0	0	0	0	PM

0 4 2 0

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	1205	0	
0	8	0	0
0	276	0	2
0	502	0	2
0	263	0	1

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	358	0	1
0	577	0	2
0	138	0	1
0	0	0	0
0	974	0	

CONTROL

Signalized

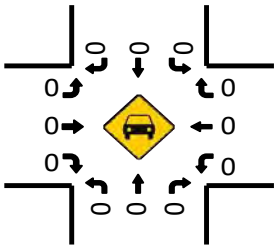
	AM	NOON	PM
TEV	0	6195	0
PHF		0.99	

0 2 3 0

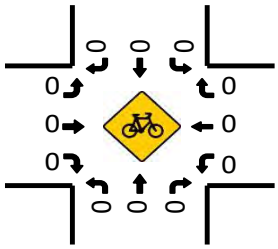
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	1796	43	333	1488	125	NOON
AM	0	0	0	0	0	AM

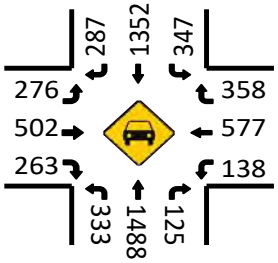
Totals (AM)



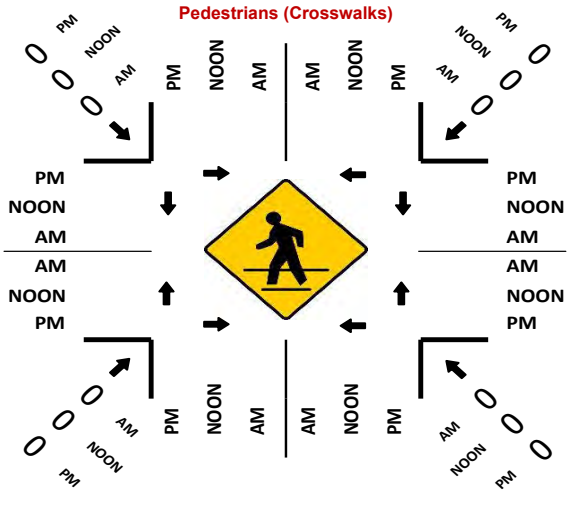
Total Bikes (AM)



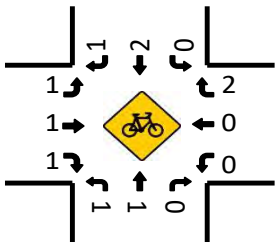
Totals (NOON)



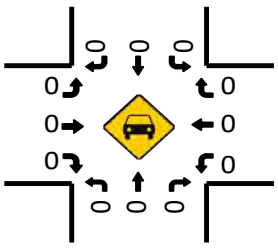
Pedestrians (Crosswalks)



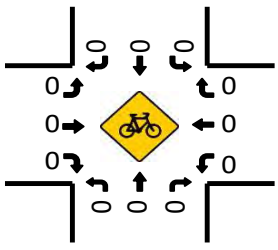
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & N Evergreen St/Shoup Dr

Peak Hour Turning Movement Count

ID: 23-040246-022
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	45	1597	103	87	2007	NOON
PM	0	0	0	0	0	PM

0 3 1 0

EASTBOUND (N Evergreen St/Shoup Dr)

AM	NOON	PM	
0	62	0	
0	0	0	0
0	36	0	0
0	5	0	1
0	4	0	0
AM	NOON	PM	

WESTBOUND (N Evergreen St/Shoup Dr)

PM	NOON	AM	
0	96	0	0
0	10	0	1
0	97	0	0
0	0	0	0
0	140	0	
PM	NOON	AM	

0 1 4 0

NORTHBOUND (Rosecrans St)

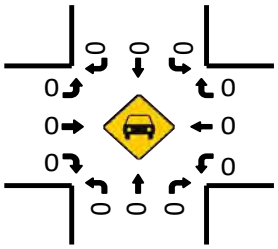
PM	0	0	0	0	0	PM
NOON	1712	14	7	1788	32	NOON
AM	0	0	0	0	0	AM

CONTROL

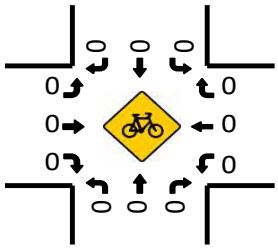
Signalized

	AM	NOON	PM
TEV	0	3921	0
PHF		0.99	

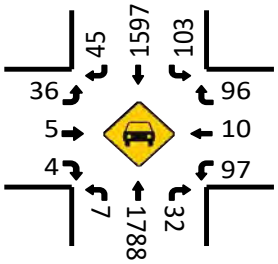
Totals (AM)



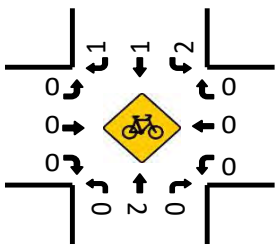
Total Bikes (AM)



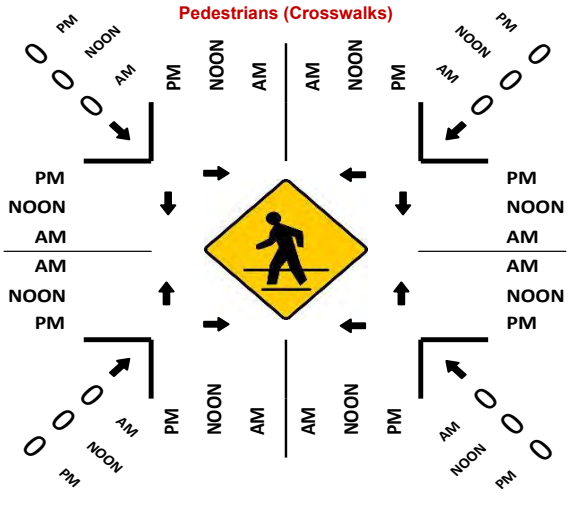
Totals (NOON)



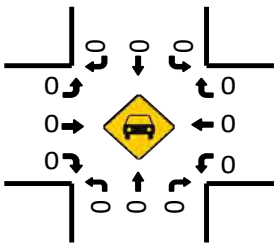
Total Bikes (NOON)



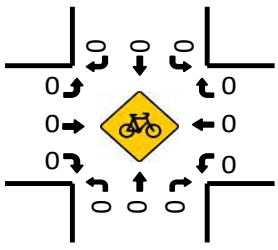
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Lytton St

Peak Hour Turning Movement Count

ID: 23-040246-021
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	278	1167	206	24	1884	NOON
PM	0	0	0	0	0	PM

1 2 2 0

EASTBOUND (Lytton St)

AM	NOON	PM	
0	488	0	
0	0	0	0
0	245	0	1
0	146	0	0.5
0	18	0	0.5
AM	NOON	PM	

WESTBOUND (Lytton St)

PM	NOON	AM	
0	219	0	1
0	191	0	1
0	357	0	2
0	0	0	0
PM	NOON	AM	
0	777	0	

CONTROL

Signalized

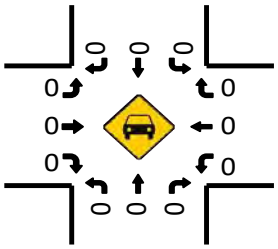
	AM	NOON	PM
TEV	0	4691	0
PHF		0.99	

0 1 3 1

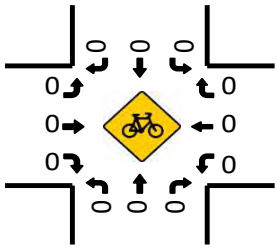
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	1542	0	19	1396	425	NOON
AM	0	0	0	0	0	AM

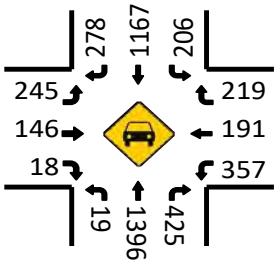
Totals (AM)



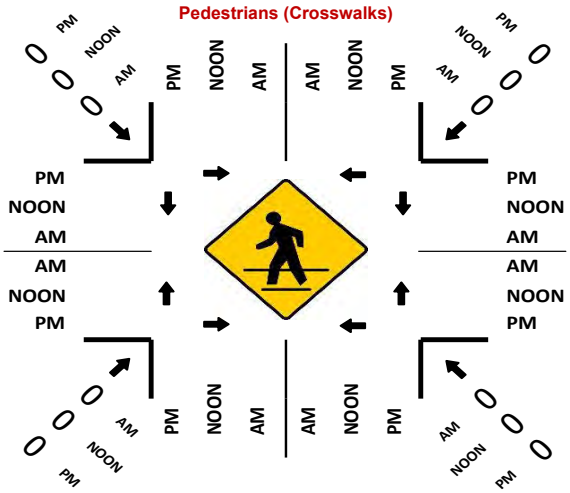
Total Bikes (AM)



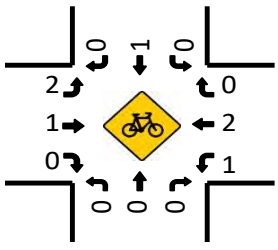
Totals (NOON)



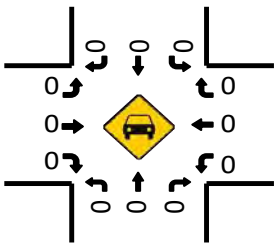
Pedestrians (Crosswalks)



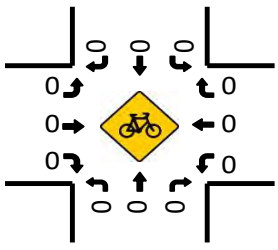
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-013
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	0	299	41	0	678	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM		
0	0	0		
0	0	0	0	
0	52	0	1	
0	188	0	0.5	
0	11	0	0.5	
AM	NOON	PM		

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	115	0	1
0	0	0	0
0	172	0	1
0	0	0	0
0	476	0	
PM	NOON	AM	

NORTHBOUND (Rosecrans St)

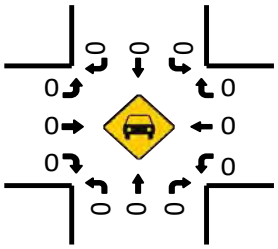
PM	0	0	0	0	0	PM
NOON	484	2	0	511	247	NOON
AM	0	0	0	0	0	AM

	0	2	1	0
	0	0	2	0

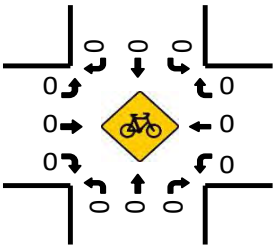
CONTROL: Signalized

TEV	0 AM	1638 NOON	0 PM
PHF		0.94	

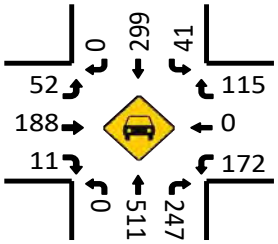
Totals (AM)



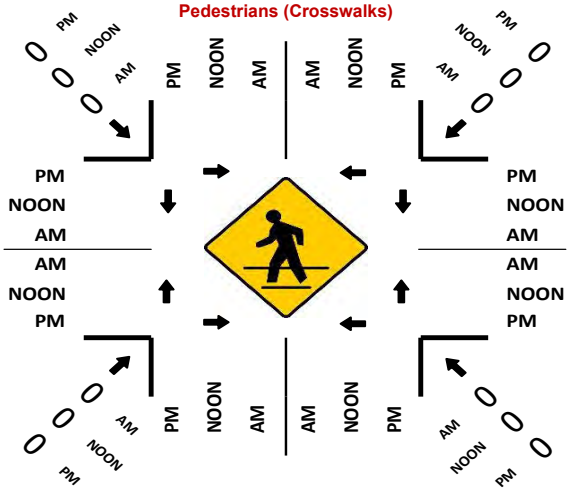
Total Bikes (AM)



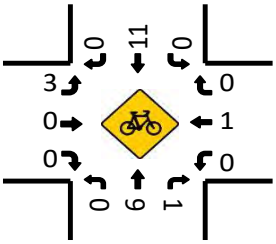
Totals (NOON)



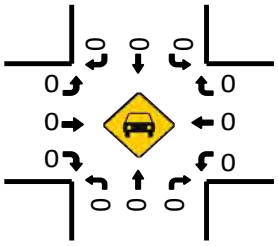
Pedestrians (Crosswalks)



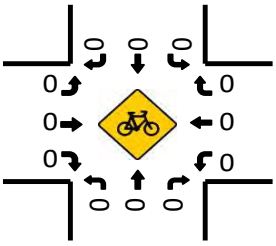
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Rosecrans St & Hancock St

Peak Hour Turning Movement Count

ID: 23-040246-014
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Rosecrans St)

AM	0	0	0	0	0	AM
NOON	38	306	0	0	537	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Hancock St)

AM	NOON	PM
0	180	0
0	0	0
0	0	0
0	0	0
0	0	0

WESTBOUND (Hancock St)

PM	NOON	AM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

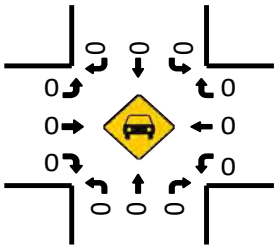
NORTHBOUND (Rosecrans St)

PM	0	0	0	0	0	PM
NOON	324	18	142	537	0	NOON
AM	0	0	0	0	0	AM

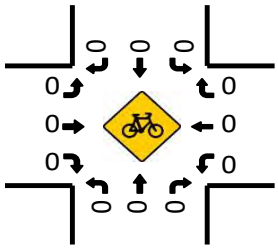
CONTROL: No Control

	AM	NOON	PM
TEV	0	1041	0
PHF		0.89	

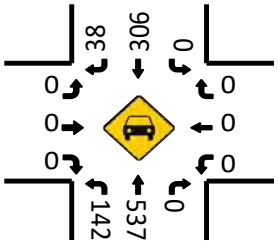
Totals (AM)



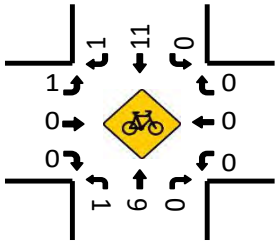
Total Bikes (AM)



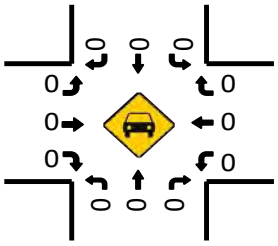
Totals (NOON)



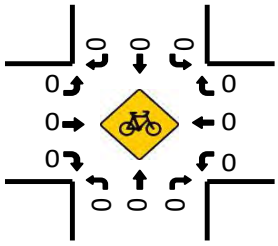
Total Bikes (NOON)



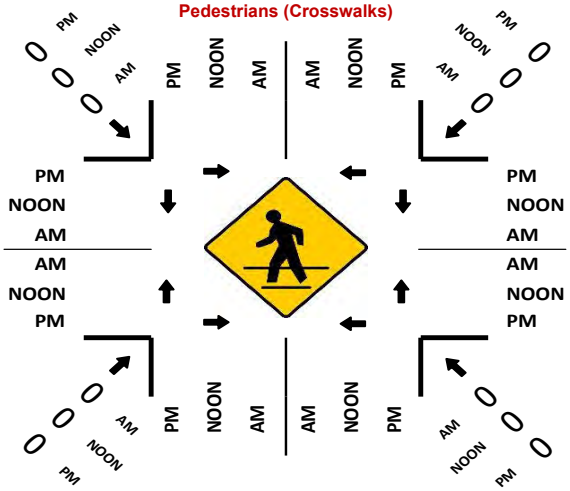
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Pacific Hwy & Rosecrans St/Taylor St

Peak Hour Turning Movement Count

ID: 23-040246-015
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
AM: NONE	AM: NONE
NOON: 11:15 AM - 12:15 PM	NOON: 11:00 AM - 01:00 PM
PM: NONE	PM: NONE

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	88	89	60	1	197	NOON
PM	0	0	0	0	0	PM

1 2 2 0

EASTBOUND (Rosecrans St/Taylor St)

AM	NOON	PM	
0	406	0	
0	0	0	0
0	47	0	1
0	302	0	4
0	94	0	1
AM	NOON	PM	

WESTBOUND (Rosecrans St/Taylor St)

PM	NOON	AM	
0	58	0	1
0	218	0	1
0	143	0	2
0	0	0	0
0	502	0	
PM	NOON	AM	

1 1 2 0

CONTROL

Signalized

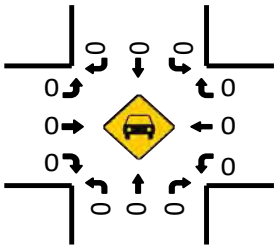
	AM	NOON	PM
TEV	0	1431	0
PHF		0.96	

0 1 2 2

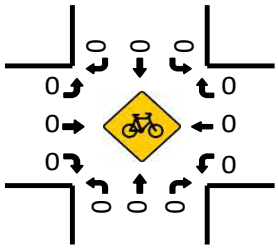
NORTHBOUND (Pacific Hwy)

PM	0	0	0	0	0	PM
NOON	326	0	100	91	140	NOON
AM	0	0	0	0	0	AM

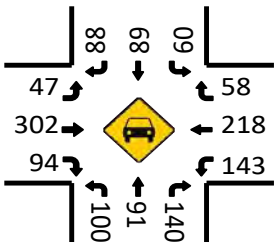
Totals (AM)



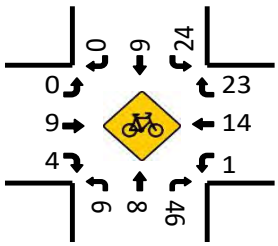
Total Bikes (AM)



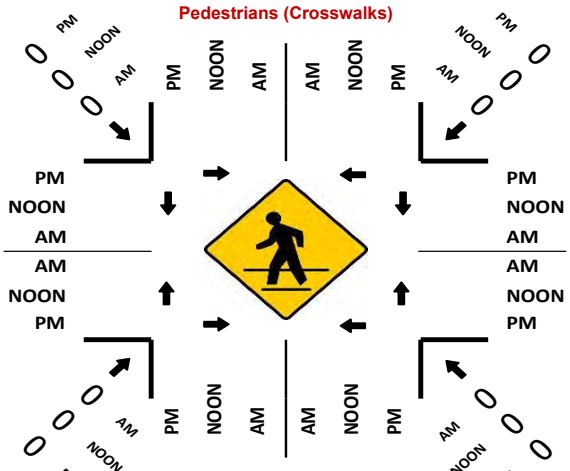
Totals (NOON)



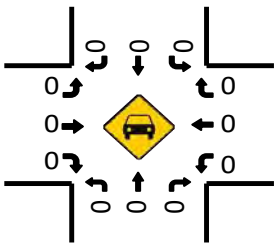
Total Bikes (NOON)



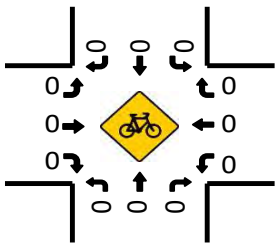
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Kurtz St

Peak Hour Turning Movement Count

ID: 23-040246-016
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:00 AM - 12:00 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND (Pacific Hwy)

AM	0	0	0	0	0	AM
NOON	12	276	0	0	310	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Kurtz St)

AM	NOON	PM	
0	240	0	
0	0	0	0
0	0	0	0
0	0	0	1
0	382	0	0
AM	NOON	PM	

WESTBOUND (Kurtz St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

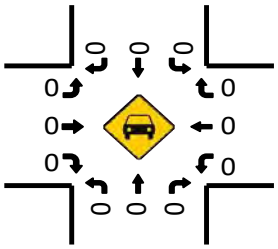
NORTHBOUND (Pacific Hwy)

PM	0	0	0	0	0	PM
NOON	658	0	228	310	0	NOON
AM	0	0	0	0	0	AM

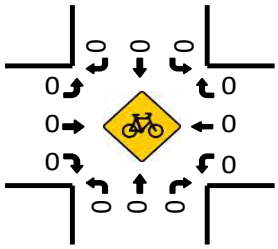
	0	3	0	0
	0	1	3	0

CONTROL			
1-Way Stop(EB)			
TEV	0 AM	1208 NOON	0 PM
PHF		0.95	

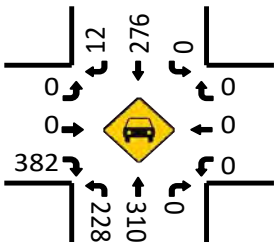
Totals (AM)



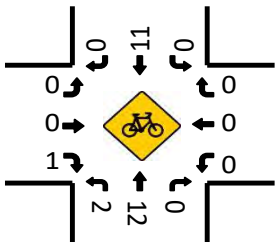
Total Bikes (AM)



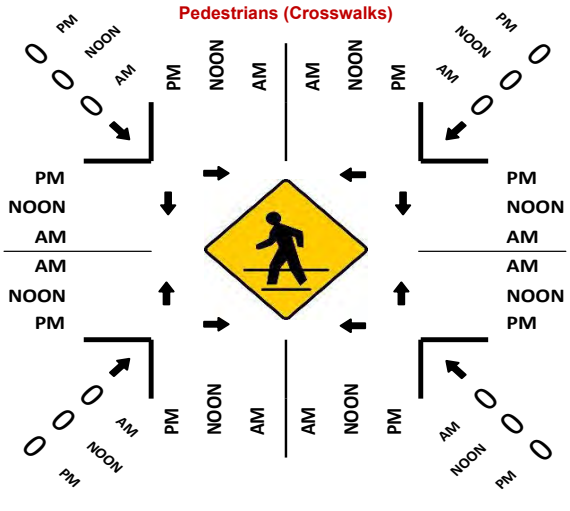
Totals (NOON)



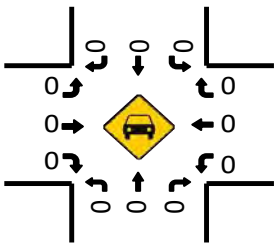
Total Bikes (NOON)



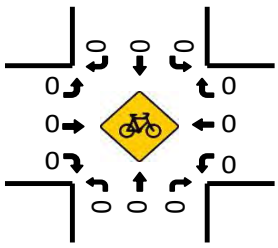
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Pacific Hwy & Enterprise St

Peak Hour Turning Movement Count

ID: 23-040246-031
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:15 AM - 12:15 PM	11:00 AM - 01:00 PM
NONE	NONE

CONTROL: Signalized

	AM	NOON	PM
TEV	0	1481	0
PHF		0.94	

SOUTHBOUND (Pacific Hwy)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	79	666	3	4	529	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Enterprise St)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	0	17	3	17	201	NOON
PM	0	0	0	0	0	PM

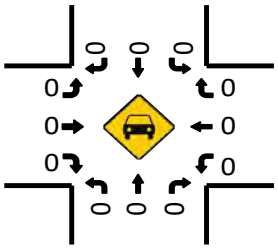
WESTBOUND (Enterprise St)

	L	T	R	U	Total	
AM	1	0	0	0	0	AM
NOON	1	2	6	0	2	NOON
PM	1	0	0	0	0	PM

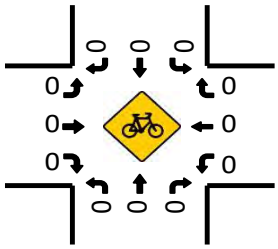
NORTHBOUND (Pacific Hwy)

	L	T	R	U	Total	
AM	0	0	0	0	0	AM
NOON	745	61	120	506	0	NOON
PM	0	0	0	0	0	PM

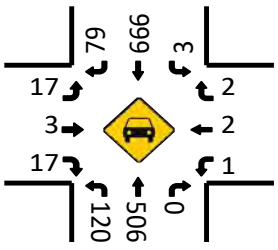
Totals (AM)



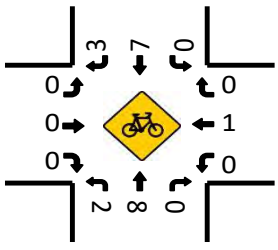
Total Bikes (AM)



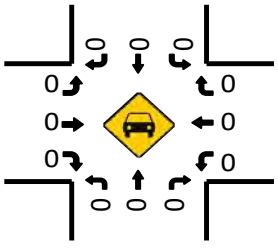
Totals (NOON)



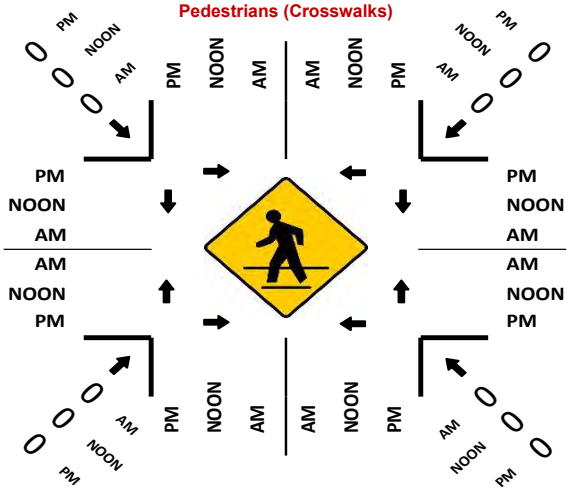
Total Bikes (NOON)



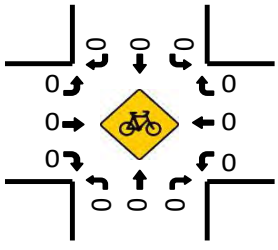
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Enterprise St & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-018
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Enterprise St)

AM	0	0	0	0	0	AM
NOON	147	0	0	0	11	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	974	0	
0	0	0	0
0	0	0	0
0	765	0	2
0	0	0	0
AM	NOON	PM	

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	11	0	0
0	827	0	2
0	0	0	0
0	0	0	0
0	765	0	
PM	NOON	AM	

NORTHBOUND (Enterprise St)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

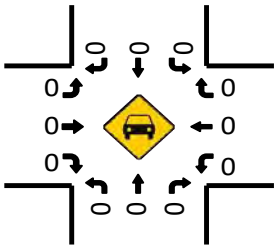
1	0	0	0
0	0	0	0

CONTROL

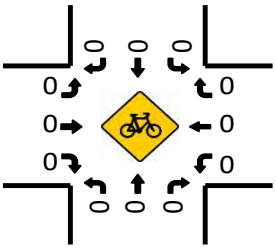
1-Way Stop(SB)

TEV	0 AM	1750 NOON	0 PM
PHF		0.91	

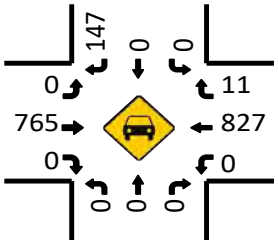
Totals (AM)



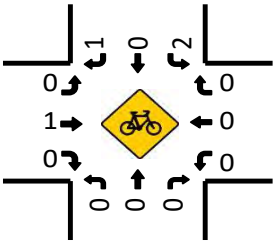
Total Bikes (AM)



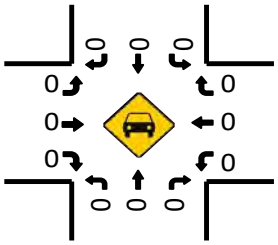
Totals (NOON)



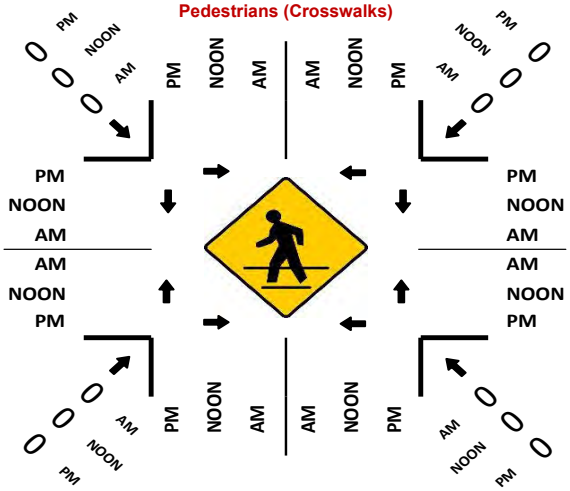
Total Bikes (NOON)



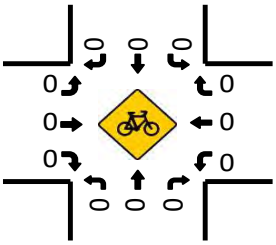
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Barnett Ave & Midway Dr

Peak Hour Turning Movement Count

ID: 23-040246-017
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM: NONE
NOON: 11:45 AM - 12:45 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

Barnett Ave

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	838	846	0	0	1446	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Midway Dr)

AM	NOON	PM	
0	838	0	
0	0	0	0
0	665	0	0
0	0	0	2
0	101	0	1

WESTBOUND (Midway Dr)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

1 2 0 0

0 0 2 0

CONTROL: Signalized

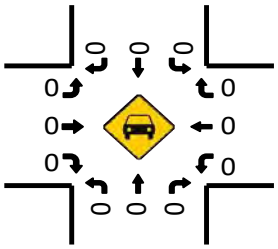
	AM	NOON	PM
TEV	0	3231	0
PHF		0.97	

PM	0	0	0	0	0	PM
NOON	947	0	0	781	0	NOON
AM	0	0	0	0	0	AM

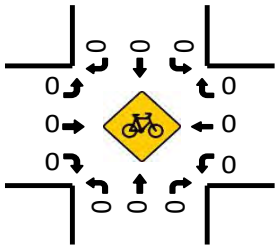
NORTHBOUND

Barnett Ave

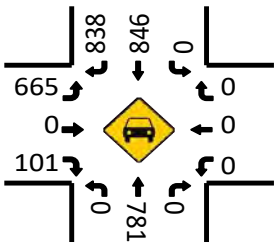
Totals (AM)



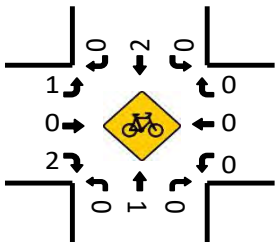
Total Bikes (AM)



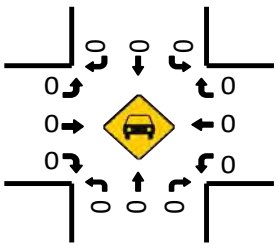
Totals (NOON)



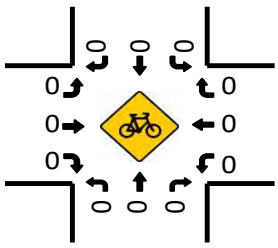
Total Bikes (NOON)



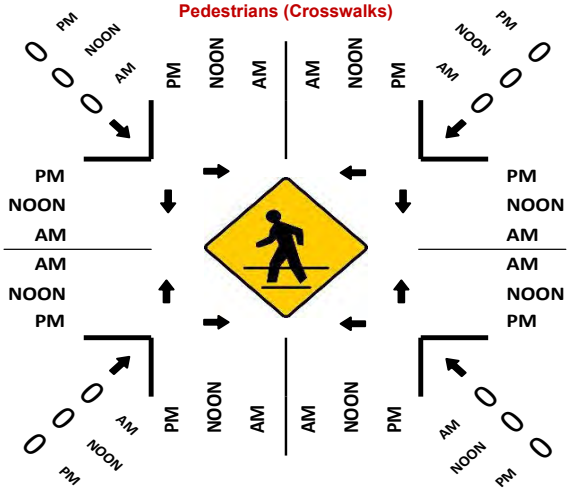
Totals (PM)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Sea World Dr & Friars Rd

Peak Hour Turning Movement Count

ID: 23-040246-027
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS

AM	NONE
NOON	11:00 AM - 12:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND (Sea World Dr)

AM	0	0	0	0	0	AM
NOON	0	1320	94	7	874	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Friars Rd)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Friars Rd)

PM	NOON	AM	
0	0	0	1.5
0	0	0	0
0	0	0	1.5
0	0	0	0
0	293	0	
PM	NOON	AM	

NORTHBOUND (Sea World Dr)

PM	0	0	0	0	0	PM
NOON	1320	0	0	867	199	NOON
AM	0	0	0	0	0	AM

	0	2	2
	0	0	2

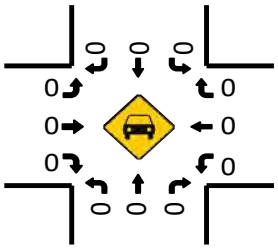
	0	0	1

CONTROL

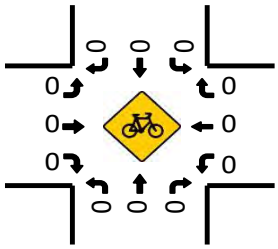
Signalized

	AM	NOON	PM
TEV	0	2487	0
PHF		0.91	

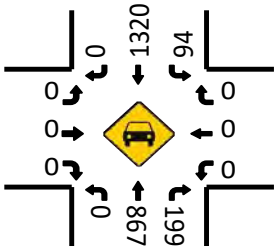
Totals (AM)



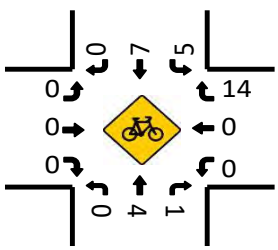
Total Bikes (AM)



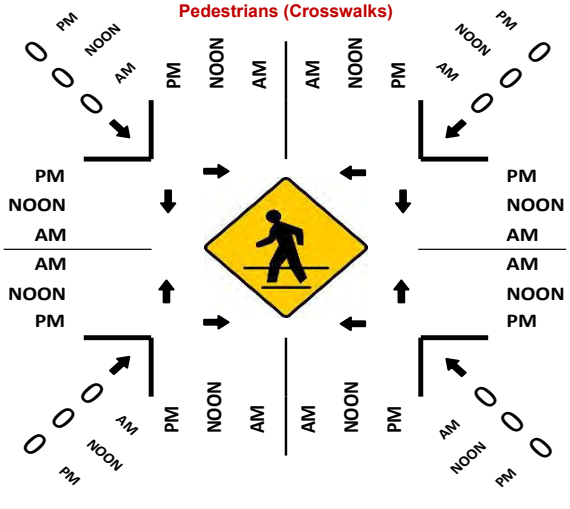
Totals (NOON)



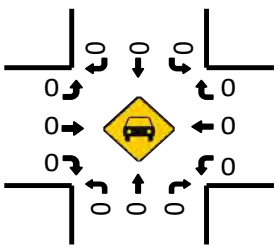
Total Bikes (NOON)



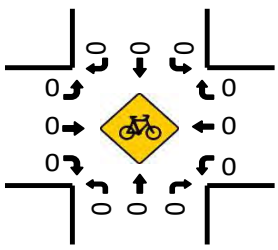
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Sea World Dr & Pacific Hwy/E Mission Bay Dr

Peak Hour Turning Movement Count

ID: 23-040246-028
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:00 AM - 12:00 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND — Sea World Dr

AM	0	0	0	0	0	AM
NOON	239	1250	85	0	1105	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Pacific Hwy/E Mission Bay Dr

AM	NOON	PM	
0	350	0	
0	0	0	0
0	253	0	2
0	56	0	1
0	148	0	1
AM	NOON	PM	

WESTBOUND — Pacific Hwy/E Mission Bay Dr

PM	NOON	AM	
0	76	0	1
0	36	0	1
0	33	0	1
0	0	0	0
0	164	0	
PM	NOON	AM	

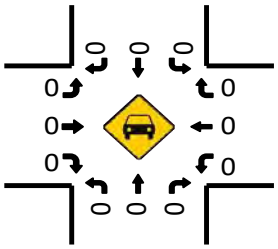
NORTHBOUND — Sea World Dr

PM	0	0	0	0	0	PM
NOON	1431	0	75	776	23	NOON
AM	0	0	0	0	0	AM

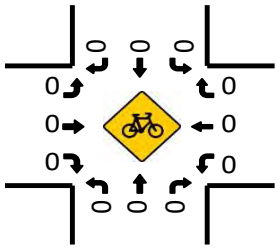
1	2	1	0
0	2	2	0

CONTROL			
Signalized			
TEV	0 AM	3050 NOON	0 PM
PHF		0.96	

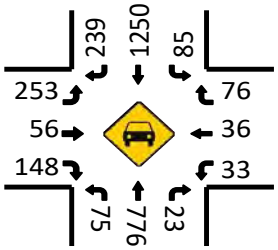
Totals (AM)



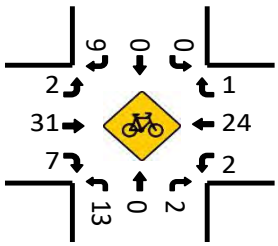
Total Bikes (AM)



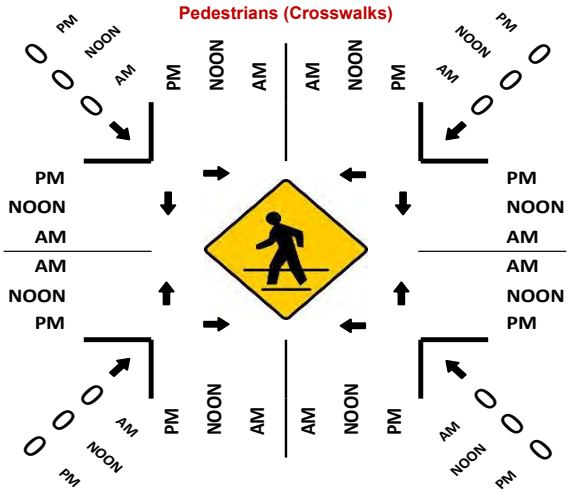
Totals (NOON)



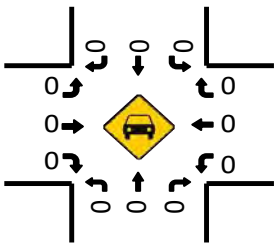
Total Bikes (NOON)



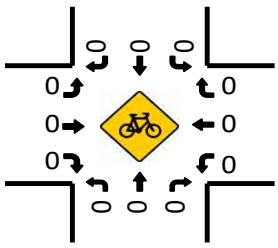
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

I-5/San Diego Fwy SB Ramps & Sea World Dr

Peak Hour Turning Movement Count

ID: 23-040246-029
City: San Diego

Day: Saturday
Date: 12/9/2023

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:15 AM - 12:15 PM	11:00 AM - 01:00 PM
NONE	NONE

SOUTHBOUND — I-5/San Diego Fwy SB Ramps

AM	0	0	0	0	0	AM
NOON	952	2	192	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Sea World Dr

AM	NOON	PM	
0	1545	0	
0	0	0	0
0	0	0	0
0	887	0	2
0	251	0	1
AM	NOON	PM	

WESTBOUND — Sea World Dr

PM	NOON	AM	
0	0	0	0
0	593	0	2
0	259	0	2
0	1	0	0
0	1080	0	
PM	NOON	AM	

NORTHBOUND — I-5/San Diego Fwy SB Ramps

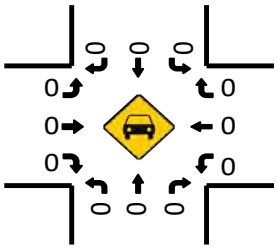
PM	0	0	0	0	0	PM
NOON	512	0	0	0	0	NOON
AM	0	0	0	0	0	AM

	1	0	1	0
	0	0	0	0

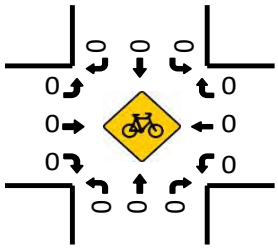
CONTROL: Signalized

TEV	0 AM	3137 NOON	0 PM
PHF		0.96	

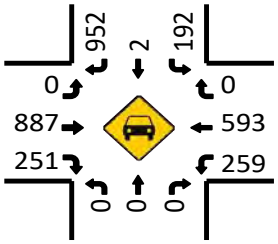
Totals (AM)



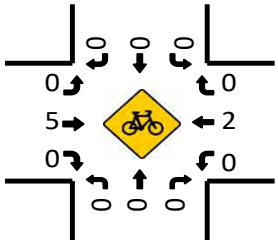
Total Bikes (AM)



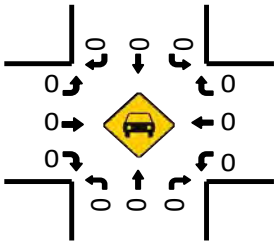
Totals (NOON)



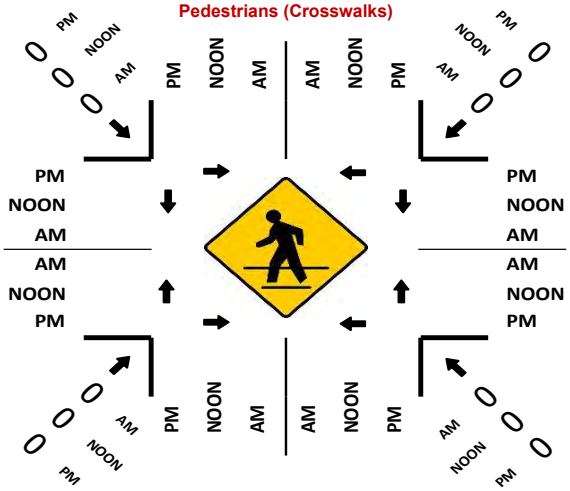
Total Bikes (NOON)



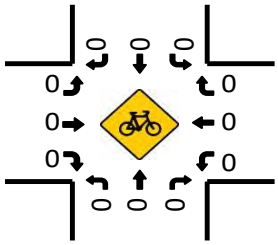
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Appendix F

Existing Conditions Intersection LOS Worksheets



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	751	1322	376	0	0	1288
Future Volume (vph)	751	1322	376	0	0	1288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.94	0.94	0.85	0.85	0.93	0.93
Adj. Flow (vph)	799	1406	442	0	0	1385
RTOR Reduction (vph)	0	98	0	0	0	0
Lane Group Flow (vph)	799	1308	442	0	0	1385
Confl. Bikes (#/hr)				1		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	32.3	53.1	17.3			38.1
Effective Green, g (s)	32.3	53.1	14.3			38.1
Actuated g/C Ratio	0.38	0.62	0.17			0.45
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1298	1732	851			2858
v/s Ratio Prot	0.23	c0.47	0.09			c0.22
v/s Ratio Perm						
v/c Ratio	0.62	0.76	0.52			0.48
Uniform Delay, d1	21.5	11.5	32.4			16.7
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.6	1.7	0.2			0.0
Delay (s)	22.1	13.2	32.6			16.8
Level of Service	C	B	C			B
Approach Delay (s)	16.5		32.6			16.8
Approach LOS	B		C			B

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	85.4	Sum of lost time (s)	25.5
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
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)	326	193	193	16	166	341	154	298	16	259	300	156
Future Volume (veh/h)	326	193	193	16	166	341	154	298	16	259	300	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	321	217	18	191	0	165	332	0	194	418	0
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.91	0.91	0.91	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	509	534	669	280	558		253	532		304	639	
Arrive On Green	0.29	0.29	0.29	0.16	0.16	0.00	0.14	0.14	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1781	1870	1552	1781	3554	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	292	321	217	18	191	0	165	332	0	194	418	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1552	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.2	11.9	7.5	0.7	3.8	0.0	7.0	6.7	0.0	8.1	8.4	0.0
Cycle Q Clear(g_c), s	11.2	11.9	7.5	0.7	3.8	0.0	7.0	6.7	0.0	8.1	8.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	509	534	669	280	558		253	532		304	639	
V/C Ratio(X)	0.57	0.60	0.32	0.06	0.34		0.65	0.62		0.64	0.65	
Avail Cap(c_a), veh/h	780	819	905	1113	2221		669	1404		669	1404	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.5	24.7	15.3	28.8	30.1	0.0	32.5	32.4	0.0	30.9	31.0	0.0
Incr Delay (d2), s/veh	2.8	3.0	0.8	0.4	1.4	0.0	2.3	1.0	0.0	1.4	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	5.3	3.3	0.3	1.7	0.0	3.1	3.0	0.0	3.5	3.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	27.7	16.0	29.1	31.5	0.0	34.8	33.3	0.0	32.3	31.7	0.0
LnGrp LOS	C	C	B	C	C		C	C		C	C	
Approach Vol, veh/h		830			209			497			612	
Approach Delay, s/veh		24.5			31.3			33.8			31.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	27.8	18.6	17.5	16.3
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	35.1	30.1	50.1	30.1
Max Q Clear Time (g_c+I1), s	13.9	10.4	5.8	9.0
Green Ext Time (p_c), s	8.3	2.4	3.4	2.2

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	403	12	5	427	45	0	0	0	47	0	76
Future Volume (veh/h)	96	403	12	5	427	45	0	0	0	47	0	76
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99				1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	101	424	13	5	464	49				55	0	89
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92				0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	134	1469	45	10	1632	170				203	0	176
Arrive On Green	0.08	0.42	0.42	0.01	0.35	0.35				0.11	0.00	0.11
Sat Flow, veh/h	1781	3516	108	1781	4691	488				1781	0	1545
Grp Volume(v), veh/h	101	214	223	5	335	178				55	0	89
Grp Sat Flow(s),veh/h/ln	1781	1777	1847	1781	1702	1774				1781	0	1545
Q Serve(g_s), s	1.7	2.4	2.5	0.1	2.2	2.2				0.9	0.0	1.7
Cycle Q Clear(g_c), s	1.7	2.4	2.5	0.1	2.2	2.2				0.9	0.0	1.7
Prop In Lane	1.00		0.06	1.00		0.27				1.00		1.00
Lane Grp Cap(c), veh/h	134	742	771	10	1185	617				203	0	176
V/C Ratio(X)	0.75	0.29	0.29	0.52	0.28	0.29				0.27	0.00	0.50
Avail Cap(c_a), veh/h	1776	3479	3616	1776	6665	3474				2327	0	2019
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	1.00	1.00	1.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	5.9	5.9	15.2	7.2	7.3				12.4	0.0	12.8
Incr Delay (d2), s/veh	3.2	0.3	0.2	14.9	0.2	0.3				0.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.5	0.5	0.1	0.5	0.5				0.3	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	6.2	6.2	30.1	7.4	7.6				12.7	0.0	13.6
LnGrp LOS	B	A	A	C	A	A				B	A	B
Approach Vol, veh/h		538			518						144	
Approach Delay, s/veh		8.2			7.7						13.3	
Approach LOS		A			A						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	4.6	17.7		8.4	6.7	15.6
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1
Max Q Clear Time (g_c+I2), s	2.1	4.5		3.7	3.7	4.2
Green Ext Time (p_c), s	0.0	3.4		0.3	0.1	4.4

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	300	109	117	295	43	117	40	83	27	26	67
Future Volume (veh/h)	51	300	109	117	295	43	117	40	83	27	26	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	330	120	131	331	48	133	45	94	33	31	81
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.88	0.88	0.88	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	765	272	172	1592	225	423	143	298	280	224	424
Arrive On Green	0.05	0.30	0.30	0.10	0.35	0.35	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	3456	2539	903	1781	4519	638	1281	532	1112	567	837	1585
Grp Volume(v), veh/h	56	229	221	131	247	132	133	0	139	64	0	81
Grp Sat Flow(s),veh/h/ln	1728	1777	1665	1781	1702	1754	1281	0	1645	1405	0	1585
Q Serve(g_s), s	0.7	4.4	4.5	3.0	2.2	2.2	3.9	0.0	2.9	0.0	0.0	1.7
Cycle Q Clear(g_c), s	0.7	4.4	4.5	3.0	2.2	2.2	6.9	0.0	2.9	2.9	0.0	1.7
Prop In Lane	1.00		0.54	1.00		0.36	1.00		0.68	0.52		1.00
Lane Grp Cap(c), veh/h	157	535	501	172	1199	618	423	0	440	505	0	424
V/C Ratio(X)	0.36	0.43	0.44	0.76	0.21	0.21	0.31	0.00	0.32	0.13	0.00	0.19
Avail Cap(c_a), veh/h	2897	2515	2356	2542	4818	2482	1290	0	1553	2895	0	2990
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.7	11.9	12.0	18.7	9.6	9.6	15.2	0.0	12.4	11.8	0.0	12.0
Incr Delay (d2), s/veh	0.5	1.1	1.2	2.6	0.2	0.3	0.2	0.0	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.5	1.5	1.2	0.6	0.7	1.0	0.0	0.9	0.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	13.0	13.1	21.3	9.8	10.0	15.4	0.0	12.6	11.8	0.0	12.1
LnGrp LOS	C	B	B	C	A	A	B	A	B	B	A	B
Approach Vol, veh/h		506			510			272			145	
Approach Delay, s/veh		13.8			12.8			14.0			12.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	19.9		16.3	8.5	17.7		16.3
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	35.6	60.1		40.1	60.6	60.1		80.1
Max Q Clear Time (g_c+I1), s	2.7	4.2		8.9	5.0	6.5		4.9
Green Ext Time (p_c), s	0.1	4.8		0.8	0.2	5.8		0.4

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	371	53	82	364	67	53	9	45	44	9	31
Future Volume (veh/h)	32	371	53	82	364	67	53	9	45	44	9	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	403	58	89	396	73	63	11	54	50	10	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.84	0.84	0.84	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	863	123	112	1340	239	136	24	240	146	29	154
Arrive On Green	0.03	0.28	0.28	0.06	0.31	0.31	0.09	0.09	0.09	0.10	0.10	0.10
Sat Flow, veh/h	3456	3102	443	1781	4337	774	1527	267	1571	1496	299	1585
Grp Volume(v), veh/h	35	229	232	89	308	161	74	0	54	60	0	35
Grp Sat Flow(s),veh/h/ln	1728	1777	1768	1781	1702	1707	1794	0	1571	1796	0	1585
Q Serve(g_s), s	0.4	4.3	4.4	2.0	2.8	2.9	1.6	0.0	1.2	1.3	0.0	0.8
Cycle Q Clear(g_c), s	0.4	4.3	4.4	2.0	2.8	2.9	1.6	0.0	1.2	1.3	0.0	0.8
Prop In Lane	1.00		0.25	1.00		0.45	0.85		1.00	0.83		1.00
Lane Grp Cap(c), veh/h	111	494	492	112	1052	528	160	0	240	175	0	154
V/C Ratio(X)	0.31	0.46	0.47	0.79	0.29	0.31	0.46	0.00	0.22	0.34	0.00	0.23
Avail Cap(c_a), veh/h	436	936	931	467	2255	1131	1597	0	1498	799	0	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.1	12.1	12.1	18.7	10.6	10.7	17.5	0.0	15.0	17.0	0.0	16.9
Incr Delay (d2), s/veh	0.6	0.8	0.9	4.7	0.1	0.1	0.8	0.0	0.2	0.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.4	1.5	0.8	0.8	0.8	0.6	0.0	0.4	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	13.0	13.0	23.3	10.7	10.8	18.3	0.0	15.2	17.5	0.0	17.1
LnGrp LOS	B	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		496			558			128			95	
Approach Delay, s/veh		13.5			12.7			17.0			17.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.0	16.1		8.8	5.7	17.4		8.5
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	21.3		18.0	5.1	26.8		36.0
Max Q Clear Time (g_c+I1), s	4.0	6.4		3.3	2.4	4.9		3.6
Green Ext Time (p_c), s	0.0	2.8		0.2	0.0	1.9		0.3

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

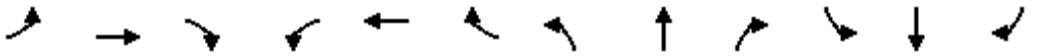
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	443	20	111	511	6	0	0	40	1	0	6
Future Vol, veh/h	23	443	20	111	511	6	0	0	40	1	0	6
Conflicting Peds, #/hr	0	0	5	0	0	10	0	0	1	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	92	92	92	59	59	59	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	503	23	121	555	7	0	0	68	1	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	572	0	0	531	0	0	-	-	269	1065	1394	291
Stage 1	-	-	-	-	-	-	-	-	-	811	811	-
Stage 2	-	-	-	-	-	-	-	-	-	254	583	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	626	-	-	655	-	-	0	0	621	234	140	602
Stage 1	-	-	-	-	-	-	0	0	-	269	391	-
Stage 2	-	-	-	-	-	-	0	0	-	668	497	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	620	-	-	652	-	-	-	-	617	171	108	596
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	171	108	-
Stage 1	-	-	-	-	-	-	-	-	-	255	315	-
Stage 2	-	-	-	-	-	-	-	-	-	569	474	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	2.1	11.6	13.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	617	620	-	-	652	-	-	440
HCM Lane V/C Ratio	0.11	0.042	-	-	0.185	-	-	0.018
HCM Control Delay (s)	11.6	11.1	-	-	11.8	-	-	13.3
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.7	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	455	13	139	575	39	18	3	85	0	0	0
Future Volume (veh/h)	24	455	13	139	575	39	18	3	85	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	28	523	15	153	632	43	22	4	106			
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.80	0.80	0.80			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	49	1794	51	201	2133	144	194	35	197			
Arrive On Green	0.03	0.35	0.35	0.11	0.44	0.44	0.13	0.13	0.13			
Sat Flow, veh/h	1781	5096	145	1781	4871	329	1518	276	1548			
Grp Volume(v), veh/h	28	349	189	153	440	235	26	0	106			
Grp Sat Flow(s),veh/h/ln	1781	1702	1837	1781	1702	1796	1794	0	1548			
Q Serve(g_s), s	0.5	2.6	2.6	2.9	2.9	2.9	0.4	0.0	2.2			
Cycle Q Clear(g_c), s	0.5	2.6	2.6	2.9	2.9	2.9	0.4	0.0	2.2			
Prop In Lane	1.00		0.08	1.00		0.18	0.85		1.00			
Lane Grp Cap(c), veh/h	49	1199	647	201	1490	786	229	0	197			
V/C Ratio(X)	0.58	0.29	0.29	0.76	0.30	0.30	0.11	0.00	0.54			
Avail Cap(c_a), veh/h	1564	5870	3168	1564	5870	3096	2065	0	1781			
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	16.8	8.1	8.2	15.0	6.3	6.3	13.5	0.0	14.2			
Incr Delay (d2), s/veh	4.0	0.3	0.5	2.2	0.2	0.3	0.1	0.0	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.8	1.0	0.6	0.7	0.2	0.0	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	8.4	8.7	17.2	6.5	6.6	13.5	0.0	15.1			
LnGrp LOS	C	A	A	B	A	A	B	A	B			
Approach Vol, veh/h		566			828			132				
Approach Delay, s/veh		9.1			8.5			14.8				
Approach LOS		A			A			B				

Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	8.3	17.2			5.3	20.2		9.3				
Change Period (Y+Rc), s	4.4	4.9			4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1			30.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	4.9	4.6			2.5	4.9		4.2				
Green Ext Time (p_c), s	0.2	7.4			0.0	7.0		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	373	90	67	316	38	124	103	101	30	77	55
Future Volume (veh/h)	75	373	90	67	316	38	124	103	101	30	77	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	439	106	80	376	45	124	129	111	40	103	73
Peak Hour Factor	0.85	0.85	0.85	0.84	0.84	0.84	0.91	0.91	0.91	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	958	414	177	820	97	271	285	319	323	339	279
Arrive On Green	0.06	0.27	0.27	0.05	0.26	0.26	0.15	0.15	0.15	0.18	0.18	0.18
Sat Flow, veh/h	1781	3554	1535	3456	3196	380	1781	1870	1563	1781	1870	1540
Grp Volume(v), veh/h	88	439	106	80	208	213	124	129	111	40	103	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1535	1728	1777	1799	1781	1870	1563	1781	1870	1540
Q Serve(g_s), s	2.7	5.7	3.0	1.2	5.4	5.5	3.5	3.5	3.4	1.0	2.6	2.3
Cycle Q Clear(g_c), s	2.7	5.7	3.0	1.2	5.4	5.5	3.5	3.5	3.4	1.0	2.6	2.3
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	114	958	414	177	456	462	271	285	319	323	339	279
V/C Ratio(X)	0.77	0.46	0.26	0.45	0.46	0.46	0.46	0.45	0.35	0.12	0.30	0.26
Avail Cap(c_a), veh/h	954	3865	1670	1851	1932	1957	1293	1357	1215	1293	1357	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	16.8	15.8	25.5	17.3	17.3	21.3	21.3	18.9	18.9	19.6	19.4
Incr Delay (d2), s/veh	4.1	0.5	0.5	0.7	1.2	1.2	0.4	0.4	0.2	0.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.2	1.0	0.5	2.2	2.2	1.4	1.4	1.1	0.4	1.1	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	17.3	16.3	26.1	18.5	18.6	21.8	21.7	19.1	19.0	19.8	19.6
LnGrp LOS	C	B	B	C	B	B	C	C	B	B	B	B
Approach Vol, veh/h		633			501			364			216	
Approach Delay, s/veh		18.8			19.7			21.0			19.6	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	19.8		14.9	7.9	19.1		13.3
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	29.6	60.1		40.1	29.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	3.2	7.7		4.6	4.7	7.5		5.5
Green Ext Time (p_c), s	0.1	5.5		0.5	0.1	4.9		0.8

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	521	11	22	679	169	12	4	2	56	4	36
Future Volume (veh/h)	33	521	11	22	679	169	12	4	2	56	4	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.96	0.97		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	548	12	23	722	180	16	5	3	93	7	60
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.75	0.75	0.75	0.60	0.60	0.60
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	1581	35	501	1216	303	322	94	39	275	44	110
Arrive On Green	0.03	0.45	0.45	0.02	0.44	0.44	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1781	3552	78	1781	2792	696	918	479	200	714	227	565
Grp Volume(v), veh/h	35	274	286	23	459	443	24	0	0	160	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1852	1781	1777	1711	1596	0	0	1507	0	0
Q Serve(g_s), s	0.4	4.3	4.3	0.3	8.3	8.3	0.0	0.0	0.0	2.6	0.0	0.0
Cycle Q Clear(g_c), s	0.4	4.3	4.3	0.3	8.3	8.3	0.5	0.0	0.0	3.9	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.41	0.67		0.12	0.58		0.37
Lane Grp Cap(c), veh/h	375	791	824	501	774	745	455	0	0	430	0	0
V/C Ratio(X)	0.09	0.35	0.35	0.05	0.59	0.59	0.05	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	1611	2534	2642	1754	2534	2440	1530	0	0	1537	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.0	7.7	7.7	6.5	9.1	9.1	13.8	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	0.8	0.8	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.2	1.3	0.1	2.5	2.4	0.2	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.0	8.0	7.9	6.5	9.8	9.9	13.8	0.0	0.0	15.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h		595			925			24			160	
Approach Delay, s/veh		7.9			9.8			13.8			15.3	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	23.7		13.1	5.7	23.3		13.1				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	2.3	6.3		5.9	2.4	10.3		2.5				
Green Ext Time (p_c), s	0.0	4.2		0.6	0.0	8.1		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	26	28	93	86	30
Future Vol, veh/h	13	26	28	93	86	30
Peak Hour Factor	0.81	0.81	0.86	0.86	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	32	33	108	101	35
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.5	8.2	7.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	33%	0%
Vol Thru, %	0%	100%	0%	74%
Vol Right, %	0%	0%	67%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	93	39	116
LT Vol	28	0	13	0
Through Vol	0	93	0	86
RT Vol	0	0	26	30
Lane Flow Rate	33	108	48	136
Geometry Grp	7	7	2	5
Degree of Util (X)	0.047	0.141	0.057	0.154
Departure Headway (Hd)	5.189	4.688	4.229	4.067
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	688	761	852	871
Service Time	2.938	2.436	2.229	2.145
HCM Lane V/C Ratio	0.048	0.142	0.056	0.156
HCM Control Delay	8.2	8.2	7.5	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.2	0.5

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	111	0	0	80	0
Future Vol, veh/h	0	111	0	0	80	0
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	84	84	92	92	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	132	0	0	84	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	132	-
Stage 1	-	-	0	-
Stage 2	-	-	132	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	862	0
Stage 1	0	-	-	0
Stage 2	0	-	894	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	862	-
Mov Cap-2 Maneuver	-	-	817	-
Stage 1	-	-	-	-
Stage 2	-	-	894	-

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

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	817
HCM Lane V/C Ratio	-	0.103
HCM Control Delay (s)	-	9.9
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.3

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	143	0	0	93	0
Future Vol, veh/h	70	143	0	0	93	0
Peak Hour Factor	0.87	0.87	0.25	0.25	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	80	164	0	0	124	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	8.8	8.7
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	59%	0%	100%
Vol Thru, %	41%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	118	95	93
LT Vol	70	0	93
Through Vol	48	95	0
RT Vol	0	0	0
Lane Flow Rate	135	110	124
Geometry Grp	7	7	2
Degree of Util (X)	0.194	0.148	0.163
Departure Headway (Hd)	5.155	4.856	4.732
Convergence, Y/N	Yes	Yes	Yes
Cap	701	743	761
Service Time	2.855	2.556	2.743
HCM Lane V/C Ratio	0.193	0.148	0.163
HCM Control Delay	9.1	8.4	8.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.5	0.6

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	208	0	0	44	0
Future Vol, veh/h	14	208	0	0	44	0
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	92	92	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	245	0	0	52	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	155	-
Stage 1	-	-	0	-
Stage 2	-	-	155	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	821	0
Stage 1	-	-	-	0
Stage 2	-	-	857	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	821	-
Mov Cap-2 Maneuver	-	-	821	-
Stage 1	-	-	-	-
Stage 2	-	-	857	-

Approach	EB	SB
HCM Control Delay, s		9.7
HCM LOS		A

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	821
HCM Lane V/C Ratio	-	-	0.063
HCM Control Delay (s)	-	-	9.7
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.2

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	61	199	60	47	19	0	0	44	10
Future Vol, veh/h	0	0	0	61	199	60	47	19	0	0	44	10
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.82	0.82	0.82	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	69	224	67	57	23	0	0	49	11
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.1	8.6	8.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	71%	38%	0%	0%
Vol Thru, %	29%	62%	62%	81%
Vol Right, %	0%	0%	38%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	161	160	54
LT Vol	47	61	0	0
Through Vol	19	100	100	44
RT Vol	0	0	60	10
Lane Flow Rate	80	180	179	60
Geometry Grp	2	7	7	2
Degree of Util (X)	0.111	0.254	0.23	0.079
Departure Headway (Hd)	4.967	5.071	4.616	4.744
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	723	711	780	757
Service Time	2.988	2.792	2.337	2.765
HCM Lane V/C Ratio	0.111	0.253	0.229	0.079
HCM Control Delay	8.6	9.5	8.7	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	1	0.9	0.3

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	19	257	23	8	4	0	0	38	81
Future Vol, veh/h	0	0	0	19	257	23	8	4	0	0	38	81
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.75	0.75	0.75	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	22	292	26	11	5	0	0	48	101
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.1	8.2	8.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	67%	13%	0%	0%
Vol Thru, %	33%	87%	85%	32%
Vol Right, %	0%	0%	15%	68%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	148	152	119
LT Vol	8	19	0	0
Through Vol	4	129	129	38
RT Vol	0	0	23	81
Lane Flow Rate	16	168	172	149
Geometry Grp	2	7	7	2
Degree of Util (X)	0.022	0.232	0.23	0.179
Departure Headway (Hd)	5.021	4.991	4.819	4.325
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	714	724	749	832
Service Time	3.047	2.691	2.519	2.341
HCM Lane V/C Ratio	0.022	0.232	0.23	0.179
HCM Control Delay	8.2	9.2	9	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0.9	0.6

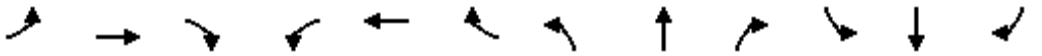
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	5	0	0	25	0	1706	14	0	2194	84
Future Vol, veh/h	0	0	5	0	0	25	0	1706	14	0	2194	84
Conflicting Peds, #/hr	0	0	0	0	0	6	0	0	1	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	42	42	42	69	69	69	91	91	91	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	36	0	1875	15	0	2262	87

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	-	-	1176	-	-	952	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	165	0	0	223	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	165	-	-	222	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.5	24.4	0	0
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	165	222	-	-
HCM Lane V/C Ratio	-	-	0.072	0.163	-	-
HCM Control Delay (s)	-	-	28.5	24.4	-	-
HCM Lane LOS	-	-	D	C	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	25	115	78	48	1646	46	0	2112	92
Future Volume (veh/h)	0	0	0	25	115	78	48	1646	46	0	2112	92
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				28	129	88	54	1849	52	0	2133	93
Peak Hour Factor				0.89	0.89	0.89	0.89	0.89	0.89	0.99	0.99	0.99
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				61	282	195	821	3922	110	0	1379	423
Arrive On Green				0.16	0.16	0.16	0.46	0.77	0.77	0.00	0.27	0.27
Sat Flow, veh/h				391	1807	1246	1781	5105	143	0	5274	1567
Grp Volume(v), veh/h				132	0	113	54	1232	669	0	2133	93
Grp Sat Flow(s),veh/h/ln				1851	0	1593	1781	1702	1844	0	1702	1567
Q Serve(g_s), s				8.5	0.0	8.3	2.2	17.1	17.1	0.0	35.1	6.0
Cycle Q Clear(g_c), s				8.5	0.0	8.3	2.2	17.1	17.1	0.0	35.1	6.0
Prop In Lane				0.21		0.78	1.00		0.08	0.00		1.00
Lane Grp Cap(c), veh/h				289	0	249	821	2615	1417	0	1379	423
V/C Ratio(X)				0.46	0.00	0.45	0.07	0.47	0.47	0.00	1.55	0.22
Avail Cap(c_a), veh/h				799	0	688	821	2615	1417	0	1379	423
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	0.81	0.81	0.81	0.00	1.00	1.00
Uniform Delay (d), s/veh				49.8	0.0	49.8	19.5	5.5	5.5	0.0	47.5	36.8
Incr Delay (d2), s/veh				0.4	0.0	0.5	0.0	0.5	0.9	0.0	249.9	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				4.0	0.0	3.4	0.9	5.3	5.9	0.0	46.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				50.3	0.0	50.3	19.5	6.0	6.4	0.0	297.3	38.0
LnGrp LOS				D	A	D	B	A	A	A	F	D
Approach Vol, veh/h					245			1955			2226	
Approach Delay, s/veh					50.3			6.5			286.5	
Approach LOS					D			A			F	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	104.8	25.2	64.8	40.0
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	64.1	56.1	24.6	* 35
Max Q Clear Time (g_c+I1), s	19.1	10.5	4.2	37.1
Green Ext Time (p_c), s	6.0	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	149.7
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



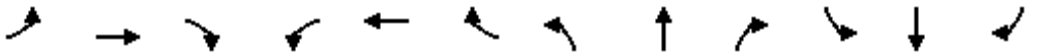
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	79	35	0	0	0	0	1607	14	125	2021	0
Future Volume (veh/h)	106	79	35	0	0	0	0	1607	14	125	2021	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	128	103	45				0	1826	14	128	2062	0
Peak Hour Factor	0.83	0.77	0.77				0.88	0.88	0.97	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	222	233	188				0	3564	27	151	5148	0
Arrive On Green	0.12	0.12	0.12				0.00	1.00	1.00	0.17	1.00	0.00
Sat Flow, veh/h	1781	1870	1509				0	5395	40	1781	6696	0
Grp Volume(v), veh/h	128	103	45				0	1189	651	128	2062	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1509				0	1702	1863	1781	1609	0
Q Serve(g_s), s	8.8	6.6	3.5				0.0	0.0	0.0	9.1	0.0	0.0
Cycle Q Clear(g_c), s	8.8	6.6	3.5				0.0	0.0	0.0	9.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	222	233	188				0	2321	1270	151	5148	0
V/C Ratio(X)	0.58	0.44	0.24				0.00	0.51	0.51	0.85	0.40	0.00
Avail Cap(c_a), veh/h	481	505	408				0	2321	1270	282	5148	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.63	0.63	0.47	0.47	0.00
Uniform Delay (d), s/veh	53.7	52.7	51.4				0.0	0.0	0.0	53.2	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.5	0.2				0.0	0.5	0.9	2.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	3.2	1.3				0.0	0.2	0.3	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	53.2	51.6				0.0	0.5	0.9	55.7	0.1	0.0
LnGrp LOS	D	D	D				A	A	A	E	A	A
Approach Vol, veh/h		276						1840			2190	
Approach Delay, s/veh		53.6						0.7			3.4	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	15.4	93.5	21.1	108.9
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	20.0	60.1	35.1	85.1
Max Q Clear Time (g_c+I1), s	11.1	2.0	10.8	2.0
Green Ext Time (p_c), s	0.0	5.1	0.2	7.6

Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	163	139	201	223	11	206	1436	250	0	1499	348
Future Volume (vph)	208	163	139	201	223	11	206	1436	250	0	1499	348
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00		1.00	1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.98			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3332	1526	1610	3335		3662	4963			5085	1536
Flt Permitted	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3332	1526	1610	3335		3662	4963			5085	1536
Peak-hour factor, PHF	0.88	0.88	0.88	0.85	0.85	0.85	0.87	0.87	0.87	0.95	0.95	0.95
Adj. Flow (vph)	236	185	158	236	262	13	237	1651	287	0	1578	366
RTOR Reduction (vph)	0	0	126	0	3	0	0	15	0	0	0	154
Lane Group Flow (vph)	137	284	32	168	340	0	237	1923	0	0	1578	212
Confl. Peds. (#/hr)			19			3						12
Confl. Bikes (#/hr)			4			4			1			3
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	26.0	26.0	26.0	17.5	17.5		11.8	68.8			51.6	51.6
Effective Green, g (s)	26.0	26.0	26.0	17.5	17.5		11.8	68.8			51.6	51.6
Actuated g/C Ratio	0.20	0.20	0.20	0.13	0.13		0.09	0.53			0.40	0.40
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	322	666	305	216	448		332	2626			2018	609
v/s Ratio Prot	0.09	c0.09		c0.10	0.10		0.06	c0.39			c0.31	
v/s Ratio Perm			0.02									0.14
v/c Ratio	0.43	0.43	0.10	0.78	0.76		0.71	0.73			0.78	0.35
Uniform Delay, d1	45.5	45.5	42.5	54.4	54.2		57.5	23.5			34.3	27.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.39	0.36			0.98	1.42
Incremental Delay, d2	0.3	0.2	0.1	14.7	6.5		4.3	1.3			2.9	1.5
Delay (s)	45.8	45.6	42.5	69.1	60.7		84.4	9.7			36.6	40.4
Level of Service	D	D	D	E	E		F	A			D	D
Approach Delay (s)		44.8			63.5			17.8			37.3	
Approach LOS		D			E			B			D	

Intersection Summary			
HCM 2000 Control Delay	32.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
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)	157	219	166	127	381	172	304	1545	73	167	1568	189
Future Volume (veh/h)	157	219	166	127	381	172	304	1545	73	167	1568	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	169	235	178	153	459	207	353	1797	85	176	1651	199
Peak Hour Factor	0.93	0.93	0.93	0.83	0.83	0.83	0.86	0.86	0.86	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	590	258	145	620	269	408	1693	80	899	2239	269
Arrive On Green	0.07	0.17	0.17	0.08	0.17	0.17	0.04	0.11	0.11	0.26	0.48	0.48
Sat Flow, veh/h	3456	3554	1551	1781	3554	1540	3456	4990	236	3456	4616	555
Grp Volume(v), veh/h	169	235	178	153	459	207	353	1225	657	176	1216	634
Grp Sat Flow(s),veh/h/ln	1728	1777	1551	1781	1777	1540	1728	1702	1822	1728	1702	1767
Q Serve(g_s), s	6.2	7.7	14.1	10.6	15.9	16.7	13.2	44.1	44.1	5.2	37.2	37.5
Cycle Q Clear(g_c), s	6.2	7.7	14.1	10.6	15.9	16.7	13.2	44.1	44.1	5.2	37.2	37.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.31
Lane Grp Cap(c), veh/h	239	590	258	145	620	269	408	1155	618	899	1651	857
V/C Ratio(X)	0.71	0.40	0.69	1.05	0.74	0.77	0.86	1.06	1.06	0.20	0.74	0.74
Avail Cap(c_a), veh/h	441	959	419	145	795	345	574	1155	618	899	1651	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.2	48.4	51.1	59.7	50.9	51.2	61.4	57.7	57.7	37.5	26.8	26.9
Incr Delay (d2), s/veh	1.4	0.2	1.2	89.6	1.8	5.6	4.6	39.0	46.6	0.0	1.6	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	3.4	5.5	8.4	7.2	6.8	6.4	26.4	29.6	2.2	14.8	15.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	48.6	52.2	149.3	52.7	56.8	66.1	96.7	104.4	37.5	28.4	29.9
LnGrp LOS	E	D	D	F	D	E	E	F	F	D	C	C
Approach Vol, veh/h		582			819			2235			2026	
Approach Delay, s/veh		53.2			71.8			94.1			29.7	
Approach LOS		D			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	49.0	15.0	26.5	19.8	68.7	13.9	27.6
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	4.6	* 44	10.6	35.1	21.6	43.3	16.6	* 29
Max Q Clear Time (g_c+I1), s	17.2	46.1	12.6	16.1	15.2	39.5	8.2	18.7
Green Ext Time (p_c), s	0.1	0.0	0.0	0.6	0.2	2.1	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	63.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	10	12	61	15	82	19	1754	23	135	1717	70
Future Volume (veh/h)	108	10	12	61	15	82	19	1754	23	135	1717	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	166	15	18	77	19	104	22	2064	27	145	1846	75
Peak Hour Factor	0.65	0.65	0.65	0.79	0.79	0.79	0.85	0.85	0.85	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	17	20	153	47	176	38	3073	40	170	3352	136
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.02	0.59	0.59	0.10	0.67	0.67
Sat Flow, veh/h	925	84	100	583	239	890	1781	5194	68	1781	5033	204
Grp Volume(v), veh/h	199	0	0	200	0	0	22	1352	739	145	1248	673
Grp Sat Flow(s),veh/h/ln	1109	0	0	1711	0	0	1781	1702	1858	1781	1702	1833
Q Serve(g_s), s	9.7	0.0	0.0	0.0	0.0	0.0	1.6	35.0	35.0	10.4	25.1	25.2
Cycle Q Clear(g_c), s	23.3	0.0	0.0	13.7	0.0	0.0	1.6	35.0	35.0	10.4	25.1	25.2
Prop In Lane	0.83		0.09	0.38		0.52	1.00		0.04	1.00		0.11
Lane Grp Cap(c), veh/h	270	0	0	376	0	0	38	2014	1099	170	2267	1221
V/C Ratio(X)	0.74	0.00	0.00	0.53	0.00	0.00	0.59	0.67	0.67	0.85	0.55	0.55
Avail Cap(c_a), veh/h	365	0	0	485	0	0	159	2014	1099	296	2267	1221
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.43	0.43	0.43	0.54	0.54	0.54
Uniform Delay (d), s/veh	52.2	0.0	0.0	47.4	0.0	0.0	63.1	18.0	18.0	57.9	11.5	11.5
Incr Delay (d2), s/veh	3.0	0.0	0.0	0.4	0.0	0.0	2.3	0.8	1.4	2.6	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	0.0	6.0	0.0	0.0	0.7	13.0	14.4	4.8	8.8	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.2	0.0	0.0	47.8	0.0	0.0	65.4	18.8	19.4	60.5	12.0	12.4
LnGrp LOS	E	A	A	D	A	A	E	B	B	E	B	B
Approach Vol, veh/h		199			200			2113			2066	
Approach Delay, s/veh		55.2			47.8			19.5			15.5	
Approach LOS		E			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.8	82.6		30.6	7.1	92.3		30.6
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	24.6	* 59		35.1	11.6	68.3		35.1
Max Q Clear Time (g_c+I1), s	12.4	37.0		25.3	3.6	27.2		15.7
Green Ext Time (p_c), s	0.0	5.8		0.3	0.0	5.5		0.5

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	351	287	13	551	288	123	10	1322	481	168	1394	259
Future Volume (veh/h)	351	287	13	551	288	123	10	1322	481	168	1394	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	373	305	14	574	300	128	12	1574	573	183	1515	282
Peak Hour Factor	0.94	0.94	0.94	0.96	0.96	0.96	0.84	0.84	0.84	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	396	405	19	625	343	284	24	1907	591	234	1520	677
Arrive On Green	0.22	0.23	0.23	0.18	0.18	0.18	0.01	0.37	0.37	0.09	0.57	0.57
Sat Flow, veh/h	1781	1772	81	3456	1870	1550	1781	5106	1583	3456	3554	1583
Grp Volume(v), veh/h	373	0	319	574	300	128	12	1574	573	183	1515	282
Grp Sat Flow(s),veh/h/ln	1781	0	1854	1728	1870	1550	1781	1702	1583	1728	1777	1583
Q Serve(g_s), s	26.8	0.0	20.8	21.2	20.3	7.9	0.9	36.3	46.2	6.7	55.2	6.1
Cycle Q Clear(g_c), s	26.8	0.0	20.8	21.2	20.3	7.9	0.9	36.3	46.2	6.7	55.2	6.1
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	396	0	424	625	343	284	24	1907	591	234	1520	677
V/C Ratio(X)	0.94	0.00	0.75	0.92	0.87	0.45	0.50	0.83	0.97	0.78	1.00	0.42
Avail Cap(c_a), veh/h	488	0	500	813	433	359	145	1907	591	521	1520	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	49.7	0.0	46.7	52.3	51.6	32.5	63.7	36.9	40.0	58.2	27.9	4.1
Incr Delay (d2), s/veh	22.5	0.0	4.2	11.3	13.0	0.4	5.8	4.2	30.2	1.7	19.7	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.4	0.0	10.1	10.0	10.6	3.0	0.4	15.4	22.3	2.9	23.6	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	0.0	50.9	63.6	64.6	32.9	69.5	41.1	70.2	59.9	47.7	5.6
LnGrp LOS	E	A	D	E	E	C	E	D	E	E	D	A
Approach Vol, veh/h		692			1002			2159			1980	
Approach Delay, s/veh		62.4			60.0			49.0			42.8	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	54.3	27.9	34.6	6.2	61.3	33.8	28.7
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	8.8	* 26	30.6	35.1	10.6	34.3	35.6	* 30
Max Q Clear Time (g_c+I1), s	3.7	48.2	23.2	22.8	2.9	57.2	28.8	22.3
Green Ext Time (p_c), s	0.1	0.0	0.3	0.6	0.0	0.0	0.1	0.4

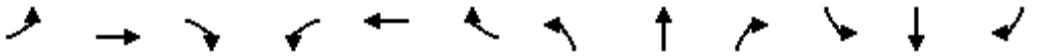
Intersection Summary	
HCM 6th Ctrl Delay	50.4
HCM 6th LOS	D

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	128	5	141	0	142	0	301	114	37	253	0
Future Volume (vph)	33	128	5	141	0	142	0	301	114	37	253	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.97		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.96		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1852		1770		1554		3307		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.34	1.00	
Satd. Flow (perm)	1770	1852		1770		1554		3307		631	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.87	0.87	0.87	0.95	0.95	0.95
Adj. Flow (vph)	36	139	5	168	0	169	0	346	131	39	266	0
RTOR Reduction (vph)	0	1	0	0	0	96	0	31	0	0	0	0
Lane Group Flow (vph)	36	143	0	168	0	73	0	446	0	39	266	0
Confl. Peds. (#/hr)			5			4			48			12
Confl. Bikes (#/hr)			2						8			5
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	10.8	10.8		10.3		10.3		17.3		24.3	24.3	
Effective Green, g (s)	10.8	10.8		10.3		10.3		17.3		24.3	24.3	
Actuated g/C Ratio	0.18	0.18		0.17		0.17		0.29		0.41	0.41	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	320	335		305		268		959		306	1442	
v/s Ratio Prot	0.02	c0.08		c0.09				c0.13		0.01	c0.08	
v/s Ratio Perm						0.05				0.05		
v/c Ratio	0.11	0.43		0.55		0.27		0.46		0.13	0.18	
Uniform Delay, d1	20.4	21.7		22.5		21.4		17.4		11.0	11.3	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.3		1.2		0.2		0.1		0.1	0.0	
Delay (s)	20.5	22.0		23.8		21.6		17.5		11.1	11.3	
Level of Service	C	C		C		C		B		B	B	
Approach Delay (s)		21.7			22.7			17.5			11.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	18.6
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

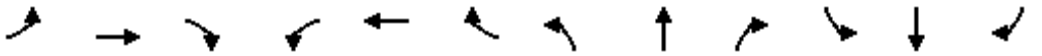
Intersection	
Int Delay, s/veh	1.4

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	134	338	286	56	0	1
Future Vol, veh/h	134	338	286	56	0	1
Conflicting Peds, #/hr	0	0	0	15	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	95	95	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	384	301	59	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	375	0	-	0	842	195
Stage 1	-	-	-	-	346	-
Stage 2	-	-	-	-	496	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1180	-	-	-	303	814
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1163	-	-	-	256	802
Mov Cap-2 Maneuver	-	-	-	-	256	-
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	569	-

Approach	NB	SB	SE
HCM Control Delay, s	2.4	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1163	-	802	-	-
HCM Lane V/C Ratio	0.131	-	0.001	-	-
HCM Control Delay (s)	8.6	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	219	61	192	238	60	87	91	103	42	55	43
Future Volume (veh/h)	32	219	61	192	238	60	87	91	103	42	55	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.97	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	241	67	231	287	72	96	100	113	52	69	54
Peak Hour Factor	0.91	0.91	0.91	0.83	0.83	0.83	0.91	0.91	0.91	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	50	1671	590	339	743	610	125	710	810	126	591	249
Arrive On Green	0.03	0.33	0.33	0.10	0.40	0.40	0.07	0.20	0.20	0.04	0.17	0.17
Sat Flow, veh/h	1781	5106	1462	3456	1870	1535	1781	3554	2686	3456	3554	1498
Grp Volume(v), veh/h	35	241	67	231	287	72	96	100	113	52	69	54
Grp Sat Flow(s),veh/h/ln	1781	1702	1462	1728	1870	1535	1781	1777	1343	1728	1777	1498
Q Serve(g_s), s	1.3	2.3	2.0	4.5	7.6	2.1	3.7	1.6	2.1	1.0	1.1	2.2
Cycle Q Clear(g_c), s	1.3	2.3	2.0	4.5	7.6	2.1	3.7	1.6	2.1	1.0	1.1	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	50	1671	590	339	743	610	125	710	810	126	591	249
V/C Ratio(X)	0.69	0.14	0.11	0.68	0.39	0.12	0.77	0.14	0.14	0.41	0.12	0.22
Avail Cap(c_a), veh/h	772	2952	957	1498	1081	888	772	2054	1826	1498	2054	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	16.4	13.2	30.2	14.9	13.2	31.6	22.8	17.8	32.6	24.5	24.9
Incr Delay (d2), s/veh	6.2	0.0	0.1	0.9	0.2	0.0	3.7	0.1	0.1	0.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.9	0.6	1.8	2.9	0.6	1.6	0.6	0.6	0.4	0.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	16.5	13.3	31.1	15.0	13.2	35.3	22.9	17.9	33.4	24.6	25.1
LnGrp LOS	D	B	B	C	B	B	D	C	B	C	C	C
Approach Vol, veh/h		343			590			309			175	
Approach Delay, s/veh		18.2			21.1			24.9			27.4	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	28.5	10.3	18.2	7.4	33.4	7.9	20.5
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	6.5	4.3	5.7	4.2	3.3	9.6	3.0	4.1
Green Ext Time (p_c), s	0.4	2.4	0.1	0.3	0.0	1.3	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

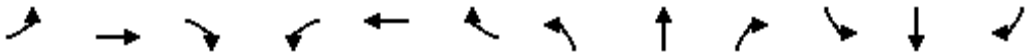
Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	238	257	236	379	8
Future Vol, veh/h	0	238	257	236	379	8
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	93	93	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	264	276	254	421	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	216	431	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	671	730	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	670	729	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	6.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	729	-	670	-	-
HCM Lane V/C Ratio	0.379	-	0.395	-	-
HCM Control Delay (s)	12.9	-	13.8	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	1.8	-	1.9	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	11	8	17	4	4	353	539	187	84	341	94
Future Volume (veh/h)	7	11	8	17	4	4	353	539	187	84	341	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.90	1.00		0.94	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	14	10	22	5	5	376	573	199	86	348	96
Peak Hour Factor	0.81	0.81	0.81	0.78	0.78	0.78	0.94	0.94	0.94	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	574	487	34	615	468	416	1188	499	112	449	122
Arrive On Green	0.01	0.31	0.31	0.02	0.33	0.33	0.23	0.33	0.33	0.06	0.16	0.16
Sat Flow, veh/h	1781	1870	1585	1781	1870	1422	1781	3554	1492	1781	2746	745
Grp Volume(v), veh/h	9	14	10	22	5	5	376	573	199	86	223	221
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1422	1781	1777	1492	1781	1777	1714
Q Serve(g_s), s	0.4	0.4	0.4	1.0	0.2	0.2	17.3	10.8	8.7	4.0	10.2	10.5
Cycle Q Clear(g_c), s	0.4	0.4	0.4	1.0	0.2	0.2	17.3	10.8	8.7	4.0	10.2	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	16	574	487	34	615	468	416	1188	499	112	291	280
V/C Ratio(X)	0.56	0.02	0.02	0.65	0.01	0.01	0.90	0.48	0.40	0.77	0.77	0.79
Avail Cap(c_a), veh/h	632	1328	1125	632	1328	1009	632	1262	530	632	631	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	20.4	20.4	41.2	19.1	19.1	31.5	22.3	21.6	39.0	33.8	33.9
Incr Delay (d2), s/veh	37.1	0.0	0.0	7.4	0.0	0.0	8.7	0.1	0.2	4.2	1.6	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.1	0.5	0.1	0.1	7.7	4.0	2.7	1.8	4.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.8	20.5	20.4	48.6	19.1	19.1	40.1	22.4	21.8	43.2	35.4	35.8
LnGrp LOS	E	C	C	D	B	B	D	C	C	D	D	D
Approach Vol, veh/h		33			32			1148			530	
Approach Delay, s/veh		36.4			39.4			28.1			36.8	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	34.6	24.1	18.7	5.2	36.5	9.7	33.2
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0
Max Q Clear Time (g_c+I1), s	3.0	2.4	19.3	12.5	2.4	2.2	6.0	12.8
Green Ext Time (p_c), s	0.0	0.1	0.4	1.4	0.0	0.1	0.1	2.3

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

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

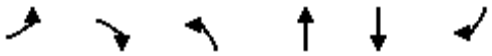
Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	414	549	21	0	164
Future Vol, veh/h	0	414	549	21	0	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	470	624	24	0	228

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	312
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	684
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	684
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	684
HCM Lane V/C Ratio	-	-	0.333
HCM Control Delay (s)	-	-	12.9
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.5



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	304	53	0	980	1348	470
Future Volume (vph)	304	53	0	980	1348	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.76	0.76	0.91	0.91	0.98	0.98
Adj. Flow (vph)	400	70	0	1077	1376	480
RTOR Reduction (vph)	0	59	0	0	0	0
Lane Group Flow (vph)	400	11	0	1077	1376	480
Confl. Peds. (#/hr)						3
Confl. Bikes (#/hr)						4
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	17.1	17.1		58.7	58.7	97.8
Effective Green, g (s)	17.1	17.1		58.7	58.7	92.4
Actuated g/C Ratio	0.16	0.16		0.54	0.54	0.85
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	543	250		1921	1921	1353
v/s Ratio Prot	c0.12			0.30	c0.39	c0.30
v/s Ratio Perm		0.01				
v/c Ratio	0.74	0.04		0.56	0.72	0.35
Uniform Delay, d1	43.4	38.6		16.2	18.5	1.6
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.9	0.1		0.4	1.3	0.1
Delay (s)	48.2	38.6		16.6	19.8	1.8
Level of Service	D	D		B	B	A
Approach Delay (s)	46.8			16.6	15.1	
Approach LOS	D			B	B	

Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	108.1	Sum of lost time (s)	19.0
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	890	273	106	758
Future Volume (veh/h)	0	1	890	273	106	758
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	947	290	112	798
Peak Hour Factor	0.92	0.92	0.94	0.94	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	4	7	1946	852	235	2544
Arrive On Green	0.00	0.00	0.55	0.55	0.07	0.72
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	947	290	112	798
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	7.2	4.5	1.4	3.6
Cycle Q Clear(g_c), s	0.0	0.0	7.2	4.5	1.4	3.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	4	7	1946	852	235	2544
V/C Ratio(X)	0.00	0.14	0.49	0.34	0.48	0.31
Avail Cap(c_a), veh/h	1626	2893	4865	2127	2365	4865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	21.8	6.1	5.5	19.7	2.3
Incr Delay (d2), s/veh	0.0	3.2	0.3	0.3	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.5	0.9	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	25.0	6.4	5.8	20.2	2.4
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1237			910
Approach Delay, s/veh	25.0		6.3			4.6
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.4	30.2			37.6	6.2
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	3.4	9.2			5.6	2.0
Green Ext Time (p_c), s	0.2	14.8			13.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	30	48	24	31	55	48	831	19	91	797	155
Future Volume (veh/h)	60	30	48	24	31	55	48	831	19	91	797	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	37	59	28	36	64	52	894	20	94	822	160
Peak Hour Factor	0.82	0.82	0.82	0.86	0.86	0.86	0.93	0.93	0.93	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	163	134	45	118	96	138	1630	751	122	1732	850
Arrive On Green	0.05	0.09	0.09	0.03	0.06	0.06	0.04	0.46	0.46	0.07	0.49	0.49
Sat Flow, veh/h	3456	1870	1537	1781	1870	1523	3456	3554	1549	1781	3554	1584
Grp Volume(v), veh/h	73	37	59	28	36	64	52	894	20	94	822	160
Grp Sat Flow(s),veh/h/ln	1728	1870	1537	1781	1870	1523	1728	1777	1549	1781	1777	1584
Q Serve(g_s), s	1.1	1.0	2.0	0.8	1.0	2.2	0.8	9.9	0.4	2.8	8.4	2.8
Cycle Q Clear(g_c), s	1.1	1.0	2.0	0.8	1.0	2.2	0.8	9.9	0.4	2.8	8.4	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	163	134	45	118	96	138	1630	751	122	1732	850
V/C Ratio(X)	0.43	0.23	0.44	0.62	0.30	0.66	0.38	0.55	0.03	0.77	0.47	0.19
Avail Cap(c_a), veh/h	1906	1032	847	982	1032	840	1906	4573	2034	982	4573	2116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	23.1	23.6	26.2	24.3	24.9	25.4	10.7	7.3	24.9	9.3	6.5
Incr Delay (d2), s/veh	0.6	0.7	2.3	5.1	0.5	2.9	0.6	0.5	0.0	3.8	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.7	0.4	0.4	0.8	0.3	3.0	0.1	1.2	2.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	23.8	25.9	31.3	24.9	27.8	26.1	11.1	7.4	28.7	9.6	6.7
LnGrp LOS	C	C	C	C	C	C	C	B	A	C	A	A
Approach Vol, veh/h		169			128			966			1076	
Approach Delay, s/veh		25.4			27.8			11.9			10.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	30.2	5.8	10.2	6.6	31.8	7.1	8.9
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	4.8	11.9	2.8	4.0	2.8	10.4	3.1	4.2
Green Ext Time (p_c), s	0.1	13.0	0.0	0.3	0.1	12.6	0.1	0.2

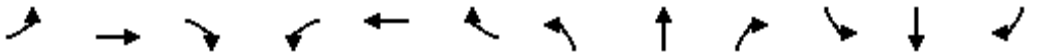
Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	982	60	338	357	0	0	0	0	237	0	0
Future Volume (vph)	0	982	60	338	357	0	0	0	0	237	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.99	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1560	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1560	3433	3539					1770		
Peak-hour factor, PHF	0.93	0.93	0.93	0.88	0.88	0.88	0.92	0.92	0.92	0.97	0.97	0.97
Adj. Flow (vph)	0	1056	65	384	406	0	0	0	0	244	0	0
RTOR Reduction (vph)	0	0	34	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1056	31	384	406	0	0	0	0	244	0	0
Confl. Peds. (#/hr)			2			5						
Confl. Bikes (#/hr)			2			5						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		46.3	46.3	12.3	63.3					15.1		
Effective Green, g (s)		42.3	42.3	12.3	59.3					15.1		
Actuated g/C Ratio		0.47	0.47	0.14	0.66					0.17		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1663	733	469	2331					296		
v/s Ratio Prot		c0.30		c0.11	0.11					c0.14		
v/s Ratio Perm			0.02									
v/c Ratio		0.63	0.04	0.82	0.17					0.82		
Uniform Delay, d1		18.0	12.9	37.8	5.9					36.2		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		0.8	0.0	10.1	0.0					16.0		
Delay (s)		18.8	12.9	47.9	6.0					52.1		
Level of Service		B	B	D	A					D		
Approach Delay (s)		18.5			26.3			0.0			52.1	
Approach LOS		B			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	812	1493	562	0	0	1888
Future Volume (vph)	812	1493	562	0	0	1888
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.87	0.87	0.97	0.97
Adj. Flow (vph)	883	1623	646	0	0	1946
RTOR Reduction (vph)	0	95	0	0	0	0
Lane Group Flow (vph)	883	1528	646	0	0	1946
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)				4		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.4	58.1	21.8			44.5
Effective Green, g (s)	35.4	58.1	18.8			44.5
Actuated g/C Ratio	0.37	0.61	0.20			0.47
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1280	1706	1007			3004
v/s Ratio Prot	0.26	c0.55	0.13			c0.30
v/s Ratio Perm						
v/c Ratio	0.69	0.90	0.64			0.65
Uniform Delay, d1	25.1	15.8	35.0			19.2
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.3	6.4	1.1			0.4
Delay (s)	26.4	22.2	36.0			19.6
Level of Service	C	C	D			B
Approach Delay (s)	23.7		36.0			19.6
Approach LOS	C		D			B

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	94.9	Sum of lost time (s)	25.5
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
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)	302	234	274	26	273	428	286	415	32	473	470	328
Future Volume (veh/h)	302	234	274	26	273	428	286	415	32	473	470	328
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	304	320	311	28	294	0	282	589	0	580	433	0
Peak Hour Factor	0.88	0.88	0.88	0.93	0.93	0.93	0.83	0.83	0.83	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	388	408	695	223	446		402	844		1099	577	
Arrive On Green	0.22	0.22	0.22	0.13	0.13	0.00	0.07	0.07	0.00	0.31	0.31	0.00
Sat Flow, veh/h	1781	1870	1547	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	304	320	311	28	294	0	282	589	0	580	433	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1547	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	25.7	25.8	22.4	2.2	12.6	0.0	24.7	24.6	0.0	21.5	33.3	0.0
Cycle Q Clear(g_c), s	25.7	25.8	22.4	2.2	12.6	0.0	24.7	24.6	0.0	21.5	33.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	388	408	695	223	446		402	844		1099	577	
V/C Ratio(X)	0.78	0.78	0.45	0.13	0.66		0.70	0.70		0.53	0.75	
Avail Cap(c_a), veh/h	435	457	736	357	713		402	844		1099	577	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.00	0.90	0.90	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	59.0	59.0	31.0	62.2	66.7	0.0	68.8	68.7	0.0	45.7	49.8	0.0
Incr Delay (d2), s/veh	11.3	11.0	1.2	0.9	6.1	0.0	8.9	4.3	0.0	0.3	5.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	13.4	12.5	1.1	6.1	0.0	12.9	13.0	0.0	9.7	16.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.3	70.0	32.2	63.1	72.8	0.0	77.7	73.0	0.0	46.0	54.9	0.0
LnGrp LOS	E	E	C	E	E		E	E		D	D	
Approach Vol, veh/h		935			322			871			1013	
Approach Delay, s/veh		57.5			71.9			74.5			49.8	
Approach LOS		E			E			E			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	39.8	54.2	25.0	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	27.8	35.3	14.6	26.7
Green Ext Time (p_c), s	6.2	0.0	3.9	2.9

Intersection Summary	
HCM 6th Ctrl Delay	61.2
HCM 6th LOS	E

Notes

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

User approved volume balancing among the lanes for turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	639	0	6	534	82	0	0	0	65	0	116
Future Volume (veh/h)	136	639	0	6	534	82	0	0	0	65	0	116
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	148	695	0	6	551	85				79	0	141
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97				0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	179	1747	0	101	2015	305				562	0	496
Arrive On Green	0.10	0.49	0.00	0.11	0.90	0.90				0.32	0.00	0.32
Sat Flow, veh/h	1781	3647	0	1781	4456	674				1781	0	1570
Grp Volume(v), veh/h	148	695	0	6	418	218				79	0	141
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1702	1726				1781	0	1570
Q Serve(g_s), s	8.8	13.3	0.0	0.3	1.7	1.7				3.4	0.0	7.3
Cycle Q Clear(g_c), s	8.8	13.3	0.0	0.3	1.7	1.7				3.4	0.0	7.3
Prop In Lane	1.00		0.00	1.00		0.39				1.00		1.00
Lane Grp Cap(c), veh/h	179	1747	0	101	1540	781				562	0	496
V/C Ratio(X)	0.83	0.40	0.00	0.06	0.27	0.28				0.14	0.00	0.28
Avail Cap(c_a), veh/h	538	1747	0	109	1540	781				562	0	496
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.00	0.98	0.98	0.98				1.00	0.00	1.00
Uniform Delay (d), s/veh	47.7	17.3	0.0	45.3	2.9	2.9				26.5	0.0	27.8
Incr Delay (d2), s/veh	2.0	0.4	0.0	0.1	0.4	0.9				0.5	0.0	1.4
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	4.0	5.3	0.0	0.1	0.6	0.7				1.5	0.0	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	17.7	0.0	45.4	3.3	3.8				27.0	0.0	29.2
LnGrp LOS	D	B	A	D	A	A				C	A	C
Approach Vol, veh/h		843			642						220	
Approach Delay, s/veh		23.3			3.9						28.4	
Approach LOS		C			A						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	15.3	53.7
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I2), s	2.3	15.3		9.3	10.8	3.7
Green Ext Time (p_c), s	0.0	6.4		0.5	0.2	4.9

Intersection Summary	
HCM 6th Ctrl Delay	16.7
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)	105	500	82	124	541	75	95	62	124	3	1	13
Future Volume (veh/h)	105	500	82	124	541	75	95	62	124	3	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.92	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	521	85	138	601	83	103	67	135	4	1	18
Peak Hour Factor	0.96	0.96	0.96	0.90	0.90	0.90	0.92	0.92	0.92	0.71	0.71	0.71
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	1533	249	166	2488	338	343	100	202	46	12	50
Arrive On Green	0.10	1.00	1.00	0.09	0.55	0.55	0.19	0.19	0.19	0.03	0.03	0.03
Sat Flow, veh/h	3456	3036	493	1781	4523	615	1781	521	1051	1439	360	1561
Grp Volume(v), veh/h	109	304	302	138	450	234	103	0	202	5	0	18
Grp Sat Flow(s),veh/h/ln	1728	1777	1752	1781	1702	1734	1781	0	1572	1798	0	1561
Q Serve(g_s), s	3.3	0.0	0.0	8.2	7.4	7.6	5.4	0.0	12.9	0.3	0.0	1.2
Cycle Q Clear(g_c), s	3.3	0.0	0.0	8.2	7.4	7.6	5.4	0.0	12.9	0.3	0.0	1.2
Prop In Lane	1.00		0.28	1.00		0.35	1.00		0.67	0.80		1.00
Lane Grp Cap(c), veh/h	167	897	885	166	1872	954	343	0	303	58	0	50
V/C Ratio(X)	0.65	0.34	0.34	0.83	0.24	0.25	0.30	0.00	0.67	0.09	0.00	0.36
Avail Cap(c_a), veh/h	595	897	885	191	1872	954	414	0	365	285	0	247
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)	0.95	0.95	0.95	0.78	0.78	0.78	0.74	0.00	0.74	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.9	0.0	0.0	48.1	12.6	12.6	37.4	0.0	40.4	50.7	0.0	51.2
Incr Delay (d2), s/veh	1.5	1.0	1.0	16.5	0.2	0.5	0.1	0.0	1.6	0.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.2	0.2	4.4	2.7	2.9	2.3	0.0	5.1	0.1	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	1.0	1.0	64.6	12.8	13.1	37.5	0.0	41.9	50.9	0.0	52.7
LnGrp LOS	D	A	A	E	B	B	D	A	D	D	A	D
Approach Vol, veh/h		715			822			305			23	
Approach Delay, s/veh		8.4			21.6			40.4			52.3	
Approach LOS		A			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.6	64.3		25.7	14.5	59.4		8.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	5.3	9.6		14.9	10.2	2.0		3.2
Green Ext Time (p_c), s	0.1	6.9		0.7	0.0	7.5		0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.0
HCM 6th LOS	B

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	500	67	72	498	243	112	30	70	157	25	129
Future Volume (veh/h)	59	500	67	72	498	243	112	30	70	157	25	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.92	1.00		0.92	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	556	74	79	547	267	122	33	76	165	26	136
Peak Hour Factor	0.90	0.90	0.90	0.91	0.91	0.91	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	793	105	102	930	398	436	118	541	211	33	213
Arrive On Green	0.04	0.26	0.26	0.06	0.27	0.27	0.31	0.31	0.31	0.14	0.14	0.14
Sat Flow, veh/h	3456	3109	412	1781	3404	1455	1416	383	1465	1549	244	1564
Grp Volume(v), veh/h	66	317	313	79	547	267	155	0	76	191	0	136
Grp Sat Flow(s),veh/h/ln	1728	1777	1744	1781	1702	1455	1800	0	1465	1793	0	1564
Q Serve(g_s), s	1.5	12.7	12.8	3.4	10.9	12.8	5.1	0.0	2.7	8.1	0.0	6.4
Cycle Q Clear(g_c), s	1.5	12.7	12.8	3.4	10.9	12.8	5.1	0.0	2.7	8.1	0.0	6.4
Prop In Lane	1.00		0.24	1.00		1.00	0.79		1.00	0.86		1.00
Lane Grp Cap(c), veh/h	134	453	445	102	930	398	554	0	541	244	0	213
V/C Ratio(X)	0.49	0.70	0.70	0.78	0.59	0.67	0.28	0.00	0.14	0.78	0.00	0.64
Avail Cap(c_a), veh/h	234	548	538	173	1151	492	826	0	763	414	0	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	26.5	26.5	36.5	24.7	25.4	20.5	0.0	16.7	32.7	0.0	32.0
Incr Delay (d2), s/veh	1.0	3.4	3.7	4.8	0.2	1.5	0.1	0.0	0.0	2.1	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.5	5.5	1.6	4.2	4.3	2.1	0.0	0.9	3.5	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	29.9	30.2	41.2	24.9	26.8	20.7	0.0	16.7	34.8	0.0	33.2
LnGrp LOS	D	C	C	D	C	C	C	A	B	C	A	C
Approach Vol, veh/h		696			893			231			327	
Approach Delay, s/veh		30.8			26.9			19.4			34.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.9	24.9		15.6	7.4	26.3		29.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	5.4	14.8		10.1	3.5	14.8		7.1
Green Ext Time (p_c), s	0.0	3.1		0.6	0.0	3.0		0.7

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

Notes

User approved ignoring U-Turning movement.

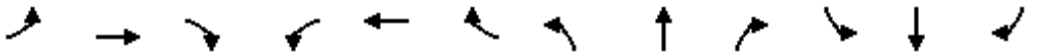
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	680	23	117	802	13	0	0	101	4	3	18
Future Vol, veh/h	44	680	23	117	802	13	0	0	101	4	3	18
Conflicting Peds, #/hr	0	0	24	0	0	24	0	0	4	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	91	91	91	94	94	94	57	57	57
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	739	25	129	881	14	0	0	107	7	5	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	919	0	0	788	0	0	-	-	410	1566	2054	474
Stage 1	-	-	-	-	-	-	-	-	-	1170	1170	-
Stage 2	-	-	-	-	-	-	-	-	-	396	884	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	428	-	-	495	-	-	0	0	505	117	55	459
Stage 1	-	-	-	-	-	-	0	0	-	151	265	-
Stage 2	-	-	-	-	-	-	0	0	-	550	362	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	418	-	-	484	-	-	-	-	492	65	34	448
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	65	34	-
Stage 1	-	-	-	-	-	-	-	-	-	131	190	-
Stage 2	-	-	-	-	-	-	-	-	-	379	313	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	1.9	14.4	45.3
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	492	418	-	-	484	-	-	132
HCM Lane V/C Ratio	0.218	0.114	-	-	0.266	-	-	0.332
HCM Control Delay (s)	14.4	14.7	-	-	15.1	-	-	45.3
HCM Lane LOS	B	B	-	-	C	-	-	E
HCM 95th %tile Q(veh)	0.8	0.4	-	-	1.1	-	-	1.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	743	29	207	854	5	101	3	155	0	0	0
Future Volume (veh/h)	25	743	29	207	854	5	101	3	155	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	27	790	31	227	938	5	113	3	174			
Peak Hour Factor	0.94	0.94	0.94	0.91	0.91	0.91	0.89	0.89	0.89			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	278	2781	109	260	2819	15	295	8	253			
Arrive On Green	0.16	0.55	0.55	0.15	0.54	0.54	0.17	0.17	0.17			
Sat Flow, veh/h	1781	5031	197	1781	5240	28	1737	46	1490			
Grp Volume(v), veh/h	27	534	287	227	609	334	116	0	174			
Grp Sat Flow(s),veh/h/ln	1781	1702	1824	1781	1702	1864	1783	0	1490			
Q Serve(g_s), s	1.4	9.0	9.0	13.5	10.9	10.9	6.2	0.0	11.9			
Cycle Q Clear(g_c), s	1.4	9.0	9.0	13.5	10.9	10.9	6.2	0.0	11.9			
Prop In Lane	1.00		0.11	1.00		0.01	0.97		1.00			
Lane Grp Cap(c), veh/h	278	1882	1008	260	1831	1003	303	0	253			
V/C Ratio(X)	0.10	0.28	0.29	0.87	0.33	0.33	0.38	0.00	0.69			
Avail Cap(c_a), veh/h	278	1882	1008	785	1831	1003	398	0	332			
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	1.00	1.00	0.55	0.55	0.55	0.99	0.00	0.99			
Uniform Delay (d), s/veh	39.0	12.8	12.8	45.1	14.0	14.0	39.8	0.0	42.1			
Incr Delay (d2), s/veh	0.1	0.4	0.7	2.0	0.3	0.5	0.3	0.0	1.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	3.4	3.7	6.0	4.1	4.5	2.8	0.0	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	13.2	13.5	47.2	14.3	14.5	40.1	0.0	44.0			
LnGrp LOS	D	B	B	D	B	B	D	A	D			
Approach Vol, veh/h		848			1170			290				
Approach Delay, s/veh		14.1			20.8			42.5				
Approach LOS		B			C			D				
Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	20.2	64.6			21.8	63.0		23.2				
Change Period (Y+Rc), s	4.4	4.9			4.9	* 4.9		4.9				
Max Green Setting (Gmax), s	47.6	22.1			11.6	* 58		24.1				
Max Q Clear Time (g_c+I1), s	15.5	11.0			3.4	12.9		13.9				
Green Ext Time (p_c), s	0.3	5.9			0.0	10.5		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	467	117	148	487	58	156	145	156	31	132	62
Future Volume (veh/h)	68	467	117	148	487	58	156	145	156	31	132	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	508	127	164	541	64	180	182	186	34	143	67
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.84	0.84	0.84	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	612	2021	882	207	897	106	247	259	312	202	212	175
Arrive On Green	0.69	1.00	1.00	0.12	0.56	0.56	0.14	0.14	0.14	0.11	0.11	0.11
Sat Flow, veh/h	1781	3554	1551	3456	3184	375	1781	1870	1564	1781	1870	1543
Grp Volume(v), veh/h	74	508	127	164	301	304	180	182	186	34	143	67
Grp Sat Flow(s),veh/h/ln	1781	1777	1551	1728	1777	1782	1781	1870	1564	1781	1870	1543
Q Serve(g_s), s	2.3	0.0	0.0	7.4	17.9	18.1	15.5	14.9	17.3	2.8	11.7	6.4
Cycle Q Clear(g_c), s	2.3	0.0	0.0	7.4	17.9	18.1	15.5	14.9	17.3	2.8	11.7	6.4
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	612	2021	882	207	501	502	247	259	312	202	212	175
V/C Ratio(X)	0.12	0.25	0.14	0.79	0.60	0.61	0.73	0.70	0.60	0.17	0.67	0.38
Avail Cap(c_a), veh/h	612	2021	882	467	501	502	391	410	438	391	410	339
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.78	0.78	0.78	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	16.8	0.0	0.0	69.4	29.0	29.0	66.0	65.8	58.3	64.1	68.1	65.7
Incr Delay (d2), s/veh	0.0	0.2	0.2	2.0	4.1	4.2	1.6	1.3	0.7	0.1	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.1	3.2	6.8	6.8	7.2	7.2	7.0	1.3	5.7	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	0.2	0.2	71.5	33.1	33.2	67.6	67.1	59.0	64.2	69.1	66.1
LnGrp LOS	B	A	A	E	C	C	E	E	E	E	E	E
Approach Vol, veh/h		709			769			548			244	
Approach Delay, s/veh		1.9			41.3			64.5			67.6	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	95.9		23.0	59.9	50.0		27.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	9.4	2.0		13.7	4.3	20.1		19.3
Green Ext Time (p_c), s	0.2	6.5		0.6	0.1	6.4		1.1

Intersection Summary	
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	797	9	15	724	293	10	3	7	158	11	76
Future Volume (veh/h)	60	797	9	15	724	293	10	3	7	158	11	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	0.96		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	866	10	16	770	312	14	4	10	180	12	86
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.71	0.71	0.71	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	2058	24	393	1334	540	220	72	125	290	20	106
Arrive On Green	0.04	0.57	0.57	0.01	0.55	0.55	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3597	42	1781	2429	983	648	305	530	917	87	450
Grp Volume(v), veh/h	65	428	448	16	563	519	28	0	0	278	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1636	1483	0	0	1454	0	0
Q Serve(g_s), s	1.3	10.9	10.9	0.3	16.7	16.8	0.0	0.0	0.0	13.4	0.0	0.0
Cycle Q Clear(g_c), s	1.3	10.9	10.9	0.3	16.7	16.8	1.0	0.0	0.0	14.4	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.60	0.50		0.36	0.65		0.31
Lane Grp Cap(c), veh/h	335	1017	1065	393	975	898	416	0	0	416	0	0
V/C Ratio(X)	0.19	0.42	0.42	0.04	0.58	0.58	0.07	0.00	0.00	0.67	0.00	0.00
Avail Cap(c_a), veh/h	458	1017	1065	557	975	898	457	0	0	457	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.41	0.41	0.41	1.00	0.00	0.00	0.59	0.00	0.00
Uniform Delay (d), s/veh	9.1	9.6	9.6	8.2	11.9	11.9	23.8	0.0	0.0	28.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.2	1.2	0.0	1.0	1.1	0.0	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.1	4.3	0.1	6.2	5.7	0.4	0.0	0.0	5.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.2	10.9	10.8	8.2	12.9	13.0	23.8	0.0	0.0	30.2	0.0	0.0
LnGrp LOS	A	B	B	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		941			1098			28			278	
Approach Delay, s/veh		10.7			12.9			23.8			30.2	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.6	50.7		23.7	7.5	48.8		23.7
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.3	12.9		16.4	3.3	18.8		3.0
Green Ext Time (p_c), s	0.0	6.4		0.5	0.0	7.6		0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	20	23	130	150	36
Future Vol, veh/h	16	20	23	130	150	36
Peak Hour Factor	0.69	0.69	0.73	0.73	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	29	32	178	172	41
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8	8.9	8.7
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	44%	0%
Vol Thru, %	0%	100%	0%	81%
Vol Right, %	0%	0%	56%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	23	130	36	186
LT Vol	23	0	16	0
Through Vol	0	130	0	150
RT Vol	0	0	20	36
Lane Flow Rate	32	178	52	214
Geometry Grp	7	7	2	5
Degree of Util (X)	0.046	0.234	0.067	0.254
Departure Headway (Hd)	5.235	4.734	4.642	4.273
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	677	750	774	844
Service Time	3.018	2.516	2.654	2.28
HCM Lane V/C Ratio	0.047	0.237	0.067	0.254
HCM Control Delay	8.3	9	8	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0.2	1

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	143	0	0	156	0
Future Vol, veh/h	0	143	0	0	156	0
Conflicting Peds, #/hr	0	0	0	1	0	5
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	87	87	25	25	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	164	0	0	205	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	164	-
Stage 1	-	-	0	-
Stage 2	-	-	164	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	827	0
Stage 1	0	-	-	0
Stage 2	0	-	865	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	827	-
Mov Cap-2 Maneuver	-	-	791	-
Stage 1	-	-	-	-
Stage 2	-	-	865	-

Approach	EB	SB
HCM Control Delay, s	0	11.1
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	791
HCM Lane V/C Ratio	-	0.259
HCM Control Delay (s)	-	11.1
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	1

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	63	239	0	0	156	0
Future Vol, veh/h	63	239	0	0	156	0
Peak Hour Factor	0.88	0.88	0.25	0.25	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	272	0	0	211	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.6	10
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	44%	0%	100%
Vol Thru, %	56%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	143	159	156
LT Vol	63	0	156
Through Vol	80	159	0
RT Vol	0	0	0
Lane Flow Rate	162	181	211
Geometry Grp	7	7	2
Degree of Util (X)	0.239	0.255	0.29
Departure Headway (Hd)	5.298	5.076	4.952
Convergence, Y/N	Yes	Yes	Yes
Cap	678	708	727
Service Time	3.029	2.807	2.976
HCM Lane V/C Ratio	0.239	0.256	0.29
HCM Control Delay	9.7	9.5	10
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	1	1.2

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	381	0	0	48	0
Future Vol, veh/h	22	381	0	0	48	0
Conflicting Peds, #/hr	0	0	0	2	0	3
Sign Control	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	92	92	64	64
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	443	0	0	75	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	274	-
Stage 1	-	-	0	-
Stage 2	-	-	274	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	693	0
Stage 1	-	-	-	0
Stage 2	-	-	747	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	693	-
Mov Cap-2 Maneuver	-	-	693	-
Stage 1	-	-	-	-
Stage 2	-	-	747	-

Approach	EB	SB
HCM Control Delay, s		10.8
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	693
HCM Lane V/C Ratio	-	-	0.108
HCM Control Delay (s)	-	-	10.8
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.4

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	67	276	26	60	13	0	0	84	10
Future Vol, veh/h	0	0	0	67	276	26	60	13	0	0	84	10
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.77	0.77	0.77	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	78	321	30	78	17	0	0	122	14
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	10.3	9.2	9.2
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	82%	33%	0%	0%
Vol Thru, %	18%	67%	84%	89%
Vol Right, %	0%	0%	16%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	205	164	94
LT Vol	60	67	0	0
Through Vol	13	138	138	84
RT Vol	0	0	26	10
Lane Flow Rate	95	238	191	136
Geometry Grp	2	7	7	2
Degree of Util (X)	0.139	0.35	0.265	0.189
Departure Headway (Hd)	5.272	5.28	5.004	4.992
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	678	679	715	717
Service Time	3.32	3.024	2.748	3.036
HCM Lane V/C Ratio	0.14	0.351	0.267	0.19
HCM Control Delay	9.2	10.9	9.6	9.2
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.5	1.6	1.1	0.7

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	21	258	37	18	6	0	0	23	86
Future Vol, veh/h	0	0	0	21	258	37	18	6	0	0	23	86
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.86	0.86	0.86	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	22	272	39	21	7	0	0	28	106
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9	8.2	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	75%	14%	0%	0%
Vol Thru, %	25%	86%	78%	21%
Vol Right, %	0%	0%	22%	79%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	150	166	109
LT Vol	18	21	0	0
Through Vol	6	129	129	23
RT Vol	0	0	37	86
Lane Flow Rate	28	158	175	135
Geometry Grp	2	7	7	2
Degree of Util (X)	0.039	0.219	0.231	0.159
Departure Headway (Hd)	5	4.989	4.762	4.258
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	717	725	758	844
Service Time	3.024	2.689	2.462	2.275
HCM Lane V/C Ratio	0.039	0.218	0.231	0.16
HCM Control Delay	8.2	9.1	8.9	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.9	0.6

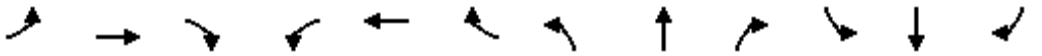
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	8	0	0	29	0	1861	10	0	1993	93
Future Vol, veh/h	0	0	8	0	0	29	0	1861	10	0	1993	93
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	5	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	67	67	67	66	66	66	89	89	89	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	44	0	2091	11	0	2265	106

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1192	-	-	1057	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	154	0	0	192	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	153	-	-	191	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.5	29.4	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	153	191	-	-
HCM Lane V/C Ratio	-	-	0.078	0.23	-	-
HCM Control Delay (s)	-	-	30.5	29.4	-	-
HCM Lane LOS	-	-	D	D	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.9	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	65	140	67	67	1789	9	0	1855	127
Future Volume (veh/h)	0	0	0	65	140	67	67	1789	9	0	1855	127
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				260	560	268	74	1988	10	0	7420	508
Peak Hour Factor				0.25	0.25	0.25	0.90	0.90	0.90	0.25	0.25	0.25
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				164	367	185	91	3875	19	0	3383	1023
Arrive On Green				0.20	0.20	0.20	0.10	1.00	1.00	0.00	0.66	0.66
Sat Flow, veh/h				802	1796	908	1781	5243	26	0	5274	1545
Grp Volume(v), veh/h				593	0	495	74	1291	707	0	7420	508
Grp Sat Flow(s),veh/h/ln				1830	0	1676	1781	1702	1866	0	1702	1545
Q Serve(g_s), s				35.1	0.0	35.1	7.0	0.0	0.0	0.0	113.9	28.5
Cycle Q Clear(g_c), s				35.1	0.0	35.1	7.0	0.0	0.0	0.0	113.9	28.5
Prop In Lane				0.44		0.54	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				373	0	342	91	2515	1379	0	3383	1023
V/C Ratio(X)				1.59	0.00	1.45	0.82	0.51	0.51	0.00	2.19	0.50
Avail Cap(c_a), veh/h				373	0	342	275	2515	1379	0	3383	1023
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.81	0.81	0.81	0.00	1.00	1.00
Uniform Delay (d), s/veh				68.5	0.0	68.5	76.5	0.0	0.0	0.0	29.0	14.6
Incr Delay (d2), s/veh				277.0	0.0	216.8	5.4	0.6	1.1	0.0	538.1	1.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				45.2	0.0	35.7	3.2	0.2	0.4	0.0	211.3	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				345.5	0.0	285.3	81.8	0.6	1.1	0.0	567.1	16.3
LnGrp LOS				F	A	F	F	A	A	A	F	B
Approach Vol, veh/h					1088			2072			7928	
Approach Delay, s/veh					318.1			3.7			531.8	
Approach LOS					F			A			F	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	132.0	40.0	13.2	118.8
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	37.1	9.0	115.9
Green Ext Time (p_c), s	6.5	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	412.2
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



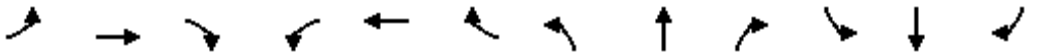
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	142	97	0	0	0	0	1648	31	51	1861	0
Future Volume (veh/h)	218	142	97	0	0	0	0	1648	31	51	1861	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	232	160	109				0	1852	34	55	2023	0
Peak Hour Factor	0.94	0.89	0.89				0.89	0.89	0.90	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	317	333	260				0	3615	66	69	4921	0
Arrive On Green	0.18	0.18	0.18				0.00	1.00	1.00	0.08	1.00	0.00
Sat Flow, veh/h	1781	1870	1459				0	5331	95	1781	6696	0
Grp Volume(v), veh/h	232	160	109				0	1221	665	55	2023	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1459				0	1702	1853	1781	1609	0
Q Serve(g_s), s	21.2	13.2	11.4				0.0	0.0	0.0	5.2	0.0	0.0
Cycle Q Clear(g_c), s	21.2	13.2	11.4				0.0	0.0	0.0	5.2	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	317	333	260				0	2384	1298	69	4921	0
V/C Ratio(X)	0.73	0.48	0.42				0.00	0.51	0.51	0.79	0.41	0.00
Avail Cap(c_a), veh/h	364	382	298				0	2384	1298	162	4921	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.63	0.63	0.09	0.09	0.00
Uniform Delay (d), s/veh	66.8	63.5	62.8				0.0	0.0	0.0	78.6	0.0	0.0
Incr Delay (d2), s/veh	5.0	0.4	0.4				0.0	0.5	0.9	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	6.4	4.3				0.0	0.2	0.3	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.7	63.9	63.2				0.0	0.5	0.9	79.3	0.0	0.0
LnGrp LOS	E	E	E				A	A	A	E	A	A
Approach Vol, veh/h		501						1886			2078	
Approach Delay, s/veh		67.4						0.6			2.1	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	11.1	125.3	35.5	136.5
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	15.6	107.1	35.1	127.1
Max Q Clear Time (g_c+I1), s	7.2	2.0	23.2	2.0
Green Ext Time (p_c), s	0.0	5.3	0.4	7.4

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	338	378	215	189	224	7	358	1351	403	0	1354	561
Future Volume (vph)	338	378	215	189	224	7	358	1351	403	0	1354	561
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.93	1.00	1.00		1.00	1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3354	1466	1610	3345		3662	4891			5085	1507
Flt Permitted	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3354	1466	1610	3345		3662	4891			5085	1507
Peak-hour factor, PHF	0.94	0.94	0.94	0.85	0.85	0.85	0.88	0.88	0.88	0.95	0.95	0.95
Adj. Flow (vph)	360	402	229	222	264	8	407	1535	458	0	1425	591
RTOR Reduction (vph)	0	0	183	0	1	0	0	26	0	0	0	232
Lane Group Flow (vph)	248	514	46	160	333	0	407	1967	0	0	1425	359
Confl. Peds. (#/hr)			42			1			3			20
Confl. Bikes (#/hr)			3			7						
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	34.4	34.4	34.4	21.3	21.3		22.3	98.6			70.9	70.9
Effective Green, g (s)	34.4	34.4	34.4	21.3	21.3		22.3	98.6			70.9	70.9
Actuated g/C Ratio	0.20	0.20	0.20	0.12	0.12		0.13	0.57			0.41	0.41
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	322	670	293	199	414		474	2803			2096	621
v/s Ratio Prot	c0.15	0.15		0.10	c0.10		c0.11	c0.40			0.28	
v/s Ratio Perm			0.03									0.24
v/c Ratio	0.77	0.77	0.16	0.80	0.80		0.86	0.70			0.68	0.58
Uniform Delay, d1	65.1	65.0	56.8	73.3	73.3		73.3	26.2			41.3	39.0
Progression Factor	1.00	1.00	1.00	1.16	1.15		1.07	0.62			0.82	0.62
Incremental Delay, d2	9.9	4.7	0.1	19.1	10.1		11.7	1.2			1.7	3.6
Delay (s)	75.0	69.8	56.9	104.3	94.5		90.5	17.5			35.5	27.8
Level of Service	E	E	E	F	F		F	B			D	C
Approach Delay (s)		68.1			97.6			29.9			33.2	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	43.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	89.5%	ICU Level of Service	E
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)	213	472	238	116	532	240	293	1573	87	218	1316	220
Future Volume (veh/h)	213	472	238	116	532	240	293	1573	87	218	1316	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.95	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	497	251	125	572	258	315	1691	94	232	1400	234
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	599	252	144	626	265	356	2070	115	735	2335	390
Arrive On Green	0.08	0.17	0.17	0.08	0.18	0.18	0.07	0.28	0.28	0.21	0.53	0.53
Sat Flow, veh/h	3456	3554	1495	1781	3554	1506	3456	4937	274	3456	4392	733
Grp Volume(v), veh/h	224	497	251	125	572	258	315	1165	620	232	1085	549
Grp Sat Flow(s),veh/h/ln	1728	1777	1495	1781	1777	1506	1728	1702	1807	1728	1702	1722
Q Serve(g_s), s	11.0	23.3	23.4	11.9	27.2	19.5	15.5	54.9	55.1	9.7	37.7	37.7
Cycle Q Clear(g_c), s	11.0	23.3	23.4	11.9	27.2	19.5	15.5	54.9	55.1	9.7	37.7	37.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.43
Lane Grp Cap(c), veh/h	264	599	252	144	626	265	356	1427	758	735	1810	915
V/C Ratio(X)	0.85	0.83	1.00	0.87	0.91	0.97	0.88	0.82	0.82	0.32	0.60	0.60
Avail Cap(c_a), veh/h	434	684	288	193	626	265	675	1427	758	735	1810	915
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	78.5	69.1	47.0	78.1	69.6	31.3	79.0	55.7	55.7	57.1	27.7	27.7
Incr Delay (d2), s/veh	3.7	6.2	46.5	21.3	17.7	47.4	2.3	4.2	7.7	0.1	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	11.2	12.0	6.3	13.9	10.7	7.2	25.1	27.4	4.3	15.3	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.2	75.3	93.5	99.4	87.2	78.7	81.4	59.9	63.4	57.2	28.1	28.5
LnGrp LOS	F	E	F	F	F	E	F	E	E	E	C	C
Approach Vol, veh/h		972			955			2100			1866	
Approach Delay, s/veh		81.6			86.5			64.2			31.8	
Approach LOS		F			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	77.0	18.8	33.9	22.1	97.2	17.5	35.2
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	11.7	57.1	13.9	25.4	17.5	39.7	13.0	29.2
Green Ext Time (p_c), s	0.1	4.3	0.0	1.1	0.2	4.4	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	60.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	10	6	95	16	105	8	1794	32	96	1429	35
Future Volume (veh/h)	42	10	6	95	16	105	8	1794	32	96	1429	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	14	8	120	20	133	8	1888	34	102	1520	37
Peak Hour Factor	0.72	0.72	0.72	0.79	0.79	0.79	0.95	0.95	0.95	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	37	18	148	21	132	16	3458	62	121	3733	91
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.01	0.67	0.67	0.07	0.73	0.73
Sat Flow, veh/h	692	209	100	675	121	755	1781	5163	93	1781	5123	125
Grp Volume(v), veh/h	80	0	0	273	0	0	8	1244	678	102	1010	547
Grp Sat Flow(s),veh/h/ln	1001	0	0	1551	0	0	1781	1702	1852	1781	1702	1844
Q Serve(g_s), s	0.0	0.0	0.0	18.2	0.0	0.0	0.8	32.7	32.8	9.7	19.7	19.7
Cycle Q Clear(g_c), s	11.9	0.0	0.0	30.1	0.0	0.0	0.8	32.7	32.8	9.7	19.7	19.7
Prop In Lane	0.72		0.10	0.44		0.49	1.00		0.05	1.00		0.07
Lane Grp Cap(c), veh/h	211	0	0	301	0	0	16	2280	1240	121	2480	1344
V/C Ratio(X)	0.38	0.00	0.00	0.91	0.00	0.00	0.49	0.55	0.55	0.84	0.41	0.41
Avail Cap(c_a), veh/h	211	0	0	301	0	0	162	2280	1240	369	2480	1344
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.69	0.69	0.69	0.72	0.72	0.72
Uniform Delay (d), s/veh	63.2	0.0	0.0	70.8	0.0	0.0	84.8	14.8	14.8	79.3	9.0	9.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	28.4	0.0	0.0	5.6	0.7	1.2	4.3	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.0	14.5	0.0	0.0	0.4	12.4	13.7	4.6	7.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	0.0	0.0	99.1	0.0	0.0	90.4	15.4	16.0	83.6	9.4	9.7
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		80			273			1930			1659	
Approach Delay, s/veh		63.6			99.1			15.9			14.0	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.1	120.9		35.0	6.0	131.0		35.0
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	11.7	34.8		13.9	2.8	21.7		32.1
Green Ext Time (p_c), s	0.0	5.5		0.1	0.0	4.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	240	14	503	311	168	21	1510	680	135	1185	275
Future Volume (veh/h)	189	240	14	503	311	168	21	1510	680	135	1185	275
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	203	258	15	572	353	191	23	1641	739	142	1247	289
Peak Hour Factor	0.93	0.93	0.93	0.88	0.88	0.88	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	287	17	606	376	314	35	2530	772	180	1877	819
Arrive On Green	0.14	0.16	0.16	0.18	0.20	0.20	0.02	0.50	0.50	0.10	1.00	1.00
Sat Flow, veh/h	1781	1747	102	3456	1870	1562	1781	5106	1558	3456	3554	1551
Grp Volume(v), veh/h	203	0	273	572	353	191	23	1641	739	142	1247	289
Grp Sat Flow(s),veh/h/ln	1781	0	1849	1728	1870	1562	1781	1702	1558	1728	1777	1551
Q Serve(g_s), s	19.1	0.0	24.9	28.1	32.0	16.6	2.2	41.1	78.3	6.9	0.0	0.0
Cycle Q Clear(g_c), s	19.1	0.0	24.9	28.1	32.0	16.6	2.2	41.1	78.3	6.9	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	0	304	606	376	314	35	2530	772	180	1877	819
V/C Ratio(X)	0.84	0.00	0.90	0.94	0.94	0.61	0.67	0.65	0.96	0.79	0.66	0.35
Avail Cap(c_a), veh/h	265	0	442	615	501	419	120	2530	772	434	1877	819
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	72.5	0.0	70.5	70.1	67.7	47.0	83.8	32.3	41.7	76.1	0.0	0.0
Incr Delay (d2), s/veh	17.8	0.0	12.3	22.8	19.5	0.7	7.9	1.3	23.6	2.7	1.7	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	12.9	14.3	17.2	6.5	1.1	17.0	34.3	3.0	0.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.3	0.0	82.7	92.9	87.1	47.7	91.7	33.6	65.2	78.8	1.7	1.1
LnGrp LOS	F	A	F	F	F	D	F	C	E	E	A	A
Approach Vol, veh/h		476			1116			2403			1678	
Approach Delay, s/veh		86.0			83.3			43.9			8.1	
Approach LOS		F			F			D			A	

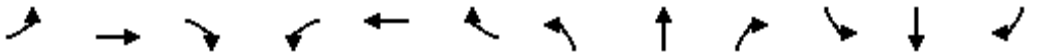
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	90.9	34.6	33.2	7.7	96.5	28.2	39.5
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	3.9	80.3	30.1	26.9	4.2	2.0	21.1	34.0
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	3.6	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	165	4	101	0	131	0	653	219	62	292	0
Future Volume (vph)	73	165	4	101	0	131	0	653	219	62	292	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.95		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	1.00		1.00		0.85		0.96		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1854		1770		1551		3239		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.19	1.00	
Satd. Flow (perm)	1770	1854		1770		1551		3239		351	3539	
Peak-hour factor, PHF	0.88	0.88	0.88	0.84	0.84	0.84	0.92	0.92	0.92	0.97	0.97	0.97
Adj. Flow (vph)	83	188	5	120	0	156	0	710	238	64	301	0
RTOR Reduction (vph)	0	2	0	0	0	140	0	30	0	0	0	0
Lane Group Flow (vph)	83	191	0	120	0	16	0	918	0	64	301	0
Confl. Peds. (#/hr)			14			3			88			10
Confl. Bikes (#/hr)									11			8
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	14.0	14.0		8.7		8.7		40.6		49.1	49.1	
Effective Green, g (s)	14.0	14.0		8.7		8.7		40.6		49.1	49.1	
Actuated g/C Ratio	0.16	0.16		0.10		0.10		0.47		0.57	0.57	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	288	301		179		156		1529		268	2020	
v/s Ratio Prot	0.05	c0.10		c0.07				c0.28		c0.01	0.09	
v/s Ratio Perm						0.01				0.12		
v/c Ratio	0.29	0.64		0.67		0.10		0.60		0.24	0.15	
Uniform Delay, d1	31.6	33.6		37.3		35.1		16.7		10.1	8.7	
Progression Factor	1.20	1.51		1.00		1.00		0.68		1.00	1.00	
Incremental Delay, d2	0.2	3.0		7.5		0.1		1.3		0.2	0.2	
Delay (s)	38.2	53.9		44.8		35.2		12.8		10.3	8.8	
Level of Service	D	D		D		D		B		B	A	
Approach Delay (s)		49.2			39.4			12.8			9.1	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

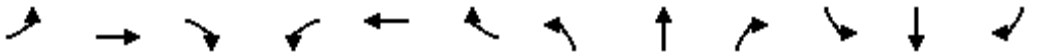
Intersection	
Int Delay, s/veh	1.2

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	167	670	369	68	0	1
Future Vol, veh/h	167	670	369	68	0	1
Conflicting Peds, #/hr	0	0	0	22	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	85	85	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	180	720	434	80	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	536	0	-	0	1216	279
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	720	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1028	-	-	-	173	718
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	443	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1006	-	-	-	136	703
Mov Cap-2 Maneuver	-	-	-	-	136	-
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	434	-

Approach	NB	SB	SE
HCM Control Delay, s	1.9	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1006	-	703	-	-
HCM Lane V/C Ratio	0.178	-	0.002	-	-
HCM Control Delay (s)	9.4	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.6	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	553	99	248	252	73	144	110	398	72	224	87
Future Volume (veh/h)	61	553	99	248	252	73	144	110	398	72	224	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	1.00		0.97	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	69	628	112	318	323	94	158	121	437	89	277	107
Peak Hour Factor	0.88	0.88	0.88	0.78	0.78	0.78	0.91	0.91	0.91	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	1797	661	405	784	643	193	822	944	150	590	248
Arrive On Green	0.05	0.35	0.35	0.12	0.42	0.42	0.11	0.23	0.23	0.04	0.17	0.17
Sat Flow, veh/h	1781	5106	1388	3456	1870	1535	1781	3554	2665	3456	3554	1494
Grp Volume(v), veh/h	69	628	112	318	323	94	158	121	437	89	277	107
Grp Sat Flow(s),veh/h/ln	1781	1702	1388	1728	1870	1535	1781	1777	1333	1728	1777	1494
Q Serve(g_s), s	3.5	8.3	4.3	8.2	11.1	3.5	7.9	2.5	11.7	2.3	6.4	5.9
Cycle Q Clear(g_c), s	3.5	8.3	4.3	8.2	11.1	3.5	7.9	2.5	11.7	2.3	6.4	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	1797	661	405	784	643	193	822	944	150	590	248
V/C Ratio(X)	0.77	0.35	0.17	0.78	0.41	0.15	0.82	0.15	0.46	0.59	0.47	0.43
Avail Cap(c_a), veh/h	585	2235	780	1134	819	672	585	1555	1494	1134	1555	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	21.9	14.5	39.2	18.7	16.4	39.8	28.0	23.2	42.9	34.5	34.2
Incr Delay (d2), s/veh	5.1	0.1	0.1	1.3	0.2	0.1	3.2	0.1	0.4	1.4	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.3	1.3	3.5	4.6	1.1	3.5	1.0	3.4	1.0	2.7	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	22.0	14.6	40.5	18.8	16.5	43.1	28.0	23.6	44.3	34.7	34.7
LnGrp LOS	D	C	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		809			735			716			473	
Approach Delay, s/veh		23.2			27.9			28.6			36.5	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	38.1	15.3	21.9	10.0	44.2	9.4	27.8
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	10.2	10.3	9.9	8.4	5.5	13.1	4.3	13.7
Green Ext Time (p_c), s	0.6	6.4	0.2	1.2	0.1	1.5	0.1	2.6

Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

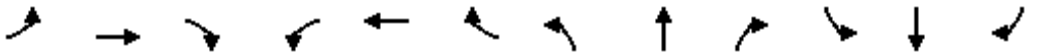
Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	407	237	506	563	14
Future Vol, veh/h	0	407	237	506	563	14
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	94	94	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	420	252	538	655	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	340	675	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	560	560	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	558	558	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.4	5.3	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	558	-	558	-	-
HCM Lane V/C Ratio	0.452	-	0.752	-	-
HCM Control Delay (s)	16.7	-	28.4	-	-
HCM Lane LOS	C	-	D	-	-
HCM 95th %tile Q(veh)	2.3	-	6.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	7	70	39	20	61	219	663	13	18	918	86
Future Volume (veh/h)	47	7	70	39	20	61	219	663	13	18	918	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	28	280	156	80	244	281	850	17	72	3672	344
Peak Hour Factor	0.25	0.25	0.25	0.25	0.25	0.25	0.78	0.78	0.78	0.25	0.25	0.25
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	467	391	186	442	360	311	1376	598	93	869	80
Arrive On Green	0.13	0.25	0.25	0.10	0.24	0.24	0.17	0.39	0.39	0.05	0.26	0.26
Sat Flow, veh/h	1781	1870	1565	1781	1870	1525	1781	3554	1545	1781	3282	302
Grp Volume(v), veh/h	188	28	280	156	80	244	281	850	17	72	1957	2059
Grp Sat Flow(s),veh/h/ln	1781	1870	1565	1781	1870	1525	1781	1777	1545	1781	1777	1807
Q Serve(g_s), s	11.7	1.3	18.5	9.7	3.9	16.5	17.5	21.8	0.8	4.5	30.0	30.0
Cycle Q Clear(g_c), s	11.7	1.3	18.5	9.7	3.9	16.5	17.5	21.8	0.8	4.5	30.0	30.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	226	467	391	186	442	360	311	1376	598	93	470	478
V/C Ratio(X)	0.83	0.06	0.72	0.84	0.18	0.68	0.90	0.62	0.03	0.78	4.16	4.31
Avail Cap(c_a), veh/h	471	990	828	471	990	807	471	1376	598	471	470	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	32.4	38.9	49.8	34.5	39.4	45.8	28.0	21.5	53.1	41.7	41.7
Incr Delay (d2), s/veh	10.7	0.1	3.1	3.8	0.5	6.0	11.1	0.6	0.0	5.1	1427.1	1492.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	0.6	7.0	4.6	1.9	6.4	8.3	8.7	0.3	2.1	199.0	211.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.0	32.5	41.9	53.6	35.1	45.4	56.9	28.6	21.5	58.2	1468.8	1534.4
LnGrp LOS	E	C	D	D	D	D	E	C	C	E	F	F
Approach Vol, veh/h		496			480			1148			4088	
Approach Delay, s/veh		47.9			46.3			35.4			1477.0	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	37.0	24.2	34.9	18.8	35.5	10.3	48.8
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0
Max Q Clear Time (g_c+I1), s	11.7	20.5	19.5	32.0	13.7	18.5	6.5	23.8
Green Ext Time (p_c), s	0.2	1.6	0.3	0.0	0.7	3.8	0.1	1.9

Intersection Summary	
HCM 6th Ctrl Delay	986.0
HCM 6th LOS	F

Notes

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

User approved ignoring U-Turning movement.

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

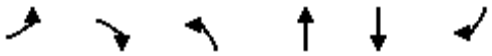
Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	799	740	9	0	269
Future Vol, veh/h	0	799	740	9	0	269
Conflicting Peds, #/hr	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	94	94	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	832	787	10	0	345

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	397
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	602
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	600
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.8
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	600
HCM Lane V/C Ratio	-	-	0.575
HCM Control Delay (s)	-	-	18.8
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	3.6



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	691	91	0	1238	1092	750
Future Volume (vph)	691	91	0	1238	1092	750
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1563		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1563		3539	3539	1583
Peak-hour factor, PHF	0.25	0.25	0.25	0.25	0.25	0.25
Adj. Flow (vph)	2764	364	0	4952	4368	3000
RTOR Reduction (vph)	0	55	0	0	0	0
Lane Group Flow (vph)	2764	309	0	4952	4368	3000
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)		1				1
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	39.8	39.8		69.7	69.7	159.7
Effective Green, g (s)	39.8	39.8		69.7	69.7	154.3
Actuated g/C Ratio	0.23	0.23		0.41	0.41	0.91
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	802	365		1448	1448	1434
v/s Ratio Prot	c0.81			c1.40	1.23	c1.89
v/s Ratio Perm		0.20				
v/c Ratio	3.45	0.85		3.42	3.02	2.09
Uniform Delay, d1	65.2	62.3		50.3	50.3	8.0
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1104.0	16.1		1090.7	909.3	493.8
Delay (s)	1169.3	78.4		1141.0	959.6	501.8
Level of Service	F	E		F	F	F
Approach Delay (s)	1042.3			1141.0	773.2	
Approach LOS	F			F	F	

Intersection Summary			
HCM 2000 Control Delay	945.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	3.03		
Actuated Cycle Length (s)	170.3	Sum of lost time (s)	19.0
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	1180	446	138	1251
Future Volume (veh/h)	0	1	1180	446	138	1251
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	4	1216	460	155	1406
Peak Hour Factor	0.25	0.25	0.97	0.97	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	8	14	2252	990	261	2787
Arrive On Green	0.00	0.00	0.63	0.63	0.08	0.78
Sat Flow, veh/h	1781	3170	3647	1551	3456	3647
Grp Volume(v), veh/h	0	4	1216	460	155	1406
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1551	1728	1777
Q Serve(g_s), s	0.0	0.1	11.2	8.9	2.5	8.3
Cycle Q Clear(g_c), s	0.0	0.1	11.2	8.9	2.5	8.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	8	14	2252	990	261	2787
V/C Ratio(X)	0.00	0.29	0.54	0.46	0.59	0.50
Avail Cap(c_a), veh/h	1215	2163	3636	1594	1768	3636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	29.1	6.0	5.5	26.2	2.3
Incr Delay (d2), s/veh	0.0	4.3	0.3	0.5	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.9	2.1	1.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	33.4	6.3	5.9	27.0	2.6
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	4		1676			1561
Approach Delay, s/veh	33.4		6.2			5.0
Approach LOS	C		A			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.8	43.4				52.2	6.5
Change Period (Y+Rc), s	4.4	6.2				* 6.2	6.2
Max Green Setting (Gmax), s	4.0	60.0				* 60	40.0
Max Q Clear Time (g_c+I1), s	4.5	13.2				10.3	2.1
Green Ext Time (p_c), s	0.3	24.0				31.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	88	181	60	40	106	69	1007	113	138	1135	174
Future Volume (veh/h)	158	88	181	60	40	106	69	1007	113	138	1135	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	184	102	210	65	43	115	73	1060	119	155	1275	196
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.95	0.95	0.95	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	316	258	84	261	215	128	1640	791	191	1889	953
Arrive On Green	0.08	0.17	0.17	0.05	0.14	0.14	0.04	0.46	0.46	0.11	0.53	0.53
Sat Flow, veh/h	3456	1870	1528	1781	1870	1536	3456	3554	1550	1781	3554	1565
Grp Volume(v), veh/h	184	102	210	65	43	115	73	1060	119	155	1275	196
Grp Sat Flow(s),veh/h/ln	1728	1870	1528	1781	1870	1536	1728	1777	1550	1781	1777	1565
Q Serve(g_s), s	4.7	4.4	12.1	3.3	1.8	6.3	1.9	20.8	3.7	7.7	23.9	5.1
Cycle Q Clear(g_c), s	4.7	4.4	12.1	3.3	1.8	6.3	1.9	20.8	3.7	7.7	23.9	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	316	258	84	261	215	128	1640	791	191	1889	953
V/C Ratio(X)	0.69	0.32	0.81	0.77	0.16	0.54	0.57	0.65	0.15	0.81	0.68	0.21
Avail Cap(c_a), veh/h	1139	616	503	587	616	506	1139	2732	1267	587	2732	1325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	33.3	36.5	42.9	34.5	36.4	43.1	18.8	11.9	39.8	15.6	8.0
Incr Delay (d2), s/veh	1.2	0.6	6.1	5.4	0.1	0.8	1.5	0.7	0.1	3.2	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.0	4.7	1.5	0.8	2.3	0.8	8.3	1.2	3.5	9.1	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	33.8	42.6	48.3	34.6	37.2	44.6	19.5	12.0	42.9	16.2	8.2
LnGrp LOS	D	C	D	D	C	D	D	B	B	D	B	A
Approach Vol, veh/h		496			223			1252			1626	
Approach Delay, s/veh		40.7			39.9			20.3			17.8	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	47.3	8.7	20.9	7.8	53.7	11.4	18.2
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	9.7	22.8	5.3	14.1	3.9	25.9	6.7	8.3
Green Ext Time (p_c), s	0.2	18.4	0.1	1.1	0.1	22.5	0.3	0.3

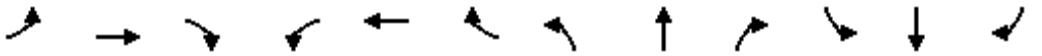
Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	991	278	270	580	0	0	0	0	209	0	0
Future Volume (vph)	0	991	278	270	580	0	0	0	0	209	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.99	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1562	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1562	3433	3539					1770		
Peak-hour factor, PHF	0.93	0.93	0.93	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1066	299	300	644	0	0	0	0	227	0	0
RTOR Reduction (vph)	0	0	160	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1066	139	300	644	0	0	0	0	227	0	0
Confl. Peds. (#/hr)						4						
Confl. Bikes (#/hr)			3			2						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		50.4	50.4	15.3	70.4					18.0		
Effective Green, g (s)		46.4	46.4	15.3	66.4					18.0		
Actuated g/C Ratio		0.46	0.46	0.15	0.66					0.18		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1642	724	525	2349					318		
v/s Ratio Prot		c0.30		c0.09	0.18					c0.13		
v/s Ratio Perm			0.09									
v/c Ratio		0.65	0.19	0.57	0.27					0.71		
Uniform Delay, d1		20.6	15.8	39.3	6.9					38.6		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		0.9	0.1	0.9	0.1					6.2		
Delay (s)		21.5	15.9	40.2	7.0					44.8		
Level of Service		C	B	D	A					D		
Approach Delay (s)		20.2			17.5			0.0			44.8	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	826	1161	459	0	0	1878
Future Volume (vph)	826	1161	459	0	0	1878
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.97	0.97	0.85	0.85	0.93	0.93
Adj. Flow (vph)	852	1197	540	0	0	2019
RTOR Reduction (vph)	0	169	0	0	0	0
Lane Group Flow (vph)	852	1028	540	0	0	2019
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)		3		1		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	27.7	45.3	23.5			41.1
Effective Green, g (s)	27.7	45.3	23.5			41.1
Actuated g/C Ratio	0.33	0.54	0.28			0.49
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1134	1506	1425			3142
v/s Ratio Prot	0.25	c0.37	0.11			c0.32
v/s Ratio Perm						
v/c Ratio	0.75	0.68	0.38			0.64
Uniform Delay, d1	25.0	14.0	24.3			15.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	2.5	1.0	0.1			0.3
Delay (s)	27.5	15.1	24.3			16.2
Level of Service	C	B	C			B
Approach Delay (s)	20.2		24.3			16.2
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	83.8	Sum of lost time (s)	22.5
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
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)	278	215	220	24	211	396	227	425	21	555	436	213
Future Volume (veh/h)	278	215	220	24	211	396	227	425	21	555	436	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	265	279	237	27	234	0	253	510	0	617	484	0
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	357	375	667	225	449		402	844		1158	608	
Arrive On Green	0.20	0.20	0.20	0.13	0.13	0.00	0.07	0.07	0.00	0.32	0.32	0.00
Sat Flow, veh/h	1781	1870	1542	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	265	279	237	27	234	0	253	510	0	617	484	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1542	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	22.4	22.4	16.7	2.2	9.9	0.0	22.1	21.1	0.0	22.6	37.7	0.0
Cycle Q Clear(g_c), s	22.4	22.4	16.7	2.2	9.9	0.0	22.1	21.1	0.0	22.6	37.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	357	375	667	225	449		402	844		1158	608	
V/C Ratio(X)	0.74	0.74	0.36	0.12	0.52		0.63	0.60		0.53	0.80	
Avail Cap(c_a), veh/h	435	457	735	357	713		402	844		1158	608	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.00	0.91	0.91	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	60.1	60.1	31.1	62.0	65.4	0.0	67.5	67.1	0.0	44.1	49.2	0.0
Incr Delay (d2), s/veh	9.2	8.9	0.9	0.9	3.5	0.0	6.7	2.9	0.0	0.3	7.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	11.5	9.2	1.0	4.7	0.0	11.4	11.1	0.0	10.2	18.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.2	68.9	32.0	62.9	68.8	0.0	74.2	70.0	0.0	44.4	56.1	0.0
LnGrp LOS	E	E	C	E	E		E	E		D	E	
Approach Vol, veh/h		781			261			763			1101	
Approach Delay, s/veh		57.8			68.2			71.4			49.6	
Approach LOS		E			E			E			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	37.0	56.9	25.1	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	24.4	39.7	11.9	24.1
Green Ext Time (p_c), s	6.3	0.0	3.3	2.9

Intersection Summary	
HCM 6th Ctrl Delay	59.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	692	3	0	501	64	0	0	0	69	1	130
Future Volume (veh/h)	96	692	3	0	501	64	0	0	0	69	1	130
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	101	728	3	0	576	74				84	1	159
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87				0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	128	1784	7	101	2203	279				556	7	494
Arrive On Green	0.07	0.49	0.49	0.00	0.96	0.96				0.32	0.32	0.32
Sat Flow, veh/h	1781	3629	15	1781	4579	580				1761	21	1565
Grp Volume(v), veh/h	101	356	375	0	426	224				85	0	159
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1702	1755				1782	0	1565
Q Serve(g_s), s	6.0	13.8	13.8	0.0	0.7	0.7				3.7	0.0	8.4
Cycle Q Clear(g_c), s	6.0	13.8	13.8	0.0	0.7	0.7				3.7	0.0	8.4
Prop In Lane	1.00		0.01	1.00		0.33				0.99		1.00
Lane Grp Cap(c), veh/h	128	874	918	101	1637	844				563	0	494
V/C Ratio(X)	0.79	0.41	0.41	0.00	0.26	0.27				0.15	0.00	0.32
Avail Cap(c_a), veh/h	538	874	918	109	1637	844				563	0	494
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	0.00	0.97	0.97				1.00	0.00	1.00
Uniform Delay (d), s/veh	49.3	17.5	17.5	0.0	1.1	1.1				26.5	0.0	28.1
Incr Delay (d2), s/veh	2.2	0.7	0.7	0.0	0.4	0.7				0.6	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	5.6	5.9	0.0	0.3	0.4				1.7	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	18.2	18.2	0.0	1.5	1.8				27.1	0.0	29.9
LnGrp LOS	D	B	B	A	A	A				C	A	C
Approach Vol, veh/h		832			650						244	
Approach Delay, s/veh		22.2			1.6						28.9	
Approach LOS		C			A						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	12.1	56.9
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I1), s	10.0	15.8		10.4	8.0	2.7
Green Ext Time (p_c), s	0.0	6.1		0.6	0.1	5.1

Intersection Summary	
HCM 6th Ctrl Delay	15.4
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 (veh/h)	241	413	102	97	450	54	100	135	100	2	0	11
Future Volume (veh/h)	241	413	102	97	450	54	100	135	100	2	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.95	1.00		0.77	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	271	464	115	115	536	64	118	159	118	4	0	24
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.85	0.85	0.85	0.46	0.46	0.46
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	1316	322	142	2115	248	410	201	149	66	0	57
Arrive On Green	0.19	0.95	0.95	0.08	0.46	0.46	0.23	0.23	0.23	0.04	0.00	0.04
Sat Flow, veh/h	3456	2762	676	1781	4603	540	1781	872	647	1781	0	1561
Grp Volume(v), veh/h	271	297	282	115	394	206	118	0	277	4	0	24
Grp Sat Flow(s),veh/h/ln	1728	1777	1661	1781	1702	1738	1781	0	1520	1781	0	1561
Q Serve(g_s), s	8.1	1.3	1.3	6.9	7.6	7.9	5.9	0.0	18.5	0.2	0.0	1.6
Cycle Q Clear(g_c), s	8.1	1.3	1.3	6.9	7.6	7.9	5.9	0.0	18.5	0.2	0.0	1.6
Prop In Lane	1.00		0.41	1.00		0.31	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	334	847	792	142	1565	799	410	0	350	66	0	57
V/C Ratio(X)	0.81	0.35	0.36	0.81	0.25	0.26	0.29	0.00	0.79	0.06	0.00	0.42
Avail Cap(c_a), veh/h	595	847	792	191	1565	799	414	0	353	282	0	247
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)	0.95	0.95	0.95	0.63	0.63	0.63	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.6	1.4	1.4	48.9	17.8	17.9	34.3	0.0	39.1	50.2	0.0	50.9
Incr Delay (d2), s/veh	1.7	1.1	1.2	8.3	0.2	0.5	0.1	0.0	9.7	0.1	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.6	0.6	3.3	3.0	3.2	2.6	0.0	7.8	0.1	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	2.4	2.6	57.1	18.1	18.4	34.4	0.0	48.8	50.4	0.0	52.7
LnGrp LOS	D	A	A	E	B	B	C	A	D	D	A	D
Approach Vol, veh/h		850			715			395			28	
Approach Delay, s/veh		15.8			24.4			44.5			52.3	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.8	54.5		29.7	13.0	56.4		8.9
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.4	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	10.1	9.9		20.5	8.9	3.3		3.6
Green Ext Time (p_c), s	0.3	5.9		0.6	0.0	7.1		0.0

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

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	416	78	75	386	459	100	41	72	117	34	122
Future Volume (veh/h)	43	416	78	75	386	459	100	41	72	117	34	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.77	1.00		0.85	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	443	83	85	439	522	118	48	85	129	37	134
Peak Hour Factor	0.94	0.94	0.94	0.88	0.88	0.88	0.85	0.85	0.85	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	750	139	109	975	350	462	188	584	164	47	184
Arrive On Green	0.03	0.26	0.26	0.06	0.29	0.29	0.36	0.36	0.36	0.12	0.12	0.12
Sat Flow, veh/h	3456	2936	544	1781	3404	1222	1284	522	1353	1399	401	1569
Grp Volume(v), veh/h	46	266	260	85	439	522	166	0	85	166	0	134
Grp Sat Flow(s),veh/h/ln	1728	1777	1703	1781	1702	1222	1806	0	1353	1800	0	1569
Q Serve(g_s), s	1.2	12.1	12.4	4.4	9.8	26.5	6.0	0.0	3.6	8.3	0.0	7.6
Cycle Q Clear(g_c), s	1.2	12.1	12.4	4.4	9.8	26.5	6.0	0.0	3.6	8.3	0.0	7.6
Prop In Lane	1.00		0.32	1.00		1.00	0.71		1.00	0.78		1.00
Lane Grp Cap(c), veh/h	104	454	435	109	975	350	650	0	584	211	0	184
V/C Ratio(X)	0.44	0.59	0.60	0.78	0.45	1.49	0.26	0.00	0.15	0.79	0.00	0.73
Avail Cap(c_a), veh/h	198	465	446	146	975	350	703	0	623	352	0	307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	30.1	30.2	42.8	27.0	33.0	20.9	0.0	16.5	39.7	0.0	39.4
Incr Delay (d2), s/veh	1.1	2.1	2.4	12.1	0.1	235.7	0.1	0.0	0.0	2.5	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	5.3	5.2	2.2	3.9	30.4	2.5	0.0	1.1	3.8	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	32.2	32.6	54.9	27.1	268.7	20.9	0.0	16.6	42.2	0.0	41.5
LnGrp LOS	D	C	C	D	C	F	C	A	B	D	A	D
Approach Vol, veh/h		572			1046			251			300	
Approach Delay, s/veh		33.4			149.9			19.5			41.9	
Approach LOS		C			F			B			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	28.5		15.7	7.2	31.4		38.2
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	5.4	14.4		10.3	3.2	28.5		8.0
Green Ext Time (p_c), s	0.0	2.6		0.5	0.0	0.0		0.8

Intersection Summary	
HCM 6th Ctrl Delay	89.2
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

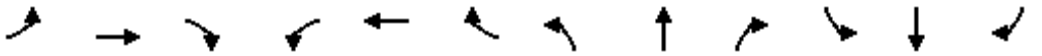
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	571	17	78	882	61	0	0	128	2	1	28
Future Vol, veh/h	44	571	17	78	882	61	0	0	128	2	1	28
Conflicting Peds, #/hr	0	0	23	0	0	75	0	0	3	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	91	91	91	65	65	65	62	62	62
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	601	18	86	969	67	0	0	197	3	2	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1111	0	0	642	0	0	-	-	336	1585	1984	596
Stage 1	-	-	-	-	-	-	-	-	-	1250	1250	-
Stage 2	-	-	-	-	-	-	-	-	-	335	734	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	346	-	-	581	-	-	0	0	563	114	61	383
Stage 1	-	-	-	-	-	-	0	0	-	133	243	-
Stage 2	-	-	-	-	-	-	0	0	-	598	424	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	321	-	-	568	-	-	-	-	549	53	40	355
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	53	40	-
Stage 1	-	-	-	-	-	-	-	-	-	106	192	-
Stage 2	-	-	-	-	-	-	-	-	-	328	355	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	1	15.2	26.2
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	549	321	-	-	568	-	-	219
HCM Lane V/C Ratio	0.359	0.144	-	-	0.151	-	-	0.228
HCM Control Delay (s)	15.2	18.1	-	-	12.5	-	-	26.2
HCM Lane LOS	C	C	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.6	0.5	-	-	0.5	-	-	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	653	39	188	957	1	110	0	149	0	0	0
Future Volume (veh/h)	25	653	39	188	957	1	110	0	149	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.90	1.00		0.88			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	26	680	41	221	1126	1	128	0	173			
Peak Hour Factor	0.96	0.96	0.96	0.85	0.85	0.85	0.86	0.86	0.86			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	235	2615	157	254	2834	3	346	0	271			
Arrive On Green	0.13	0.53	0.53	0.14	0.54	0.54	0.19	0.00	0.19			
Sat Flow, veh/h	1781	4915	295	1781	5268	5	1781	0	1395			
Grp Volume(v), veh/h	26	470	251	221	728	399	128	0	173			
Grp Sat Flow(s),veh/h/ln	1781	1702	1806	1781	1702	1869	1781	0	1395			
Q Serve(g_s), s	1.4	8.1	8.2	13.1	13.6	13.6	6.7	0.0	12.3			
Cycle Q Clear(g_c), s	1.4	8.1	8.2	13.1	13.6	13.6	6.7	0.0	12.3			
Prop In Lane	1.00		0.16	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	235	1811	961	254	1831	1005	346	0	271			
V/C Ratio(X)	0.11	0.26	0.26	0.87	0.40	0.40	0.37	0.00	0.64			
Avail Cap(c_a), veh/h	235	1811	961	785	1831	1005	397	0	311			
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	1.00	1.00	0.57	0.57	0.57	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.3	13.7	13.7	45.3	14.7	14.7	37.8	0.0	40.0			
Incr Delay (d2), s/veh	0.1	0.3	0.7	2.1	0.4	0.7	0.2	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	3.1	3.4	5.9	5.1	5.6	3.0	0.0	4.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	14.1	14.4	47.4	15.0	15.3	38.0	0.0	42.2			
LnGrp LOS	D	B	B	D	B	B	D	A	D			
Approach Vol, veh/h		747			1348			301				
Approach Delay, s/veh		15.1			20.4			40.4				
Approach LOS		B			C			D				

Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	19.8	62.3			19.1	63.0		25.9				
Change Period (Y+Rc), s	4.4	4.9			4.9	* 4.9		4.9				
Max Green Setting (Gmax), s	47.6	22.1			11.6	* 58		24.1				
Max Q Clear Time (g_c+I1), s	15.1	10.2			3.4	15.6		14.3				
Green Ext Time (p_c), s	0.3	5.6			0.0	13.3		0.6				

Intersection Summary		
HCM 6th Ctrl Delay		21.3
HCM 6th LOS		C

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	443	127	125	372	174	131	117	116	40	83	64
Future Volume (veh/h)	79	443	127	125	372	174	131	117	116	40	83	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.94	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	498	143	139	413	193	139	142	130	43	90	70
Peak Hour Factor	0.89	0.89	0.89	0.90	0.90	0.90	0.89	0.89	0.89	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	606	2034	899	182	661	305	246	258	290	209	220	176
Arrive On Green	0.68	1.00	1.00	0.11	0.56	0.56	0.14	0.14	0.14	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1571	3456	2346	1083	1781	1870	1494	1781	1870	1496
Grp Volume(v), veh/h	89	498	143	139	311	295	139	142	130	43	90	70
Grp Sat Flow(s),veh/h/ln	1781	1777	1571	1728	1777	1652	1781	1870	1494	1781	1870	1496
Q Serve(g_s), s	2.8	0.0	0.0	6.3	18.8	19.3	11.7	11.3	12.3	3.5	7.1	6.9
Cycle Q Clear(g_c), s	2.8	0.0	0.0	6.3	18.8	19.3	11.7	11.3	12.3	3.5	7.1	6.9
Prop In Lane	1.00		1.00	1.00		0.66	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	606	2034	899	182	501	466	246	258	290	209	220	176
V/C Ratio(X)	0.15	0.24	0.16	0.76	0.62	0.63	0.57	0.55	0.45	0.21	0.41	0.40
Avail Cap(c_a), veh/h	606	2034	899	467	501	466	391	410	411	391	410	328
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	0.76	0.76	0.76	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	17.3	0.0	0.0	70.6	29.2	29.3	64.5	64.3	57.4	63.8	65.5	65.4
Incr Delay (d2), s/veh	0.0	0.2	0.2	1.9	4.4	4.9	0.8	0.7	0.4	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.1	0.1	2.7	7.1	6.9	5.4	5.5	4.7	1.6	3.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	0.2	0.2	72.5	33.6	34.2	65.2	65.0	57.8	64.0	65.8	65.8
LnGrp LOS	B	A	A	E	C	C	E	E	E	E	E	E
Approach Vol, veh/h		730			745			411			203	
Approach Delay, s/veh		2.3			41.1			62.8			65.4	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.8	96.5		23.7	59.3	50.0		27.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	8.3	2.0		9.1	4.8	21.3		14.3
Green Ext Time (p_c), s	0.2	6.5		0.5	0.1	6.5		0.9

Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	653	11	9	701	373	5	6	5	156	8	50
Future Volume (veh/h)	40	653	11	9	701	373	5	6	5	156	8	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.96		0.98	0.99		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	710	12	10	779	414	11	14	11	170	9	54
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.44	0.44	0.44	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	303	2113	36	464	1272	672	142	173	113	302	19	73
Arrive On Green	0.03	0.59	0.59	0.01	0.57	0.57	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3574	60	1781	2230	1179	376	779	508	1013	87	332
Grp Volume(v), veh/h	43	353	369	10	620	573	36	0	0	233	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1858	1781	1777	1632	1664	0	0	1432	0	0
Q Serve(g_s), s	0.8	8.1	8.1	0.2	18.4	18.6	0.0	0.0	0.0	10.7	0.0	0.0
Cycle Q Clear(g_c), s	0.8	8.1	8.1	0.2	18.4	18.6	1.3	0.0	0.0	12.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.72	0.31		0.31	0.73		0.23
Lane Grp Cap(c), veh/h	303	1050	1098	464	1013	931	427	0	0	395	0	0
V/C Ratio(X)	0.14	0.34	0.34	0.02	0.61	0.62	0.08	0.00	0.00	0.59	0.00	0.00
Avail Cap(c_a), veh/h	440	1050	1098	638	1013	931	493	0	0	454	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.41	0.41	0.41	1.00	0.00	0.00	0.60	0.00	0.00
Uniform Delay (d), s/veh	8.9	8.3	8.3	7.4	11.3	11.4	24.8	0.0	0.0	28.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.8	0.8	0.0	1.1	1.3	0.0	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.0	3.1	0.1	6.7	6.2	0.5	0.0	0.0	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.0	9.2	9.1	7.4	12.5	12.6	24.8	0.0	0.0	29.2	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		765			1203			36			233	
Approach Delay, s/veh		9.2			12.5			24.8			29.2	
Approach LOS		A			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.2	52.2		22.6	6.9	50.5		22.6
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.2	10.1		14.0	2.8	20.6		3.3
Green Ext Time (p_c), s	0.0	5.2		0.5	0.0	7.9		0.1

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	29	15	122	127	31
Future Vol, veh/h	8	29	15	122	127	31
Peak Hour Factor	0.66	0.66	0.85	0.85	0.77	0.77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	44	18	144	165	40
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.6	8.5	8.5
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	22%	0%
Vol Thru, %	0%	100%	0%	80%
Vol Right, %	0%	0%	78%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	122	37	158
LT Vol	15	0	8	0
Through Vol	0	122	0	127
RT Vol	0	0	29	31
Lane Flow Rate	18	144	56	205
Geometry Grp	7	7	2	5
Degree of Util (X)	0.026	0.189	0.067	0.236
Departure Headway (Hd)	5.239	4.738	4.334	4.135
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	679	751	831	854
Service Time	3.007	2.505	2.334	2.228
HCM Lane V/C Ratio	0.027	0.192	0.067	0.24
HCM Control Delay	8.1	8.6	7.6	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.7	0.2	0.9

Intersection	
Int Delay, s/veh	11.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	132	0	0	257	0
Future Vol, veh/h	0	132	0	0	257	0
Conflicting Peds, #/hr	0	0	0	1	0	7
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	82	82	25	25	57	57
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	161	0	0	451	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	161	-
Stage 1	-	-	0	-
Stage 2	-	-	161	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	830	0
Stage 1	0	-	-	0
Stage 2	0	-	868	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	830	-
Mov Cap-2 Maneuver	-	-	794	-
Stage 1	-	-	-	-
Stage 2	-	-	868	-

Approach	EB	SB
HCM Control Delay, s	0	15.3
HCM LOS		C

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	794
HCM Lane V/C Ratio	-	0.568
HCM Control Delay (s)	-	15.3
HCM Lane LOS	-	C
HCM 95th %tile Q(veh)	-	3.6

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	72	197	0	0	170	0
Future Vol, veh/h	72	197	0	0	170	0
Peak Hour Factor	0.85	0.85	0.33	0.33	0.66	0.66
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	85	232	0	0	258	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.7	10.6
HCM LOS	A	B

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	52%	0%	100%
Vol Thru, %	48%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	138	131	170
LT Vol	72	0	170
Through Vol	66	131	0
RT Vol	0	0	0
Lane Flow Rate	162	155	258
Geometry Grp	7	7	2
Degree of Util (X)	0.245	0.223	0.351
Departure Headway (Hd)	5.453	5.19	4.911
Convergence, Y/N	Yes	Yes	Yes
Cap	658	691	734
Service Time	3.191	2.928	2.938
HCM Lane V/C Ratio	0.246	0.224	0.351
HCM Control Delay	10	9.4	10.6
HCM Lane LOS	A	A	B
HCM 95th-tile Q	1	0.9	1.6

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	34	271	0	0	52	0
Future Vol, veh/h	34	271	0	0	52	0
Conflicting Peds, #/hr	0	0	0	7	0	7
Sign Control	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	92	92	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	288	0	0	70	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	216	-
Stage 1	-	-	0	-
Stage 2	-	-	216	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	753	0
Stage 1	-	-	-	0
Stage 2	-	-	799	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	753	-
Mov Cap-2 Maneuver	-	-	753	-
Stage 1	-	-	-	-
Stage 2	-	-	799	-

Approach	EB	SB
HCM Control Delay, s		10.3
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	753
HCM Lane V/C Ratio	-	-	0.093
HCM Control Delay (s)	-	-	10.3
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Intersection Delay, s/veh	18.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	132	367	20	61	17	0	0	38	10
Future Vol, veh/h	0	0	0	132	367	20	61	17	0	0	38	10
Peak Hour Factor	0.92	0.92	0.92	0.57	0.57	0.57	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	232	644	35	81	23	0	0	51	13
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	20.5	10.2	9.4
HCM LOS	C	B	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	78%	42%	0%	0%
Vol Thru, %	22%	58%	90%	79%
Vol Right, %	0%	0%	10%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	316	204	48
LT Vol	61	132	0	0
Through Vol	17	184	184	38
RT Vol	0	0	20	10
Lane Flow Rate	104	554	357	64
Geometry Grp	2	7	7	2
Degree of Util (X)	0.171	0.803	0.49	0.102
Departure Headway (Hd)	5.921	5.223	4.944	5.716
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	604	692	728	625
Service Time	3.972	2.968	2.689	3.772
HCM Lane V/C Ratio	0.172	0.801	0.49	0.102
HCM Control Delay	10.2	25.8	12.4	9.4
HCM Lane LOS	B	D	B	A
HCM 95th-tile Q	0.6	8.2	2.7	0.3

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	30	378	16	29	3	0	0	27	109
Future Vol, veh/h	0	0	0	30	378	16	29	3	0	0	27	109
Peak Hour Factor	0.92	0.92	0.92	0.60	0.60	0.60	0.62	0.62	0.62	0.51	0.51	0.51
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	50	630	27	47	5	0	0	53	214
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	14	9.6	11
HCM LOS	B	A	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	91%	14%	0%	0%
Vol Thru, %	9%	86%	92%	20%
Vol Right, %	0%	0%	8%	80%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	219	205	136
LT Vol	29	30	0	0
Through Vol	3	189	189	27
RT Vol	0	0	16	109
Lane Flow Rate	52	365	342	267
Geometry Grp	2	7	7	2
Degree of Util (X)	0.086	0.547	0.5	0.37
Departure Headway (Hd)	5.974	5.396	5.272	4.998
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	595	664	676	717
Service Time	4.063	3.176	3.052	3.055
HCM Lane V/C Ratio	0.087	0.55	0.506	0.372
HCM Control Delay	9.6	14.6	13.3	11
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.3	3.3	2.8	1.7

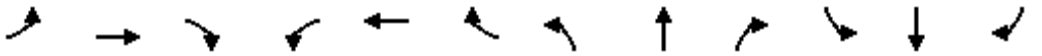
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	0	0	24	0	1668	12	0	1659	131
Future Vol, veh/h	0	0	11	0	0	24	0	1668	12	0	1659	131
Conflicting Peds, #/hr	0	0	0	0	0	2	0	0	4	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	34	34	34	62	62	62	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	32	0	0	39	0	1756	13	0	1746	138

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	946	-	-	891	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	225	0	0	248	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	224	-	-	247	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.8	22.3	0	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	224	247	-	-
HCM Lane V/C Ratio	-	-	0.144	0.157	-	-
HCM Control Delay (s)	-	-	23.8	22.3	-	-
HCM Lane LOS	-	-	C	C	-	-
HCM 95th %tile Q(veh)	-	-	0.5	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	117	192	46	75	1632	13	0	1454	187
Future Volume (veh/h)	0	0	0	117	192	46	75	1632	13	0	1454	187
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				468	768	184	80	1736	14	0	5816	748
Peak Hour Factor				0.25	0.25	0.25	0.94	0.94	0.94	0.25	0.25	0.25
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				231	401	99	97	3861	31	0	3364	1036
Arrive On Green				0.20	0.20	0.20	0.11	1.00	1.00	0.00	0.66	0.66
Sat Flow, veh/h				1131	1965	486	1781	5225	42	0	5274	1572
Grp Volume(v), veh/h				751	0	669	80	1131	619	0	5816	748
Grp Sat Flow(s),veh/h/ln				1814	0	1767	1781	1702	1863	0	1702	1572
Q Serve(g_s), s				35.1	0.0	35.1	7.6	0.0	0.0	0.0	113.3	53.3
Cycle Q Clear(g_c), s				35.1	0.0	35.1	7.6	0.0	0.0	0.0	113.3	53.3
Prop In Lane				0.62		0.27	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				370	0	361	97	2515	1376	0	3364	1036
V/C Ratio(X)				2.03	0.00	1.86	0.82	0.45	0.45	0.00	1.73	0.72
Avail Cap(c_a), veh/h				370	0	361	275	2515	1376	0	3364	1036
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.85	0.85	0.85	0.00	1.00	1.00
Uniform Delay (d), s/veh				68.5	0.0	68.5	75.8	0.0	0.0	0.0	29.3	19.1
Incr Delay (d2), s/veh				472.1	0.0	395.5	5.5	0.5	0.9	0.0	329.2	4.4
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				64.9	0.0	55.5	3.5	0.2	0.3	0.0	145.2	19.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				540.6	0.0	464.0	81.3	0.5	0.9	0.0	358.6	23.5
LnGrp LOS				F	A	F	F	A	A	A	F	C
Approach Vol, veh/h					1420			1830			6564	
Approach Delay, s/veh					504.5			4.2			320.4	
Approach LOS					F			A			F	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	132.0	40.0	13.8	118.2
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	37.1	9.6	115.3
Green Ext Time (p_c), s	5.2	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	288.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



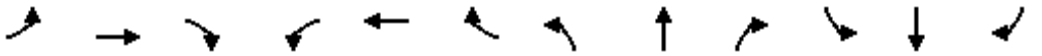
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	106	87	0	0	0	0	1531	22	55	1494	0
Future Volume (veh/h)	191	106	87	0	0	0	0	1531	22	55	1494	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	203	118	97				0	1664	24	65	1758	0
Peak Hour Factor	0.94	0.90	0.90				0.92	0.92	0.90	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	302	317	251				0	3645	53	81	4978	0
Arrive On Green	0.17	0.17	0.17				0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	1781	1870	1484				0	5354	75	1781	6696	0
Grp Volume(v), veh/h	203	118	97				0	1092	596	65	1758	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1484				0	1702	1857	1781	1609	0
Q Serve(g_s), s	18.4	9.6	10.0				0.0	0.0	0.0	6.2	0.0	0.0
Cycle Q Clear(g_c), s	18.4	9.6	10.0				0.0	0.0	0.0	6.2	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	302	317	251				0	2392	1305	81	4978	0
V/C Ratio(X)	0.67	0.37	0.39				0.00	0.46	0.46	0.80	0.35	0.00
Avail Cap(c_a), veh/h	364	382	303				0	2392	1305	162	4978	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.79	0.79	0.09	0.09	0.00
Uniform Delay (d), s/veh	67.0	63.3	63.5				0.0	0.0	0.0	77.5	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.3	0.4				0.0	0.5	0.9	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	4.7	3.8				0.0	0.2	0.3	2.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.3	63.6	63.9				0.0	0.5	0.9	78.1	0.0	0.0
LnGrp LOS	E	E	E				A	A	A	E	A	A
Approach Vol, veh/h		418						1688			1823	
Approach Delay, s/veh		66.4						0.6			2.8	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	12.2	125.8	34.0	138.0
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	15.6	107.1	35.1	127.1
Max Q Clear Time (g_c+I1), s	8.2	2.0	20.4	2.0
Green Ext Time (p_c), s	0.0	4.5	0.3	5.8

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	315	306	213	180	238	9	432	1243	229	0	1108	453
Future Volume (vph)	315	306	213	180	238	9	432	1243	229	0	1108	453
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	1.00			1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.98			1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3345	1483	1610	3348		3662	4943			5085	1489
Flt Permitted	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3345	1483	1610	3348		3662	4943			5085	1489
Peak-hour factor, PHF	0.88	0.88	0.88	0.82	0.82	0.82	0.94	0.94	0.94	0.80	0.80	0.80
Adj. Flow (vph)	358	348	242	220	290	11	460	1322	244	0	1385	566
RTOR Reduction (vph)	0	0	195	0	2	0	0	13	0	0	0	240
Lane Group Flow (vph)	229	477	47	169	350	0	460	1553	0	0	1385	326
Confl. Peds. (#/hr)			35			4			10			26
Confl. Bikes (#/hr)			2						5			1
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	33.6	33.6	33.6	22.2	22.2		27.4	98.5			65.7	65.7
Effective Green, g (s)	33.6	33.6	33.6	22.2	22.2		27.4	98.5			65.7	65.7
Actuated g/C Ratio	0.20	0.20	0.20	0.13	0.13		0.16	0.57			0.38	0.38
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	314	653	289	207	432		583	2830			1942	568
v/s Ratio Prot	0.14	c0.14		c0.10	0.10		c0.13	0.31			c0.27	
v/s Ratio Perm			0.03									0.22
v/c Ratio	0.73	0.73	0.16	0.82	0.81		0.79	0.55			0.71	0.57
Uniform Delay, d1	64.9	65.0	57.5	72.9	72.9		69.5	22.9			45.1	42.1
Progression Factor	1.00	1.00	1.00	1.13	1.12		0.92	0.58			0.84	0.67
Incremental Delay, d2	7.0	3.6	0.1	20.3	10.4		5.5	0.6			2.2	4.0
Delay (s)	71.9	68.6	57.6	102.8	92.1		69.8	14.0			40.2	32.1
Level of Service	E	E	E	F	F		E	B			D	C
Approach Delay (s)		66.6			95.6			26.7			37.8	
Approach LOS		E			F			C			D	

Intersection Summary			
HCM 2000 Control Delay	44.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
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)	185	397	241	78	528	289	295	1384	94	176	1033	278
Future Volume (veh/h)	185	397	241	78	528	289	295	1384	94	176	1033	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	206	441	268	86	580	318	324	1521	103	220	1291	348
Peak Hour Factor	0.90	0.90	0.90	0.91	0.91	0.91	0.91	0.91	0.91	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	609	254	126	618	263	367	2045	138	760	2131	573
Arrive On Green	0.07	0.17	0.17	0.07	0.17	0.17	0.04	0.14	0.14	0.22	0.54	0.54
Sat Flow, veh/h	3456	3554	1481	1781	3554	1509	3456	4878	330	3456	3976	1070
Grp Volume(v), veh/h	206	441	268	86	580	318	324	1061	563	220	1105	534
Grp Sat Flow(s),veh/h/ln	1728	1777	1481	1781	1777	1509	1728	1702	1804	1728	1702	1642
Q Serve(g_s), s	10.1	20.2	23.8	8.1	27.7	19.7	16.1	51.5	51.5	9.1	38.4	38.5
Cycle Q Clear(g_c), s	10.1	20.2	23.8	8.1	27.7	19.7	16.1	51.5	51.5	9.1	38.4	38.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.65
Lane Grp Cap(c), veh/h	246	609	254	126	618	263	367	1427	756	760	1824	880
V/C Ratio(X)	0.84	0.72	1.06	0.68	0.94	1.21	0.88	0.74	0.74	0.29	0.61	0.61
Avail Cap(c_a), veh/h	434	684	285	193	622	264	675	1427	756	760	1824	880
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	78.9	67.4	46.4	78.0	70.1	30.9	81.9	65.2	65.2	55.9	27.4	27.4
Incr Delay (d2), s/veh	2.8	2.5	68.0	2.4	21.7	125.0	2.4	3.0	5.6	0.1	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	9.5	13.6	3.8	14.5	16.4	7.6	24.3	26.3	4.0	15.5	15.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.7	70.0	114.4	80.4	91.8	155.8	84.3	68.3	70.8	56.0	27.8	28.3
LnGrp LOS	F	E	F	F	F	F	F	E	E	E	C	C
Approach Vol, veh/h		915			984			1948			1859	
Approach Delay, s/veh		85.6			111.5			71.7			31.3	
Approach LOS		F			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	77.0	17.1	34.4	22.7	97.9	16.6	34.8
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	11.1	53.5	10.1	25.8	18.1	40.5	12.1	29.7
Green Ext Time (p_c), s	0.1	4.0	0.0	1.0	0.2	4.5	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	67.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	8	9	89	10	78	7	1584	15	96	1214	32
Future Volume (veh/h)	39	8	9	89	10	78	7	1584	15	96	1214	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	11	13	127	14	111	7	1685	16	125	1577	42
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.94	0.94	0.94	0.77	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	34	33	165	15	117	15	3426	33	144	3730	99
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.01	0.66	0.66	0.08	0.73	0.73
Sat Flow, veh/h	765	194	186	760	86	666	1781	5216	50	1781	5113	136
Grp Volume(v), veh/h	80	0	0	252	0	0	7	1100	601	125	1050	569
Grp Sat Flow(s),veh/h/ln	1145	0	0	1513	0	0	1781	1702	1861	1781	1702	1845
Q Serve(g_s), s	0.0	0.0	0.0	17.9	0.0	0.0	0.7	28.2	28.2	11.9	20.7	20.8
Cycle Q Clear(g_c), s	10.4	0.0	0.0	28.3	0.0	0.0	0.7	28.2	28.2	11.9	20.7	20.8
Prop In Lane	0.70		0.16	0.50		0.44	1.00		0.03	1.00		0.07
Lane Grp Cap(c), veh/h	236	0	0	296	0	0	15	2236	1222	144	2483	1346
V/C Ratio(X)	0.34	0.00	0.00	0.85	0.00	0.00	0.48	0.49	0.49	0.87	0.42	0.42
Avail Cap(c_a), veh/h	236	0	0	296	0	0	162	2236	1222	369	2483	1346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.83	0.83	0.83	0.72	0.72	0.72
Uniform Delay (d), s/veh	62.6	0.0	0.0	70.0	0.0	0.0	84.9	15.0	15.0	78.1	9.1	9.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	19.4	0.0	0.0	7.1	0.6	1.2	4.3	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.0	12.7	0.0	0.0	0.3	10.8	12.0	5.6	7.4	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.9	0.0	0.0	89.5	0.0	0.0	92.1	15.6	16.1	82.4	9.5	9.8
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		80			252			1708			1744	
Approach Delay, s/veh		62.9			89.5			16.1			14.8	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.3	118.7		35.0	5.8	131.2		35.0
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	13.9	30.2		12.4	2.7	22.8		30.3
Green Ext Time (p_c), s	0.0	4.5		0.1	0.0	4.2		0.0

Intersection Summary	
HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	138	7	467	287	234	17	1236	475	76	985	239
Future Volume (veh/h)	149	138	7	467	287	234	17	1236	475	76	985	239
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	184	9	513	315	257	18	1301	500	95	1231	299
Peak Hour Factor	0.75	0.75	0.75	0.91	0.91	0.91	0.95	0.95	0.95	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	260	13	550	339	287	30	2769	859	132	2004	892
Arrive On Green	0.12	0.15	0.15	0.16	0.18	0.18	0.02	0.54	0.54	0.08	1.00	1.00
Sat Flow, veh/h	1781	1768	86	3456	1870	1582	1781	5106	1584	3456	3554	1582
Grp Volume(v), veh/h	199	0	193	513	315	257	18	1301	500	95	1231	299
Grp Sat Flow(s),veh/h/ln	1781	0	1854	1728	1870	1582	1781	1702	1584	1728	1777	1582
Q Serve(g_s), s	19.0	0.0	17.0	25.2	28.5	24.2	1.7	26.9	36.3	4.6	0.0	0.0
Cycle Q Clear(g_c), s	19.0	0.0	17.0	25.2	28.5	24.2	1.7	26.9	36.3	4.6	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	0	273	550	339	287	30	2769	859	132	2004	892
V/C Ratio(X)	0.91	0.00	0.71	0.93	0.93	0.90	0.60	0.47	0.58	0.72	0.61	0.34
Avail Cap(c_a), veh/h	265	0	443	615	501	424	120	2769	859	434	2004	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	74.6	0.0	69.8	71.4	69.3	54.1	84.0	24.2	26.3	78.5	0.0	0.0
Incr Delay (d2), s/veh	27.7	0.0	1.3	19.2	14.9	11.8	7.0	0.6	2.9	2.5	1.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	0.0	8.2	12.6	14.9	10.6	0.9	10.9	14.2	2.0	0.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.3	0.0	71.1	90.6	84.2	65.9	91.0	24.7	29.2	81.0	1.3	0.9
LnGrp LOS	F	A	E	F	F	E	F	C	C	F	A	A
Approach Vol, veh/h		392			1085			1819			1625	
Approach Delay, s/veh		86.9			82.9			26.6			5.9	
Approach LOS		F			F			C			A	

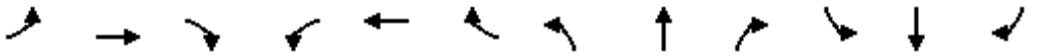
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	99.0	31.8	30.2	7.3	102.7	25.9	36.1
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	20.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	5.6	38.3	27.2	19.0	3.7	2.0	21.0	30.5
Green Ext Time (p_c), s	0.0	3.7	0.2	0.4	0.0	3.5	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	104	8	57	0	75	0	399	199	47	356	0
Future Volume (vph)	36	104	8	57	0	75	0	399	199	47	356	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.95		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1838		1770		1555		3190		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.32	1.00	
Satd. Flow (perm)	1770	1838		1770		1555		3190		600	3539	
Peak-hour factor, PHF	0.80	0.80	0.80	0.75	0.75	0.75	0.93	0.93	0.93	0.82	0.82	0.82
Adj. Flow (vph)	45	130	10	76	0	100	0	429	214	57	434	0
RTOR Reduction (vph)	0	4	0	0	0	93	0	53	0	0	0	0
Lane Group Flow (vph)	45	136	0	76	0	7	0	590	0	57	434	0
Confl. Peds. (#/hr)			21						70			11
Confl. Bikes (#/hr)			1			2						
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	15.0	15.0		6.2		6.2		41.9		50.6	50.6	
Effective Green, g (s)	15.0	15.0		6.2		6.2		41.9		50.6	50.6	
Actuated g/C Ratio	0.17	0.17		0.07		0.07		0.49		0.59	0.59	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	308	320		127		112		1554		411	2082	
v/s Ratio Prot	0.03	c0.07		c0.04				c0.18		0.01	c0.12	
v/s Ratio Perm						0.00				0.07		
v/c Ratio	0.15	0.42		0.60		0.06		0.38		0.14	0.21	
Uniform Delay, d1	30.1	31.7		38.7		37.2		13.9		8.1	8.3	
Progression Factor	1.23	1.44		1.00		1.00		0.61		1.00	1.00	
Incremental Delay, d2	0.1	0.3		5.0		0.1		0.6		0.1	0.2	
Delay (s)	37.1	46.0		43.7		37.3		9.1		8.2	8.5	
Level of Service	D	D		D		D		A		A	A	
Approach Delay (s)		43.8			40.0			9.1			8.5	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

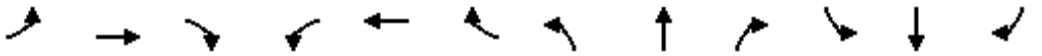
Intersection	
Int Delay, s/veh	1

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	110	392	418	213	0	1
Future Vol, veh/h	110	392	418	213	0	1
Conflicting Peds, #/hr	0	0	0	12	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	94	94	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	126	451	445	227	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	684	0	-	0	1049	348
Stage 1	-	-	-	-	571	-
Stage 2	-	-	-	-	478	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	905	-	-	-	223	648
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	590	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	895	-	-	-	187	641
Mov Cap-2 Maneuver	-	-	-	-	187	-
Stage 1	-	-	-	-	450	-
Stage 2	-	-	-	-	584	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	895	-	641	-	-
HCM Lane V/C Ratio	0.141	-	0.002	-	-
HCM Control Delay (s)	9.7	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	306	87	211	351	58	310	96	164	50	93	110
Future Volume (veh/h)	34	306	87	211	351	58	310	96	164	50	93	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	340	97	229	382	63	378	117	200	54	101	120
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	1531	793	309	678	557	413	1188	1148	110	477	202
Arrive On Green	0.03	0.30	0.30	0.09	0.36	0.36	0.23	0.33	0.33	0.03	0.13	0.13
Sat Flow, veh/h	1781	5106	1421	3456	1870	1536	1781	3554	2690	3456	3554	1503
Grp Volume(v), veh/h	38	340	97	229	382	63	378	117	200	54	101	120
Grp Sat Flow(s),veh/h/ln	1781	1702	1421	1728	1870	1536	1781	1777	1345	1728	1777	1503
Q Serve(g_s), s	2.0	4.8	3.3	6.2	15.7	2.6	19.8	2.2	4.4	1.5	2.4	7.2
Cycle Q Clear(g_c), s	2.0	4.8	3.3	6.2	15.7	2.6	19.8	2.2	4.4	1.5	2.4	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	1531	793	309	678	557	413	1188	1148	110	477	202
V/C Ratio(X)	0.79	0.22	0.12	0.74	0.56	0.11	0.92	0.10	0.17	0.49	0.21	0.59
Avail Cap(c_a), veh/h	559	2135	961	1084	782	642	559	1486	1374	1084	1486	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	25.1	11.3	42.5	24.4	20.3	35.8	21.9	17.2	45.5	36.9	39.0
Incr Delay (d2), s/veh	10.2	0.1	0.1	1.3	0.4	0.0	14.0	0.0	0.1	1.3	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.9	0.9	2.6	6.7	0.9	9.7	0.9	1.3	0.6	1.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.5	25.2	11.3	43.8	24.8	20.3	49.8	22.0	17.2	46.8	37.0	40.0
LnGrp LOS	E	C	B	D	C	C	D	C	B	D	D	D
Approach Vol, veh/h		475			674			695			275	
Approach Delay, s/veh		24.9			30.9			35.8			40.2	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	34.6	27.6	19.6	8.0	40.6	8.4	38.7
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	8.2	6.8	21.8	9.2	4.0	17.7	3.5	6.4
Green Ext Time (p_c), s	0.4	3.5	0.4	0.5	0.0	1.7	0.1	1.5

Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

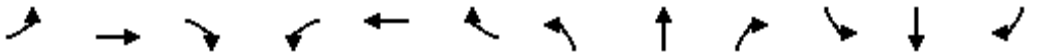
Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	434	229	509	388	13
Future Vol, veh/h	0	434	229	509	388	13
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	78	78	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	447	294	653	431	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	225	447	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	663	717	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	662	716	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21	4.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	716	-	662	-	-
HCM Lane V/C Ratio	0.41	-	0.676	-	-
HCM Control Delay (s)	13.5	-	21	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	2	-	5.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	3	31	14	1	13	293	705	10	14	723	132
Future Volume (veh/h)	43	3	31	14	1	13	293	705	10	14	723	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	12	124	56	4	52	357	860	12	56	2892	528
Peak Hour Factor	0.25	0.25	0.25	0.25	0.25	0.25	0.82	0.82	0.82	0.25	0.25	0.25
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	368	308	73	238	198	391	1719	765	73	917	161
Arrive On Green	0.12	0.20	0.20	0.04	0.13	0.13	0.22	0.48	0.48	0.04	0.31	0.31
Sat Flow, veh/h	1781	1870	1564	1781	1870	1555	1781	3554	1582	1781	3005	529
Grp Volume(v), veh/h	172	12	124	56	4	52	357	860	12	56	1666	1754
Grp Sat Flow(s),veh/h/ln	1781	1870	1564	1781	1870	1555	1781	1777	1582	1781	1777	1757
Q Serve(g_s), s	9.2	0.5	6.8	3.1	0.2	3.0	19.2	16.2	0.4	3.1	30.0	30.0
Cycle Q Clear(g_c), s	9.2	0.5	6.8	3.1	0.2	3.0	19.2	16.2	0.4	3.1	30.0	30.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	214	368	308	73	238	198	391	1719	765	73	542	536
V/C Ratio(X)	0.80	0.03	0.40	0.77	0.02	0.26	0.91	0.50	0.02	0.77	3.07	3.27
Avail Cap(c_a), veh/h	543	1141	954	543	1141	949	543	1719	765	543	542	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.1	31.9	34.5	46.7	37.5	38.7	37.5	17.3	13.2	46.7	34.2	34.2
Incr Delay (d2), s/veh	9.5	0.0	1.1	6.3	0.1	1.9	13.3	0.1	0.0	6.3	938.2	1027.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.2	2.5	1.5	0.1	1.2	9.2	5.7	0.1	1.4	153.3	164.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.6	32.0	35.5	53.0	37.6	40.7	50.8	17.4	13.2	53.1	972.4	1061.7
LnGrp LOS	D	C	D	D	D	D	D	B	B	D	F	F
Approach Vol, veh/h		308			112			1229			3476	
Approach Delay, s/veh		44.4			46.7			27.0			1002.6	
Approach LOS		D			D			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	28.1	26.0	34.9	16.2	21.2	8.4	52.5
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0
Max Q Clear Time (g_c+I1), s	5.1	8.8	21.2	32.0	11.2	5.0	5.1	18.2
Green Ext Time (p_c), s	0.1	0.7	0.3	0.0	0.7	0.5	0.1	2.7

Intersection Summary	
HCM 6th Ctrl Delay	690.2
HCM 6th LOS	F

Notes

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

User approved ignoring U-Turning movement.

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

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	735	759	6	0	263
Future Vol, veh/h	0	735	759	6	0	263
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	790	926	7	0	321

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	463
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	546
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	546
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	20.5
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	546
HCM Lane V/C Ratio	-	-	0.587
HCM Control Delay (s)	-	-	20.5
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	3.8



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	632	102	0	839	1079	768
Future Volume (vph)	632	102	0	839	1079	768
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1563		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1563		3539	3539	1583
Peak-hour factor, PHF	0.91	0.91	0.96	0.96	0.92	0.92
Adj. Flow (vph)	695	112	0	874	1173	835
RTOR Reduction (vph)	0	62	0	0	0	0
Lane Group Flow (vph)	695	50	0	874	1173	835
Confl. Peds. (#/hr)		1				5
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	35.2	35.2		46.6	46.6	108.4
Effective Green, g (s)	35.2	35.2		46.6	46.6	103.0
Actuated g/C Ratio	0.30	0.30		0.39	0.39	0.87
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1020	464		1392	1392	1377
v/s Ratio Prot	c0.20			0.25	c0.33	c0.53
v/s Ratio Perm		0.03				
v/c Ratio	0.68	0.11		0.63	0.84	0.61
Uniform Delay, d1	36.7	30.2		28.9	32.6	2.1
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.7	0.1		0.9	4.8	0.6
Delay (s)	38.4	30.3		29.8	37.4	2.8
Level of Service	D	C		C	D	A
Approach Delay (s)	37.3			29.8	23.0	
Approach LOS	D			C	C	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	118.4	Sum of lost time (s)	19.0
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	734	165	113	1324
Future Volume (veh/h)	0	1	734	165	113	1324
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	4	844	190	118	1379
Peak Hour Factor	0.25	0.25	0.87	0.87	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	8	14	2200	968	214	2713
Arrive On Green	0.00	0.00	0.62	0.62	0.06	0.76
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	4	844	190	118	1379
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.1	6.3	2.8	1.8	8.0
Cycle Q Clear(g_c), s	0.0	0.1	6.3	2.8	1.8	8.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	8	14	2200	968	214	2713
V/C Ratio(X)	0.00	0.29	0.38	0.20	0.55	0.51
Avail Cap(c_a), veh/h	1334	2375	3993	1751	1942	3993
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	26.5	5.1	4.3	24.3	2.4
Incr Delay (d2), s/veh	0.0	4.3	0.2	0.1	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.6	0.6	0.7	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	30.8	5.2	4.5	25.2	2.8
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	4		1034			1497
Approach Delay, s/veh	30.8		5.1			4.6
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.7	39.3			47.0	6.4
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	3.8	8.3			10.0	2.1
Green Ext Time (p_c), s	0.2	12.7			30.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	48	125	47	29	56	47	660	27	118	1273	172
Future Volume (veh/h)	157	48	125	47	29	56	47	660	27	118	1273	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	187	57	149	57	35	68	53	742	30	124	1340	181
Peak Hour Factor	0.84	0.84	0.84	0.82	0.82	0.82	0.89	0.89	0.89	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	246	203	74	176	147	115	1817	858	157	2013	1011
Arrive On Green	0.08	0.13	0.13	0.04	0.09	0.09	0.03	0.51	0.51	0.09	0.57	0.57
Sat Flow, veh/h	3456	1870	1547	1781	1870	1562	3456	3554	1549	1781	3554	1565
Grp Volume(v), veh/h	187	57	149	57	35	68	53	742	30	124	1340	181
Grp Sat Flow(s),veh/h/ln	1728	1870	1547	1781	1870	1562	1728	1777	1549	1781	1777	1565
Q Serve(g_s), s	4.5	2.4	8.0	2.7	1.5	3.6	1.3	11.1	0.8	5.9	22.6	4.0
Cycle Q Clear(g_c), s	4.5	2.4	8.0	2.7	1.5	3.6	1.3	11.1	0.8	5.9	22.6	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	246	203	74	176	147	115	1817	858	157	2013	1011
V/C Ratio(X)	0.69	0.23	0.73	0.77	0.20	0.46	0.46	0.41	0.03	0.79	0.67	0.18
Avail Cap(c_a), veh/h	1204	651	539	620	651	544	1204	2888	1324	620	2888	1396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	33.5	36.0	40.9	36.0	37.0	40.9	13.0	8.8	38.5	13.0	6.1
Incr Delay (d2), s/veh	1.2	0.5	5.0	6.3	0.2	0.8	1.1	0.2	0.0	3.3	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.1	3.1	1.3	0.7	1.3	0.6	4.2	0.2	2.7	8.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	34.0	41.0	47.2	36.2	37.8	41.9	13.2	8.8	41.8	13.6	6.3
LnGrp LOS	D	C	D	D	D	D	D	B	A	D	B	A
Approach Vol, veh/h		393			160			825			1645	
Approach Delay, s/veh		39.4			40.8			14.9			14.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	49.3	8.0	16.8	7.3	54.1	11.2	13.6
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	7.9	13.1	4.7	10.0	3.3	24.6	6.5	5.6
Green Ext Time (p_c), s	0.1	10.9	0.1	0.7	0.1	24.2	0.3	0.2

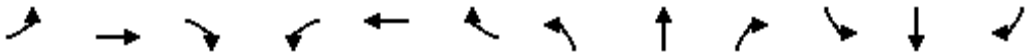
Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	707	165	284	503	0	0	0	0	192	0	0
Future Volume (vph)	0	707	165	284	503	0	0	0	0	192	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.99	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1563	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1563	3433	3539					1770		
Peak-hour factor, PHF	0.95	0.95	0.95	0.85	0.85	0.85	0.92	0.92	0.92	0.90	0.90	0.90
Adj. Flow (vph)	0	744	174	334	592	0	0	0	0	213	0	0
RTOR Reduction (vph)	0	0	99	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	744	75	334	592	0	0	0	0	213	0	0
Confl. Peds. (#/hr)			1			8						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		43.0	43.0	13.4	61.1					29.8		
Effective Green, g (s)		43.0	43.0	13.4	61.1					29.8		
Actuated g/C Ratio		0.43	0.43	0.13	0.61					0.30		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1521	672	460	2162					527		
v/s Ratio Prot		c0.21		c0.10	0.17					c0.12		
v/s Ratio Perm			0.05									
v/c Ratio		0.49	0.11	0.73	0.27					0.40		
Uniform Delay, d1		20.6	17.1	41.5	9.1					28.0		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		0.2	0.1	4.8	0.1					0.2		
Delay (s)		20.8	17.1	46.3	9.2					28.2		
Level of Service		C	B	D	A					C		
Approach Delay (s)		20.1			22.6			0.0			28.2	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	516	1706	603	0	0	1653
Future Volume (vph)	516	1706	603	0	0	1653
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.96	0.96	0.90	0.90	0.89	0.89
Adj. Flow (vph)	538	1777	670	0	0	1857
RTOR Reduction (vph)	0	26	0	0	0	0
Lane Group Flow (vph)	538	1751	670	0	0	1857
Confl. Bikes (#/hr)				12		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.0	82.5	20.4			67.9
Effective Green, g (s)	35.0	82.5	17.4			67.9
Actuated g/C Ratio	0.30	0.70	0.15			0.58
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1019	1950	750			3690
v/s Ratio Prot	0.16	c0.63	c0.13			0.29
v/s Ratio Perm						
v/c Ratio	0.53	0.90	0.89			0.50
Uniform Delay, d1	34.6	14.3	49.3			14.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.2	5.8	12.7			0.0
Delay (s)	34.8	20.1	62.1			15.0
Level of Service	C	C	E			B
Approach Delay (s)	23.5		62.1			15.0
Approach LOS	C		E			B

Intersection Summary			
HCM 2000 Control Delay	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	117.9	Sum of lost time (s)	25.5
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
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)	368	294	328	32	281	641	269	473	20	453	414	198
Future Volume (veh/h)	368	294	328	32	281	641	269	473	20	453	414	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	368	384	364	37	327	0	278	565	0	509	391	0
Peak Hour Factor	0.90	0.90	0.90	0.86	0.86	0.86	0.89	0.89	0.89	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	450	473	696	320	638		342	718		802	421	
Arrive On Green	0.25	0.25	0.25	0.18	0.18	0.00	0.19	0.19	0.00	0.23	0.23	0.00
Sat Flow, veh/h	1781	1870	1549	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	368	384	364	37	327	0	278	565	0	509	391	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1549	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	25.3	25.1	22.2	2.3	10.8	0.0	19.4	18.7	0.0	16.8	26.6	0.0
Cycle Q Clear(g_c), s	25.3	25.1	22.2	2.3	10.8	0.0	19.4	18.7	0.0	16.8	26.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	450	473	696	320	638		342	718		802	421	
V/C Ratio(X)	0.82	0.81	0.52	0.12	0.51		0.81	0.79		0.63	0.93	
Avail Cap(c_a), veh/h	481	505	722	686	1369		412	865		824	433	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.8	45.7	26.2	44.7	48.2	0.0	50.3	50.0	0.0	45.6	49.4	0.0
Incr Delay (d2), s/veh	12.6	11.7	1.7	0.6	2.4	0.0	9.5	3.8	0.0	1.3	25.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	13.0	11.6	1.1	5.0	0.0	9.6	9.1	0.0	7.6	15.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	57.4	27.9	45.3	50.7	0.0	59.8	53.8	0.0	46.9	75.0	0.0
LnGrp LOS	E	E	C	D	D		E	D		D	E	
Approach Vol, veh/h		1116			364			843			900	
Approach Delay, s/veh		48.1			50.1			55.8			59.1	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	37.8	34.2	28.2	29.9
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	35.1	30.1	50.1	30.1
Max Q Clear Time (g_c+I1), s	27.3	28.6	12.8	21.4
Green Ext Time (p_c), s	5.4	0.6	6.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	53.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	622	15	26	956	2	0	0	0	59	1	133
Future Volume (veh/h)	133	622	15	26	956	2	0	0	0	59	1	133
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	140	655	16	27	996	2				66	1	149
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96				0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	184	1734	42	45	2168	4				290	4	258
Arrive On Green	0.10	0.49	0.49	0.03	0.41	0.41				0.17	0.17	0.17
Sat Flow, veh/h	1781	3542	86	1781	5262	11				1756	27	1562
Grp Volume(v), veh/h	140	328	343	27	644	354				67	0	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1851	1781	1702	1868				1783	0	1562
Q Serve(g_s), s	3.4	5.1	5.1	0.7	6.1	6.1				1.4	0.0	3.9
Cycle Q Clear(g_c), s	3.4	5.1	5.1	0.7	6.1	6.1				1.4	0.0	3.9
Prop In Lane	1.00		0.05	1.00		0.01				0.99		1.00
Lane Grp Cap(c), veh/h	184	870	906	45	1402	770				295	0	258
V/C Ratio(X)	0.76	0.38	0.38	0.59	0.46	0.46				0.23	0.00	0.58
Avail Cap(c_a), veh/h	1227	2404	2504	1227	4605	2527				1609	0	1410
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	1.00	1.00	1.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	7.1	7.1	21.4	9.5	9.5				16.1	0.0	17.1
Incr Delay (d2), s/veh	2.5	0.3	0.3	4.5	0.3	0.5				0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.4	1.4	0.3	1.7	1.9				0.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	7.4	7.4	26.0	9.8	10.0				16.2	0.0	17.9
LnGrp LOS	C	A	A	C	A	A				B	A	B
Approach Vol, veh/h		811			1025						216	
Approach Delay, s/veh		9.9			10.3						17.4	
Approach LOS		A			B						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	5.5	26.7		12.2	9.0	23.2
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1
Max Q Clear Time (g_c+I2), s	2.7	7.1		5.9	5.4	8.1
Green Ext Time (p_c), s	0.0	5.6		0.5	0.2	9.9

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	484	109	144	787	97	131	69	117	44	29	104
Future Volume (veh/h)	120	484	109	144	787	97	131	69	117	44	29	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.94	0.97		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	126	509	115	152	828	102	138	73	123	58	38	137
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.76	0.76	0.76
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	956	215	194	1757	215	378	206	347	293	172	542
Arrive On Green	0.06	0.34	0.34	0.11	0.38	0.38	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	3456	2850	639	1781	4591	562	1208	601	1013	603	502	1581
Grp Volume(v), veh/h	126	316	308	152	613	317	138	0	196	96	0	137
Grp Sat Flow(s),veh/h/ln	1728	1777	1712	1781	1702	1749	1208	0	1614	1104	0	1581
Q Serve(g_s), s	2.4	9.6	9.7	5.6	9.1	9.1	6.7	0.0	6.1	1.9	0.0	4.2
Cycle Q Clear(g_c), s	2.4	9.6	9.7	5.6	9.1	9.1	14.6	0.0	6.1	7.9	0.0	4.2
Prop In Lane	1.00		0.37	1.00		0.32	1.00		0.63	0.60		1.00
Lane Grp Cap(c), veh/h	214	596	574	194	1303	669	378	0	553	465	0	542
V/C Ratio(X)	0.59	0.53	0.54	0.78	0.47	0.47	0.36	0.00	0.35	0.21	0.00	0.25
Avail Cap(c_a), veh/h	1841	1598	1540	1615	3061	1573	689	0	968	1626	0	1895
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	17.9	18.0	29.0	15.5	15.6	22.7	0.0	16.4	17.0	0.0	15.8
Incr Delay (d2), s/veh	1.0	1.4	1.5	2.6	0.5	1.0	0.2	0.0	0.1	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.8	3.7	2.4	3.2	3.4	1.8	0.0	2.1	1.1	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	19.4	19.5	31.6	16.0	16.6	22.9	0.0	16.6	17.0	0.0	15.9
LnGrp LOS	C	B	B	C	B	B	C	A	B	B	A	B
Approach Vol, veh/h		750			1082			334			233	
Approach Delay, s/veh		21.5			18.4			19.2			16.4	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.5	30.5		27.8	11.7	27.3		27.8
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	4.6	60.1		40.1	60.6	60.1		80.1
Max Q Clear Time (g_c+I1), s	4.4	11.1		16.6	7.6	11.7		9.9
Green Ext Time (p_c), s	0.2	14.4		1.1	0.2	8.4		0.6

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

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	531	108	143	592	328	129	48	114	263	69	299
Future Volume (veh/h)	64	531	108	143	592	328	129	48	114	263	69	299
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	590	120	147	610	338	137	51	121	274	72	311
Peak Hour Factor	0.90	0.90	0.90	0.97	0.97	0.97	0.94	0.94	0.94	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	726	147	182	1063	473	250	93	450	311	82	347
Arrive On Green	0.04	0.25	0.25	0.10	0.31	0.31	0.19	0.19	0.19	0.22	0.22	0.22
Sat Flow, veh/h	3456	2907	589	1781	3404	1517	1315	490	1518	1425	374	1585
Grp Volume(v), veh/h	71	360	350	147	610	338	188	0	121	346	0	311
Grp Sat Flow(s),veh/h/ln	1728	1777	1719	1781	1702	1517	1805	0	1518	1799	0	1585
Q Serve(g_s), s	1.6	15.2	15.3	6.4	12.0	15.7	7.5	0.0	4.9	14.8	0.0	15.2
Cycle Q Clear(g_c), s	1.6	15.2	15.3	6.4	12.0	15.7	7.5	0.0	4.9	14.8	0.0	15.2
Prop In Lane	1.00		0.34	1.00		1.00	0.73		1.00	0.79		1.00
Lane Grp Cap(c), veh/h	137	444	429	182	1063	473	342	0	450	393	0	347
V/C Ratio(X)	0.52	0.81	0.82	0.81	0.57	0.71	0.55	0.00	0.27	0.88	0.00	0.90
Avail Cap(c_a), veh/h	221	475	459	237	1145	510	815	0	848	406	0	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.5	28.1	28.2	35.0	23.0	24.3	29.2	0.0	21.7	30.1	0.0	30.3
Incr Delay (d2), s/veh	1.1	10.1	10.7	11.1	0.3	3.5	0.5	0.0	0.1	18.2	0.0	23.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.3	7.2	3.2	4.6	5.7	3.2	0.0	1.7	8.2	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	38.2	38.9	46.1	23.3	27.8	29.7	0.0	21.8	48.3	0.0	53.3
LnGrp LOS	D	D	D	D	C	C	C	A	C	D	A	D
Approach Vol, veh/h		781			1095			309			657	
Approach Delay, s/veh		38.5			27.7			26.6			50.7	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.5	24.8		22.3	7.6	29.8		20.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	21.3		18.0	5.1	26.8		36.0
Max Q Clear Time (g_c+I1), s	3.4	17.3		17.2	3.6	17.7		9.5
Green Ext Time (p_c), s	0.0	1.8		0.2	0.0	3.1		0.9

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

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	11.4

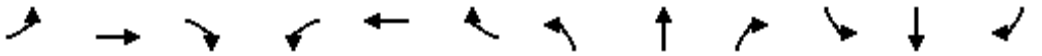
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	921	28	256	1032	4	0	0	196	0	6	25
Future Vol, veh/h	12	921	28	256	1032	4	0	0	196	0	6	25
Conflicting Peds, #/hr	0	0	13	0	0	20	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	94	94	94	81	81	81	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	959	29	272	1098	4	0	0	242	0	7	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1122	0	0	1001	0	0	-	-	507	2074	2691	575
Stage 1	-	-	-	-	-	-	-	-	-	1664	1664	-
Stage 2	-	-	-	-	-	-	-	-	-	410	1027	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	342	-	-	391	-	-	0	0	437	57	21	395
Stage 1	-	-	-	-	-	-	0	0	-	67	152	-
Stage 2	-	-	-	-	-	-	0	0	-	539	310	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	335	-	-	386	-	-	-	-	432	10	~ 6	386
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	10	~ 6	-
Stage 1	-	-	-	-	-	-	-	-	-	63	44	-
Stage 2	-	-	-	-	-	-	-	-	-	228	294	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	6.7	23.4	$ 437.3
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	432	335	-	-	386	-	-	29
HCM Lane V/C Ratio	0.56	0.037	-	-	0.706	-	-	1.201
HCM Control Delay (s)	23.4	16.2	-	-	33.8	-	-	$ 437.3
HCM Lane LOS	C	C	-	-	D	-	-	F
HCM 95th %tile Q(veh)	3.3	0.1	-	-	5.2	-	-	4

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	1059	38	223	1159	26	63	8	190	0	0	0
Future Volume (veh/h)	42	1059	38	223	1159	26	63	8	190	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.95			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	44	1115	40	240	1246	28	75	10	226			
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.84	0.84	0.84			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	56	2174	78	283	2862	64	367	49	350			
Arrive On Green	0.03	0.43	0.43	0.16	0.56	0.56	0.23	0.23	0.23			
Sat Flow, veh/h	1781	5057	181	1781	5131	115	1581	211	1509			
Grp Volume(v), veh/h	44	750	405	240	827	447	85	0	226			
Grp Sat Flow(s),veh/h/ln	1781	1702	1834	1781	1702	1843	1791	0	1509			
Q Serve(g_s), s	1.9	12.8	12.8	10.4	11.2	11.3	3.0	0.0	10.7			
Cycle Q Clear(g_c), s	1.9	12.8	12.8	10.4	11.2	11.3	3.0	0.0	10.7			
Prop In Lane	1.00		0.10	1.00		0.06	0.88		1.00			
Lane Grp Cap(c), veh/h	56	1463	788	283	1898	1028	416	0	350			
V/C Ratio(X)	0.79	0.51	0.51	0.85	0.44	0.44	0.20	0.00	0.65			
Avail Cap(c_a), veh/h	687	2579	1390	687	2579	1396	906	0	763			
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	38.2	16.5	16.5	32.4	10.2	10.2	24.6	0.0	27.5			
Incr Delay (d2), s/veh	8.9	0.6	1.1	2.7	0.2	0.4	0.1	0.0	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.0	4.7	5.1	4.5	3.7	4.0	1.3	0.0	3.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	17.1	17.6	35.1	10.5	10.6	24.6	0.0	28.3			
LnGrp LOS	D	B	B	D	B	B	C	A	C			
Approach Vol, veh/h		1199			1514			311				
Approach Delay, s/veh		18.4			14.4			27.3				
Approach LOS		B			B			C				
Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	17.0	39.0			6.9	49.1		23.3				
Change Period (Y+Rc), s	4.4	4.9			4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1			30.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	12.4	14.8			3.9	13.3		12.7				
Green Ext Time (p_c), s	0.3	19.3			0.0	16.4		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	516	104	178	442	78	152	195	172	66	146	102
Future Volume (veh/h)	156	516	104	178	442	78	152	195	172	66	146	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	166	549	111	184	456	80	163	210	185	73	162	113
Peak Hour Factor	0.94	0.94	0.94	0.97	0.97	0.97	0.93	0.93	0.93	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	1046	457	281	777	135	358	376	435	287	301	249
Arrive On Green	0.12	0.29	0.29	0.08	0.26	0.26	0.20	0.20	0.20	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1553	3456	3001	522	1781	1870	1523	1781	1870	1547
Grp Volume(v), veh/h	166	549	111	184	269	267	163	210	185	73	162	113
Grp Sat Flow(s),veh/h/ln	1781	1777	1553	1728	1777	1746	1781	1870	1523	1781	1870	1547
Q Serve(g_s), s	6.6	9.4	4.0	3.8	9.6	9.8	5.9	7.4	7.2	2.6	5.8	4.8
Cycle Q Clear(g_c), s	6.6	9.4	4.0	3.8	9.6	9.8	5.9	7.4	7.2	2.6	5.8	4.8
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	1046	457	281	460	452	358	376	435	287	301	249
V/C Ratio(X)	0.80	0.52	0.24	0.65	0.58	0.59	0.45	0.56	0.42	0.25	0.54	0.45
Avail Cap(c_a), veh/h	724	2931	1281	1404	1466	1440	980	1029	967	980	1029	851
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	21.5	19.5	32.5	23.6	23.6	25.6	26.2	21.3	26.7	28.1	27.7
Incr Delay (d2), s/veh	2.7	0.6	0.4	1.0	2.0	2.1	0.3	0.5	0.2	0.2	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.8	1.4	1.6	4.1	4.1	2.4	3.2	2.5	1.1	2.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	22.0	19.9	33.4	25.6	25.7	25.9	26.7	21.6	26.9	28.6	28.2
LnGrp LOS	C	C	B	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		826			720			558			348	
Approach Delay, s/veh		24.2			27.6			24.8			28.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.3	26.3		16.6	12.9	23.8		19.6
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	29.6	60.1		40.1	29.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	5.8	11.4		7.8	8.6	11.8		9.4
Green Ext Time (p_c), s	0.3	7.0		0.9	0.2	6.6		1.3

Intersection Summary	
HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	757	15	34	764	372	12	5	13	230	11	92
Future Volume (veh/h)	68	757	15	34	764	372	12	5	13	230	11	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	832	16	37	822	400	14	6	16	274	13	110
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.83	0.83	0.83	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	1737	33	356	1088	526	226	108	216	383	15	123
Arrive On Green	0.04	0.49	0.49	0.03	0.47	0.47	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	3565	69	1781	2294	1109	533	353	708	1002	48	402
Grp Volume(v), veh/h	75	415	433	37	636	586	36	0	0	397	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1856	1781	1777	1626	1594	0	0	1452	0	0
Q Serve(g_s), s	1.7	12.4	12.4	0.8	23.2	23.5	0.0	0.0	0.0	19.5	0.0	0.0
Cycle Q Clear(g_c), s	1.7	12.4	12.4	0.8	23.2	23.5	1.2	0.0	0.0	20.7	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.68	0.39		0.44	0.69		0.28
Lane Grp Cap(c), veh/h	245	866	904	356	843	771	550	0	0	521	0	0
V/C Ratio(X)	0.31	0.48	0.48	0.10	0.75	0.76	0.07	0.00	0.00	0.76	0.00	0.00
Avail Cap(c_a), veh/h	859	1347	1407	993	1347	1232	845	0	0	808	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.9	13.6	13.6	10.9	17.0	17.1	19.5	0.0	0.0	26.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.4	0.4	0.0	1.5	1.7	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.7	4.9	0.3	9.0	8.3	0.5	0.0	0.0	6.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.2	14.0	14.0	10.9	18.6	18.8	19.5	0.0	0.0	27.0	0.0	0.0
LnGrp LOS	B	B	B	B	B	B	B	A	A	C	A	A
Approach Vol, veh/h		923			1259			36			397	
Approach Delay, s/veh		14.0			18.5			19.5			27.0	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	43.5		29.1	7.6	42.5		29.1				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1		40.1				
Max Q Clear Time (g_c+I2), s	2.8	14.4		22.7	3.7	25.5		3.2				
Green Ext Time (p_c), s	0.0	7.1		1.6	0.1	12.1		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	19	12	132	145	29
Future Vol, veh/h	15	19	12	132	145	29
Peak Hour Factor	0.65	0.65	0.80	0.80	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	29	15	165	177	35
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.9	8.7	8.7
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	44%	0%
Vol Thru, %	0%	100%	0%	83%
Vol Right, %	0%	0%	56%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	132	34	174
LT Vol	12	0	15	0
Through Vol	0	132	0	145
RT Vol	0	0	19	29
Lane Flow Rate	15	165	52	212
Geometry Grp	7	7	2	5
Degree of Util (X)	0.022	0.217	0.066	0.251
Departure Headway (Hd)	5.235	4.733	4.574	4.264
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	678	751	786	847
Service Time	3.014	2.512	2.584	2.264
HCM Lane V/C Ratio	0.022	0.22	0.066	0.25
HCM Control Delay	8.1	8.8	7.9	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.2	1

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	150	0	0	151	0
Future Vol, veh/h	0	150	0	0	151	0
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	84	84	92	92	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	179	0	0	159	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	179	-
Stage 1	-	-	0	-
Stage 2	-	-	179	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	811	0
Stage 1	0	-	-	0
Stage 2	0	-	852	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	811	-
Mov Cap-2 Maneuver	-	-	780	-
Stage 1	-	-	-	-
Stage 2	-	-	852	-

Approach	EB	SB
HCM Control Delay, s	0	10.8
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	780
HCM Lane V/C Ratio	-	0.204
HCM Control Delay (s)	-	10.8
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.8

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	321	0	0	83	0
Future Vol, veh/h	70	321	0	0	83	0
Peak Hour Factor	0.93	0.93	0.50	0.50	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	345	0	0	100	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.6	8.9
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	40%	0%	100%
Vol Thru, %	60%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	177	214	83
LT Vol	70	0	83
Through Vol	107	214	0
RT Vol	0	0	0
Lane Flow Rate	190	230	100
Geometry Grp	7	7	2
Degree of Util (X)	0.265	0.308	0.141
Departure Headway (Hd)	5.011	4.813	5.071
Convergence, Y/N	Yes	Yes	Yes
Cap	721	752	709
Service Time	2.711	2.513	3.089
HCM Lane V/C Ratio	0.264	0.306	0.141
HCM Control Delay	9.5	9.6	8.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	1.3	0.5

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	425	0	0	50	0
Future Vol, veh/h	9	425	0	0	50	0
Conflicting Peds, #/hr	0	0	0	5	0	3
Sign Control	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	92	92	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	447	0	0	60	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	242	-
Stage 1	-	-	0	-
Stage 2	-	-	242	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	725	0
Stage 1	-	-	-	0
Stage 2	-	-	776	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	725	-
Mov Cap-2 Maneuver	-	-	725	-
Stage 1	-	-	-	-
Stage 2	-	-	776	-

Approach	EB	SB
HCM Control Delay, s		10.4
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	725
HCM Lane V/C Ratio	-	-	0.083
HCM Control Delay (s)	-	-	10.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	37	257	26	46	15	0	0	43	4
Future Vol, veh/h	0	0	0	37	257	26	46	15	0	0	43	4
Peak Hour Factor	0.25	0.25	0.25	0.84	0.84	0.84	0.80	0.80	0.80	0.59	0.59	0.59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	44	306	31	58	19	0	0	73	7
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.4	8.7	8.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	75%	22%	0%	0%
Vol Thru, %	25%	78%	83%	91%
Vol Right, %	0%	0%	17%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	166	155	47
LT Vol	46	37	0	0
Through Vol	15	129	129	43
RT Vol	0	0	26	4
Lane Flow Rate	76	197	184	80
Geometry Grp	2	7	7	2
Degree of Util (X)	0.107	0.276	0.245	0.107
Departure Headway (Hd)	5.055	5.036	4.805	4.851
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	710	715	749	739
Service Time	3.08	2.758	2.528	2.877
HCM Lane V/C Ratio	0.107	0.276	0.246	0.108
HCM Control Delay	8.7	9.7	9.1	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	1.1	1	0.4

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	22	218	24	6	6	0	0	48	85
Future Vol, veh/h	0	0	0	22	218	24	6	6	0	0	48	85
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.60	0.60	0.60	0.74	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	27	266	29	10	10	0	0	65	115
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.1	8.2	8.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	50%	17%	0%	0%
Vol Thru, %	50%	83%	82%	36%
Vol Right, %	0%	0%	18%	64%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	131	133	133
LT Vol	6	22	0	0
Through Vol	6	109	109	48
RT Vol	0	0	24	85
Lane Flow Rate	20	160	162	180
Geometry Grp	2	7	7	2
Degree of Util (X)	0.028	0.226	0.219	0.216
Departure Headway (Hd)	4.994	5.093	4.855	4.328
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	717	709	740	830
Service Time	3.024	2.793	2.582	2.347
HCM Lane V/C Ratio	0.028	0.226	0.219	0.217
HCM Control Delay	8.2	9.3	8.9	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0.8	0.8

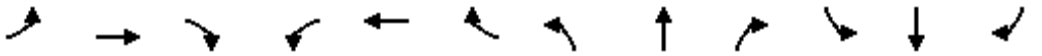
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	9	0	0	43	0	2271	10	0	2409	9
Future Vol, veh/h	0	0	9	0	0	43	0	2271	10	0	2409	9
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	5	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	45	45	45	83	83	83	98	98	98	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	20	0	0	52	0	2317	10	0	2590	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1303	-	-	1169	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	136	0	0	160	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	136	-	-	159	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36	38.2	0	0
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	136	159	-	-
HCM Lane V/C Ratio	-	-	0.147	0.326	-	-
HCM Control Delay (s)	-	-	36	38.2	-	-
HCM Lane LOS	-	-	E	E	-	-
HCM 95th %tile Q(veh)	-	-	0.5	1.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	36	54	125	68	2174	8	0	2284	171
Future Volume (veh/h)	0	0	0	36	54	125	68	2174	8	0	2284	171
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				43	64	149	69	2196	8	0	2456	184
Peak Hour Factor				0.84	0.84	0.84	0.99	0.99	0.99	0.93	0.93	0.93
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				105	156	219	449	4138	15	0	2557	791
Arrive On Green				0.14	0.14	0.14	0.50	1.00	1.00	0.00	0.50	0.50
Sat Flow, veh/h				737	1097	1542	1781	5252	19	0	5274	1580
Grp Volume(v), veh/h				107	0	149	69	1423	781	0	2456	184
Grp Sat Flow(s),veh/h/ln				1834	0	1542	1781	1702	1867	0	1702	1580
Q Serve(g_s), s				7.4	0.0	12.9	2.9	0.0	0.0	0.0	64.8	9.2
Cycle Q Clear(g_c), s				7.4	0.0	12.9	2.9	0.0	0.0	0.0	64.8	9.2
Prop In Lane				0.40		1.00	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				260	0	219	449	2682	1471	0	2557	791
V/C Ratio(X)				0.41	0.00	0.68	0.15	0.53	0.53	0.00	0.96	0.23
Avail Cap(c_a), veh/h				460	0	386	449	2682	1471	0	2557	791
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.65	0.65	0.65	0.00	1.00	1.00
Uniform Delay (d), s/veh				54.7	0.0	57.0	26.7	0.0	0.0	0.0	33.6	19.7
Incr Delay (d2), s/veh				0.4	0.0	1.4	0.0	0.5	0.9	0.0	10.7	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	0.0	5.1	1.2	0.2	0.4	0.0	27.9	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				55.1	0.0	58.4	26.7	0.5	0.9	0.0	44.3	20.4
LnGrp LOS				E	A	E	C	A	A	A	D	C
Approach Vol, veh/h					256			2273			2640	
Approach Delay, s/veh					57.0			1.4			42.7	
Approach LOS					E			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	115.2	24.8	40.2	75.0
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	95.1	35.1	20.6	* 70
Max Q Clear Time (g_c+I1), s	2.0	14.9	4.9	66.8
Green Ext Time (p_c), s	7.8	0.6	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

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



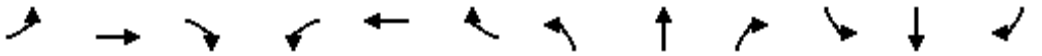
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	298	137	108	0	0	0	0	1937	42	131	2181	0
Future Volume (veh/h)	298	137	108	0	0	0	0	1937	42	131	2181	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	310	143	112				0	1977	43	139	2320	0
Peak Hour Factor	0.96	0.96	0.96				0.98	0.98	0.98	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	387	407	331				0	3039	66	160	4585	0
Arrive On Green	0.22	0.22	0.22				0.00	1.00	1.00	0.18	1.00	0.00
Sat Flow, veh/h	1781	1870	1524				0	5310	112	1781	6696	0
Grp Volume(v), veh/h	310	143	112				0	1308	712	139	2320	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1524				0	1702	1849	1781	1609	0
Q Serve(g_s), s	23.1	9.1	8.7				0.0	0.0	0.0	10.6	0.0	0.0
Cycle Q Clear(g_c), s	23.1	9.1	8.7				0.0	0.0	0.0	10.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	387	407	331				0	2012	1093	160	4585	0
V/C Ratio(X)	0.80	0.35	0.34				0.00	0.65	0.65	0.87	0.51	0.00
Avail Cap(c_a), veh/h	472	496	404				0	2012	1093	364	4585	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.59	0.59	0.50	0.50	0.00
Uniform Delay (d), s/veh	51.9	46.4	46.3				0.0	0.0	0.0	56.6	0.0	0.0
Incr Delay (d2), s/veh	6.4	0.2	0.2				0.0	1.0	1.8	2.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	4.3	3.3				0.0	0.3	0.5	4.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	46.6	46.5				0.0	1.0	1.8	59.4	0.2	0.0
LnGrp LOS	E	D	D				A	A	A	E	A	A
Approach Vol, veh/h		565						2020			2459	
Approach Delay, s/veh		53.0						1.3			3.5	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	17.0	87.7	35.3	104.7
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	28.6	60.1	37.1	93.1
Max Q Clear Time (g_c+I1), s	12.6	2.0	25.1	2.0
Green Ext Time (p_c), s	0.0	6.0	0.4	9.7

Intersection Summary	
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	518	398	291	196	287	20	408	1364	322	0	1472	799
Future Volume (vph)	518	398	291	196	287	20	408	1364	322	0	1472	799
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00		1.00	1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3331	1497	1610	3339		3662	4923			5085	1511
Flt Permitted	0.95	0.98	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3331	1497	1610	3339		3662	4923			5085	1511
Peak-hour factor, PHF	0.86	0.86	0.86	0.93	0.93	0.93	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	602	463	338	211	309	22	443	1483	350	0	1533	832
RTOR Reduction (vph)	0	0	200	0	4	0	0	27	0	0	0	370
Lane Group Flow (vph)	349	716	138	177	361	0	443	1806	0	0	1533	462
Confl. Peds. (#/hr)			37			5			4			23
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	33.7	33.7	33.7	16.2	16.2		18.3	72.4			48.7	48.7
Effective Green, g (s)	33.7	33.7	33.7	16.2	16.2		18.3	72.4			48.7	48.7
Actuated g/C Ratio	0.24	0.24	0.24	0.12	0.12		0.13	0.52			0.35	0.35
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	387	801	360	186	386		478	2545			1768	525
v/s Ratio Prot	c0.22	0.21		c0.11	0.11		c0.12	0.37			0.30	
v/s Ratio Perm			0.09									c0.31
v/c Ratio	0.90	0.89	0.38	0.95	0.94		0.93	0.71			0.87	0.88
Uniform Delay, d1	51.5	51.4	44.4	61.5	61.4		60.2	25.8			42.6	42.9
Progression Factor	1.00	1.00	1.00	0.75	0.75		1.33	0.20			0.48	1.62
Incremental Delay, d2	23.0	12.1	0.2	50.8	29.1		16.3	1.0			5.4	17.0
Delay (s)	74.6	63.5	44.7	96.7	74.8		96.2	6.1			25.7	86.5
Level of Service	E	E	D	F	E		F	A			C	F
Approach Delay (s)		61.7			82.0			23.7			47.1	
Approach LOS		E			F			C			D	

Intersection Summary			
HCM 2000 Control Delay	45.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	502	263	138	577	358	376	1488	125	445	1352	287
Future Volume (veh/h)	284	502	263	138	577	358	376	1488	125	445	1352	287
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.97	1.00		0.98
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	316	558	292	153	641	398	404	1600	134	473	1438	305
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	713	306	176	637	275	454	1714	143	693	1809	382
Arrive On Green	0.12	0.20	0.20	0.10	0.18	0.18	0.09	0.24	0.24	0.20	0.43	0.43
Sat Flow, veh/h	3456	3554	1525	1781	3554	1532	3456	4788	401	3456	4202	889
Grp Volume(v), veh/h	316	558	292	153	641	398	404	1137	597	473	1164	579
Grp Sat Flow(s),veh/h/ln	1728	1777	1525	1781	1777	1532	1728	1702	1785	1728	1702	1687
Q Serve(g_s), s	12.4	20.8	26.5	11.9	25.1	25.1	16.2	45.8	45.9	17.8	41.4	41.7
Cycle Q Clear(g_c), s	12.4	20.8	26.5	11.9	25.1	25.1	16.2	45.8	45.9	17.8	41.4	41.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.53
Lane Grp Cap(c), veh/h	403	713	306	176	637	275	454	1218	639	693	1465	726
V/C Ratio(X)	0.78	0.78	0.95	0.87	1.01	1.45	0.89	0.93	0.93	0.68	0.79	0.80
Avail Cap(c_a), veh/h	533	713	306	237	637	275	632	1218	639	693	1465	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.1	53.0	55.3	62.2	57.5	57.5	62.8	51.6	51.6	51.9	34.5	34.6
Incr Delay (d2), s/veh	3.2	4.3	34.7	18.1	37.2	221.4	6.5	10.4	17.3	2.3	2.9	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	9.8	13.0	6.2	14.5	26.5	7.7	21.8	24.1	7.8	17.2	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.4	57.4	90.0	80.3	94.6	278.8	69.3	62.0	68.9	54.2	37.4	40.3
LnGrp LOS	E	E	F	F	F	F	E	E	E	D	D	D
Approach Vol, veh/h		1166			1192			2138			2216	
Approach Delay, s/veh		67.2			154.3			65.3			41.7	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.8	55.0	18.2	33.0	22.8	66.0	21.2	30.0
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 50	18.6	28.1	25.6	48.3	21.6	* 25
Max Q Clear Time (g_c+I1), s	19.8	47.9	13.9	28.5	18.2	43.7	14.4	27.1
Green Ext Time (p_c), s	0.2	1.2	0.0	0.0	0.2	2.3	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	73.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	5	4	97	10	96	21	1788	32	190	1597	45
Future Volume (veh/h)	36	5	4	97	10	96	21	1788	32	190	1597	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	6	5	118	12	117	23	1943	35	202	1699	48
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	28	18	166	17	130	38	3047	55	225	3546	100
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.02	0.59	0.59	0.13	0.70	0.70
Sat Flow, veh/h	819	156	104	724	96	738	1781	5163	93	1781	5100	144
Grp Volume(v), veh/h	52	0	0	247	0	0	23	1281	697	202	1134	613
Grp Sat Flow(s),veh/h/ln	1079	0	0	1559	0	0	1781	1702	1852	1781	1702	1840
Q Serve(g_s), s	0.0	0.0	0.0	15.8	0.0	0.0	1.8	34.6	34.7	15.6	21.3	21.3
Cycle Q Clear(g_c), s	5.7	0.0	0.0	21.6	0.0	0.0	1.8	34.6	34.7	15.6	21.3	21.3
Prop In Lane	0.79		0.10	0.48		0.47	1.00		0.05	1.00		0.08
Lane Grp Cap(c), veh/h	236	0	0	313	0	0	38	2009	1093	225	2367	1279
V/C Ratio(X)	0.22	0.00	0.00	0.79	0.00	0.00	0.61	0.64	0.64	0.90	0.48	0.48
Avail Cap(c_a), veh/h	316	0	0	403	0	0	211	2009	1093	377	2367	1279
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.67	0.67	0.67	0.50	0.50	0.50
Uniform Delay (d), s/veh	49.7	0.0	0.0	56.0	0.0	0.0	68.0	18.9	18.9	60.3	9.7	9.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	5.8	0.0	0.0	3.9	1.0	1.9	4.6	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	9.1	0.0	0.0	0.9	13.2	14.7	7.3	7.4	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	0.0	0.0	61.9	0.0	0.0	71.9	19.9	20.8	64.9	10.1	10.4
LnGrp LOS	D	A	A	E	A	A	E	B	C	E	B	B
Approach Vol, veh/h		52			247			2001			1949	
Approach Delay, s/veh		49.9			61.9			20.8			15.9	
Approach LOS		D			E			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	32.1	88.3		29.6	7.4	103.1		29.6
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	29.6	* 63		33.1	16.6	75.3		33.1
Max Q Clear Time (g_c+I1), s	17.6	36.7		7.7	3.8	23.3		23.6
Green Ext Time (p_c), s	0.1	5.5		0.1	0.0	4.7		0.4

Intersection Summary	
HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	146	18	357	191	219	19	1396	425	230	1167	278
Future Volume (veh/h)	245	146	18	357	191	219	19	1396	425	230	1167	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	272	162	20	376	201	231	20	1454	443	250	1268	302
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	339	42	425	303	250	34	2395	741	212	1816	793
Arrive On Green	0.17	0.21	0.21	0.12	0.16	0.16	0.02	0.47	0.47	0.12	1.00	1.00
Sat Flow, veh/h	1781	1629	201	3456	1870	1542	1781	5106	1580	3456	3554	1551
Grp Volume(v), veh/h	272	0	182	376	201	231	20	1454	443	250	1268	302
Grp Sat Flow(s),veh/h/ln	1781	0	1830	1728	1870	1542	1781	1702	1580	1728	1777	1551
Q Serve(g_s), s	21.1	0.0	12.2	15.0	14.1	17.5	1.6	29.6	29.0	8.6	0.0	0.0
Cycle Q Clear(g_c), s	21.1	0.0	12.2	15.0	14.1	17.5	1.6	29.6	29.0	8.6	0.0	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	0	381	425	303	250	34	2395	741	212	1816	793
V/C Ratio(X)	0.92	0.00	0.48	0.88	0.66	0.92	0.58	0.61	0.60	1.18	0.70	0.38
Avail Cap(c_a), veh/h	415	0	446	805	456	376	211	2395	741	212	1816	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	57.6	0.0	48.8	60.4	55.1	41.5	68.1	27.6	27.4	61.4	0.0	0.0
Incr Delay (d2), s/veh	17.8	0.0	0.3	2.5	0.9	17.1	5.7	1.2	3.5	113.9	1.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	0.0	5.7	6.6	6.7	7.8	0.8	12.0	11.4	6.8	0.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.4	0.0	49.1	62.9	56.0	58.6	73.7	28.8	31.0	175.3	1.9	1.2
LnGrp LOS	E	A	D	E	E	E	E	C	C	F	A	A
Approach Vol, veh/h		454			808			1917			1820	
Approach Delay, s/veh		64.8			59.9			29.7			25.6	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	71.4	21.6	34.0	7.1	77.3	28.1	27.6
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	8.6	* 46	32.6	34.1	16.6	37.3	32.6	* 34
Max Q Clear Time (g_c+I1), s	10.6	31.6	17.0	14.2	3.6	2.0	23.1	19.5
Green Ext Time (p_c), s	0.0	3.9	0.2	0.3	0.0	3.6	0.1	0.4

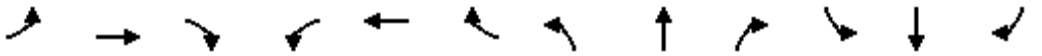
Intersection Summary	
HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	188	11	172	0	115	0	515	247	41	299	0
Future Volume (vph)	52	188	11	172	0	115	0	515	247	41	299	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.93		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1843		1770		1550		3115		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.27	1.00	
Satd. Flow (perm)	1770	1843		1770		1550		3115		498	3539	
Peak-hour factor, PHF	0.86	0.86	0.86	0.96	0.96	0.96	0.94	0.94	0.94	0.79	0.79	0.79
Adj. Flow (vph)	60	219	13	179	0	120	0	548	263	52	378	0
RTOR Reduction (vph)	0	2	0	0	0	76	0	28	0	0	0	0
Lane Group Flow (vph)	60	230	0	179	0	44	0	783	0	52	378	0
Confl. Peds. (#/hr)			18			3			66			15
Confl. Bikes (#/hr)						1			9			11
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	21.0	21.0		17.6		17.6		78.1		87.2	87.2	
Effective Green, g (s)	21.0	21.0		17.6		17.6		78.1		87.2	87.2	
Actuated g/C Ratio	0.15	0.15		0.13		0.13		0.56		0.62	0.62	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	265	276		222		194		1737		352	2204	
v/s Ratio Prot	0.03	c0.12		c0.10				c0.25		0.00	c0.11	
v/s Ratio Perm						0.03				0.09		
v/c Ratio	0.23	0.83		0.81		0.23		0.45		0.15	0.17	
Uniform Delay, d1	52.4	57.8		59.5		55.1		18.3		11.6	11.1	
Progression Factor	0.85	0.88		1.00		1.00		0.80		1.00	1.00	
Incremental Delay, d2	0.1	17.4		17.9		0.2		0.6		0.1	0.2	
Delay (s)	44.8	68.3		77.5		55.3		15.4		11.7	11.3	
Level of Service	D	E		E		E		B		B	B	
Approach Delay (s)		63.5			68.6			15.4			11.4	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

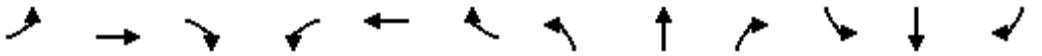
Intersection	
Int Delay, s/veh	1.3

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	160	537	306	38	0	1
Future Vol, veh/h	160	537	306	38	0	1
Conflicting Peds, #/hr	0	0	0	11	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	77	77	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	168	565	397	49	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	457	0	-	0	1052	234
Stage 1	-	-	-	-	433	-
Stage 2	-	-	-	-	619	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1100	-	-	-	222	768
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	499	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1088	-	-	-	184	760
Mov Cap-2 Maneuver	-	-	-	-	184	-
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	494	-

Approach	NB	SB	SE
HCM Control Delay, s	2	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1088	-	760	-	-
HCM Lane V/C Ratio	0.155	-	0.001	-	-
HCM Control Delay (s)	8.9	-	9.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	302	94	143	218	58	100	91	140	61	89	88
Future Volume (veh/h)	47	302	94	143	218	58	100	91	140	61	89	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.97	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	364	113	157	240	64	120	110	169	66	97	96
Peak Hour Factor	0.83	0.83	0.83	0.91	0.91	0.91	0.83	0.83	0.83	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	1830	652	248	728	596	155	749	762	139	583	244
Arrive On Green	0.04	0.36	0.36	0.07	0.39	0.39	0.09	0.21	0.21	0.04	0.16	0.16
Sat Flow, veh/h	1781	5106	1435	3456	1870	1531	1781	3554	2667	3456	3554	1484
Grp Volume(v), veh/h	57	364	113	157	240	64	120	110	169	66	97	96
Grp Sat Flow(s),veh/h/ln	1781	1702	1435	1728	1870	1531	1781	1777	1334	1728	1777	1484
Q Serve(g_s), s	2.3	3.6	3.5	3.2	6.6	2.0	4.8	1.9	3.6	1.4	1.7	4.2
Cycle Q Clear(g_c), s	2.3	3.6	3.5	3.2	6.6	2.0	4.8	1.9	3.6	1.4	1.7	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	1830	652	248	728	596	155	749	762	139	583	244
V/C Ratio(X)	0.78	0.20	0.17	0.63	0.33	0.11	0.78	0.15	0.22	0.47	0.17	0.39
Avail Cap(c_a), veh/h	728	2782	919	1412	1019	834	728	1936	1654	1412	1936	808
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	16.3	12.3	33.1	15.7	14.3	32.8	23.6	20.2	34.5	26.4	27.4
Incr Delay (d2), s/veh	6.5	0.1	0.2	1.0	0.1	0.0	3.1	0.1	0.1	0.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.3	1.0	1.3	2.6	0.6	2.1	0.7	1.0	0.6	0.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	16.3	12.4	34.1	15.8	14.3	36.0	23.7	20.3	35.4	26.4	27.8
LnGrp LOS	D	B	B	C	B	B	D	C	C	D	C	C
Approach Vol, veh/h		534			461			399			259	
Approach Delay, s/veh		18.2			21.9			26.0			29.2	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	32.2	11.8	18.8	8.4	34.5	8.4	22.2
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	5.2	5.6	6.8	6.2	4.3	8.6	3.4	5.6
Green Ext Time (p_c), s	0.3	3.8	0.1	0.5	0.1	1.1	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

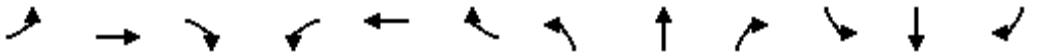
Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	382	228	310	276	12
Future Vol, veh/h	0	382	228	310	276	12
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	91	91	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	455	251	341	317	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	169	334	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	719	810	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	717	808	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.3	4.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	808	-	717	-	-
HCM Lane V/C Ratio	0.31	-	0.634	-	-
HCM Control Delay (s)	11.4	-	18.3	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	1.3	-	4.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	3	17	2	2	3	181	506	3	7	666	79
Future Volume (veh/h)	17	3	17	2	2	3	181	506	3	7	666	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	5	26	4	4	6	193	538	3	8	716	85
Peak Hour Factor	0.66	0.66	0.66	0.50	0.50	0.50	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	329	278	8	324	274	243	1471	637	15	910	108
Arrive On Green	0.02	0.18	0.18	0.00	0.17	0.17	0.14	0.41	0.41	0.01	0.29	0.29
Sat Flow, veh/h	1781	1870	1585	1781	1870	1582	1781	3554	1538	1781	3186	378
Grp Volume(v), veh/h	26	5	26	4	4	6	193	538	3	8	399	402
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1582	1781	1777	1538	1781	1777	1787
Q Serve(g_s), s	0.9	0.1	0.8	0.1	0.1	0.2	6.2	6.2	0.1	0.3	12.2	12.2
Cycle Q Clear(g_c), s	0.9	0.1	0.8	0.1	0.1	0.2	6.2	6.2	0.1	0.3	12.2	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	42	329	278	8	324	274	243	1471	637	15	508	510
V/C Ratio(X)	0.62	0.02	0.09	0.52	0.01	0.02	0.79	0.37	0.00	0.54	0.79	0.79
Avail Cap(c_a), veh/h	909	1908	1617	909	1908	1614	909	1813	785	909	906	911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	20.0	20.3	29.2	20.1	20.2	24.6	11.9	10.1	29.1	19.4	19.4
Incr Delay (d2), s/veh	19.4	0.0	0.2	18.9	0.0	0.1	2.2	0.1	0.0	10.8	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1	0.3	0.1	0.0	0.1	2.3	1.8	0.0	0.1	4.3	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	20.1	20.5	48.1	20.2	20.3	26.8	12.0	10.1	39.9	20.4	20.4
LnGrp LOS	D	C	C	D	C	C	C	B	B	D	C	C
Approach Vol, veh/h		57			14			734			809	
Approach Delay, s/veh		32.9			28.2			15.9			20.6	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	19.0	12.4	21.7	5.8	18.9	4.9	29.2
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0
Max Q Clear Time (g_c+I1), s	2.1	2.8	8.2	14.2	2.9	2.2	2.3	8.2
Green Ext Time (p_c), s	0.0	0.1	0.2	2.6	0.1	0.1	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Notes

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

User approved ignoring U-Turning movement.

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

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	765	827	11	0	147
Future Vol, veh/h	0	765	827	11	0	147
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	94	94	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	890	880	12	0	201

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	443
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	562
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	560
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	560
HCM Lane V/C Ratio	-	-	0.36
HCM Control Delay (s)	-	-	15
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.6



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	665	101	0	781	846	838
Future Volume (vph)	665	101	0	781	846	838
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.86	0.86	0.93	0.93	0.93	0.93
Adj. Flow (vph)	773	117	0	840	910	901
RTOR Reduction (vph)	0	62	0	0	0	0
Lane Group Flow (vph)	773	55	0	840	910	901
Confl. Peds. (#/hr)						7
Confl. Bikes (#/hr)						2
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	32.2	32.2		35.9	35.9	95.5
Effective Green, g (s)	32.2	32.2		35.9	35.9	90.1
Actuated g/C Ratio	0.31	0.31		0.34	0.34	0.85
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1048	483		1205	1205	1353
v/s Ratio Prot	c0.23			0.24	c0.26	c0.57
v/s Ratio Perm		0.03				
v/c Ratio	0.74	0.11		0.70	0.76	0.67
Uniform Delay, d1	32.8	26.3		30.0	30.8	2.6
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.6	0.1		1.8	2.7	1.1
Delay (s)	35.4	26.4		31.8	33.6	3.7
Level of Service	D	C		C	C	A
Approach Delay (s)	34.2			31.8	18.7	
Approach LOS	C			C	B	

Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	105.4	Sum of lost time (s)	19.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	867	199	101	1320
Future Volume (veh/h)	0	1	867	199	101	1320
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	932	214	113	1483
Peak Hour Factor	0.92	0.92	0.93	0.93	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	6	2254	983	206	2750
Arrive On Green	0.00	0.00	0.63	0.63	0.06	0.77
Sat Flow, veh/h	1781	3170	3647	1547	3456	3647
Grp Volume(v), veh/h	0	1	932	214	113	1483
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1547	1728	1777
Q Serve(g_s), s	0.0	0.0	7.2	3.2	1.8	8.9
Cycle Q Clear(g_c), s	0.0	0.0	7.2	3.2	1.8	8.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	6	2254	983	206	2750
V/C Ratio(X)	0.00	0.17	0.41	0.22	0.55	0.54
Avail Cap(c_a), veh/h	1293	2301	3870	1687	1882	3870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	27.5	5.0	4.3	25.2	2.4
Incr Delay (d2), s/veh	0.0	5.2	0.2	0.2	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.5	0.6	0.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	32.7	5.2	4.4	26.0	2.8
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1146			1596
Approach Delay, s/veh	32.7		5.0			4.5
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.7	41.1			48.8	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	3.8	9.2			10.9	2.0
Green Ext Time (p_c), s	0.2	13.6			31.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	56	148	33	36	76	75	776	23	85	1250	239
Future Volume (veh/h)	253	56	148	33	36	76	75	776	23	85	1250	239
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.92	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	278	62	163	36	40	84	82	843	25	90	1330	254
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	294	234	47	145	113	141	1886	883	116	1973	1048
Arrive On Green	0.11	0.16	0.16	0.03	0.08	0.08	0.04	0.53	0.53	0.07	0.56	0.56
Sat Flow, veh/h	3456	1870	1488	1781	1870	1457	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	278	62	163	36	40	84	82	843	25	90	1330	254
Grp Sat Flow(s),veh/h/ln	1728	1870	1488	1781	1870	1457	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.0	2.6	9.2	1.8	1.8	5.0	2.1	13.0	0.6	4.4	23.7	5.8
Cycle Q Clear(g_c), s	7.0	2.6	9.2	1.8	1.8	5.0	2.1	13.0	0.6	4.4	23.7	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	367	294	234	47	145	113	141	1886	883	116	1973	1048
V/C Ratio(X)	0.76	0.21	0.70	0.76	0.28	0.74	0.58	0.45	0.03	0.77	0.67	0.24
Avail Cap(c_a), veh/h	1165	630	502	600	630	491	1165	2794	1288	600	2794	1415
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	32.7	35.5	43.1	38.7	40.2	41.9	12.9	8.9	40.9	14.1	6.1
Incr Delay (d2), s/veh	1.2	0.4	3.7	9.1	0.4	3.6	1.4	0.3	0.0	4.1	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	1.2	3.4	0.9	0.8	1.8	0.9	4.6	0.2	2.0	8.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	33.0	39.2	52.1	39.1	43.7	43.3	13.1	8.9	45.0	14.7	6.3
LnGrp LOS	D	C	D	D	D	D	D	B	A	D	B	A
Approach Vol, veh/h		503			160			950			1674	
Approach Delay, s/veh		38.8			44.5			15.6			15.0	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	52.5	6.8	19.5	8.0	54.7	13.8	12.4
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	5.4	15.0	3.8	11.2	4.1	25.7	9.0	7.0
Green Ext Time (p_c), s	0.1	11.9	0.0	0.8	0.1	23.7	0.5	0.2

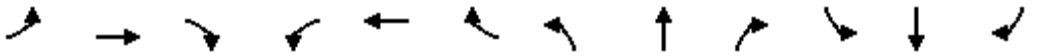
Intersection Summary	
HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	887	251	260	593	0	0	0	0	192	0	0
Future Volume (vph)	0	887	251	260	593	0	0	0	0	192	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.99	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1561	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1561	3433	3539					1770		
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	0	934	264	283	645	0	0	0	0	216	0	0
RTOR Reduction (vph)	0	0	134	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	934	130	283	645	0	0	0	0	216	0	0
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			5			2						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		48.4	48.4	10.3	63.4					15.0		
Effective Green, g (s)		44.4	44.4	10.3	59.4					15.0		
Actuated g/C Ratio		0.49	0.49	0.11	0.66					0.17		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1745	770	392	2335					295		
v/s Ratio Prot		c0.26		c0.08	0.18					c0.12		
v/s Ratio Perm			0.08									
v/c Ratio		0.54	0.17	0.72	0.28					0.73		
Uniform Delay, d1		15.7	12.6	38.5	6.4					35.6		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		0.3	0.1	5.5	0.1					7.8		
Delay (s)		16.0	12.7	43.9	6.4					43.4		
Level of Service		B	B	D	A					D		
Approach Delay (s)		15.3			17.9			0.0			43.4	
Approach LOS		B			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	18.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Appendix G

Existing Conditions 95th Percentile Queue Worksheets

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	290	300	316	336	246	210	96	274	262	199	68
Average Queue (ft)	178	182	168	174	151	106	13	183	162	88	13
95th Queue (ft)	267	266	261	276	219	192	58	248	235	184	45
Link Distance (ft)	2519	2519	2519	2519				1147	1147	1147	1147
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	217	253	66	16	54	58	99	155	187	100	99	100
Average Queue (ft)	95	135	8	1	7	8	30	85	101	13	54	82
95th Queue (ft)	185	217	39	7	29	33	80	141	161	68	100	98
Link Distance (ft)		1939	1939		629	629		1525	1525			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)									64	0		
Queuing Penalty (veh)									10	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	101	54
Average Queue (ft)	61	5
95th Queue (ft)	106	31
Link Distance (ft)		
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		100
Storage Blk Time (%)	1	0
Queuing Penalty (veh)	1	0

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	87	93	102	25	58	110	199	64	64
Average Queue (ft)	34	27	33	4	15	26	79	26	30
95th Queue (ft)	68	70	79	18	43	72	164	56	56
Link Distance (ft)		629	629		959	959	959	857	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	29	69	136	221	106	77	104	156	116	118	65	63
Average Queue (ft)	4	28	58	92	47	20	42	72	46	37	31	32
95th Queue (ft)	20	57	110	168	90	51	88	125	89	77	61	59
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)									0	0		
Queuing Penalty (veh)									1	0		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	LT	R	LT	R
Maximum Queue (ft)	23	39	86	182	104	85	81	142	80	53	70	57
Average Queue (ft)	4	11	27	47	45	27	25	52	32	18	28	19
95th Queue (ft)	18	30	65	111	85	70	65	117	64	43	58	45
Link Distance (ft)			636	636		202	202	202	444		292	292
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	330	330			175					50		
Storage Blk Time (%)									4	0		
Queuing Penalty (veh)									2	0		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	TR	L	T	T	LTR
Maximum Queue (ft)	48	6	21	72	15	6	31
Average Queue (ft)	6	0	1	26	1	0	8
95th Queue (ft)	29	4	9	57	8	4	30
Link Distance (ft)		232	232		364	364	458
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150			125			
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	50	83	94	124	140	229	303	338	37	80
Average Queue (ft)	17	29	40	51	58	62	39	60	12	30
95th Queue (ft)	42	66	83	108	110	164	250	215	35	56
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)							0	0		
Queuing Penalty (veh)							0	0		
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)					0	2				0
Queuing Penalty (veh)					1	3				0

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	94	156	165	64	96	60	149	181	132	158	55	60
Average Queue (ft)	45	71	77	24	40	8	68	79	35	75	25	17
95th Queue (ft)	85	126	137	52	77	36	127	149	85	132	46	46
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			1						0	8		
Queuing Penalty (veh)			1						0	5		

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	102	54
Average Queue (ft)	40	25
95th Queue (ft)	85	50
Link Distance (ft)	708	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	32	163	175	69	237	267	36	74
Average Queue (ft)	8	49	69	9	89	123	7	31
95th Queue (ft)	24	117	140	37	191	228	24	65
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		2		0	5			
Queuing Penalty (veh)		1		0	1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	48	50	69	75
Average Queue (ft)	21	17	37	40
95th Queue (ft)	47	45	62	62
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	SB
Directions Served	L
Maximum Queue (ft)	69
Average Queue (ft)	32
95th Queue (ft)	56
Link Distance (ft)	80
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	66	67	60
Average Queue (ft)	37	35	33
95th Queue (ft)	57	57	48
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	SB
Directions Served	L
Maximum Queue (ft)	51
Average Queue (ft)	23
95th Queue (ft)	48
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	54	73	48	60
Average Queue (ft)	33	40	29	30
95th Queue (ft)	48	62	44	49
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	76	77	40	70
Average Queue (ft)	39	43	12	38
95th Queue (ft)	61	67	37	60
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	50	34	68	88	115	327	426	492
Average Queue (ft)	12	8	5	6	9	66	96	150
95th Queue (ft)	54	24	35	44	65	234	318	398
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	104	124	98	194	204	231	413	417	427	205
Average Queue (ft)	42	44	23	52	57	63	308	324	359	91
95th Queue (ft)	89	100	65	138	149	166	484	493	505	246
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)							25	27	34	
Queuing Penalty (veh)							180	195	251	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			0	2					41	
Queuing Penalty (veh)			1	1					38	

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	165	249	67	282	299	302	174	336	325	298	202
Average Queue (ft)	76	114	10	94	101	111	126	149	110	85	40
95th Queue (ft)	141	210	39	229	237	244	206	346	296	230	138
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)				0	0	0		5	1	0	
Queuing Penalty (veh)				0	1	0		28	4	1	
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		2					39	4			
Queuing Penalty (veh)		1					198	5			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	192	205	199	184	164	172	152	210	208	270	260	269
Average Queue (ft)	74	102	82	69	93	138	101	94	81	71	72	90
95th Queue (ft)	152	181	165	144	175	186	160	186	181	206	193	213
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)					21	42	24		0	0	0	0
Queuing Penalty (veh)					31	61	36		0	2	0	2
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)								1	0	1		
Queuing Penalty (veh)								3	2	2		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	393	403	410	6
Average Queue (ft)	210	216	226	0
95th Queue (ft)	367	373	389	4
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	4	4	5	
Queuing Penalty (veh)	18	20	26	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	134	152	160	152	192	278	244	306	222	229	346	438
Average Queue (ft)	47	68	68	81	64	126	135	148	77	99	126	158
95th Queue (ft)	100	121	125	135	128	231	215	235	162	183	233	329
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	1	4	3		0	1	0	6	0	0	0	1
Queuing Penalty (veh)	1	4	4		0	3	0	10	0	0	1	3

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	483	474	144	263	341	346	347
Average Queue (ft)	191	224	52	106	217	230	232
95th Queue (ft)	370	406	110	225	358	367	366
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)				0	8	10	10
Queuing Penalty (veh)				0	51	62	59
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	8		
Queuing Penalty (veh)				0	14		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	424	308	58	244	454	215	274	404	421	358
Average Queue (ft)	173	144	17	77	80	84	129	112	117	85
95th Queue (ft)	420	290	46	183	287	195	267	321	331	258
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				1			3	0		
Queuing Penalty (veh)				0			19	1		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	409	383	281	320	738	91	172	456	435	408	302	153
Average Queue (ft)	252	208	199	248	339	41	20	272	266	238	113	69
95th Queue (ft)	374	362	296	359	684	79	95	417	404	374	217	120
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			4	9	19			43				
Queuing Penalty (veh)			11	25	105			4				

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	544	778	767	356
Average Queue (ft)	142	441	447	114
95th Queue (ft)	417	691	691	251
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)		14		
Queuing Penalty (veh)		24		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	84	250	241	143	157	202	72	156	70
Average Queue (ft)	26	90	75	55	49	71	18	45	16
95th Queue (ft)	66	189	168	116	109	139	50	113	47
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)		0			0	1		0	
Queuing Penalty (veh)		0			0	2		0	
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			12	2				3	
Queuing Penalty (veh)			17	3				1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	SE
Directions Served	L	LR
Maximum Queue (ft)	64	12
Average Queue (ft)	24	1
95th Queue (ft)	55	9
Link Distance (ft)		527
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	120	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	44	64	64	69	47	108	104	110	58	118	52	60
Average Queue (ft)	9	17	29	30	21	75	39	71	8	45	8	12
95th Queue (ft)	32	46	56	64	47	111	96	122	27	96	31	41
Link Distance (ft)		242	242	242							1877	1877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)				0		0				0		
Queuing Penalty (veh)				0		0				0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	50	46	24	62	62	24	31
Average Queue (ft)	6	6	4	17	16	3	3
95th Queue (ft)	25	28	16	44	46	14	15
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						0	0
Queuing Penalty (veh)						0	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	102	154	13	22	8
Average Queue (ft)	29	56	1	1	0
95th Queue (ft)	75	120	10	11	6
Link Distance (ft)	1396		1877	1877	1877
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	36	31	31	60	26	34	324	337	267	48	123	185
Average Queue (ft)	6	6	5	16	2	4	206	137	76	3	56	92
95th Queue (ft)	26	26	23	44	16	20	304	249	174	24	106	164
Link Distance (ft)		692		222	222	222		1615	1615			706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			300	200	
Storage Blk Time (%)							2	0				0
Queuing Penalty (veh)							6	0				0

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB
Directions Served	TR
Maximum Queue (ft)	209
Average Queue (ft)	121
95th Queue (ft)	193
Link Distance (ft)	706
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	76	42	10	4	139
Average Queue (ft)	9	2	0	0	55
95th Queue (ft)	44	20	8	3	99
Link Distance (ft)	2538	2538	113	113	692
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T	T
Maximum Queue (ft)	187	174	23	941	944	457	444	230	344	308	157
Average Queue (ft)	123	100	1	572	575	366	329	21	82	55	19
95th Queue (ft)	193	161	17	1127	1132	500	470	162	284	236	155
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393	393	393
Upstream Blk Time (%)	14	11	0			18	10	3	1	2	0
Queuing Penalty (veh)	20	15	0			0	0	0	0	0	0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LR	T	T	R	L	L	T	T
Maximum Queue (ft)	8	158	126	79	49	63	107	119
Average Queue (ft)	0	71	43	28	11	37	16	22
95th Queue (ft)	4	127	93	62	38	57	60	79
Link Distance (ft)	899	980	980				1274	1274
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				185	300	300		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	22	58	33	32	42	59	35	56	30	183	194	29
Average Queue (ft)	1	17	6	5	10	10	5	15	2	86	93	7
95th Queue (ft)	8	41	21	21	28	33	20	39	16	152	160	27
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											5	
Queuing Penalty (veh)											1	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	98	148	156	48
Average Queue (ft)	29	75	73	23
95th Queue (ft)	66	131	135	48
Link Distance (ft)		511	511	511
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	215			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	120	136	56	157	194	235	121	150
Average Queue (ft)	87	101	15	114	163	106	33	120
95th Queue (ft)	131	141	44	182	217	267	81	155
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	8	13						61
Queuing Penalty (veh)	29	46						143
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				2	33	0		
Queuing Penalty (veh)				5	60	1		

Intersection: 41: Kurtz St & Hancock St

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 42: Hancock St

Movement	WB
Directions Served	L
Maximum Queue (ft)	14
Average Queue (ft)	0
95th Queue (ft)	10
Link Distance (ft)	967
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	8	105	157	83	50
Average Queue (ft)	0	18	38	17	5
95th Queue (ft)	3	94	136	85	26
Link Distance (ft)	96		152	152	294
Upstream Blk Time (%)		0	5	1	
Queuing Penalty (veh)		0	10	2	
Storage Bay Dist (ft)		75			
Storage Blk Time (%)		5	11		
Queuing Penalty (veh)		8	16		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	13	15	319	334	356
Average Queue (ft)	0	1	34	39	42
95th Queue (ft)	7	9	173	186	201
Link Distance (ft)	263	263	301	301	301
Upstream Blk Time (%)			0	1	1
Queuing Penalty (veh)			3	3	4
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB
Directions Served	T	T	T	T
Maximum Queue (ft)	187	196	47	23
Average Queue (ft)	51	66	4	2
95th Queue (ft)	142	162	24	16
Link Distance (ft)	511	511	95	95
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	160	179
Average Queue (ft)	53	23
95th Queue (ft)	138	103
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B39	B39
Directions Served	T	T
Maximum Queue (ft)	36	50
Average Queue (ft)	1	2
95th Queue (ft)	21	33
Link Distance (ft)	142	142
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	407	414
Average Queue (ft)	333	283
95th Queue (ft)	491	515
Link Distance (ft)	360	360
Upstream Blk Time (%)	6	3
Queuing Penalty (veh)	40	17
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 1988

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2107	2194	2330	2308	174	163	151	1060	1031	954	840
Average Queue (ft)	1289	1378	1539	1478	89	77	74	642	614	555	465
95th Queue (ft)	2796	2814	2835	2726	152	144	137	1255	1215	1139	1059
Link Distance (ft)	2519	2519	2519	2519	757	757	757	1147	1147	1147	1147
Upstream Blk Time (%)	20	23	20	11				9	8	7	6
Queuing Penalty (veh)	0	0	0	0				0	0	0	0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1603	1190	71	225	236	143	222	255	98	247	234
Average Queue (ft)	391	934	250	7	87	86	34	82	98	13	216	214
95th Queue (ft)	528	1756	1007	43	180	189	102	170	199	67	233	225
Link Distance (ft)		1939	1939		629	629		1525	1525		142	142
Upstream Blk Time (%)		0									77	79
Queuing Penalty (veh)		0									374	380
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	7	67			4			0	47	0		
Queuing Penalty (veh)	29	101			1			0	15	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B39	B39	B39
Directions Served	T	R	T	T	T
Maximum Queue (ft)	250	142	519	526	528
Average Queue (ft)	218	134	459	467	474
95th Queue (ft)	235	185	624	603	599
Link Distance (ft)	142		402	402	402
Upstream Blk Time (%)	73	36	71	79	82
Queuing Penalty (veh)	352	0	346	380	399
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	62	25			
Queuing Penalty (veh)	202	60			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	191	252	276	29	84	106	188	97	83
Average Queue (ft)	81	77	88	3	25	32	80	35	38
95th Queue (ft)	153	186	211	15	60	86	153	81	69
Link Distance (ft)		629	629		959	959	959	857	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	1	1			0				
Queuing Penalty (veh)	3	1			0				

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	78	89	190	226	192	150	186	232	148	234	31	36
Average Queue (ft)	20	49	67	91	76	33	61	100	57	83	4	12
95th Queue (ft)	59	83	148	189	145	96	143	197	120	164	19	37
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)					1	0			3	7		
Queuing Penalty (veh)					2	0			5	7		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B83	B83	B83	NB
Directions Served	L	L	T	TR	L	T	T	TR	T	T	T	LT
Maximum Queue (ft)	55	64	245	296	142	181	240	290	29	106	175	167
Average Queue (ft)	12	27	106	143	56	71	115	181	1	3	21	70
95th Queue (ft)	38	56	209	256	117	148	222	307	21	31	96	132
Link Distance (ft)			636	636		202	202	202	232	232	232	444
Upstream Blk Time (%)					0	0	2	14		0	0	
Queuing Penalty (veh)					0	0	4	39		0	0	
Storage Bay Dist (ft)	330	330			175							
Storage Blk Time (%)					0	0						22
Queuing Penalty (veh)					0	0						16

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	NB	SB	SB
Directions Served	R	LT	R
Maximum Queue (ft)	119	246	92
Average Queue (ft)	36	126	41
95th Queue (ft)	86	213	74
Link Distance (ft)		292	292
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)	50		
Storage Blk Time (%)	3		
Queuing Penalty (veh)	4		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LTR
Maximum Queue (ft)	63	33	12	46	115	26	35	63	40
Average Queue (ft)	15	2	1	3	32	1	1	3	15
95th Queue (ft)	46	15	7	20	76	12	15	24	41
Link Distance (ft)		232	232	232		364	364	364	458
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150				125				
Storage Blk Time (%)					0				
Queuing Penalty (veh)					1				

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	80	182	227	221	199	536	617	386	268	175
Average Queue (ft)	28	66	85	94	131	111	79	74	89	60
95th Queue (ft)	67	152	181	201	210	391	385	245	195	131
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)						0	0			
Queuing Penalty (veh)						0	1			
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)		2			26	1			14	1
Queuing Penalty (veh)		1			74	3			22	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	128	213	213	126	179	225	323	340	165	371	95	6
Average Queue (ft)	51	62	71	18	94	42	121	131	108	188	41	0
95th Queue (ft)	102	155	165	66	169	130	252	268	191	324	75	5
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)										1		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)			1		0	0	1		10	49		
Queuing Penalty (veh)			2		0	0	1		24	38		

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	159	242	184
Average Queue (ft)	30	107	37
95th Queue (ft)	87	195	96
Link Distance (ft)		708	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		115
Storage Blk Time (%)	0	16	0
Queuing Penalty (veh)	0	15	0

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	105	255	247	94	392	470	40	397
Average Queue (ft)	23	93	106	10	161	204	10	175
95th Queue (ft)	72	200	210	55	338	395	28	358
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	5			11			
Queuing Penalty (veh)	0	3			2			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	57	45	91	91
Average Queue (ft)	22	15	45	49
95th Queue (ft)	48	42	76	76
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	1	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	SB
Directions Served	L
Maximum Queue (ft)	80
Average Queue (ft)	42
95th Queue (ft)	65
Link Distance (ft)	80
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	64	66	66
Average Queue (ft)	39	42	36
95th Queue (ft)	58	63	55
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	48	131	66
Average Queue (ft)	4	15	27
95th Queue (ft)	50	101	57
Link Distance (ft)	455	455	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	62	70	57	70
Average Queue (ft)	37	39	30	34
95th Queue (ft)	58	59	49	56
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	84	98	31	70
Average Queue (ft)	42	40	17	33
95th Queue (ft)	73	75	41	53
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	20	52	7	9	20	326	373	384
Average Queue (ft)	3	12	0	0	1	44	53	56
95th Queue (ft)	14	35	6	7	13	220	248	258
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	518	530	165	231	209	178	397	409	405	205
Average Queue (ft)	319	296	78	72	63	48	201	168	142	27
95th Queue (ft)	578	585	153	207	189	149	428	443	419	130
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	4	4		0	0		16	15	11	
Queuing Penalty (veh)	4	5		1	0		107	100	75	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			17	6					12	1
Queuing Penalty (veh)			100	4					35	11

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	442	523	275	265	294	300	173	342	335	272	186
Average Queue (ft)	254	326	124	77	86	85	133	255	103	41	27
95th Queue (ft)	431	542	320	223	241	242	190	423	301	163	121
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)	0	5			0	0		51	4	0	0
Queuing Penalty (veh)	1	12			0	0		127	42	3	2
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		51	0				81	4			
Queuing Penalty (veh)		49	1				374	2			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	382	446	437	316	164	170	163	268	284	324	295	335
Average Queue (ft)	175	216	202	103	95	143	118	159	162	108	122	150
95th Queue (ft)	302	342	341	228	163	188	178	248	253	260	259	293
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)					17	41	29	0	0	0	0	1
Queuing Penalty (veh)					24	58	40	0	0	2	0	9
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			2	0				1	1	1		
Queuing Penalty (veh)			5	1				4	5	4		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	396	405	408	28
Average Queue (ft)	133	139	134	1
95th Queue (ft)	369	373	366	17
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	5	4	5	
Queuing Penalty (veh)	27	21	24	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	414	408	315	324	470	522	255	239	284	412
Average Queue (ft)	93	135	210	213	87	132	232	262	169	132	151	159
95th Queue (ft)	153	202	346	328	203	274	413	460	315	213	248	323
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	9	27	39	8	0	0	9	26	7	0	0	1
Queuing Penalty (veh)	20	63	82	19	0	1	10	62	19	0	0	2

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	433	446	177	263	337	346	346
Average Queue (ft)	201	235	59	98	175	192	195
95th Queue (ft)	379	416	141	219	322	338	346
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)				0	6	9	9
Queuing Penalty (veh)				0	36	53	55
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	6		
Queuing Penalty (veh)				0	13		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	119	447	52	620	618	371	168	361	372	306
Average Queue (ft)	49	219	7	51	47	48	57	108	122	81
95th Queue (ft)	106	409	31	246	313	237	131	279	297	234
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)				0	0	0				
Queuing Penalty (veh)				0	0	0				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)								1		
Queuing Penalty (veh)								1		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	345	466	282	320	2205	2141	148	446	438	398	457	137
Average Queue (ft)	165	237	239	309	1594	1135	24	293	283	252	216	58
95th Queue (ft)	280	412	328	374	2870	2886	86	429	419	384	390	114
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)					29	10						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			22	34	54			35			0	
Queuing Penalty (veh)			67	106	270			7			0	

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	135	288	303	121
Average Queue (ft)	63	121	134	29
95th Queue (ft)	118	230	251	74
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	181	266	222	145	212	242	72	128	80
Average Queue (ft)	48	131	80	66	86	119	33	50	23
95th Queue (ft)	128	299	163	131	180	212	63	112	63
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)		4			3	5			
Queuing Penalty (veh)		4			12	19			
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			19	5			0	1	
Queuing Penalty (veh)			25	5			0	1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	SE
Directions Served	L	T	T	T	TR	LR
Maximum Queue (ft)	132	111	100	44	75	12
Average Queue (ft)	47	13	4	3	10	0
95th Queue (ft)	117	107	53	41	75	6
Link Distance (ft)		274	274	640	640	527
Upstream Blk Time (%)		2				
Queuing Penalty (veh)		7				
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	4					
Queuing Penalty (veh)	15					

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	120	186	192	210	152	156	170	231	44	190	141	59
Average Queue (ft)	27	91	94	95	39	91	120	120	7	96	20	12
95th Queue (ft)	78	156	158	161	102	156	180	222	25	171	91	42
Link Distance (ft)		242	242	242				171	171		1877	1877
Upstream Blk Time (%)		0	0	0		0	0	4				
Queuing Penalty (veh)		0	0	0		0	0	11				
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)	0	5		9	0	0	1	5		3	0	
Queuing Penalty (veh)	1	3		9	0	1	3	13		2	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	162	156	31	89	163	148	85
Average Queue (ft)	57	56	8	32	72	38	12
95th Queue (ft)	123	125	26	68	134	100	45
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						4	0
Queuing Penalty (veh)						3	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	143	197	43	53	4
Average Queue (ft)	51	76	3	6	0
95th Queue (ft)	119	156	20	34	3
Link Distance (ft)	1396		1877	1877	1877
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		1			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	158	43	170	216	91	230	290	306	271	274	787	793
Average Queue (ft)	32	5	27	32	12	42	129	114	103	36	456	526
95th Queue (ft)	117	26	107	130	53	160	233	227	210	168	887	975
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)				0		1					15	19
Queuing Penalty (veh)				0		0					76	94
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)	0		0				0	0	0		52	
Queuing Penalty (veh)	0		0				2	1	0		13	

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87	B87	B87
Directions Served	T	T	
Maximum Queue (ft)	302	320	227
Average Queue (ft)	46	51	16
95th Queue (ft)	216	231	138
Link Distance (ft)	357	357	357
Upstream Blk Time (%)	0	1	0
Queuing Penalty (veh)	1	3	1
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	479	490	48	68	196
Average Queue (ft)	158	157	4	4	87
95th Queue (ft)	424	435	24	31	156
Link Distance (ft)	2538	2538	113	113	692
Upstream Blk Time (%)				0	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T	T
Maximum Queue (ft)	206	204	188	2959	2960	464	450	345	426	435	417
Average Queue (ft)	160	136	41	2160	2158	332	330	26	297	296	284
95th Queue (ft)	254	227	168	4105	4109	632	630	167	593	594	592
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393	393	393
Upstream Blk Time (%)	59	48	1	67	66	44	41	0	31	28	16
Queuing Penalty (veh)	157	128	2	0	0	0	0	0	0	0	0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LR	T	T	R	L	L	T	T
Maximum Queue (ft)	12	568	627	260	63	84	320	317
Average Queue (ft)	1	214	226	104	20	46	125	142
95th Queue (ft)	7	437	481	261	55	72	274	286
Link Distance (ft)	899	980	980				1274	1274
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				185	300	300		
Storage Blk Time (%)			13				0	
Queuing Penalty (veh)			57				0	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	77	117	98	98	76	63	84	84	185	465	504	175
Average Queue (ft)	12	53	29	31	24	15	17	30	16	221	258	105
95th Queue (ft)	49	99	71	74	58	44	48	69	126	394	448	224
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)										4	37	0
Queuing Penalty (veh)										3	43	1

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	261	351	327	53
Average Queue (ft)	65	168	168	25
95th Queue (ft)	145	277	268	52
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		3		
Queuing Penalty (veh)		4		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	133	140	105	156	194	236	138	136
Average Queue (ft)	96	108	55	90	143	99	49	116
95th Queue (ft)	126	141	96	172	204	221	101	150
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	13	18	1					51
Queuing Penalty (veh)	56	78	3					107
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	19	1		
Queuing Penalty (veh)				3	57	1		

Intersection: 41: Kurtz St & Hancock St

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 42: Hancock St

Movement	WB
Directions Served	L
Maximum Queue (ft)	23
Average Queue (ft)	1
95th Queue (ft)	8
Link Distance (ft)	967
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	38	51	88	147	113	69
Average Queue (ft)	3	2	9	35	17	25
95th Queue (ft)	28	27	61	113	73	58
Link Distance (ft)	96	96		152	152	294
Upstream Blk Time (%)	1	0	0	2	0	
Queuing Penalty (veh)	4	0	0	3	1	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)				5		
Queuing Penalty (veh)				8		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	24	21	118	152	182	151
Average Queue (ft)	1	1	8	11	11	11
95th Queue (ft)	13	15	81	75	80	76
Link Distance (ft)	263	263	263	301	301	301
Upstream Blk Time (%)			0	0	0	0
Queuing Penalty (veh)			1	0	1	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB
Directions Served	T	T	T
Maximum Queue (ft)	326	354	11
Average Queue (ft)	115	139	0
95th Queue (ft)	259	277	6
Link Distance (ft)	511	511	95
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	152	320
Average Queue (ft)	36	100
95th Queue (ft)	108	231
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	NB	NB	B39	B39	B39	SB	SB	SB	SB
Directions Served	T	TR	T	T		LT	T	TR	R
Maximum Queue (ft)	162	176	84	182	40	795	802	785	798
Average Queue (ft)	13	16	4	13	2	611	624	637	517
95th Queue (ft)	117	135	39	78	27	1070	1068	1059	1080
Link Distance (ft)	402	402	142	142	142	757	757	757	757
Upstream Blk Time (%)	0	0	0	0		21	22	34	18
Queuing Penalty (veh)	2	2	0	1		140	151	230	119
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 53: Bend

Movement	SB
Directions Served	T
Maximum Queue (ft)	75
Average Queue (ft)	3
95th Queue (ft)	55
Link Distance (ft)	355
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	410	419
Average Queue (ft)	311	286
95th Queue (ft)	547	546
Link Distance (ft)	360	360
Upstream Blk Time (%)	10	4
Queuing Penalty (veh)	109	47
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 65: Bend

Movement	NB
Directions Served	T
Maximum Queue (ft)	3
Average Queue (ft)	0
95th Queue (ft)	2
Link Distance (ft)	251
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement	WB
Directions Served	T
Maximum Queue (ft)	104
Average Queue (ft)	8
95th Queue (ft)	57
Link Distance (ft)	1072
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 6914

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	1486	1476	1349	1280	162	165	140	781	770	648	553
Average Queue (ft)	611	616	454	374	83	70	60	346	329	277	167
95th Queue (ft)	1682	1678	1421	1072	145	137	119	752	721	631	526
Link Distance (ft)	2519	2519	2519	2519	757	757	757	1147	1147	1147	1147
Upstream Blk Time (%)	4	3	2	1				0			
Queuing Penalty (veh)	0	0	0	0				0			
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	T	T	R	L	LT	T	R	L
Maximum Queue (ft)	435	1648	1352	48	156	167	4	191	270	286	100	236
Average Queue (ft)	391	976	470	5	49	56	0	49	111	128	12	214
95th Queue (ft)	527	1979	1727	25	122	134	3	139	215	243	64	227
Link Distance (ft)		1939	1939		629	629	629		1525	1525		142
Upstream Blk Time (%)		10	6									78
Queuing Penalty (veh)		0	0									363
Storage Bay Dist (ft)	360			150				230			25	
Storage Blk Time (%)	12	65			1			0	1	54	0	
Queuing Penalty (veh)	41	91			0			0	1	11	0	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	B39	B39	B39
Directions Served	LT	T	R	T	T	T
Maximum Queue (ft)	239	242	142	509	529	522
Average Queue (ft)	214	216	103	461	467	469
95th Queue (ft)	228	229	205	599	592	585
Link Distance (ft)	142	142		402	402	402
Upstream Blk Time (%)	79	71	7	71	73	68
Queuing Penalty (veh)	366	329	0	329	337	317
Storage Bay Dist (ft)			100			
Storage Blk Time (%)		71	6			
Queuing Penalty (veh)		151	13			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	TR	LT	R
Maximum Queue (ft)	193	286	292	54	127	200	95	91
Average Queue (ft)	67	95	89	21	24	76	43	41
95th Queue (ft)	152	230	224	48	73	153	85	73
Link Distance (ft)		629	629	959	959	959	857	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	160							210
Storage Blk Time (%)	0	2						
Queuing Penalty (veh)	2	2						

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	174	179	197	240	163	109	154	210	175	466	18	49
Average Queue (ft)	79	98	66	95	69	35	67	102	70	150	1	11
95th Queue (ft)	152	162	154	202	134	89	133	182	164	322	10	37
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)					1				1	25		
Queuing Penalty (veh)					1				4	25		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B83	B83	B83	NB
Directions Served	L	L	T	TR	L	T	T	TR	T	T	T	LT
Maximum Queue (ft)	45	47	240	270	127	194	226	310	211	242	308	132
Average Queue (ft)	10	16	92	139	56	77	145	264	14	96	205	66
95th Queue (ft)	31	40	179	242	114	160	247	366	100	262	358	119
Link Distance (ft)			636	636		202	202	202	232	232	232	444
Upstream Blk Time (%)						0	1	75	0	1	22	
Queuing Penalty (veh)						0	3	227	0	2	66	
Storage Bay Dist (ft)	330	330			175							
Storage Blk Time (%)						0						20
Queuing Penalty (veh)						0						15

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	NB	SB	SB
Directions Served	R	LT	R
Maximum Queue (ft)	122	189	75
Average Queue (ft)	29	93	43
95th Queue (ft)	71	158	69
Link Distance (ft)		292	292
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	50		
Storage Blk Time (%)	2		
Queuing Penalty (veh)	3		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LTR
Maximum Queue (ft)	103	70	58	40	70	234	374	383	126
Average Queue (ft)	29	4	3	2	18	10	112	170	35
95th Queue (ft)	90	49	42	16	52	83	356	421	92
Link Distance (ft)		232	232	232		364	364	364	458
Upstream Blk Time (%)	0	0	0				7	9	
Queuing Penalty (veh)	0	1	0				22	30	
Storage Bay Dist (ft)	150				125				
Storage Blk Time (%)	3	1			0	0			
Queuing Penalty (veh)	5	1			0	0			

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	101	160	177	226	199	634	794	613	417	175
Average Queue (ft)	34	55	69	96	142	205	171	194	162	72
95th Queue (ft)	84	135	152	202	230	613	632	584	453	169
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)						4	4	0	3	
Queuing Penalty (veh)						13	13	0	14	
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)	0	1			32	1			26	1
Queuing Penalty (veh)	0	0			101	2			39	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	155	176	204	150	182	138	294	358	164	320	75	106
Average Queue (ft)	62	59	68	25	89	35	140	173	89	158	30	29
95th Queue (ft)	123	143	158	85	156	100	272	333	176	272	60	76
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)										0		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			2				1		6	38		0
Queuing Penalty (veh)			2				2		10	25		0

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	172	93
Average Queue (ft)	68	33
95th Queue (ft)	136	69
Link Distance (ft)	708	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	5	
Queuing Penalty (veh)	5	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	116	201	212	23	485	502	53	366
Average Queue (ft)	19	55	78	4	171	230	7	158
95th Queue (ft)	66	130	160	17	419	479	28	323
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)					2	1		
Queuing Penalty (veh)					8	8		
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	2	2			8			
Queuing Penalty (veh)	7	1			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	47	41	94	86
Average Queue (ft)	23	12	45	46
95th Queue (ft)	48	38	77	73
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	1	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	SB
Directions Served	L
Maximum Queue (ft)	85
Average Queue (ft)	50
95th Queue (ft)	78
Link Distance (ft)	80
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	71	68	70
Average Queue (ft)	38	38	37
95th Queue (ft)	59	58	56
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	4	4	50
Average Queue (ft)	0	0	24
95th Queue (ft)	3	3	49
Link Distance (ft)	455	455	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	89	86	55	64
Average Queue (ft)	48	44	29	27
95th Queue (ft)	74	70	47	53
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	109	92	43	78
Average Queue (ft)	56	42	18	37
95th Queue (ft)	93	79	44	61
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	24	58	20	36	24	94	142	143
Average Queue (ft)	4	10	1	2	1	4	7	11
95th Queue (ft)	16	31	11	19	14	40	55	68
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	524	544	174	331	289	152	372	388	398	205
Average Queue (ft)	327	336	97	92	72	43	79	88	101	35
95th Queue (ft)	608	650	182	257	216	133	295	319	346	144
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	8	12		2	0		5	5	6	
Queuing Penalty (veh)	14	20		10	1		27	30	34	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			29	5					10	1
Queuing Penalty (veh)			159	4					44	15

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	343	417	275	290	292	292	168	284	255	199	200
Average Queue (ft)	186	223	82	60	67	67	95	110	55	33	46
95th Queue (ft)	329	382	249	190	202	205	175	261	176	126	153
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)				0	0			3	0	0	
Queuing Penalty (veh)				0	0			0	0	0	
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		30	0				35	5			
Queuing Penalty (veh)		26	1				124	2			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	300	312	299	239	175	175	183	281	280	368	318	326
Average Queue (ft)	143	173	172	96	84	156	136	186	201	171	125	117
95th Queue (ft)	255	289	281	187	162	183	195	295	310	389	275	247
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)					12	54	41	0	4	7	0	0
Queuing Penalty (veh)					26	113	86	0	0	50	1	2
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			0	0				5	10	4		
Queuing Penalty (veh)			1	0				22	41	17		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	395	395	404	86
Average Queue (ft)	203	195	180	14
95th Queue (ft)	395	383	376	138
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	4	3	2	3
Queuing Penalty (veh)	14	9	9	12
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	174	284	284	258	247	535	580	255	242	340	552
Average Queue (ft)	75	119	169	175	83	80	211	245	172	125	154	186
95th Queue (ft)	132	194	271	271	177	175	380	447	306	203	276	382
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	3	16	30	3	0	0	7	26	6	1	1	3
Queuing Penalty (veh)	6	32	56	9	0	0	6	76	15	4	5	9

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	404	425	158	262	344	360	353
Average Queue (ft)	199	236	69	105	195	206	221
95th Queue (ft)	376	405	136	202	336	344	363
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)				0	7	8	12
Queuing Penalty (veh)				0	40	50	70
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	7		
Queuing Penalty (veh)				0	11		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	138	299	32	175	153	165	204	247	278	226
Average Queue (ft)	47	146	6	42	31	39	77	77	94	57
95th Queue (ft)	100	260	24	116	98	111	162	192	225	165
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				0				0		
Queuing Penalty (veh)				0				0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	268	233	282	320	1791	1510	128	340	322	284	206	98
Average Queue (ft)	131	118	231	304	1146	404	18	203	182	150	77	32
95th Queue (ft)	223	209	326	375	2168	1493	68	315	290	258	152	73
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)					4	1						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			19	30	50		0	26				
Queuing Penalty (veh)			54	86	235		0	5				

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	101	475	483	88
Average Queue (ft)	44	106	112	23
95th Queue (ft)	86	306	310	61
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	111	240	124	107	128	184	55	158	156
Average Queue (ft)	24	76	47	35	47	80	22	43	33
95th Queue (ft)	74	203	91	74	108	156	49	120	108
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)		0			0	1		1	1
Queuing Penalty (veh)		0			0	2		2	2
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			9	0				2	
Queuing Penalty (veh)			7	0				1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	SB	SB	SE
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	146	58	237	333	18
Average Queue (ft)	40	3	17	52	1
95th Queue (ft)	107	47	111	219	8
Link Distance (ft)		274	640	640	527
Upstream Blk Time (%)		0			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)	120				
Storage Blk Time (%)	2	0			
Queuing Penalty (veh)	4	0			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	61	108	111	152	128	122	153	194	30	224	366	103
Average Queue (ft)	12	47	48	64	31	78	73	115	6	186	105	13
95th Queue (ft)	41	96	91	120	80	117	131	168	19	255	347	57
Link Distance (ft)		242	242	242				171	171		1877	1877
Upstream Blk Time (%)							0	1				
Queuing Penalty (veh)							0	1				
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)		0		5	0	0	0	3		27		
Queuing Penalty (veh)		0		4	0	0	1	6		13		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	55	73	49	92	82	56	98
Average Queue (ft)	10	14	6	28	29	8	20
95th Queue (ft)	36	47	27	69	70	35	61
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						0	1
Queuing Penalty (veh)						0	1

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	157	146	26	27	16
Average Queue (ft)	50	53	2	2	1
95th Queue (ft)	122	110	13	14	9
Link Distance (ft)	1396		1877	1877	1877
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	B87
Directions Served	L	T	R	L	R	L	T	T	L	T	TR	T
Maximum Queue (ft)	168	24	82	85	87	295	282	201	274	691	724	9
Average Queue (ft)	30	1	13	12	12	145	109	59	41	340	404	0
95th Queue (ft)	116	11	53	53	51	256	215	144	189	691	797	6
Link Distance (ft)		692		222	222		1615	1615		706	706	357
Upstream Blk Time (%)										1	1	
Queuing Penalty (veh)										3	4	
Storage Bay Dist (ft)	200		200			280			200			
Storage Blk Time (%)	0					1	0			45		
Queuing Penalty (veh)	0					5	0			10		

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87
Directions Served	T
Maximum Queue (ft)	12
Average Queue (ft)	0
95th Queue (ft)	7
Link Distance (ft)	357
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	639	653	4	199
Average Queue (ft)	277	268	0	95
95th Queue (ft)	657	675	3	168
Link Distance (ft)	2538	2538	113	692
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T	T
Maximum Queue (ft)	202	192	175	1020	1018	451	427	209	248	163	80
Average Queue (ft)	183	172	17	662	661	330	286	51	27	8	38
95th Queue (ft)	209	210	98	1205	1210	535	470	261	121	64	229
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393	393	393
Upstream Blk Time (%)	63	56	1			10	3	10			9
Queuing Penalty (veh)	153	137	1			0	0	0			0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LR	T	T	R	L	L	T	T
Maximum Queue (ft)	15	117	104	73	41	60	91	115
Average Queue (ft)	1	56	41	24	6	38	16	26
95th Queue (ft)	6	102	82	57	26	57	57	76
Link Distance (ft)	899	980	980				1274	1274
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				185	300	300		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	88	103	54	65	72	41	40	58	19	178	195	95
Average Queue (ft)	9	40	12	18	20	8	6	18	1	86	107	13
95th Queue (ft)	42	81	39	49	50	26	24	44	11	152	175	48
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0						9	
Queuing Penalty (veh)					0						2	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	289	398	443	190
Average Queue (ft)	66	205	209	33
95th Queue (ft)	189	342	350	117
Link Distance (ft)		511	511	511
Upstream Blk Time (%)			0	0
Queuing Penalty (veh)			0	0
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		6		
Queuing Penalty (veh)		7		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	119	137	86	157	194	235	158	133
Average Queue (ft)	86	101	34	100	151	110	52	103
95th Queue (ft)	130	140	71	179	211	234	112	149
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	10	18	0					40
Queuing Penalty (veh)	29	52	1					77
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	25	1		
Queuing Penalty (veh)				3	63	3		

Intersection: 41: Kurtz St & Hancock St

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 42: Hancock St

Movement	WB
Directions Served	L
Maximum Queue (ft)	36
Average Queue (ft)	2
95th Queue (ft)	20
Link Distance (ft)	967
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	WB	WB	WB
Directions Served	T	T	T
Maximum Queue (ft)	138	178	162
Average Queue (ft)	24	77	59
95th Queue (ft)	102	167	153
Link Distance (ft)		152	152
Upstream Blk Time (%)	0	4	3
Queuing Penalty (veh)	0	8	6
Storage Bay Dist (ft)	75		
Storage Blk Time (%)	0	19	
Queuing Penalty (veh)	0	39	

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	218	177	40	172	192	187
Average Queue (ft)	28	12	1	18	21	20
95th Queue (ft)	155	91	29	104	113	100
Link Distance (ft)	263	263	263	301	301	301
Upstream Blk Time (%)	2	0		0	0	0
Queuing Penalty (veh)	13	0		0	0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB
Directions Served	T	T	T	T
Maximum Queue (ft)	193	218	15	24
Average Queue (ft)	48	73	1	1
95th Queue (ft)	140	173	8	10
Link Distance (ft)	511	511	95	95
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	171	495
Average Queue (ft)	22	185
95th Queue (ft)	99	368
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B39	B39	B39	SB	SB	SB	SB
Directions Served	T	T		LT	T	TR	R
Maximum Queue (ft)	140	214	16	778	781	781	659
Average Queue (ft)	14	29	1	477	480	475	165
95th Queue (ft)	82	135	7	969	960	945	653
Link Distance (ft)	142	142	142	757	757	757	757
Upstream Blk Time (%)	0	1		12	12	11	4
Queuing Penalty (veh)	0	3		81	77	76	25
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	411	413
Average Queue (ft)	371	342
95th Queue (ft)	456	517
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	5
Queuing Penalty (veh)	88	38
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 5743

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	338	369	501	496	270	258	192	210	250	320	241
Average Queue (ft)	131	219	296	302	165	144	91	113	163	204	124
95th Queue (ft)	265	339	447	444	246	229	173	197	230	281	234
Link Distance (ft)	2519	2519	2519	2519	757	757	757	1147	1147	1147	1147
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1723	1404	33	146	137	253	322	317	100	226	221
Average Queue (ft)	407	1066	486	3	44	46	93	171	195	18	152	181
95th Queue (ft)	525	2013	1718	18	108	110	212	288	302	81	227	243
Link Distance (ft)		1939	1939		629	629		1525	1525		142	142
Upstream Blk Time (%)		9	5								15	27
Queuing Penalty (veh)		0	0								55	96
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	7	69			0		0	3	73			
Queuing Penalty (veh)	32	127			0		1	5	14			

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B39	B39	B39
Directions Served	T	R	T	T	T
Maximum Queue (ft)	219	142	106	145	184
Average Queue (ft)	164	73	12	28	31
95th Queue (ft)	245	188	64	106	120
Link Distance (ft)	142		402	402	402
Upstream Blk Time (%)	15	2			
Queuing Penalty (veh)	55	0			
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	25	1			
Queuing Penalty (veh)	49	1			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	129	155	299	69	157	350	431	78	82
Average Queue (ft)	50	48	63	15	44	82	171	31	44
95th Queue (ft)	95	118	184	45	109	210	324	65	70
Link Distance (ft)		629	629		959	959	959	857	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	0	0			1				
Queuing Penalty (veh)	0	0			0				

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	65	89	217	260	166	159	230	278	130	134	96	103
Average Queue (ft)	22	47	101	143	74	76	121	172	55	59	47	43
95th Queue (ft)	56	76	180	226	137	147	209	260	105	111	91	78
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)					0	0			1	2		
Queuing Penalty (veh)					1	0			2	2		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B83	B83	NB	NB
Directions Served	L	L	T	TR	L	T	T	TR	T	T	LT	R
Maximum Queue (ft)	49	70	267	343	194	226	242	289	160	223	204	123
Average Queue (ft)	14	27	135	188	98	96	137	219	14	48	94	48
95th Queue (ft)	39	59	237	297	163	184	236	320	92	175	169	109
Link Distance (ft)			636	636		202	202	202	232	232	444	
Upstream Blk Time (%)					0	1	1	26	0	1		
Queuing Penalty (veh)					0	3	5	93	0	3		
Storage Bay Dist (ft)	330	330			175							50
Storage Blk Time (%)					1	1					34	3
Queuing Penalty (veh)					2	2					39	6

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	337	316
Average Queue (ft)	259	153
95th Queue (ft)	374	324
Link Distance (ft)	292	292
Upstream Blk Time (%)	32	5
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	L	T	T	TR	L	T	T	TR	R	LTR
Maximum Queue (ft)	39	52	42	44	171	67	22	92	94	59
Average Queue (ft)	6	3	2	3	79	4	1	6	8	24
95th Queue (ft)	27	19	16	22	147	37	10	44	60	54
Link Distance (ft)		232	232	232		364	364	364	468	458
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150				125					
Storage Blk Time (%)					2	0				
Queuing Penalty (veh)					7	0				

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	178	237	287	317	200	759	1132	933	81	126
Average Queue (ft)	34	117	149	174	98	160	220	182	29	53
95th Queue (ft)	90	197	238	273	180	437	800	553	65	101
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)				0		0	1	0		
Queuing Penalty (veh)				0		0	3	0		
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)		5			3	10			0	1
Queuing Penalty (veh)		2			13	22			0	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	208	265	287	222	157	141	240	255	164	271	100	147
Average Queue (ft)	103	139	147	43	84	34	120	134	79	143	41	42
95th Queue (ft)	174	233	240	134	142	102	217	234	173	236	80	98
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)										0		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)		0	10				0		2	26		1
Queuing Penalty (veh)		0	11				1		5	20		3

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	225	143
Average Queue (ft)	87	40
95th Queue (ft)	173	86
Link Distance (ft)	708	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	8	
Queuing Penalty (veh)	13	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	164	264	276	147	318	339	45	198
Average Queue (ft)	33	120	139	18	149	185	11	99
95th Queue (ft)	98	235	251	72	275	309	30	180
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	10			15			
Queuing Penalty (veh)	1	7			5			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	54	36	107	83
Average Queue (ft)	20	8	48	46
95th Queue (ft)	48	30	77	72
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	SB
Directions Served	L
Maximum Queue (ft)	75
Average Queue (ft)	40
95th Queue (ft)	62
Link Distance (ft)	80
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	70	76	53
Average Queue (ft)	42	44	32
95th Queue (ft)	63	67	46
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	94	139	66
Average Queue (ft)	5	14	24
95th Queue (ft)	51	88	54
Link Distance (ft)	455	455	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	64	61	38	59
Average Queue (ft)	34	38	26	27
95th Queue (ft)	54	57	46	52
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	136	85	31	73
Average Queue (ft)	39	40	11	37
95th Queue (ft)	94	67	36	60
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	153	70	23	85	114	2712	2693	2646
Average Queue (ft)	66	18	2	7	10	1251	1300	1348
95th Queue (ft)	168	49	14	57	67	3097	3108	3074
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	202	235	174	308	329	326	408	400	438	205
Average Queue (ft)	75	83	59	136	141	132	348	286	341	91
95th Queue (ft)	168	202	141	311	320	304	505	480	560	246
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)				2	2	2	59	23	30	
Queuing Penalty (veh)				13	13	15	477	183	243	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			5	13					29	
Queuing Penalty (veh)			38	9					51	

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	513	549	275	364	355	357	175	348	325	340	356
Average Queue (ft)	292	336	151	161	164	168	158	279	104	90	81
95th Queue (ft)	486	536	334	384	389	389	206	435	313	295	291
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)	2	4		2	2	1		51	1	1	3
Queuing Penalty (veh)	5	10		12	10	9		297	5	6	16
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		49	0				77	8			
Queuing Penalty (veh)		52	0				418	10			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	421	453	418	360	168	176	176	274	276	324	287	304
Average Queue (ft)	233	254	221	165	101	151	136	194	201	162	121	130
95th Queue (ft)	422	439	391	315	171	186	186	297	309	390	280	270
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)					17	51	43	2	6	14	1	2
Queuing Penalty (veh)					28	86	73	0	0	95	9	11
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			2	3				13	17	3		
Queuing Penalty (veh)			6	6				58	75	12		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	409	409	437	227
Average Queue (ft)	252	226	236	12
95th Queue (ft)	466	443	462	112
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	11	7	8	0
Queuing Penalty (veh)	63	41	48	1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	333	303	279	286	400	469	222	268	355	744
Average Queue (ft)	99	149	198	182	99	119	205	232	158	131	208	334
95th Queue (ft)	155	210	317	277	201	266	429	506	316	223	386	657
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	7	23	27	2	0	1	8	20	15	0	1	10
Queuing Penalty (veh)	17	58	76	7	0	2	11	72	45	1	6	39

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	618	656	245	263	344	342	353
Average Queue (ft)	361	402	138	178	223	213	224
95th Queue (ft)	639	665	232	283	354	339	356
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)			0	0	7	8	12
Queuing Penalty (veh)			0	0	48	57	86
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	0	7		
Queuing Penalty (veh)			0	1	31		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	124	405	104	376	317	328	322	302	256	215
Average Queue (ft)	40	176	18	118	95	106	149	80	70	44
95th Queue (ft)	88	337	49	265	235	247	276	263	208	153
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				3			3	0		
Queuing Penalty (veh)				1			15	0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	343	225	218	266	296	190	148	388	365	325	210	174
Average Queue (ft)	183	109	136	153	162	72	28	254	236	205	87	94
95th Queue (ft)	303	193	197	218	253	136	103	352	341	312	158	156
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			0	0	2			35				
Queuing Penalty (veh)			0	0	7			7				

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	175	607	590	232
Average Queue (ft)	104	244	252	82
95th Queue (ft)	161	460	462	171
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	182	267	328	145	173	238	81	147	105
Average Queue (ft)	38	145	160	91	75	121	25	56	28
95th Queue (ft)	114	306	276	180	155	214	62	123	82
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)	0	4			1	5			
Queuing Penalty (veh)	0	6			3	18			
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			49	1				3	
Queuing Penalty (veh)			56	2				1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	SE
Directions Served	L	LR
Maximum Queue (ft)	75	18
Average Queue (ft)	31	1
95th Queue (ft)	64	10
Link Distance (ft)		527
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	120	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	87	87	80	90	67	104	97	104	37	157	60	56
Average Queue (ft)	20	34	39	41	29	66	24	74	8	57	8	13
95th Queue (ft)	61	73	77	79	59	103	74	123	24	122	33	41
Link Distance (ft)		242	242	242							1877	1877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)		0		0	0					1		
Queuing Penalty (veh)		0		0	0					0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	54	62	55	97	82	45	38
Average Queue (ft)	11	12	7	31	22	7	7
95th Queue (ft)	38	44	30	71	55	26	27
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						0	0
Queuing Penalty (veh)						0	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB
Directions Served	R	L	T	T
Maximum Queue (ft)	101	123	16	21
Average Queue (ft)	36	44	1	1
95th Queue (ft)	75	96	8	7
Link Distance (ft)	1396		1877	1877
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		200		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	52	31	44	20	26	30	199	206	157	28	300	328
Average Queue (ft)	12	2	8	1	1	3	111	106	55	5	145	167
95th Queue (ft)	40	13	32	11	10	17	186	181	123	20	235	260
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)											2	
Queuing Penalty (veh)											0	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	501	502	21	45	130
Average Queue (ft)	294	288	1	2	53
95th Queue (ft)	624	650	15	33	95
Link Distance (ft)	2538	2538	113	113	692
Upstream Blk Time (%)			0	0	
Queuing Penalty (veh)			0	1	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T	T
Maximum Queue (ft)	211	200	75	1402	1387	333	290	272	22	156	159
Average Queue (ft)	186	173	6	884	885	208	179	146	2	120	127
95th Queue (ft)	213	210	56	1662	1652	457	396	471	18	408	430
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393	393	393
Upstream Blk Time (%)	74	63	0			2	0	32		20	32
Queuing Penalty (veh)	187	159	0			0	0	0		0	0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	19	6	171	162	58	50	70	151	176
Average Queue (ft)	1	1	0	63	49	20	8	37	21	31
95th Queue (ft)	7	7	4	131	119	47	34	61	93	108
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					0					
Queuing Penalty (veh)					1					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	102	152	63	106	58	57	58	82	48	211	264	116
Average Queue (ft)	22	75	14	29	15	12	13	28	7	105	124	12
95th Queue (ft)	74	132	44	78	41	36	42	64	32	185	219	56
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											12	
Queuing Penalty (veh)											3	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	455	555	677
Average Queue (ft)	93	259	276	84
95th Queue (ft)	269	424	469	364
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		0	1	0
Queuing Penalty (veh)		0	3	2
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		19		
Queuing Penalty (veh)		16		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	124	134	94	157	194	240	162	142
Average Queue (ft)	79	96	42	97	148	100	51	109
95th Queue (ft)	129	135	78	172	209	235	111	153
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	5	9	0					53
Queuing Penalty (veh)	20	34	1					103
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	26	0		
Queuing Penalty (veh)				4	77	1		

Intersection: 41: Kurtz St & Hancock St

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 42: Hancock St

Movement	WB
Directions Served	L
Maximum Queue (ft)	39
Average Queue (ft)	1
95th Queue (ft)	14
Link Distance (ft)	967
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	12
Average Queue (ft)	1
95th Queue (ft)	8
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	31	149	197	174	83
Average Queue (ft)	2	19	59	45	30
95th Queue (ft)	15	93	157	135	67
Link Distance (ft)	96		152	152	294
Upstream Blk Time (%)		0	1	1	
Queuing Penalty (veh)		0	3	2	
Storage Bay Dist (ft)		75			
Storage Blk Time (%)		0	9		
Queuing Penalty (veh)		1	15		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	272	212	210	240	175	171
Average Queue (ft)	51	37	21	24	22	26
95th Queue (ft)	233	184	131	134	125	147
Link Distance (ft)	263	263	263	301	301	301
Upstream Blk Time (%)	2	0	0	0	0	0
Queuing Penalty (veh)	15	2	1	0	0	2
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	222	249	6	70	4
Average Queue (ft)	36	66	0	5	0
95th Queue (ft)	126	173	5	34	3
Link Distance (ft)	511	511	95	95	216
Upstream Blk Time (%)				0	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	115	259
Average Queue (ft)	28	58
95th Queue (ft)	88	200
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	NB	NB	B39	B39	B39	SB	SB
Directions Served	T	TR	T	T		TR	R
Maximum Queue (ft)	173	278	210	250	250	10	138
Average Queue (ft)	9	19	37	62	26	0	5
95th Queue (ft)	110	150	149	204	138	7	101
Link Distance (ft)	402	402	142	142	142	757	757
Upstream Blk Time (%)	0	0	0	3	1		
Queuing Penalty (veh)	0	1	2	16	3		
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	414	421
Average Queue (ft)	370	350
95th Queue (ft)	451	492
Link Distance (ft)	360	360
Upstream Blk Time (%)	11	4
Queuing Penalty (veh)	80	31
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 4672

Appendix H

NCHRP 8-51 Excerpts

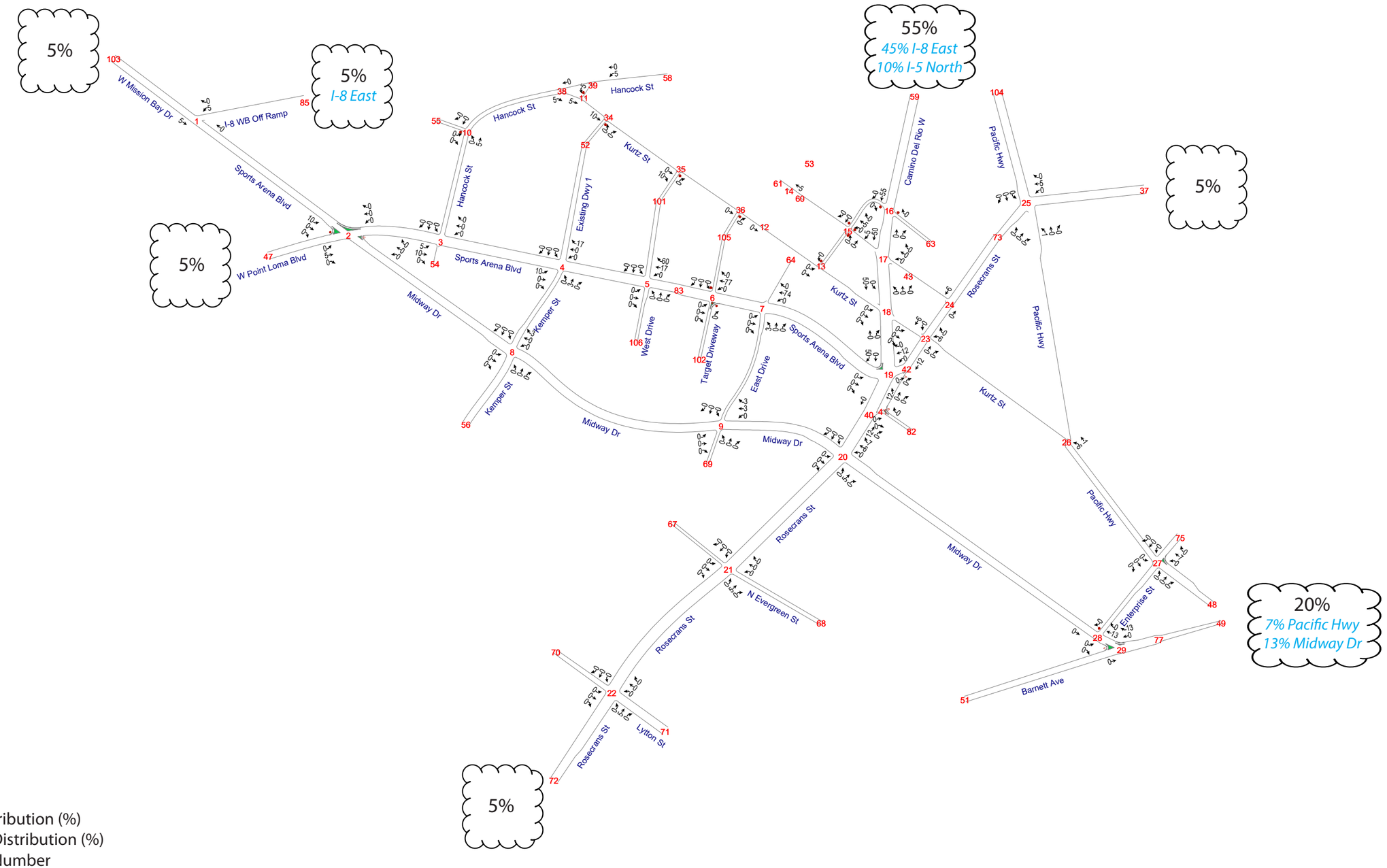
Table 7.2 Unconstrained Internal Trip Capture Rates for Trip Destinations within a Multi-Use Development		Weekday		Proximity Adjustment	
Land Use Pairs		AM Peak Hour	PM Peak Hour	AM	PM
To OFFICE	From Office	0%	0%	1.000	1.000
	From Retail	4%	31%	1.000	1.000
	From Restaurant	14%	30%	1.000	1.000
	From Cinema/Entertainment	0%	6%	1.000	1.000
	From Residential	3%	57%	1.000	1.000
	From Hotel	3%	0%	1.000	1.000
To RETAIL	From Office	32%	8%	1.000	1.000
	From Retail	0%	0%	1.000	1.000
	From Restaurant	8%	50%	1.000	1.000
	From Cinema/Entertainment	0%	4%	1.000	1.000
	From Residential	17%	10%	1.000	0.854
	From Hotel	4%	2%	1.000	1.000
To RESTAURANT	From Office	23%	2%	1.000	1.000
	From Retail	50%	29%	1.000	1.000
	From Restaurant	0%	0%	1.000	1.000
	From Cinema/Entertainment	0%	3%	1.000	1.000
	From Residential	20%	14%	1.000	0.854
	From Hotel	6%	5%	1.000	1.000
To CINEMA/ENTERTAINMENT	From Office	0%	1%	1.000	1.000
	From Retail	0%	26%	1.000	1.000
	From Restaurant	0%	32%	1.000	1.000
	From Cinema/Entertainment	0%	0%	1.000	1.000
	From Residential	0%	0%	1.000	1.000
	From Hotel	0%	0%	1.000	1.000
To RESIDENTIAL	From Office	0%	4%	1.000	1.000
	From Retail	2%	46%	1.000	1.000
	From Restaurant	5%	16%	1.000	1.000
	From Cinema/Entertainment	0%	4%	1.000	1.000
	From Residential	0%	0%	1.000	1.000
	From Hotel	0%	0%	1.000	1.000
To HOTEL	From Office	0%	0%	1.000	1.000
	From Retail	0%	17%	1.000	1.000
	From Restaurant	4%	71%	1.000	1.000
	From Cinema/Entertainment	0%	1%	1.000	1.000
	From Residential	0%	12%	1.000	1.000
	From Hotel	0%	0%	1.000	1.000

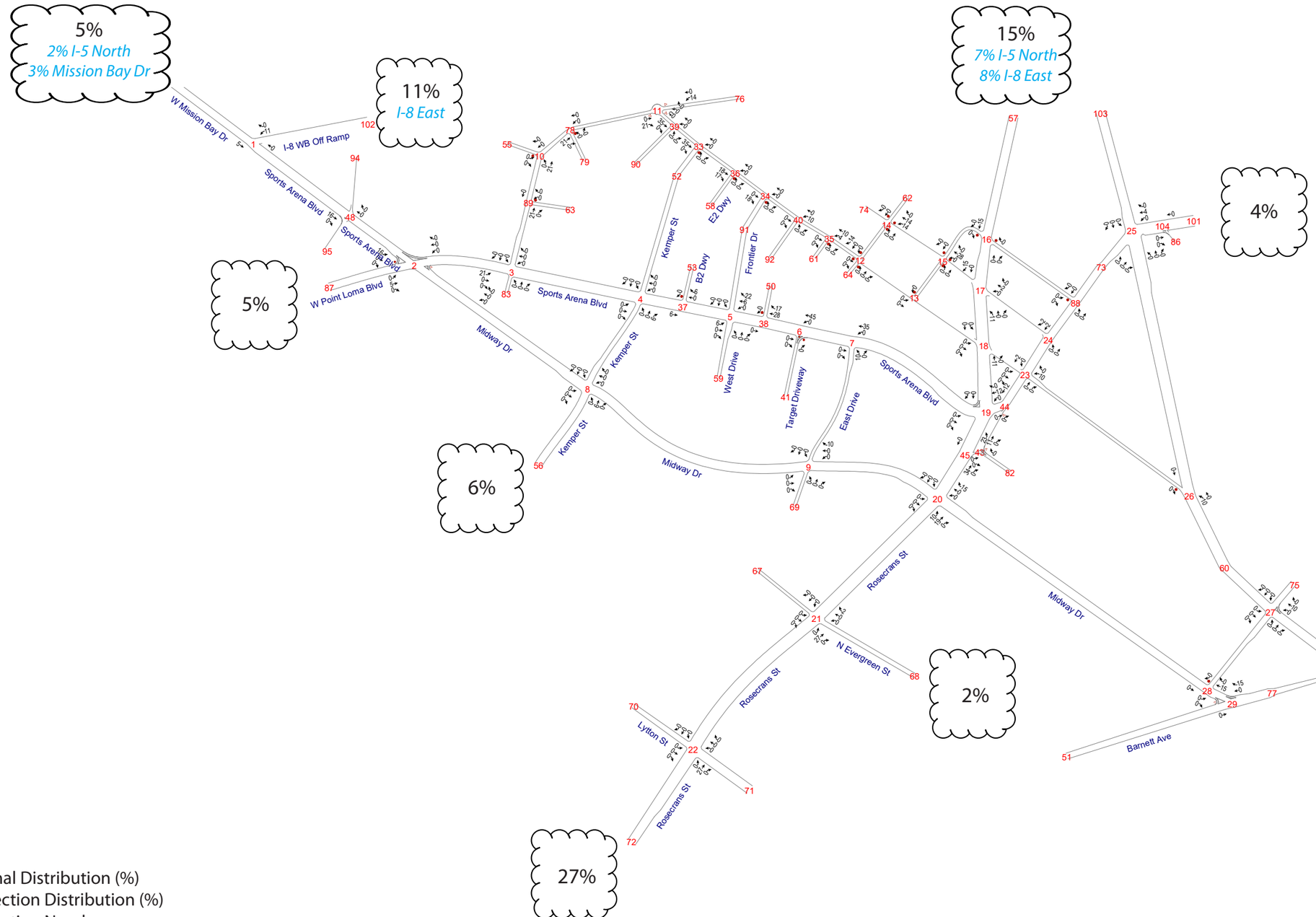
Table 7.2 Unconstrained Internal Trip Capture Rates for Trip Destinations within a Multi-Use Development		Weekday		Proximity Adjustment	
Land Use Pairs		AM Peak Hour	PM Peak Hour	AM	PM
To OFFICE	From Office	0%	0%	1.000	1.000
	From Retail	4%	31%	1.000	1.000
	From Restaurant	14%	30%	1.000	1.000
	From Cinema/Entertainment	0%	6%	1.000	1.000
	From Residential	3%	57%	1.000	1.000
	From Hotel	3%	0%	1.000	1.000
To RETAIL	From Office	32%	8%	1.000	1.000
	From Retail	0%	0%	1.000	1.000
	From Restaurant	8%	50%	1.000	1.000
	From Cinema/Entertainment	0%	4%	1.000	1.000
	From Residential	17%	10%	1.000	0.699
	From Hotel	4%	2%	1.000	1.000
To RESTAURANT	From Office	23%	2%	1.000	1.000
	From Retail	50%	29%	1.000	1.000
	From Restaurant	0%	0%	1.000	1.000
	From Cinema/Entertainment	0%	3%	1.000	1.000
	From Residential	20%	14%	1.000	0.699
	From Hotel	6%	5%	1.000	1.000
To CINEMA/ENTERTAINMENT	From Office	0%	1%	1.000	1.000
	From Retail	0%	26%	1.000	1.000
	From Restaurant	0%	32%	1.000	1.000
	From Cinema/Entertainment	0%	0%	1.000	1.000
	From Residential	0%	0%	1.000	1.000
	From Hotel	0%	0%	1.000	1.000
To RESIDENTIAL	From Office	0%	4%	1.000	1.000
	From Retail	2%	46%	1.000	1.000
	From Restaurant	5%	16%	1.000	1.000
	From Cinema/Entertainment	0%	4%	1.000	1.000
	From Residential	0%	0%	1.000	1.000
	From Hotel	0%	0%	1.000	1.000
To HOTEL	From Office	0%	0%	1.000	1.000
	From Retail	0%	17%	1.000	1.000
	From Restaurant	4%	71%	1.000	1.000
	From Cinema/Entertainment	0%	1%	1.000	1.000
	From Residential	0%	12%	1.000	1.000
	From Hotel	0%	0%	1.000	1.000

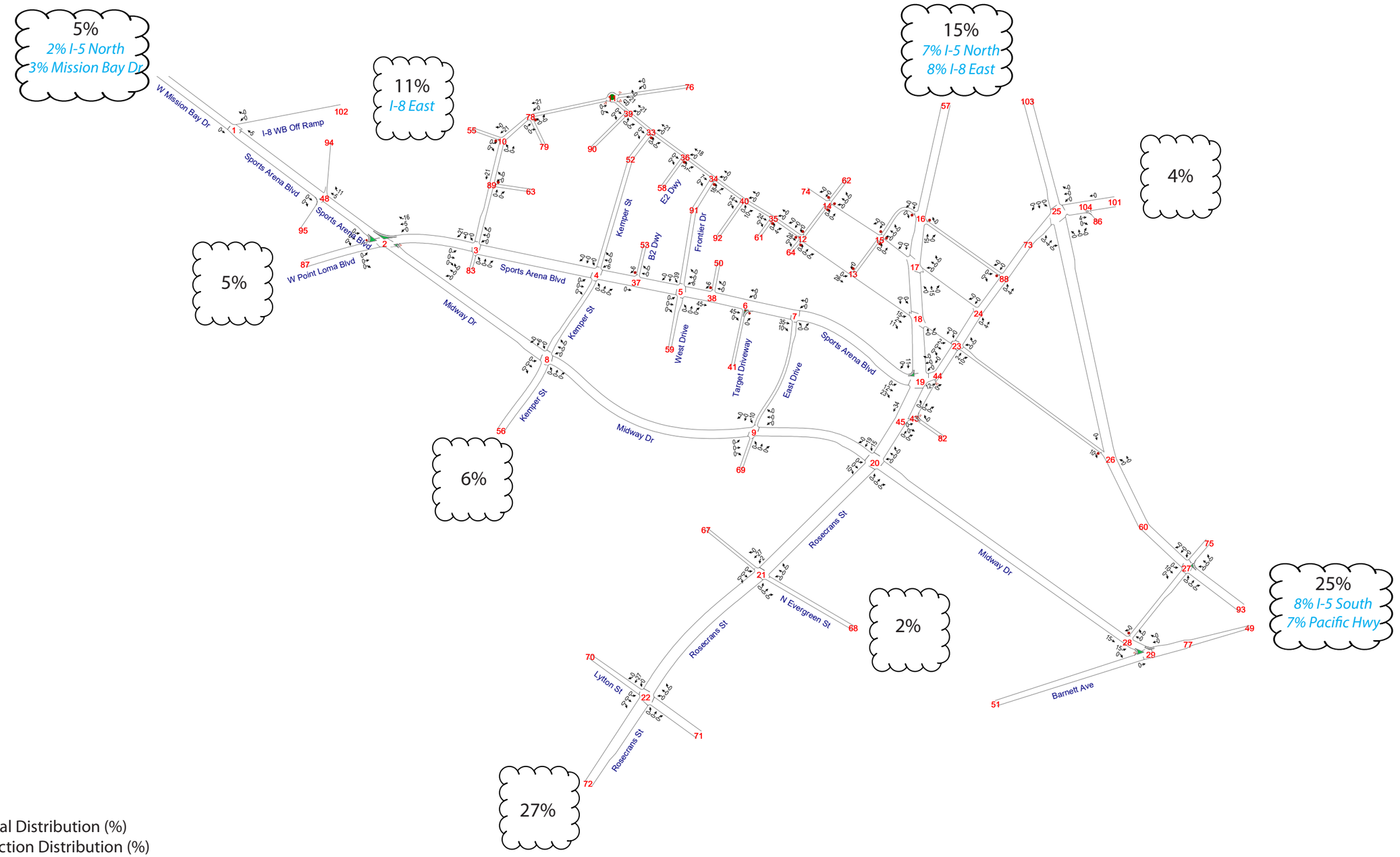
Appendix I

Trip Distribution Maps

Appendix X00 Figure 1 - Pechanga Arena Inbound Distribution



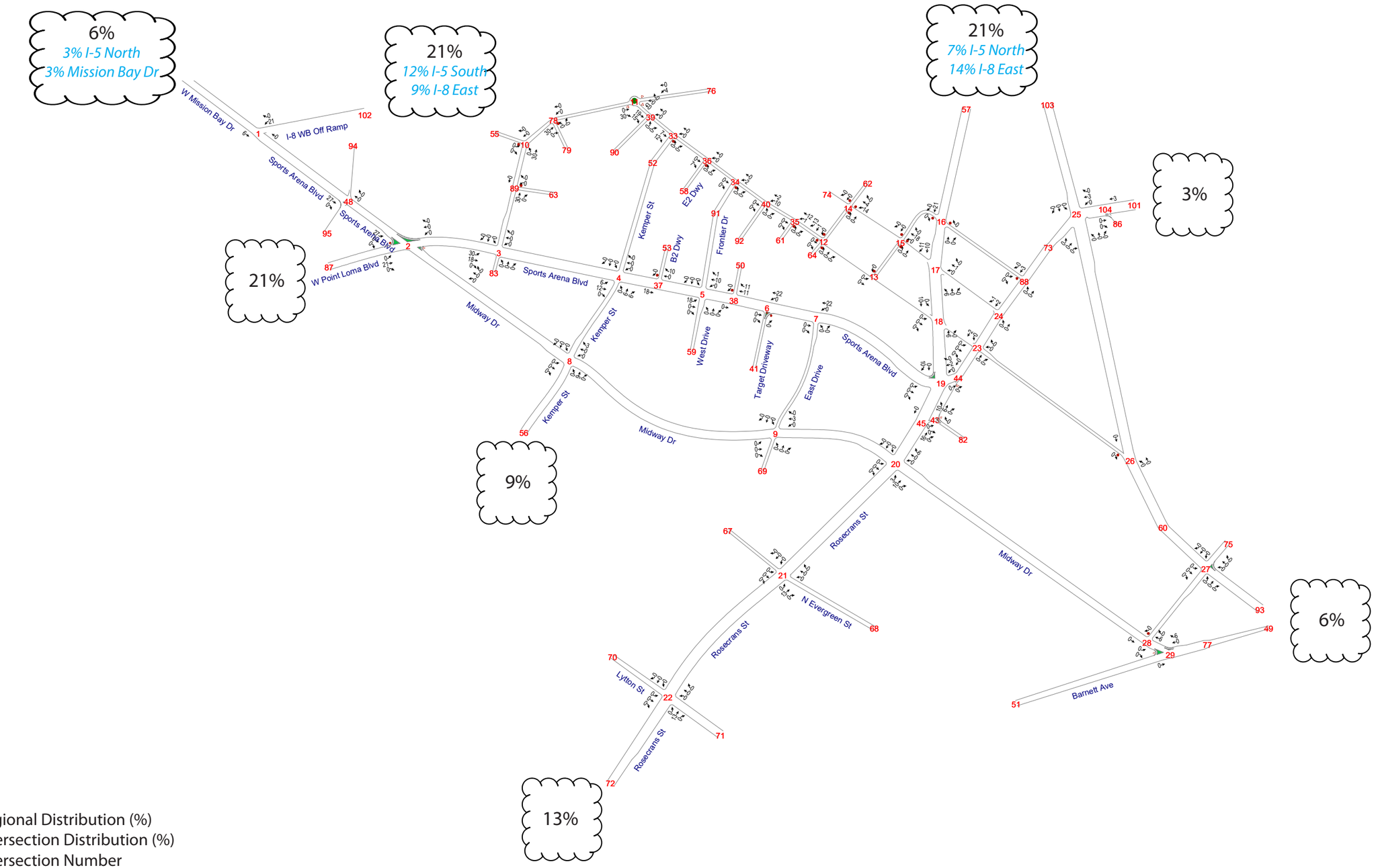

5%
2% I-5 North
3% Mission Bay Dr
11%
I-8 East
15%
7% I-5 North
8% I-8 East
4%
5%
6%
2%
27%
25%
18% I-5 South
7% Pacific Hwy
W Mission Bay Dr
I-8 WB Off Ramp
Sports Arena Blvd
W Point Loma Blvd
Midway Dr
Kemper St
Rosecrans St
N Evergreen St
Lytton St
Barnett Ave
Frontier Dr
E2 Dwy
B2 Dwy
West Drive
Target Driveway
East Drive
N
LEGEND
XX% Regional Distribution (%)
XX Intersection Distribution (%)
XX Intersection Number

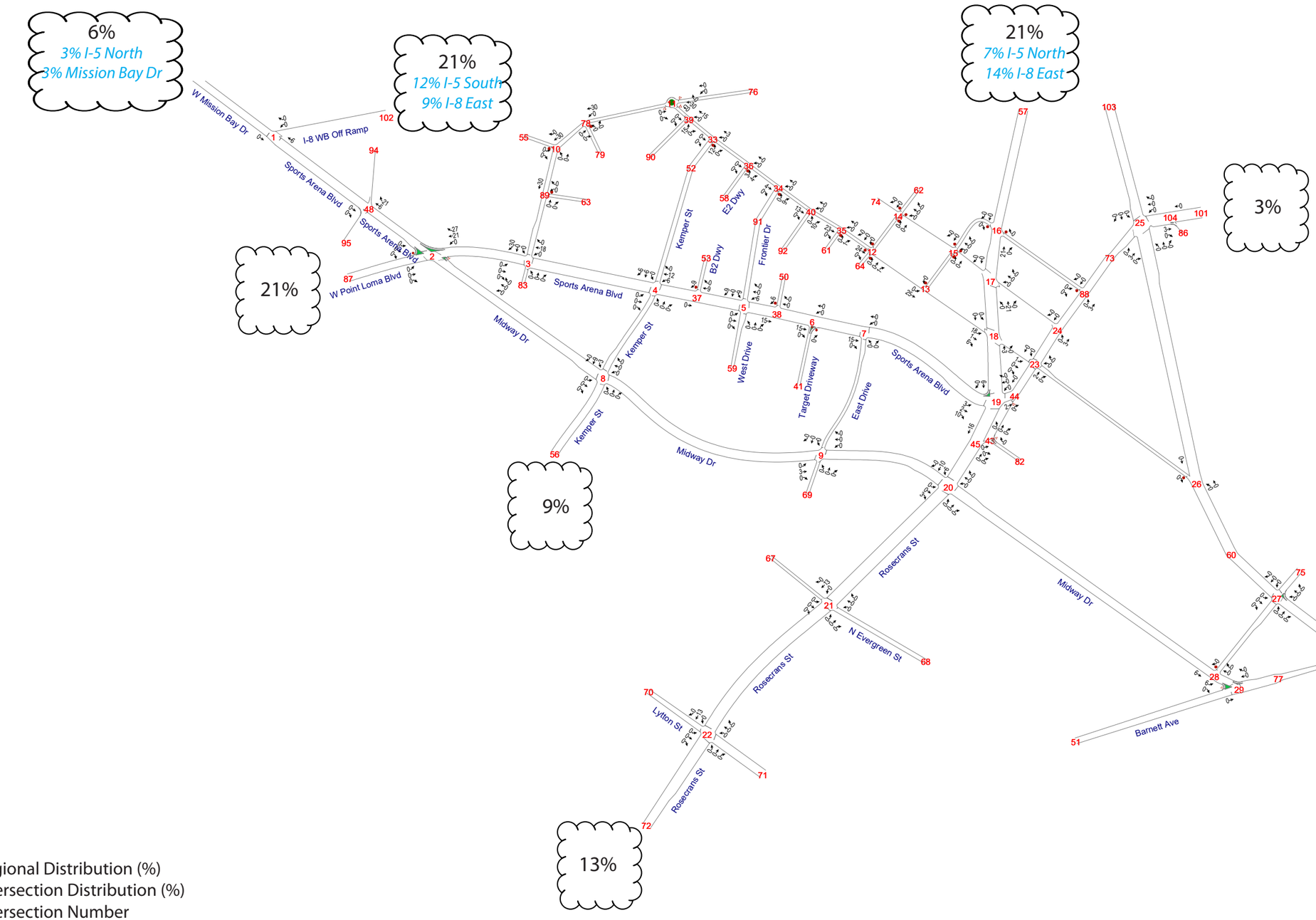


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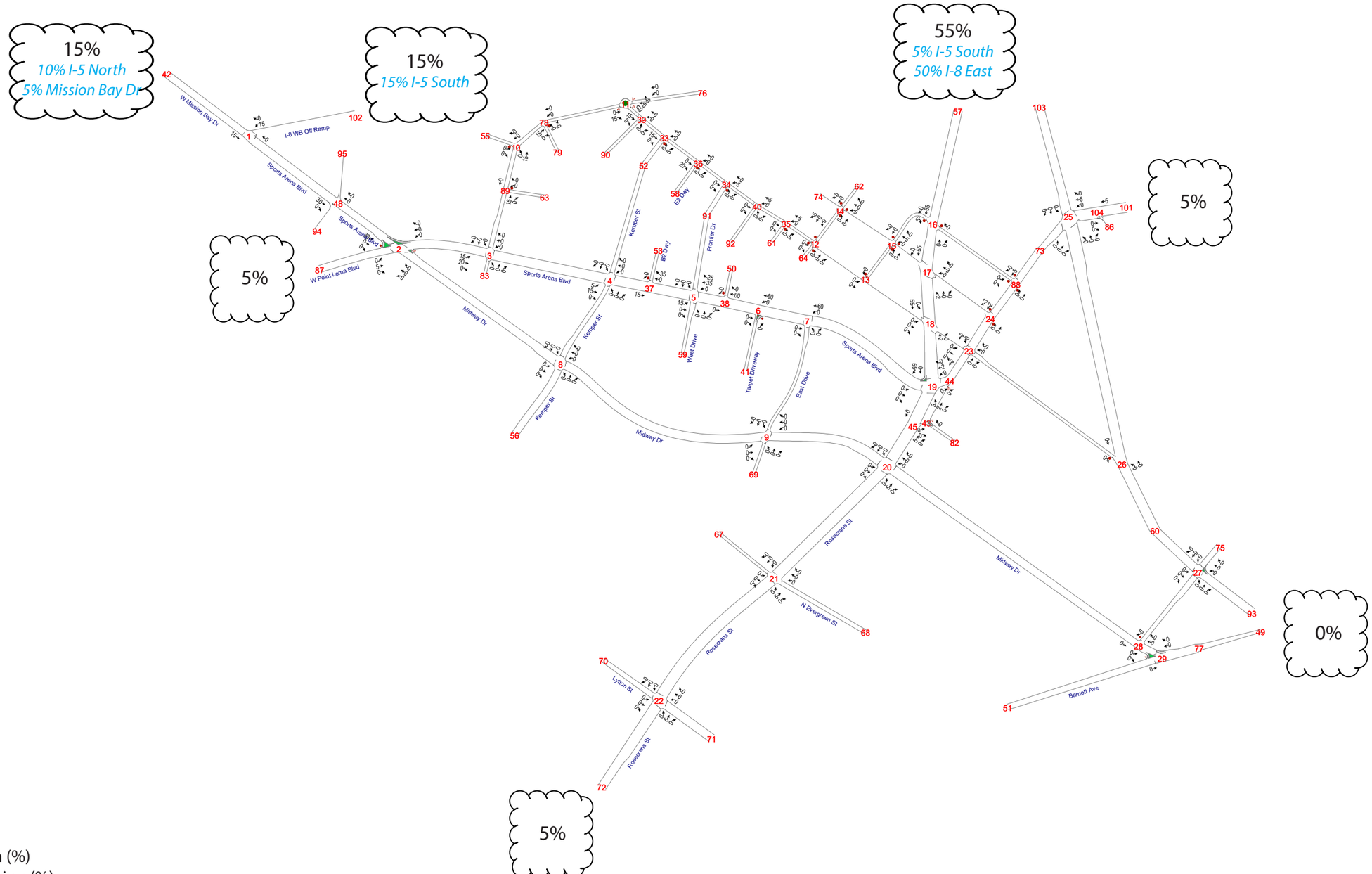
XX% Regional Distribution (%)
XX→ Intersection Distribution (%)
XX Intersection Number

Appendix X00 Figure 3a - Residential Inbound Distribution




6%
3% I-5 North
3% Mission Bay Dr
21%
12% I-5 South
9% I-8 East
21%
7% I-5 North
14% I-8 East
3%
21%
9%
6%
13%
W Mission Bay Dr
I-8 WB Off Ramp
Sports Arena Blvd
W Point Loma Blvd
Midway Dr
Kemper St
EZ Dwy
BZ Dwy
Frontier Dr
West Drive
Target Driveway
East Drive
Rosecrans St
N Evergreen St
Lytton St
Barnett Ave
N
LEGEND
XX%
Regional Distribution (%)
XX→
Intersection Distribution (%)
XX
Intersection Number

Appendix X00 Figure 4 - Entertainment Center Block B2 and E2 Distribution



N

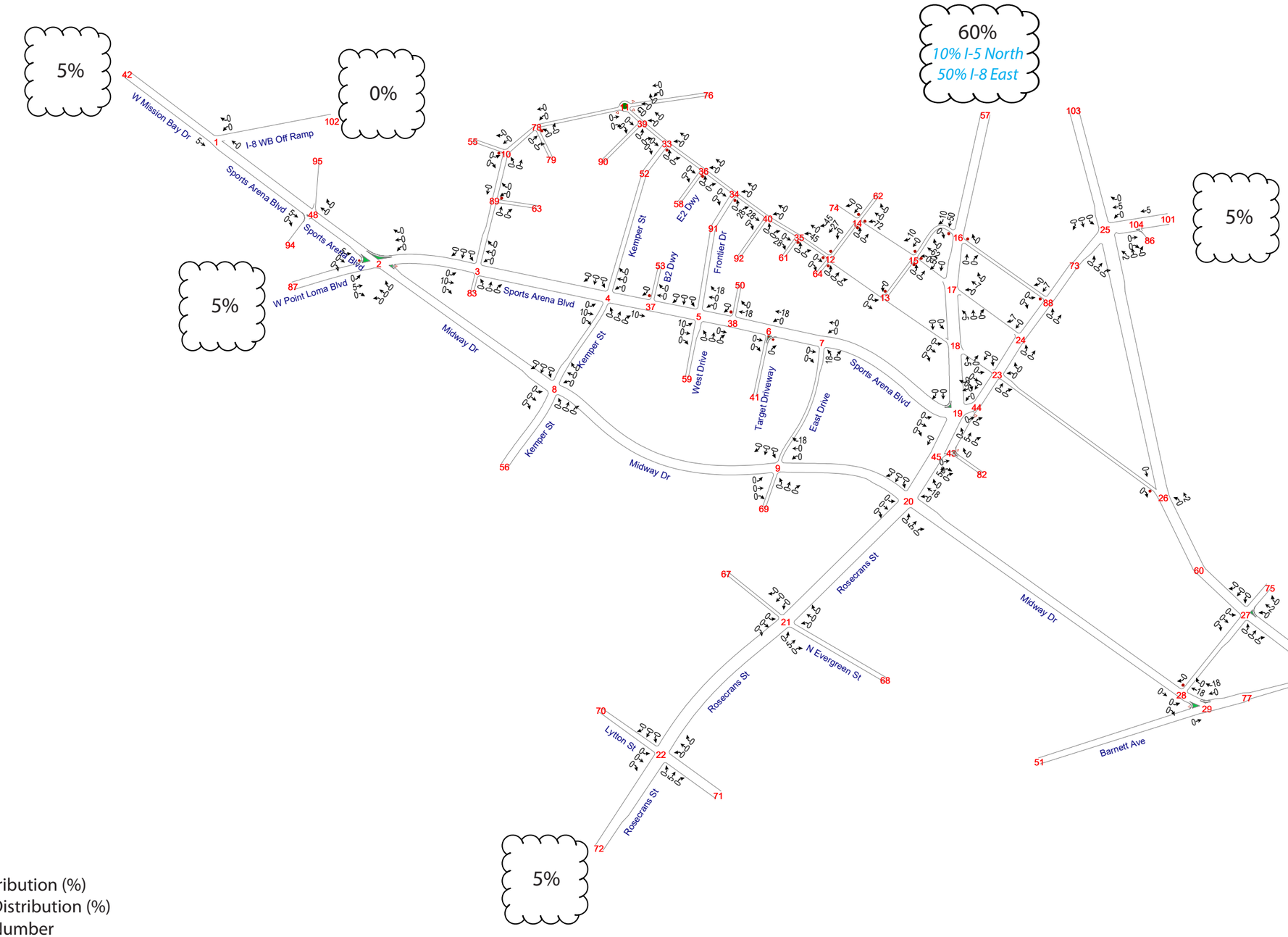
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XX% Regional Distribution (%)

XX→ Intersection Distribution (%)

XX Intersection Number

Appendix X00 Figure 5 - Entertainment Center Block H Distribution

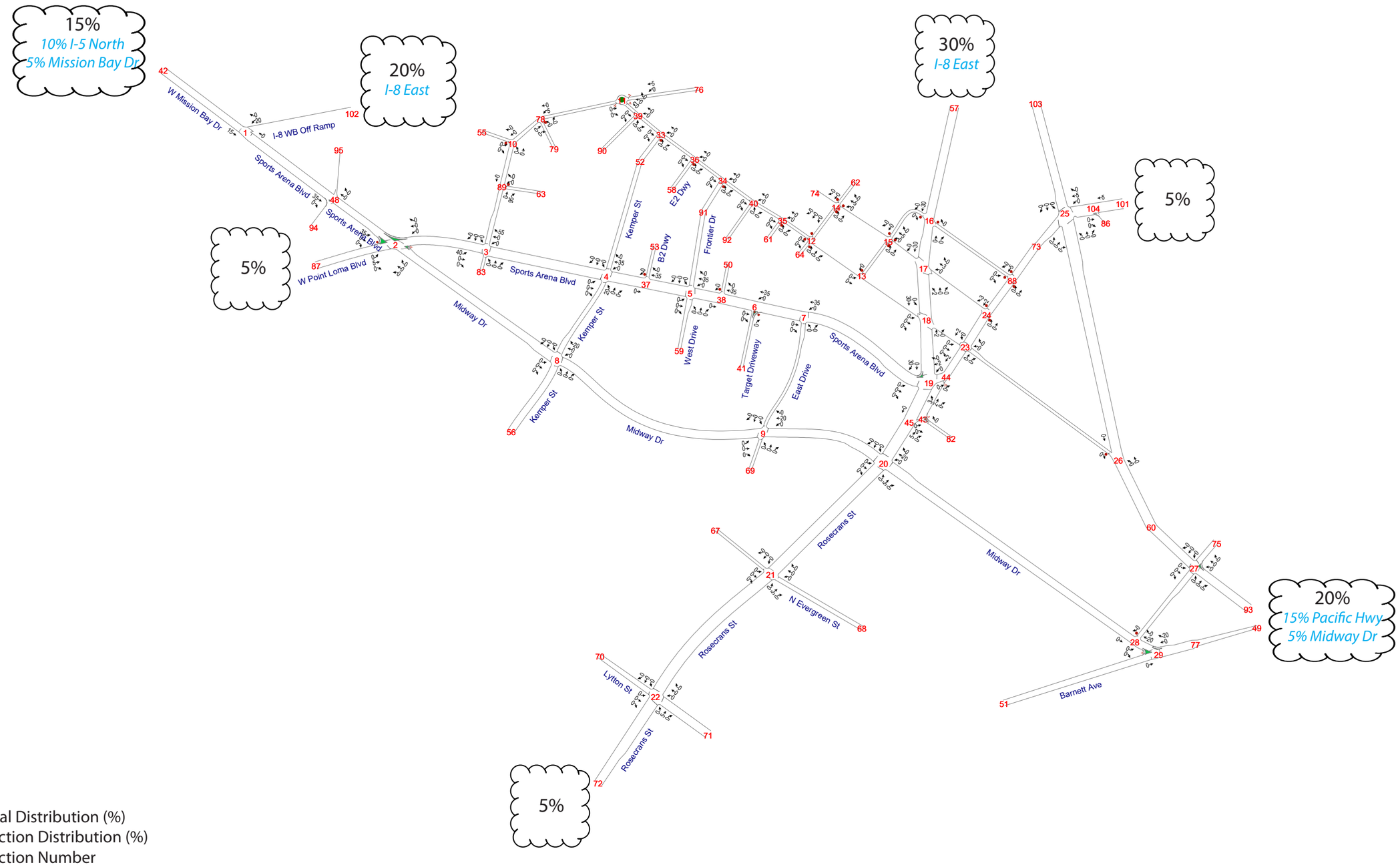


N

LEGEND

XX% Regional Distribution (%)
XX→ Intersection Distribution (%)
XX Intersection Number

Appendix X00 Figure 6 - Entertainment Center Overflow Lot Distribution

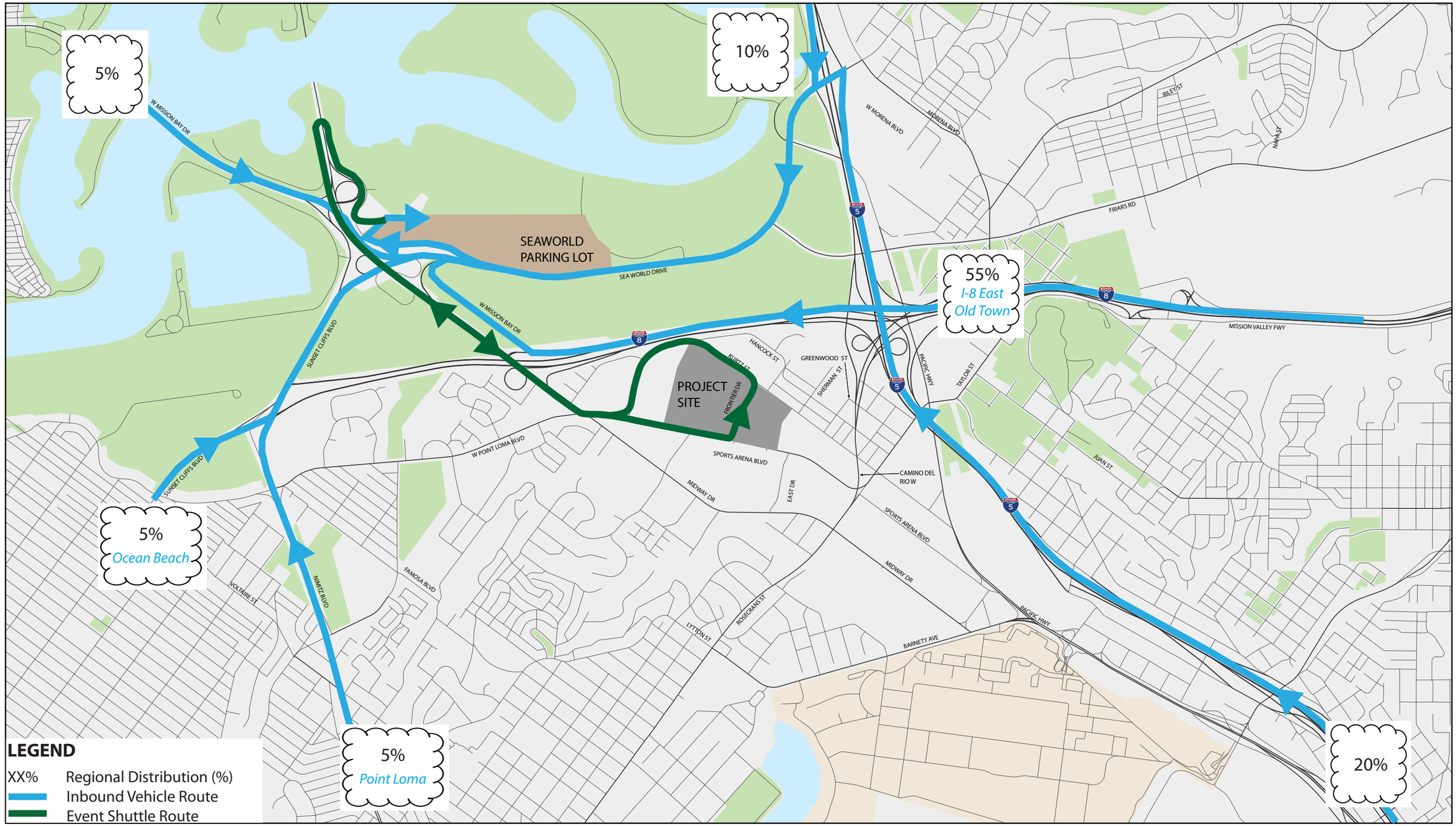


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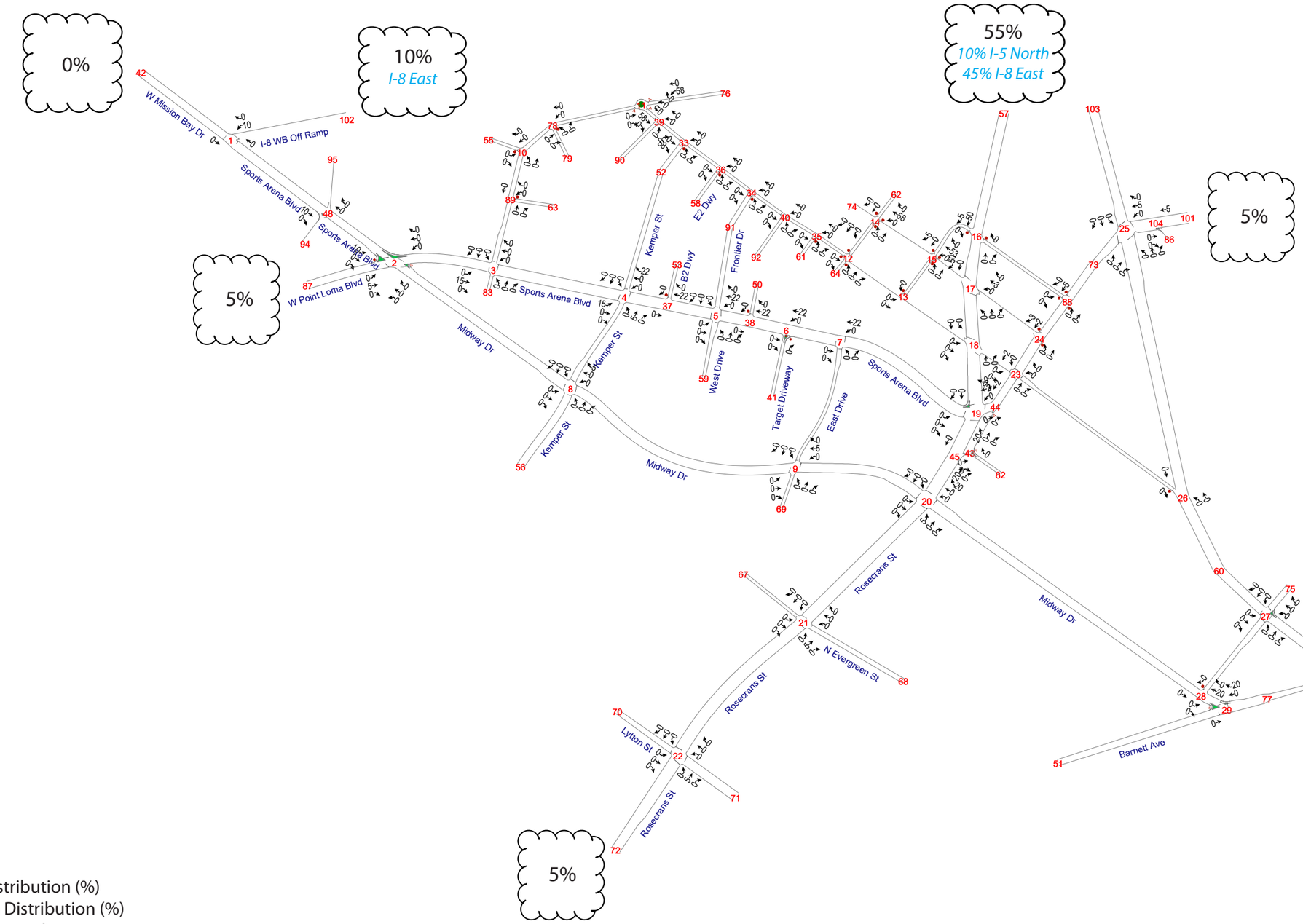
LEGEND

XX% Regional Distribution (%)
XX→ Intersection Distribution (%)
XX Intersection Number

Appendix X00 Figure 7 - Entertainment Center SeaWorld Lot Distribution



Appendix X00 Figure 8a - Entertainment Center Transportation Network Company Inbound Distribution

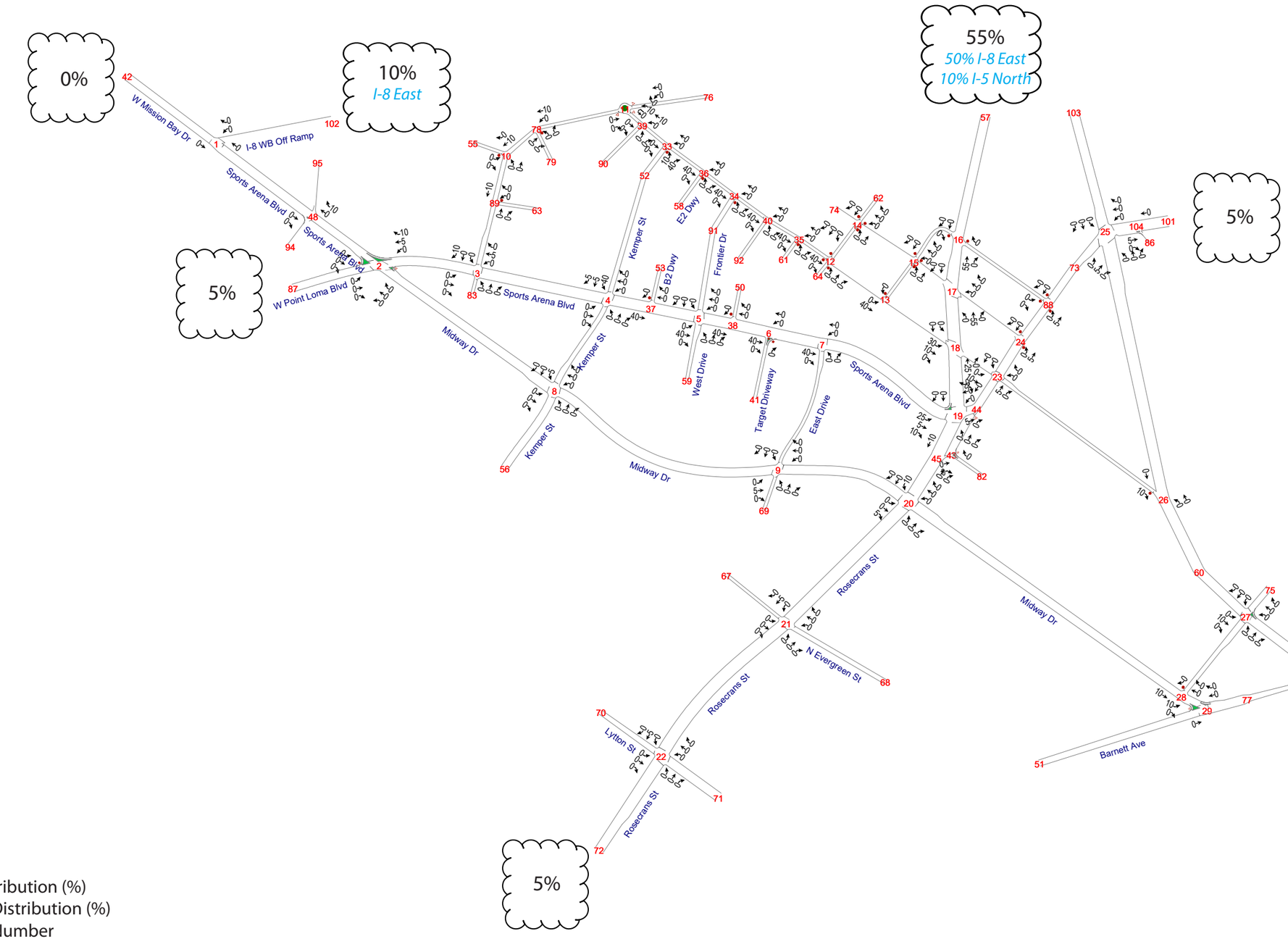


N

LEGEND

XX%	Regional Distribution (%)
XX→	Intersection Distribution (%)
XX	Intersection Number

Appendix X00 Figure 8b - Entertainment Center Transportation Network Company Outbound Distribution



N

LEGEND

XX% Regional Distribution (%)
XX→ Intersection Distribution (%)
XX Intersection Number

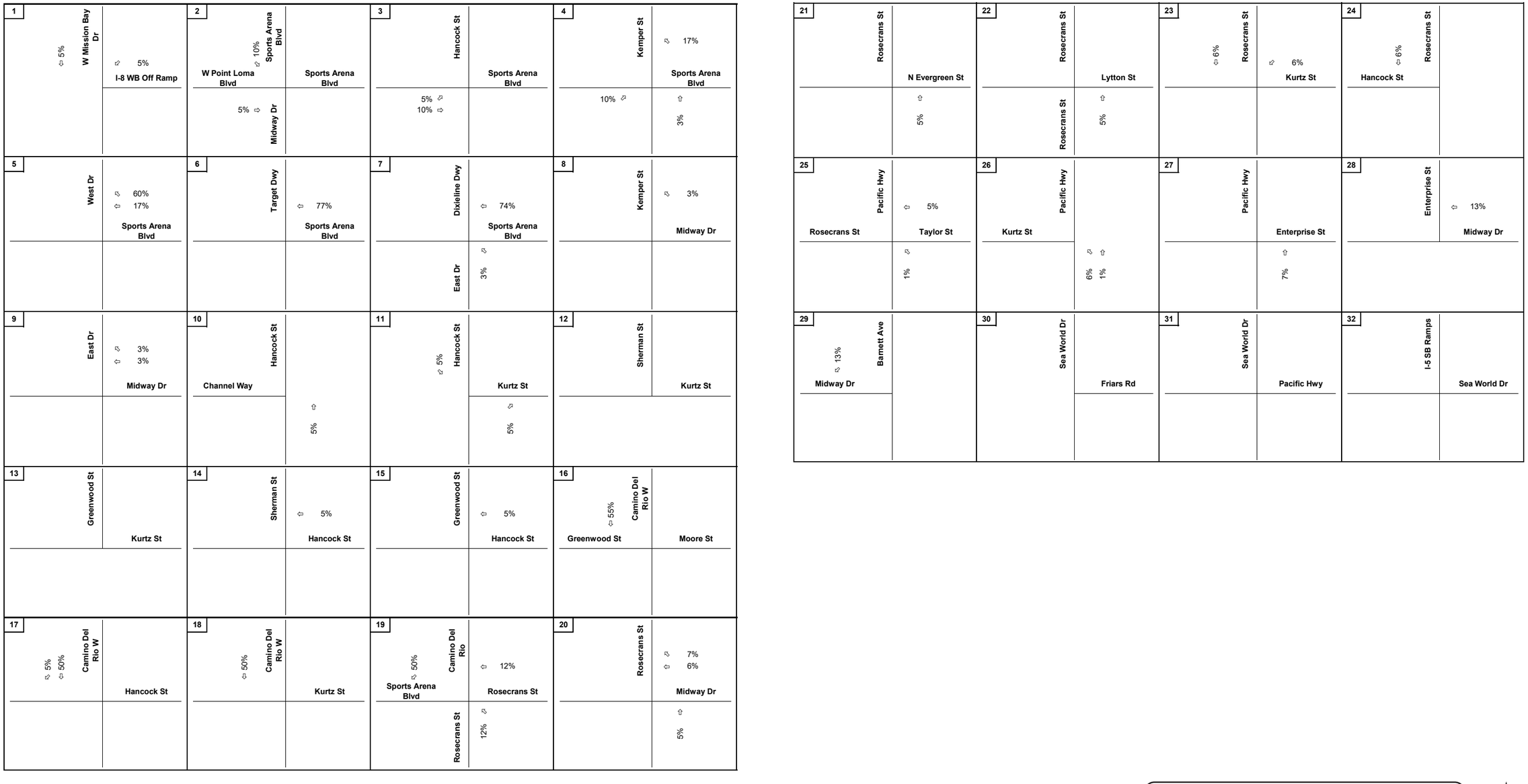
Appendix J

Trip Distribution by Land Use

Appendix I Figure 1 - Pechanga Arena Distribution (Page 1 of 2)



Appendix I Figure 1 - Pechanga Arena Distribution (Page 2 of 2)



Legend

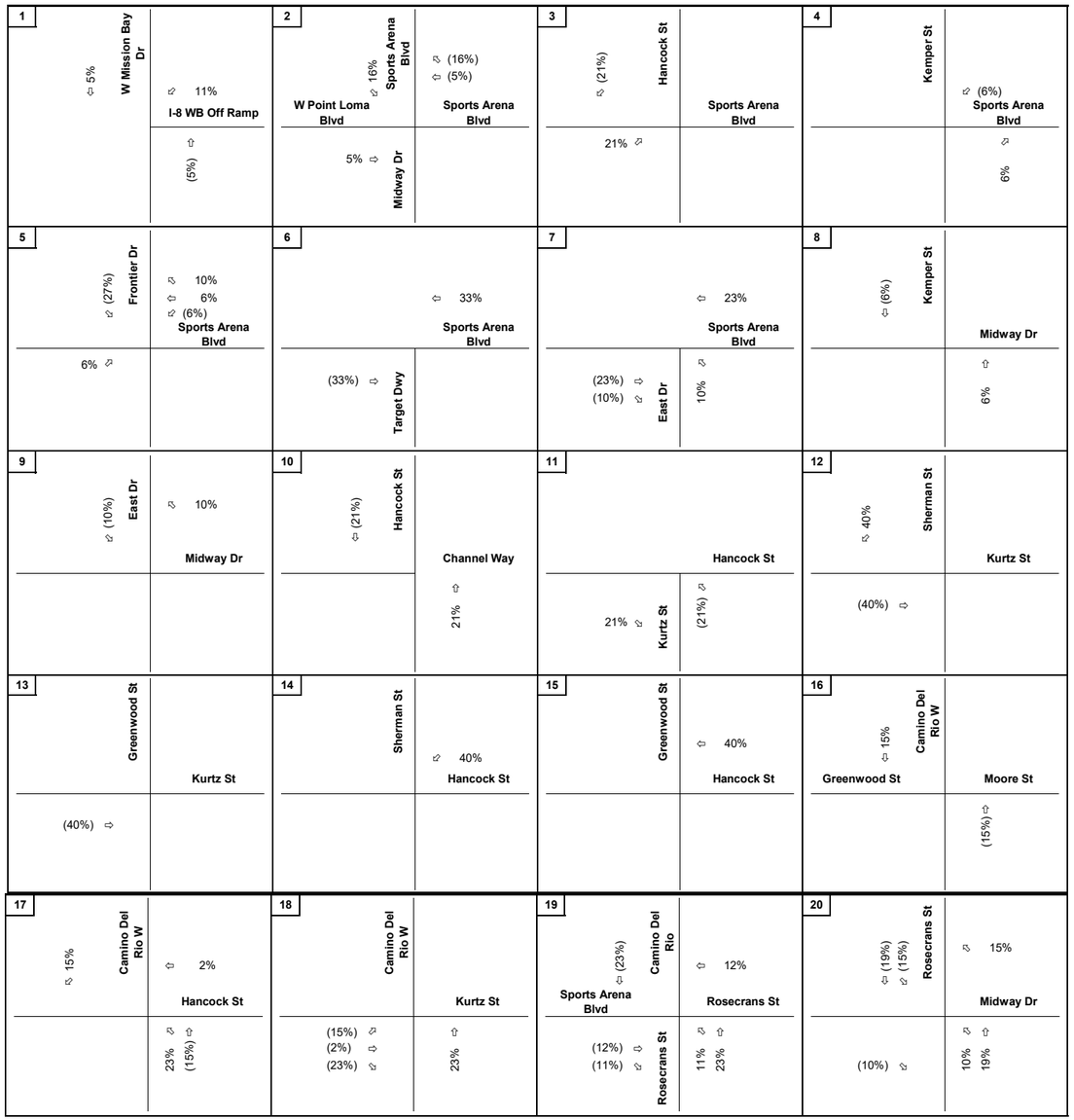
X%/Y% = In/Out Percent Distribution

North

Appendix I Figure 2 - Commercial Distribution (Page 1 of 2)



Appendix I Figure 2 - Commercial Distribution (Page 2 of 2)



Legend

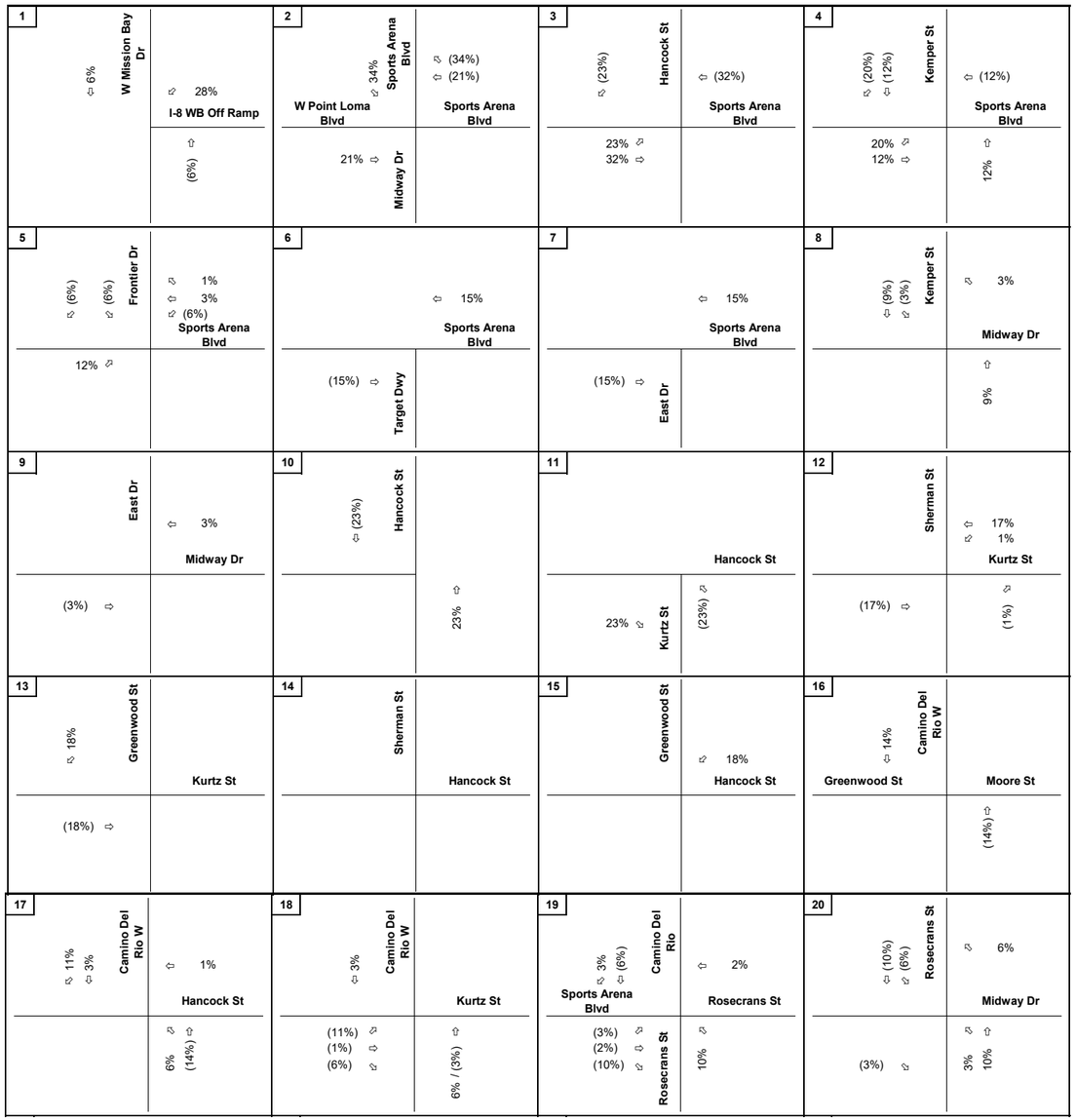
X%/Y% = In/Out Percent Distribution

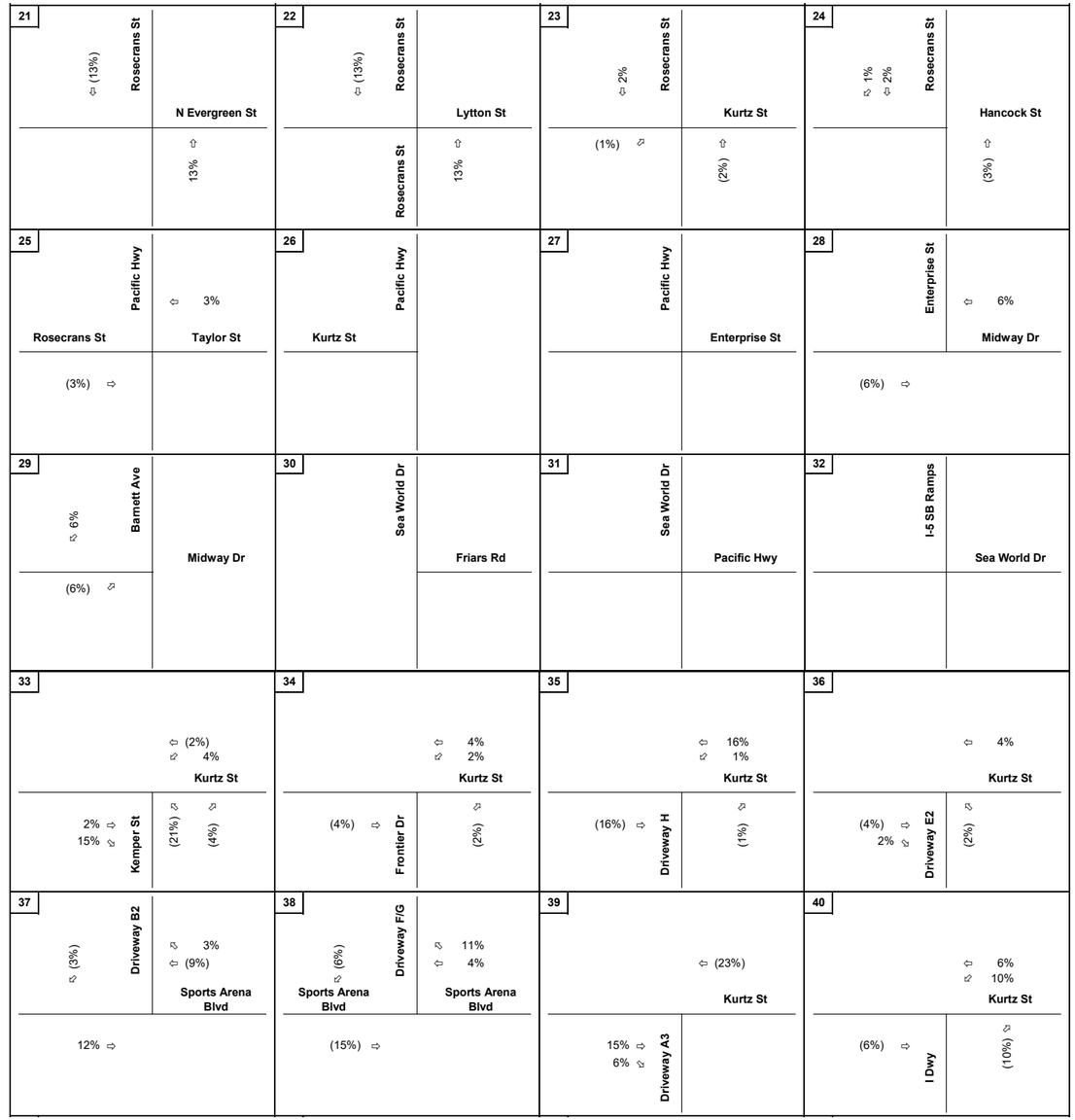
North

Appendix I Figure 3 - Residential Distribution (Page 1 of 2)



Appendix I Figure 3 - Residential Distribution (Page 2 of 2)





Legend

X%/Y% = In/Out Percent Distribution

North

Appendix I Figure 4 - Entertainment Center Block B2 and E2 Distribution (Page 1 of 2)



Appendix I Figure 4 - Entertainment Center Block B2 and E2 Distribution (Page 2 of 2)



Legend

X%/Y% = In/Out Percent Distribution

North

Appendix I Figure 5 - Entertainment Center Block H Distribution (Page 1 of 2)



Appendix I Figure 5 - Entertainment Center Block H Distribution (Page 2 of 2)

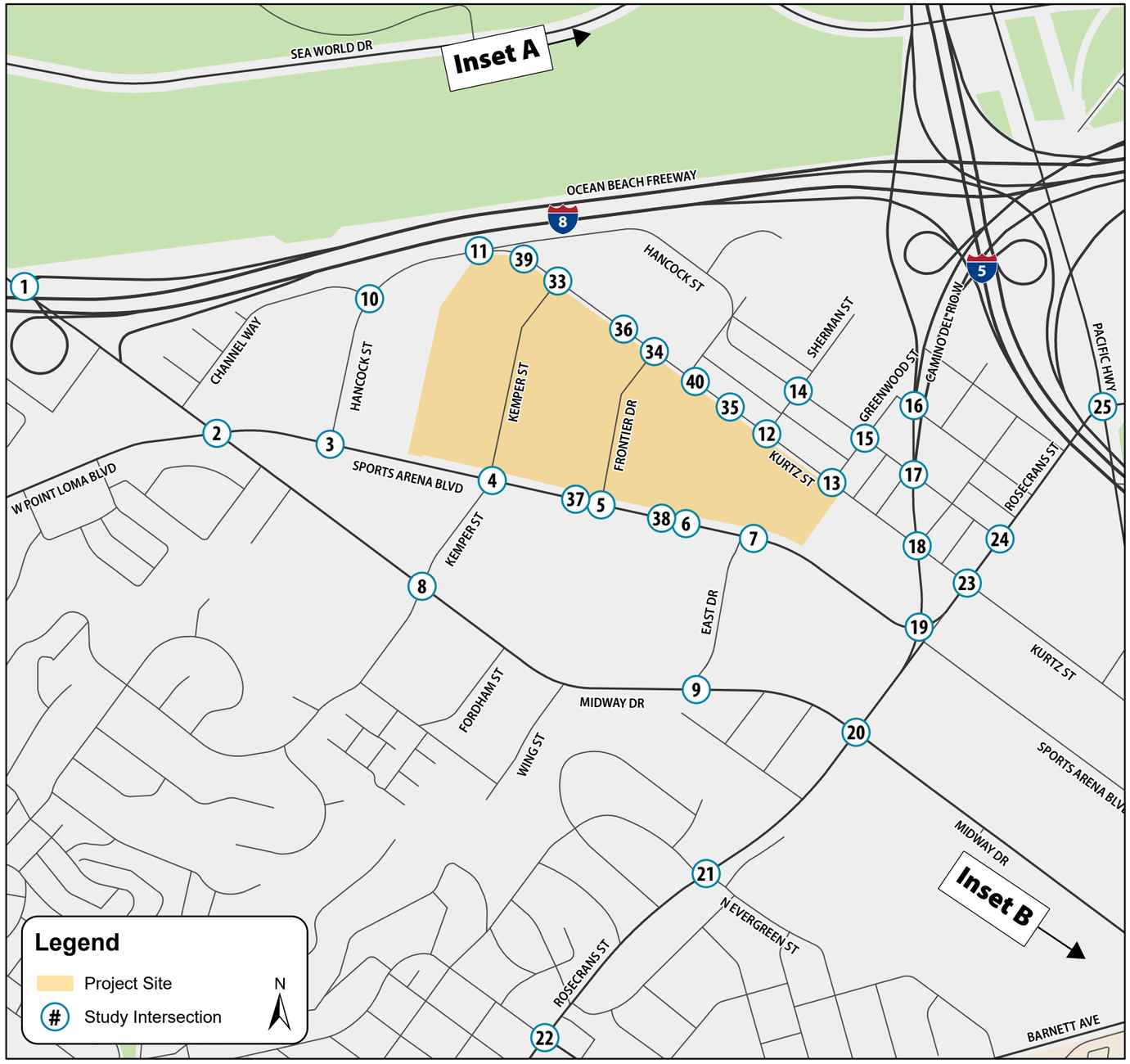


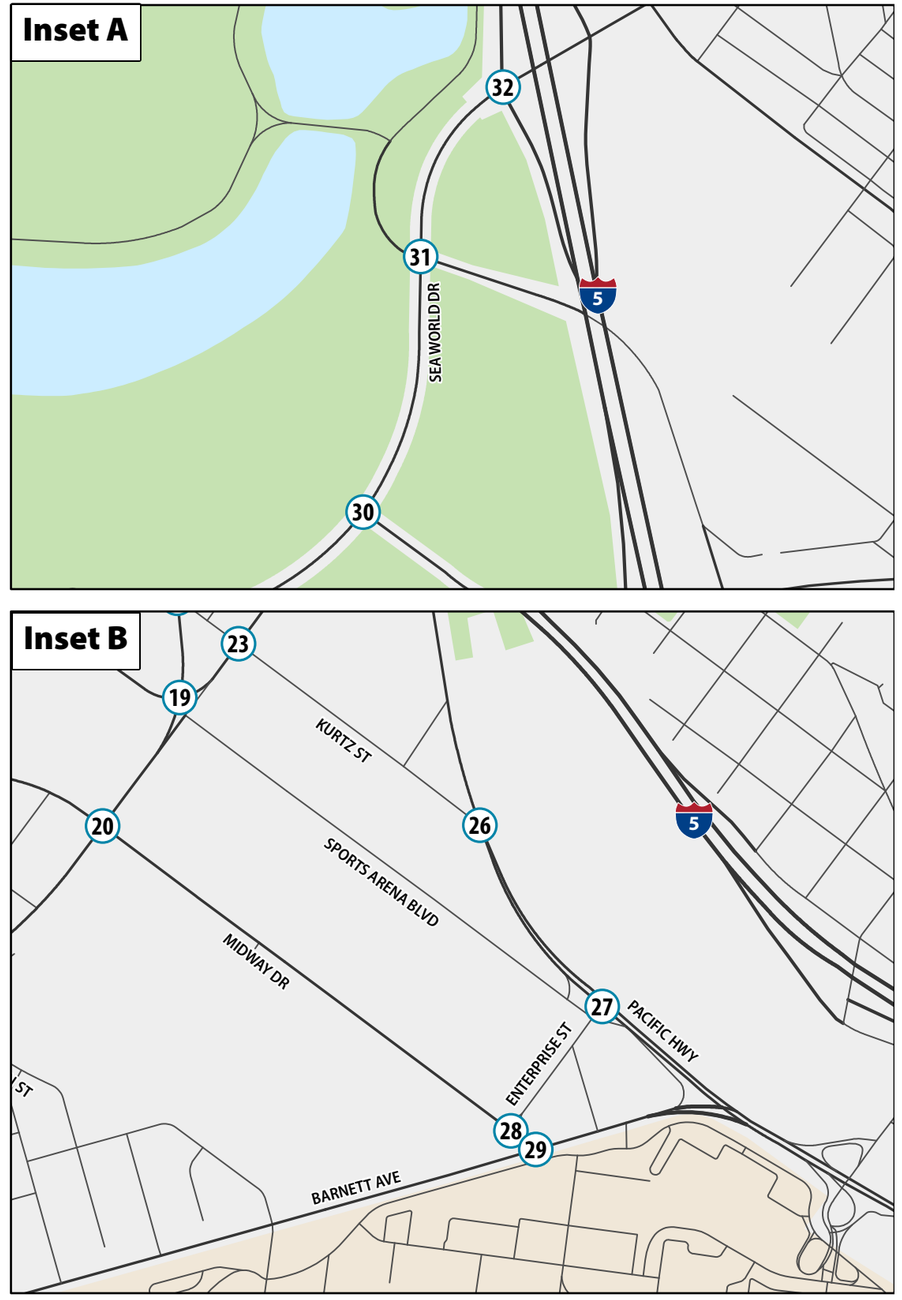
Legend

X%/Y% = In/Out Percent Distribution

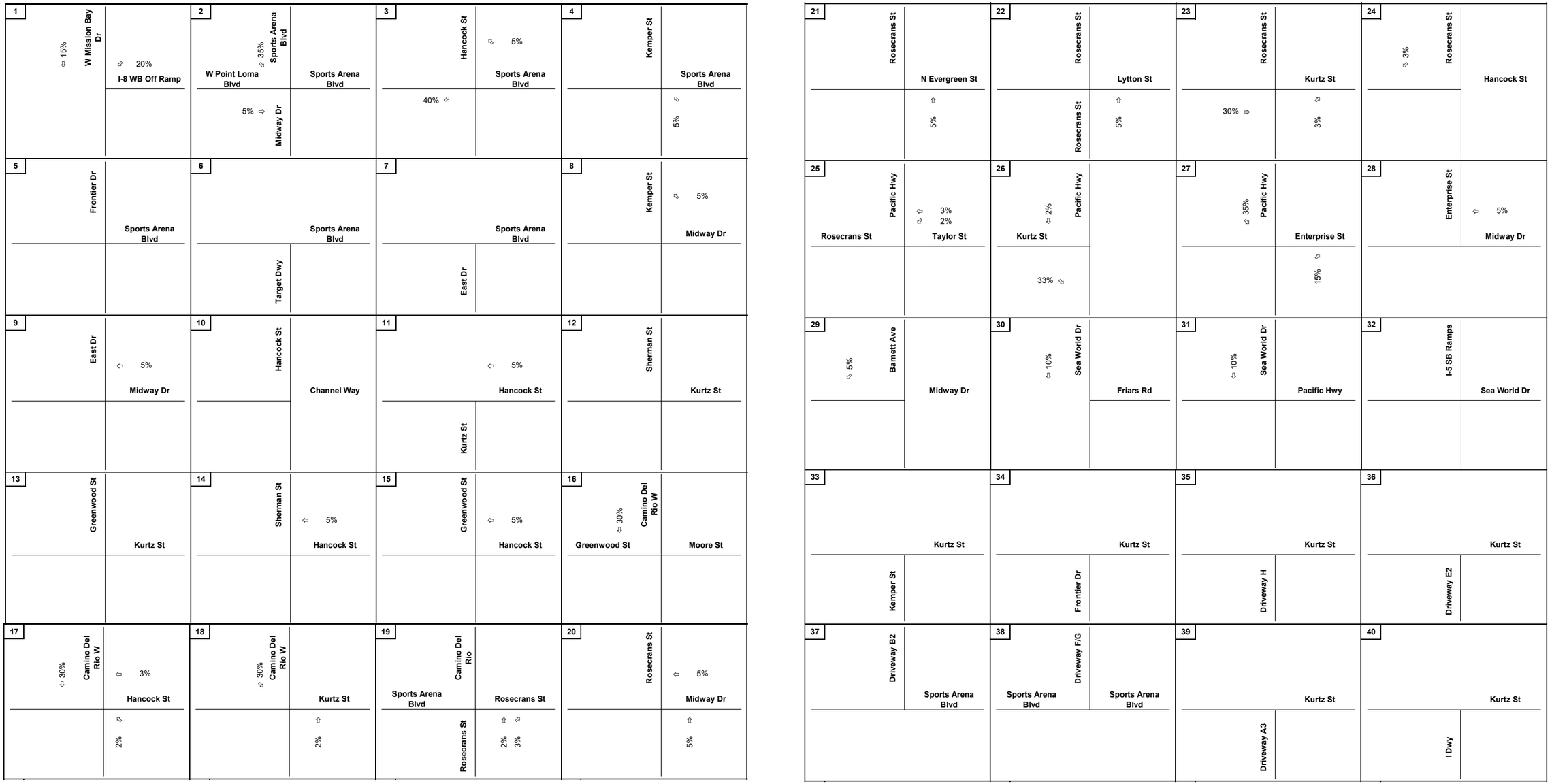
North

Appendix I Figure 6 - Entertainment Center Overflow Lot Distribution (Page 1 of 2)





Appendix I Figure 6 - Entertainment Center Overflow Lot Distribution (Page 2 of 2)



Legend

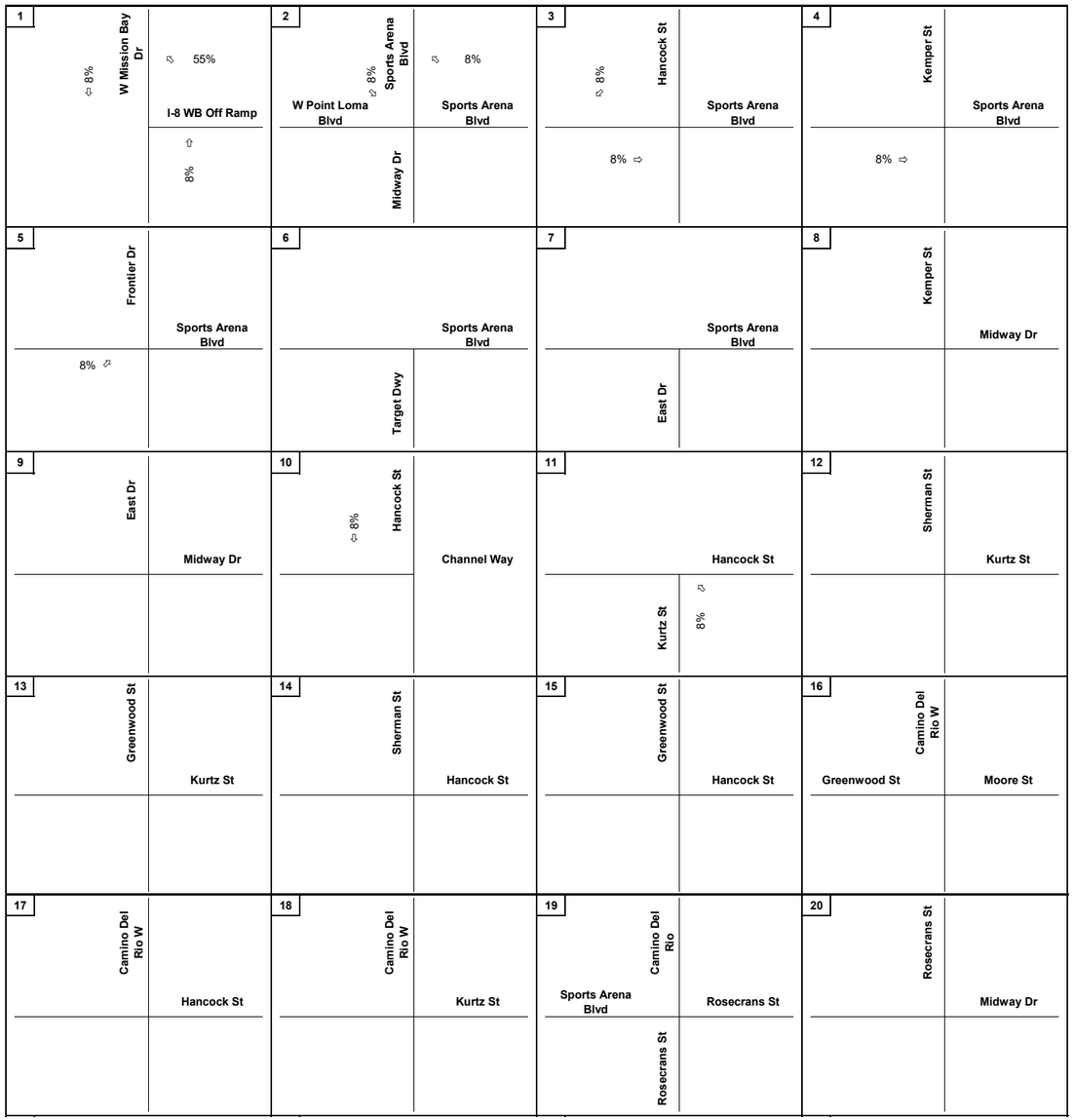
X%/Y% = In/Out Percent Distribution

North

Appendix I Figure 7 - Entertainment Center SeaWorld Lot Distribution (Page 1 of 2)



Appendix I Figure 7 - Entertainment Center SeaWorld Lot Distribution (Page 2 of 2)



Legend

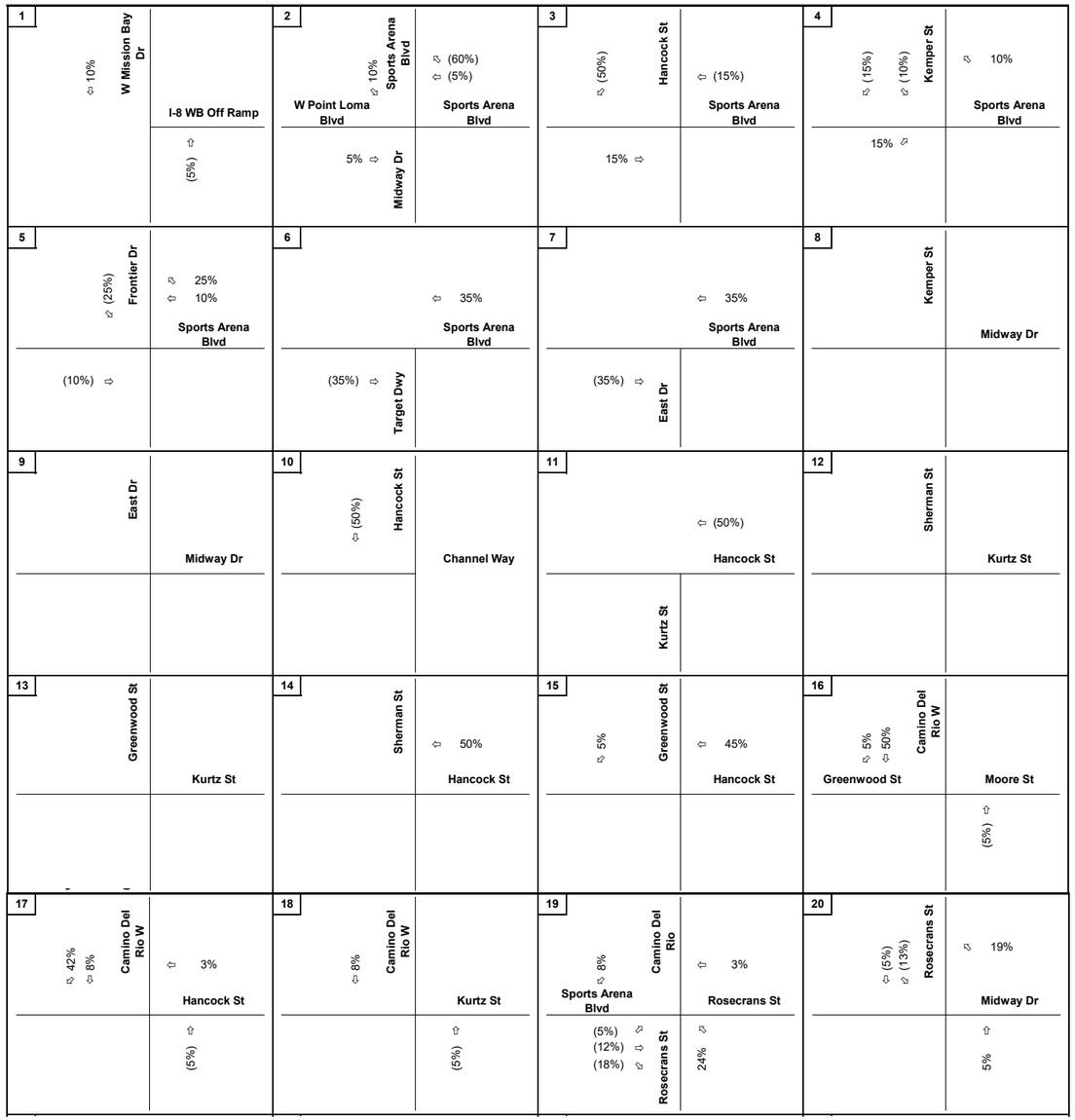
X%/Y% = In/Out Percent Distribution

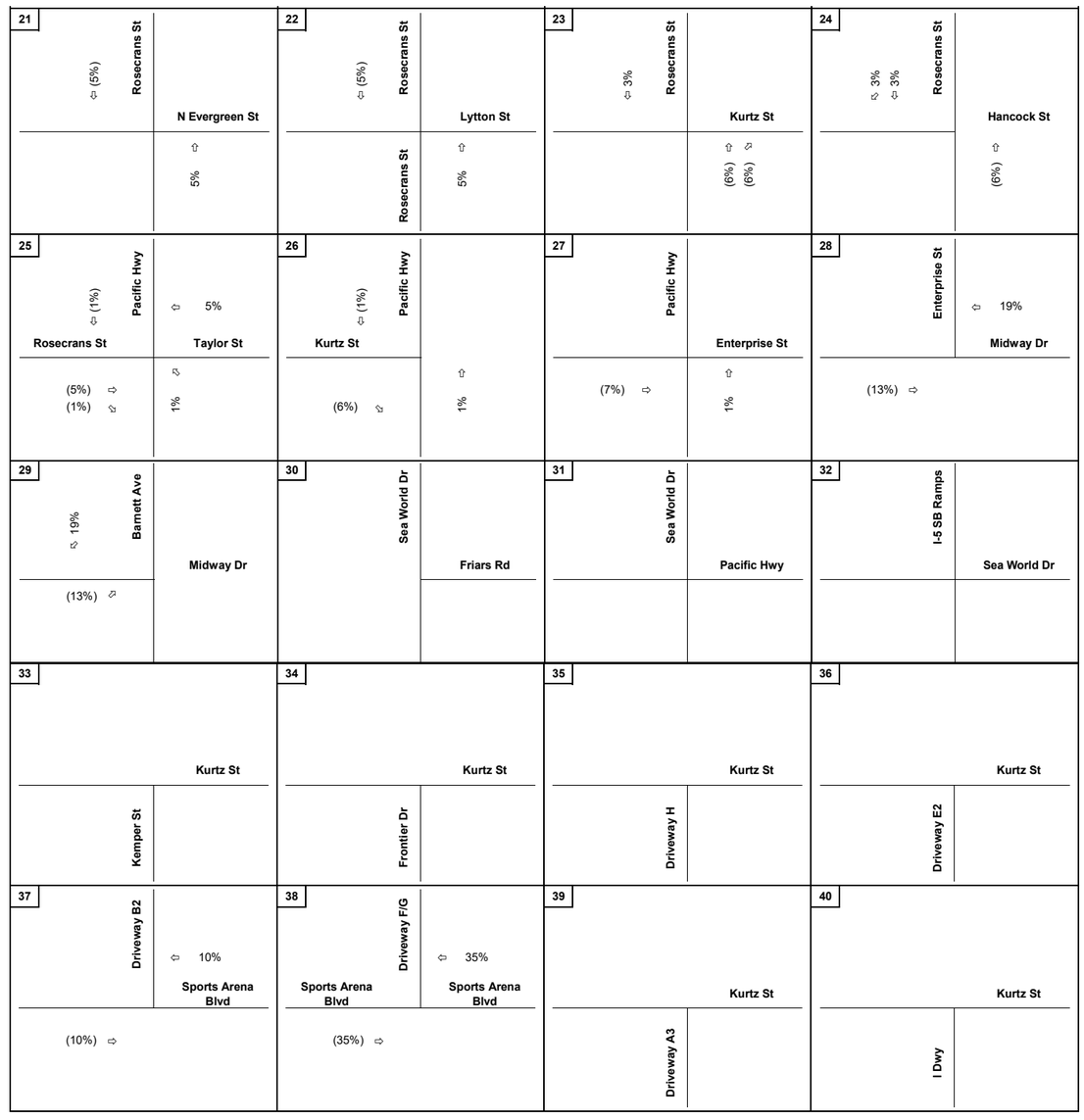
North

Appendix I Figure 8 - Entertainment Center Transportation Network Company Distribution (Page 1 of 2)



Appendix I Figure 8 - Entertainment Center Transportation Network Company Distribution (Page 1 of 2)





Legend

X%/Y% = In/Out Percent Distribution

North

Appendix K

Streetlight Top Routes – Residential Land Use

StreetLight Top Routes – Residential Proxy: Multi-Family Residential west of the Site



Source date: Year 2019 (AM Peak Outbound Trips)

Appendix L

Streetlight Top Routes – Commercial Land Use

StreetLight Top Routes – Retail Proxy: Liberty Station

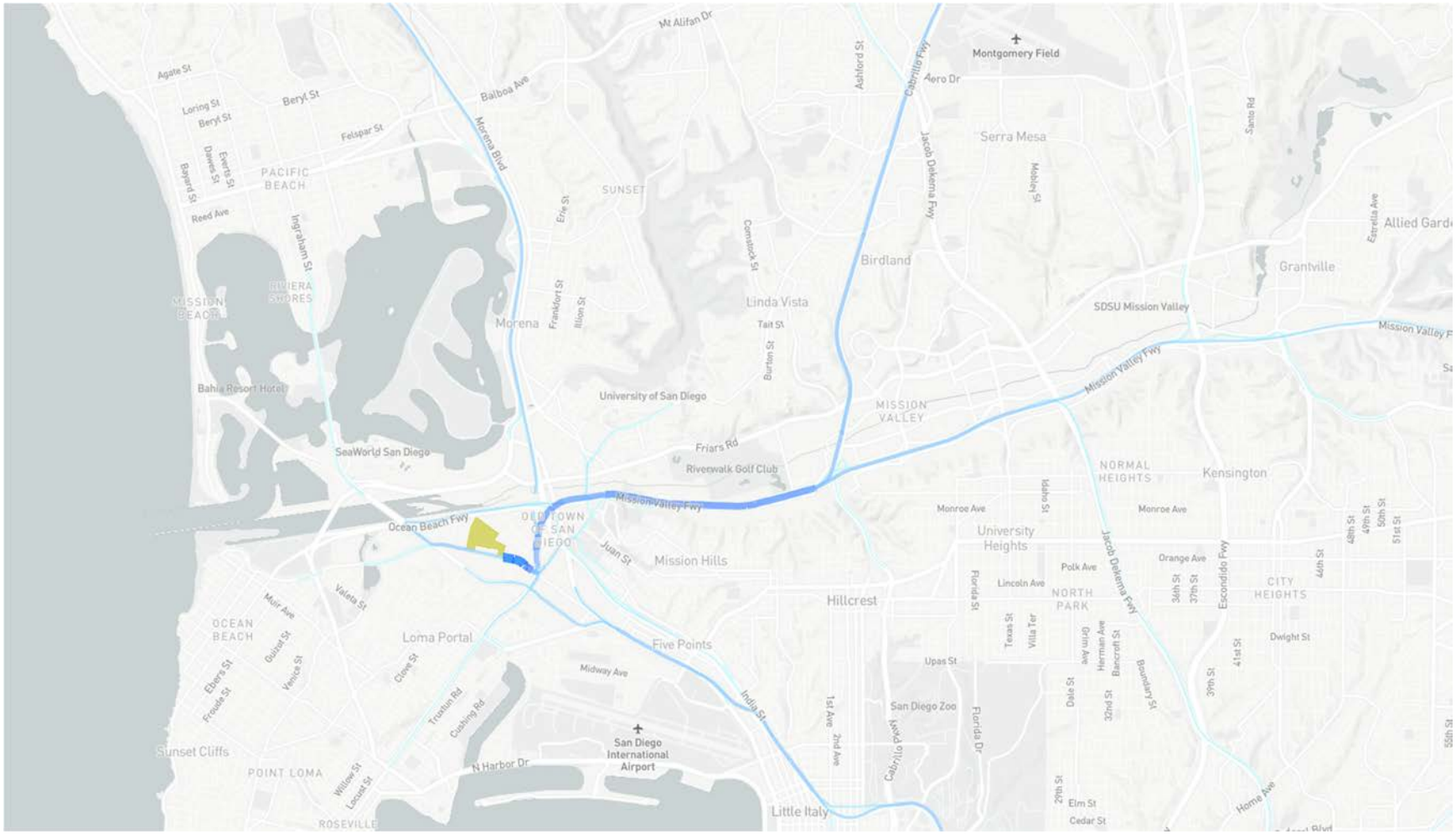


Source date: Year 2019 (Average Day)

Appendix M

Streetlight Top Routes – Entertainment Center Land Use

StreetLight Top Routes – Existing Arena



Source date: Year 2019 (Concert Day Evening Outbound Trips)

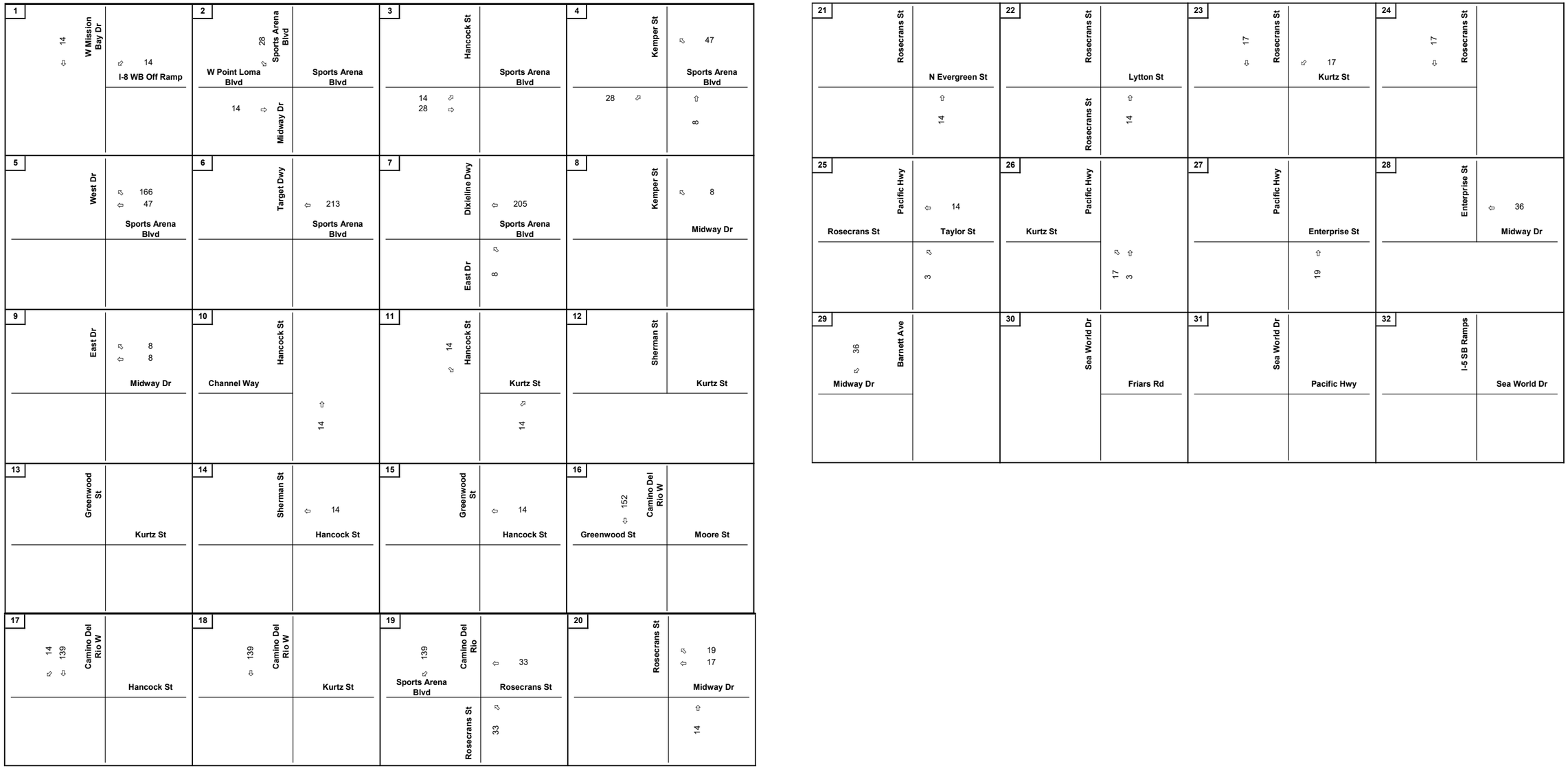
Appendix N

Project Site Trip Assignments

Appendix N Figure 1 - Pechanga Arena Trip Assignment (Page 1 of 3)



Appendix N Figure 1 - Pechanga Arena Trip Assignment (Page 2 of 3)

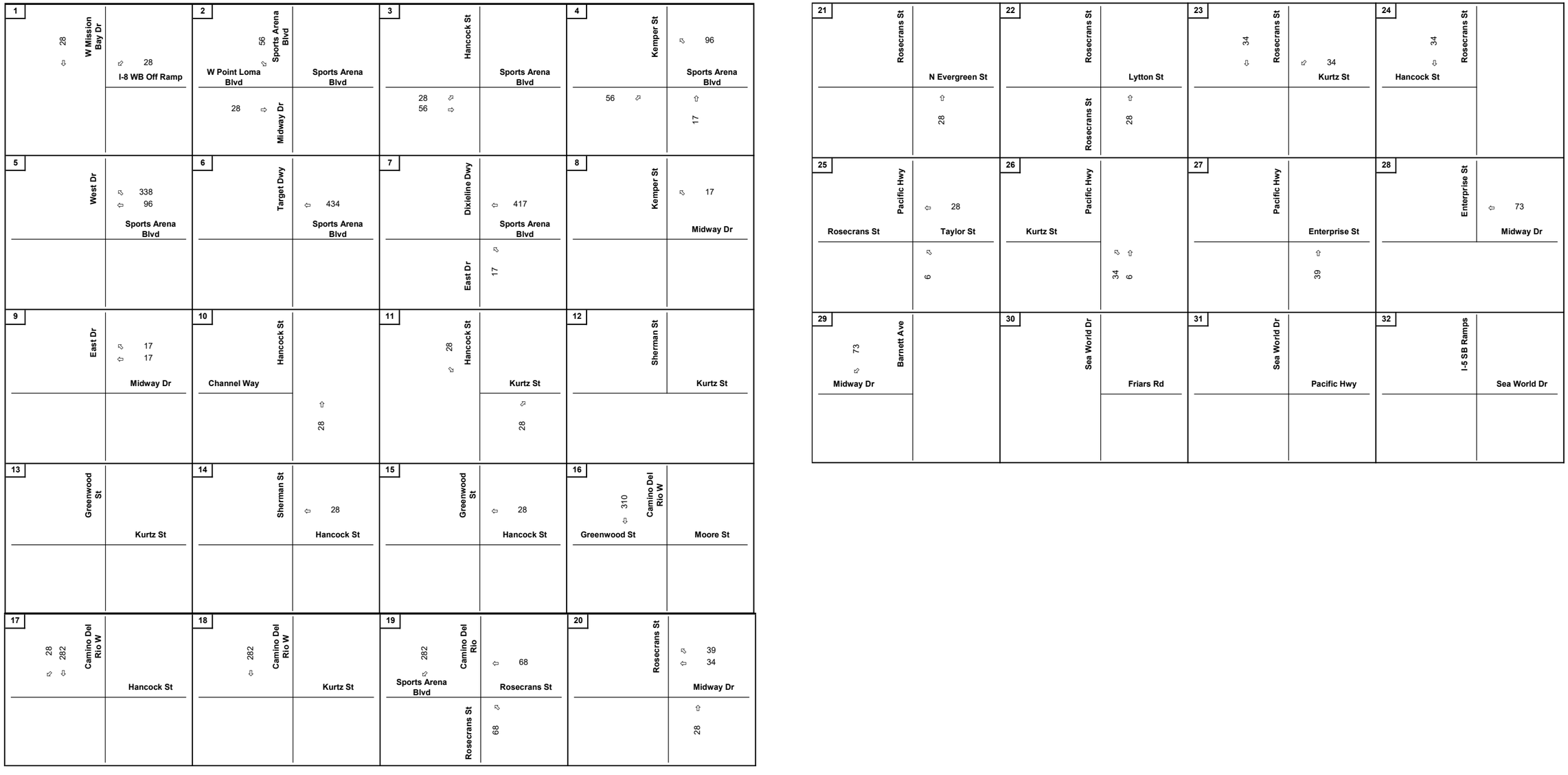


Legend

X = PM Peak Hour Turning Volumes

North

Appendix N Figure 1 - Pechanga Arena Trip Assignment (Page 3 of 3)

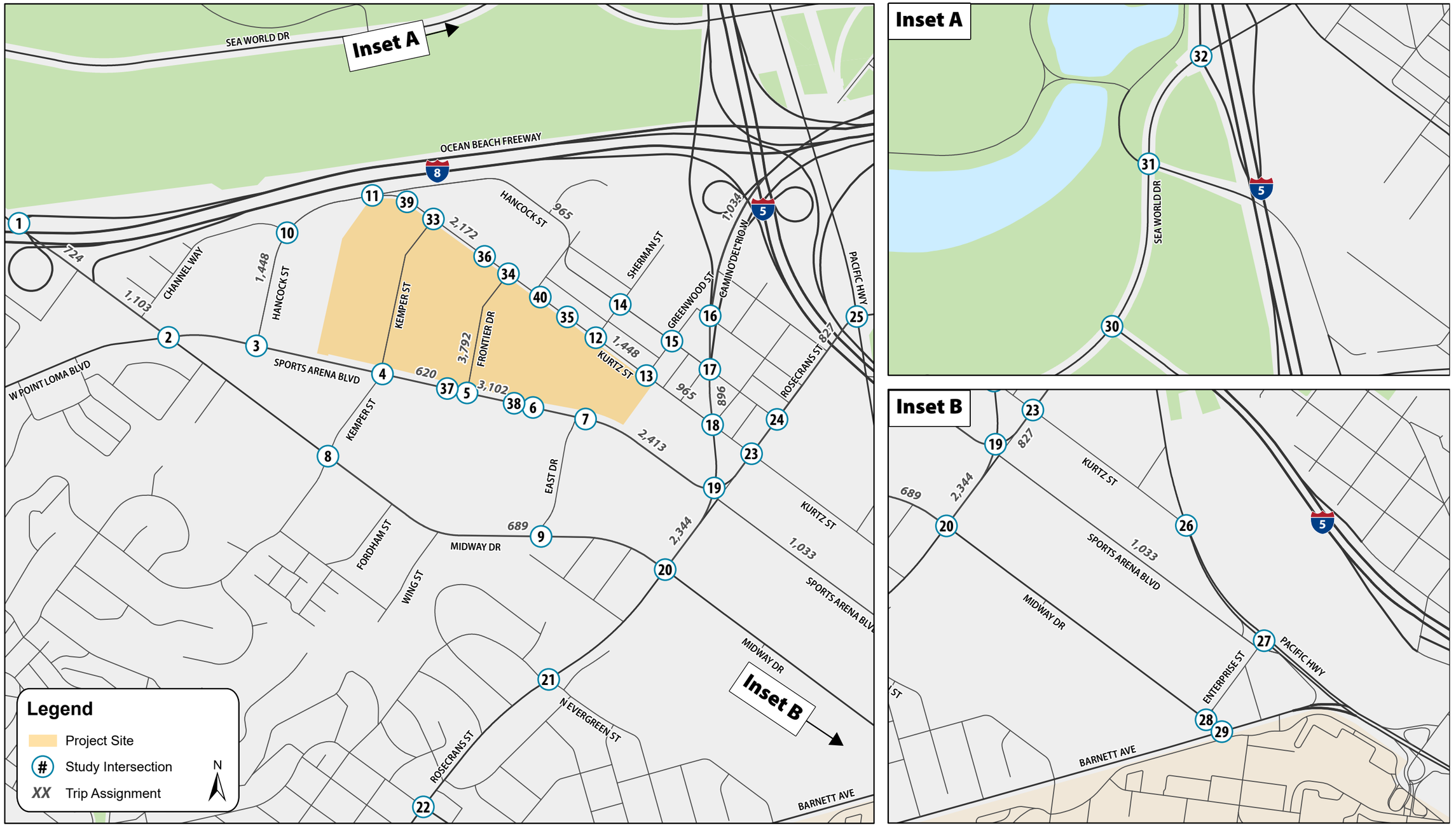


Legend

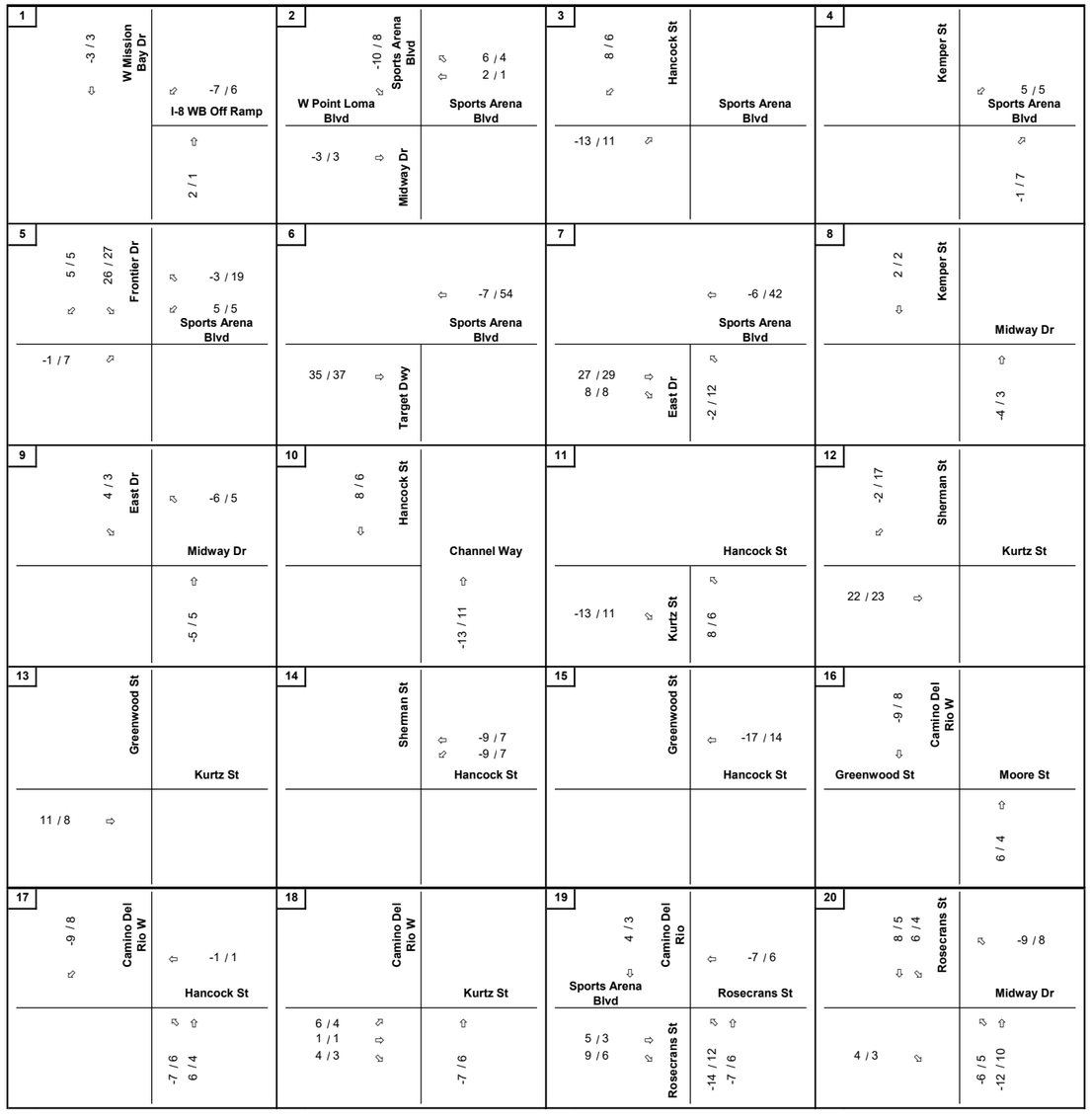
X = Pre-Event Peak Hour Turning Volumes

North

Appendix N Figure 2 - Opening Year (2030) Plus Project Phase 1 Commercial Trip Assignment (Page 1 of 3)



Appendix N Figure 2 - Opening Year (2030) Plus Project Phase 1 Commercial Trip Assignment (Page 2 of 3)

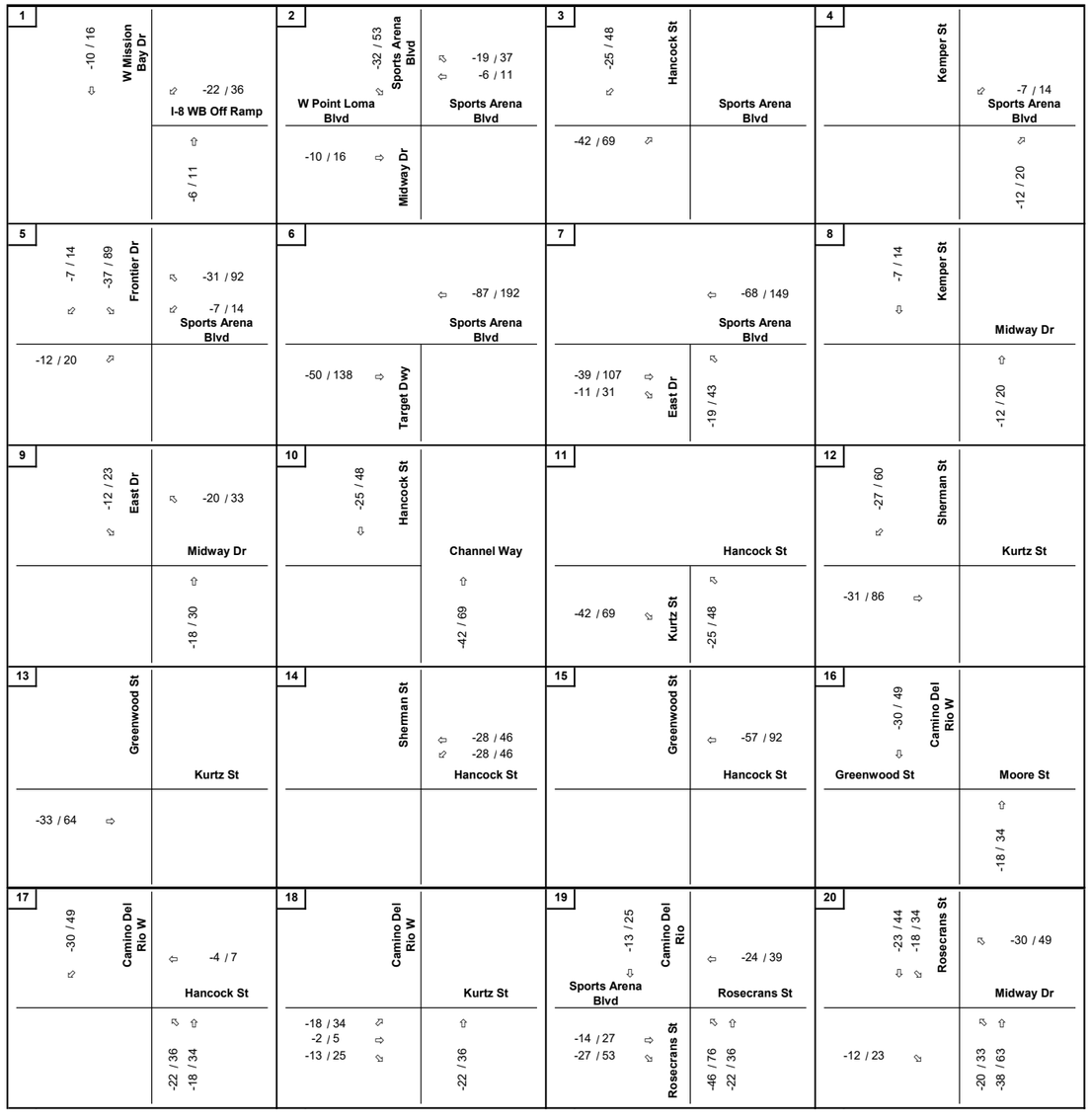


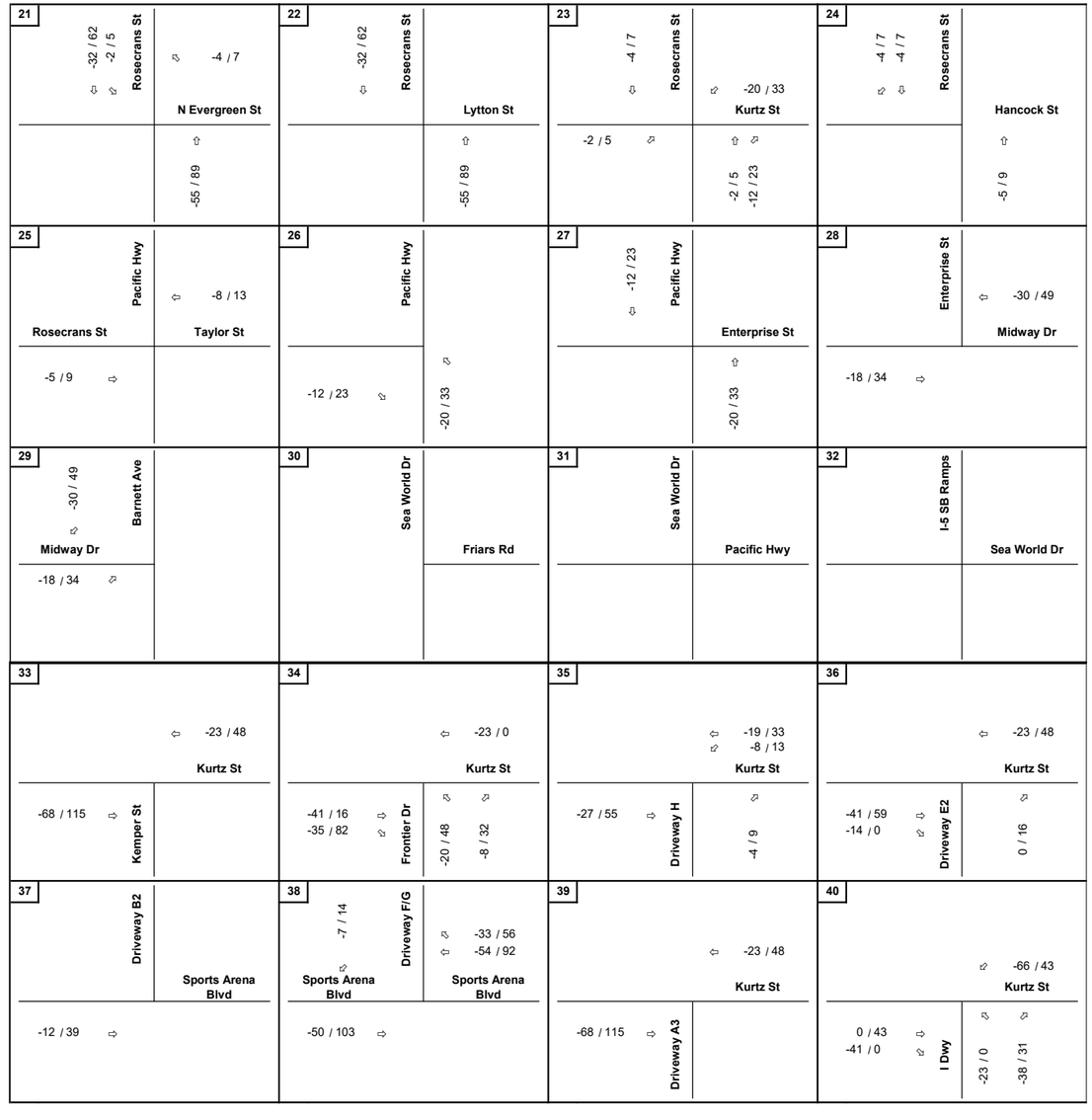
Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Appendix N Figure 2 - Opening Year (2030) Plus Project Phase 1 Commercial Trip Assignment (Page 3 of 3)



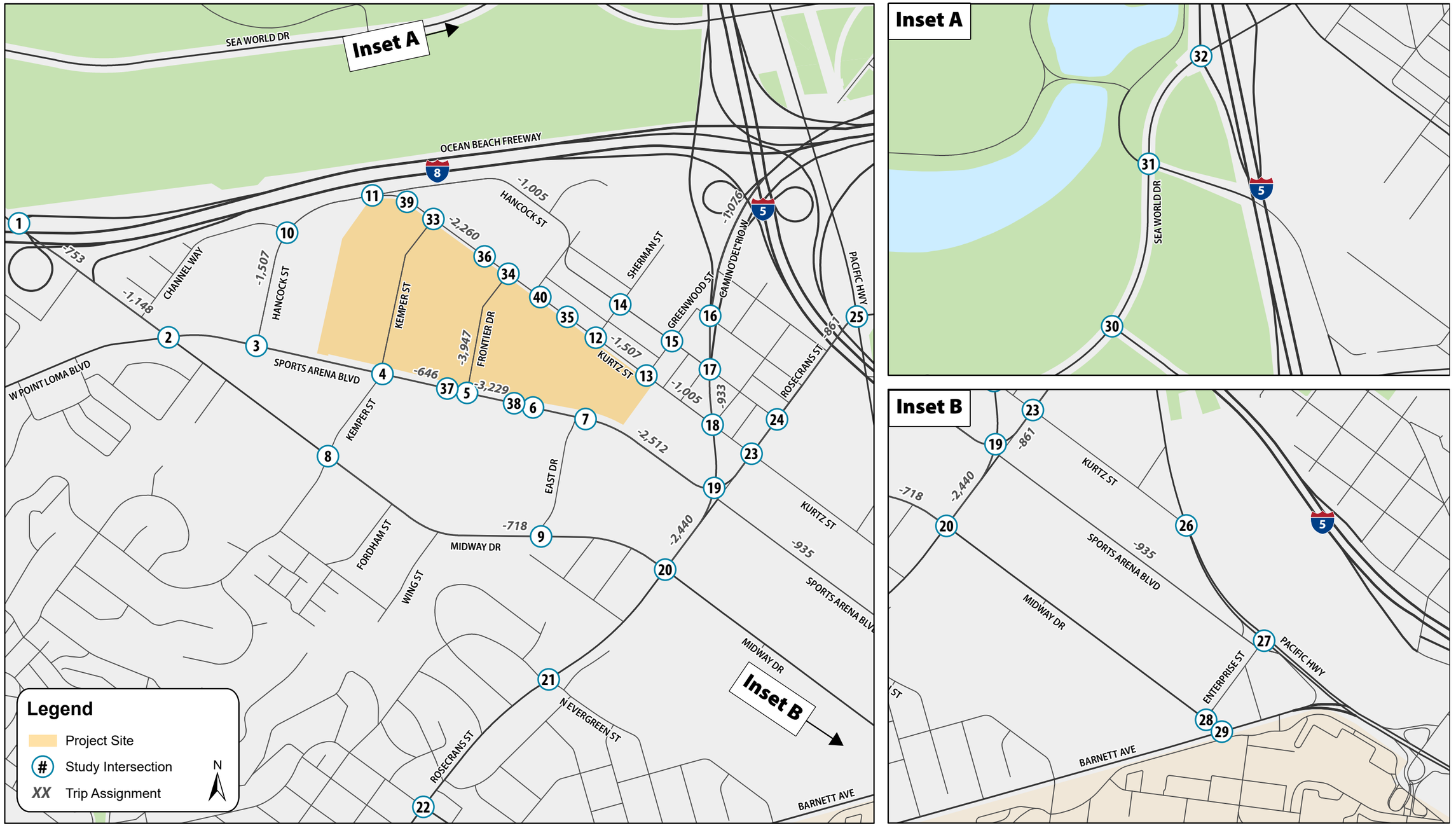


Legend

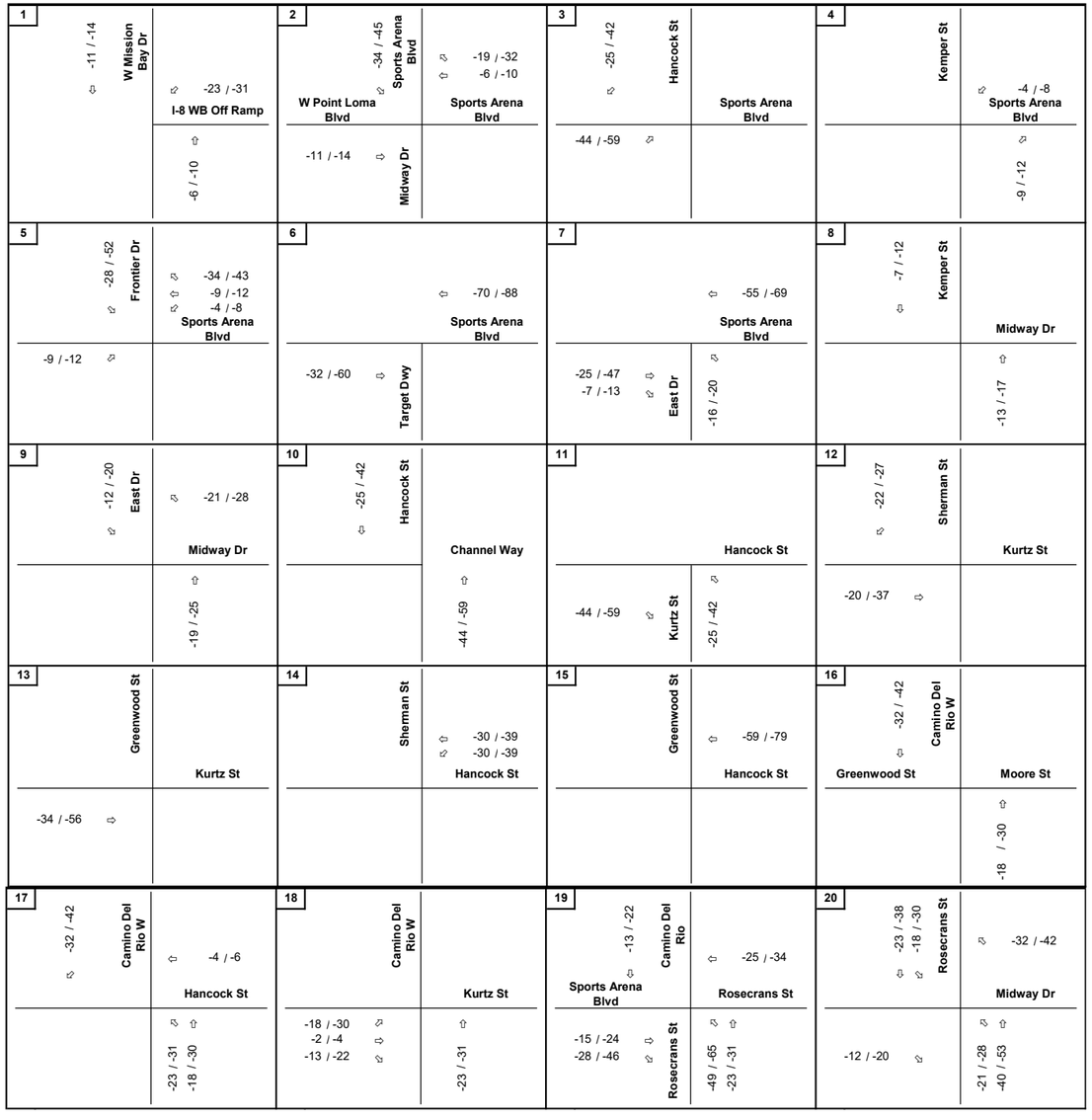
X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

North

Appendix N Figure 3 - Opening Year (2035) Plus Project Phase 2 Buildout Commercial Trip Assignment (Page 1 of 3)



Appendix N Figure 3 - Opening Year (2035) Plus Project Phase 2 Buildout Commercial Trip Assignment (Page 2 of 3)



Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Appendix N Figure 3 - Opening Year (2035) Plus Project Phase 2 Buildout Commercial Trip Assignment (Page 3 of 3)



Legend

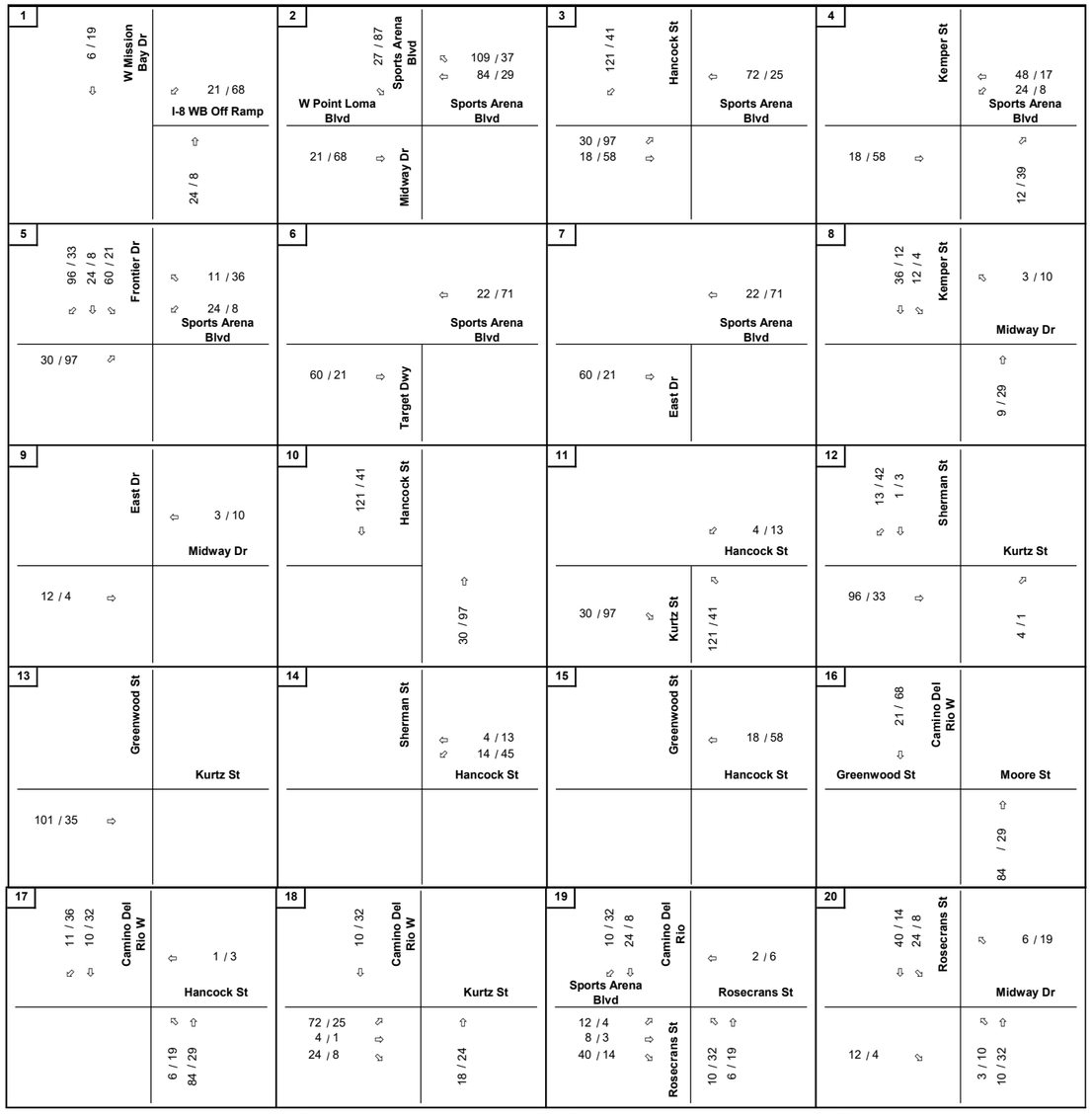
X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

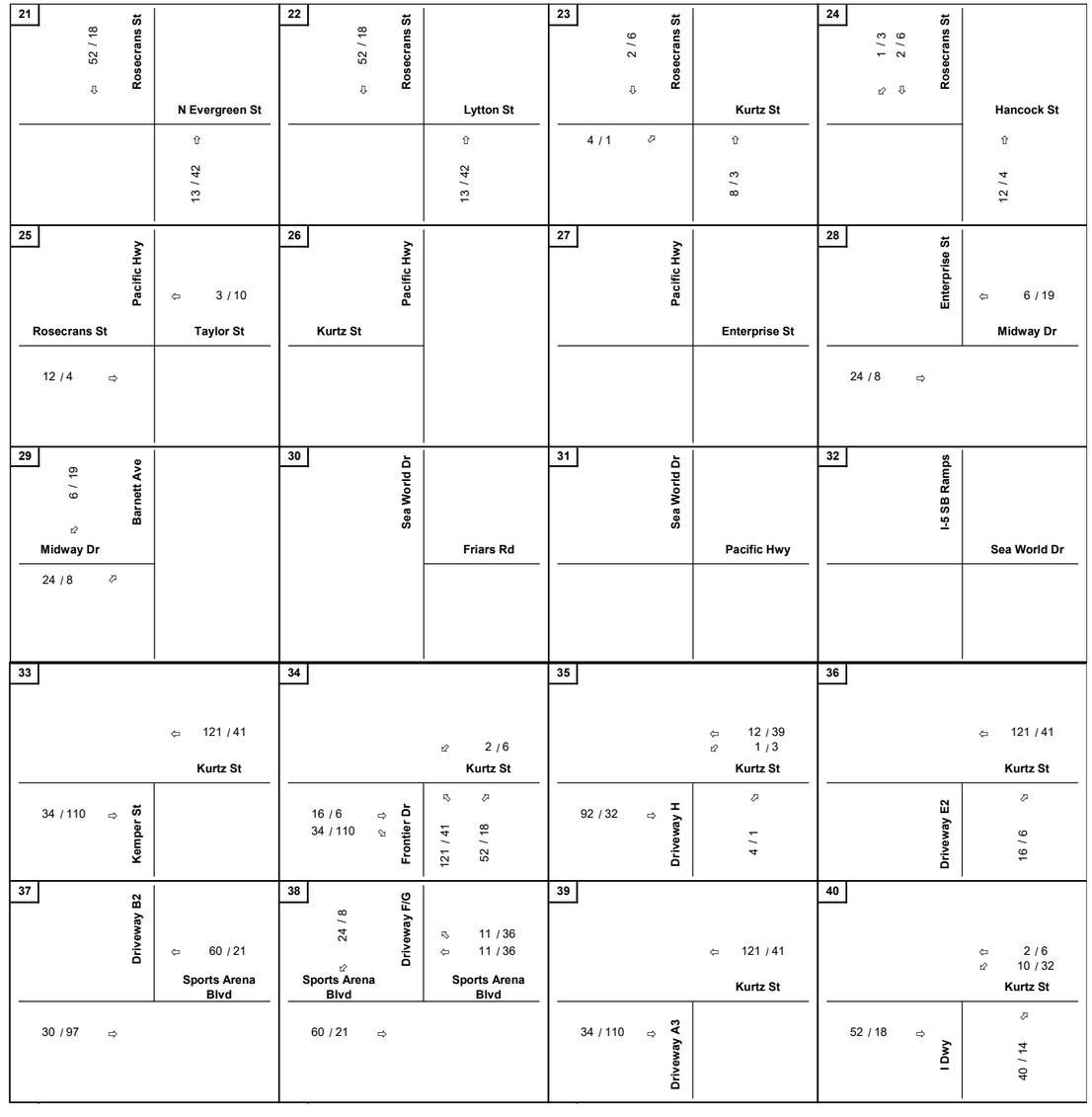
North

Appendix N Figure 4 - Opening Year (2030) Plus Project Phase 1 Residential Trip Assignment (Page 1 of 3)



Appendix N Figure 4 - Opening Year (2030) Plus Project Phase 1 Residential Trip Assignment (Page 2 of 3)



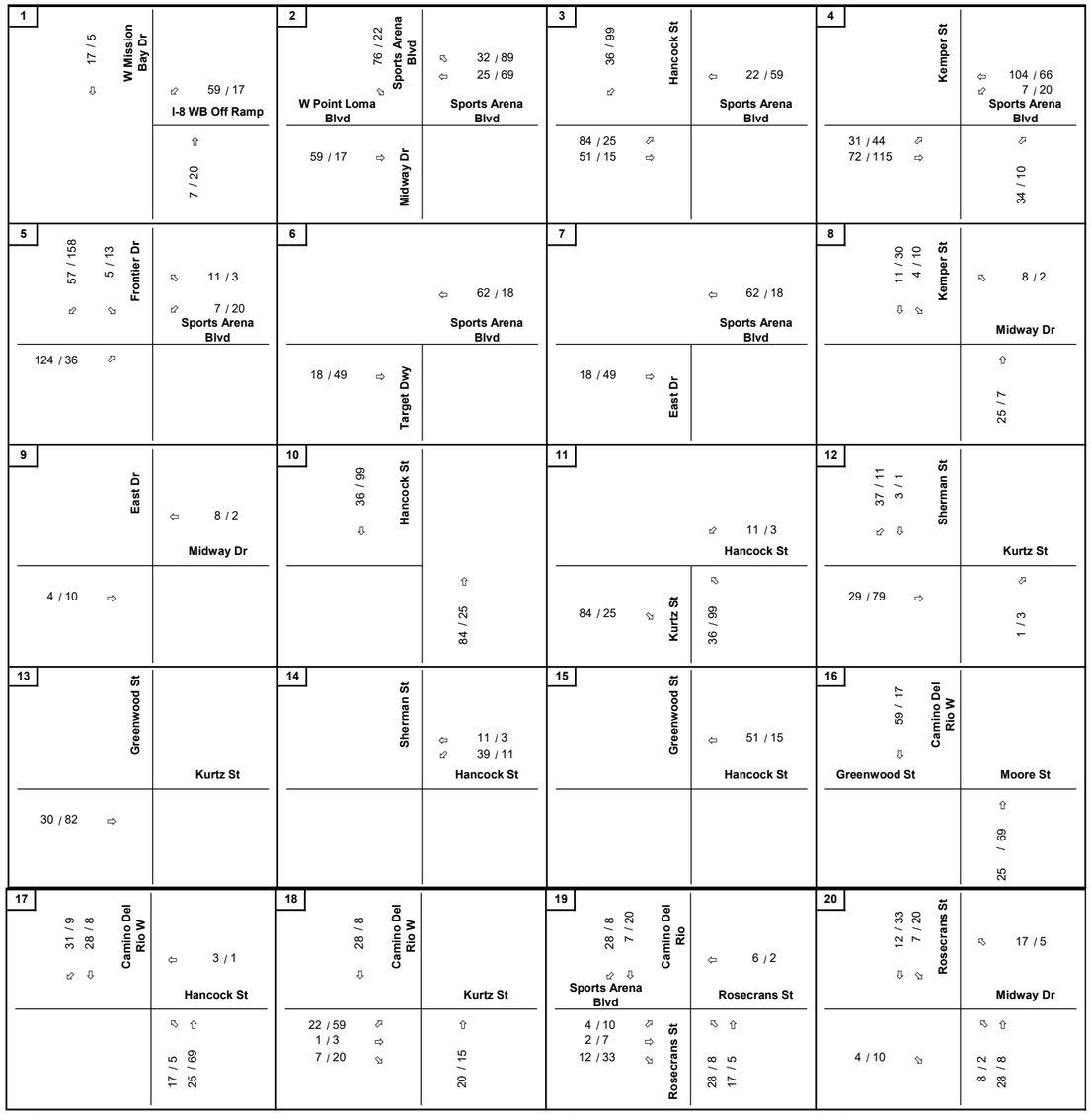


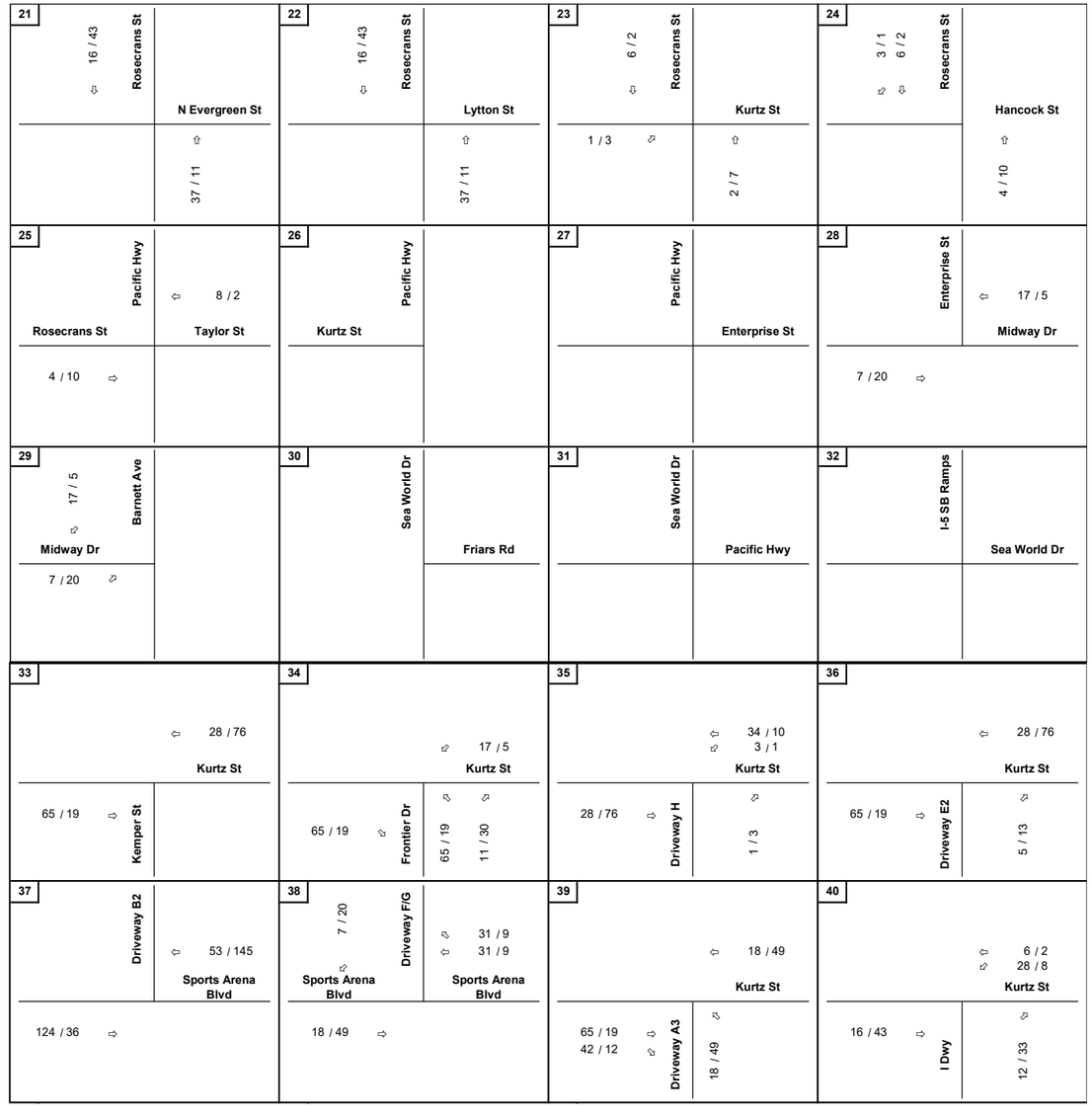
Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Appendix N Figure 4 - Opening Year (2030) Plus Project Phase 1 Residential Trip Assignment (Page 3 of 3)





Legend

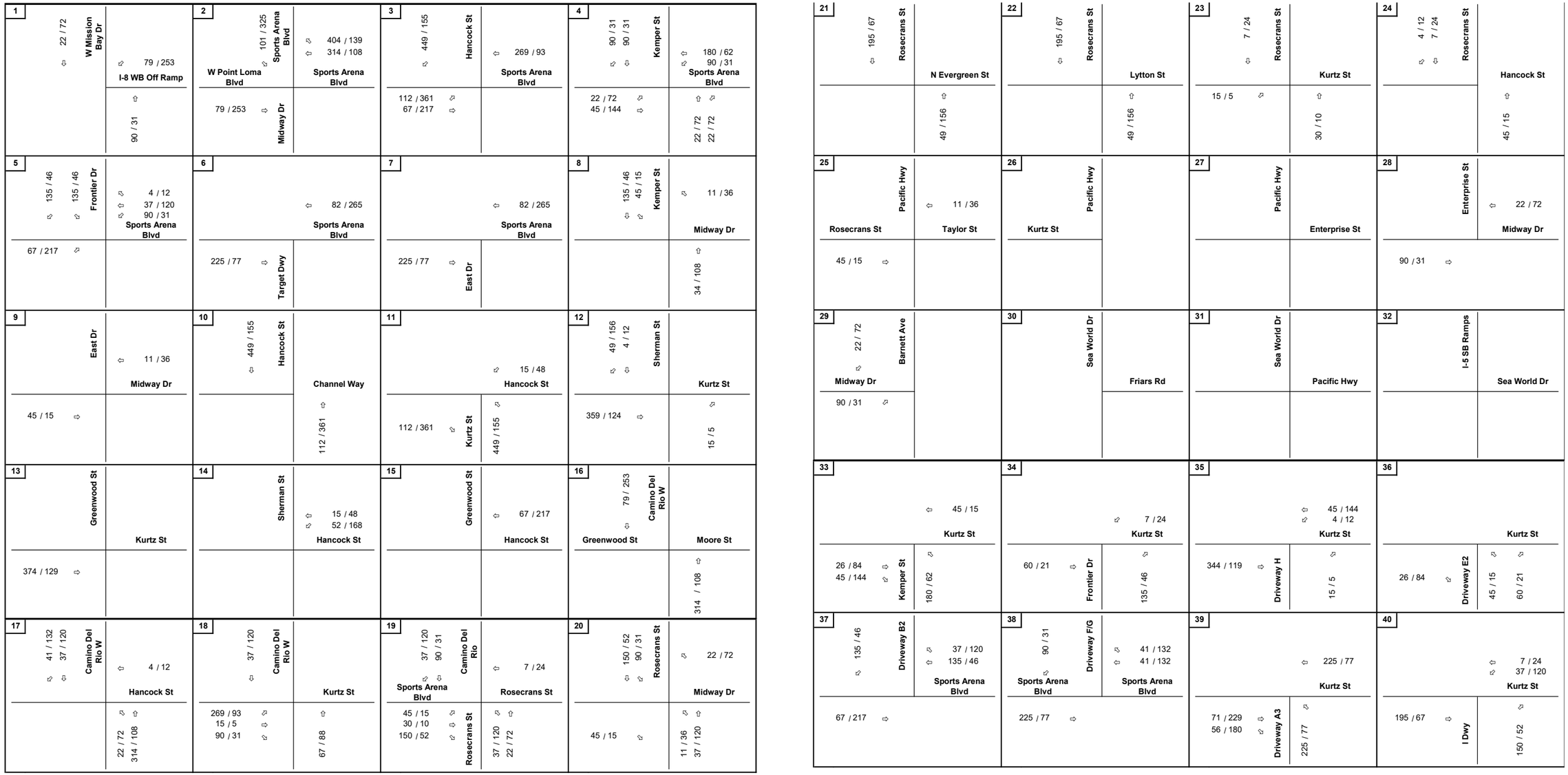
X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

North

Appendix N Figure 5 - Opening Year (2035) Plus Project Phase 2 Buildout Residential Trip Assignment (Page 1 of 3)



Appendix N Figure 5 - Opening Year (2035) Plus Project Phase 2 Buildout Residential Trip Assignment (Page 2 of 3)

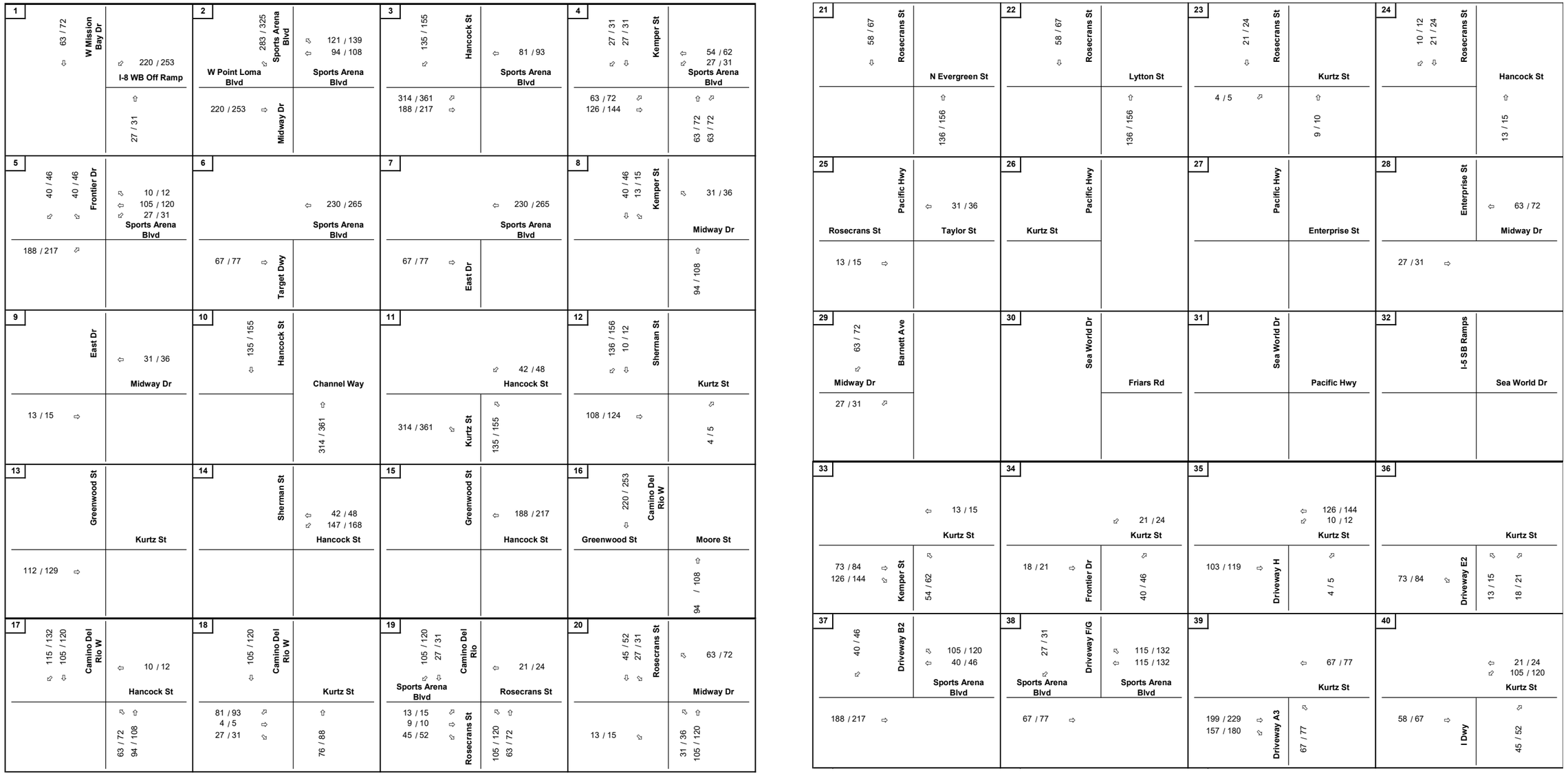


Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Appendix N Figure 5 - Opening Year (2035) Plus Project Phase 2 Buildout Residential Trip Assignment (Page 3 of 3)



Legend

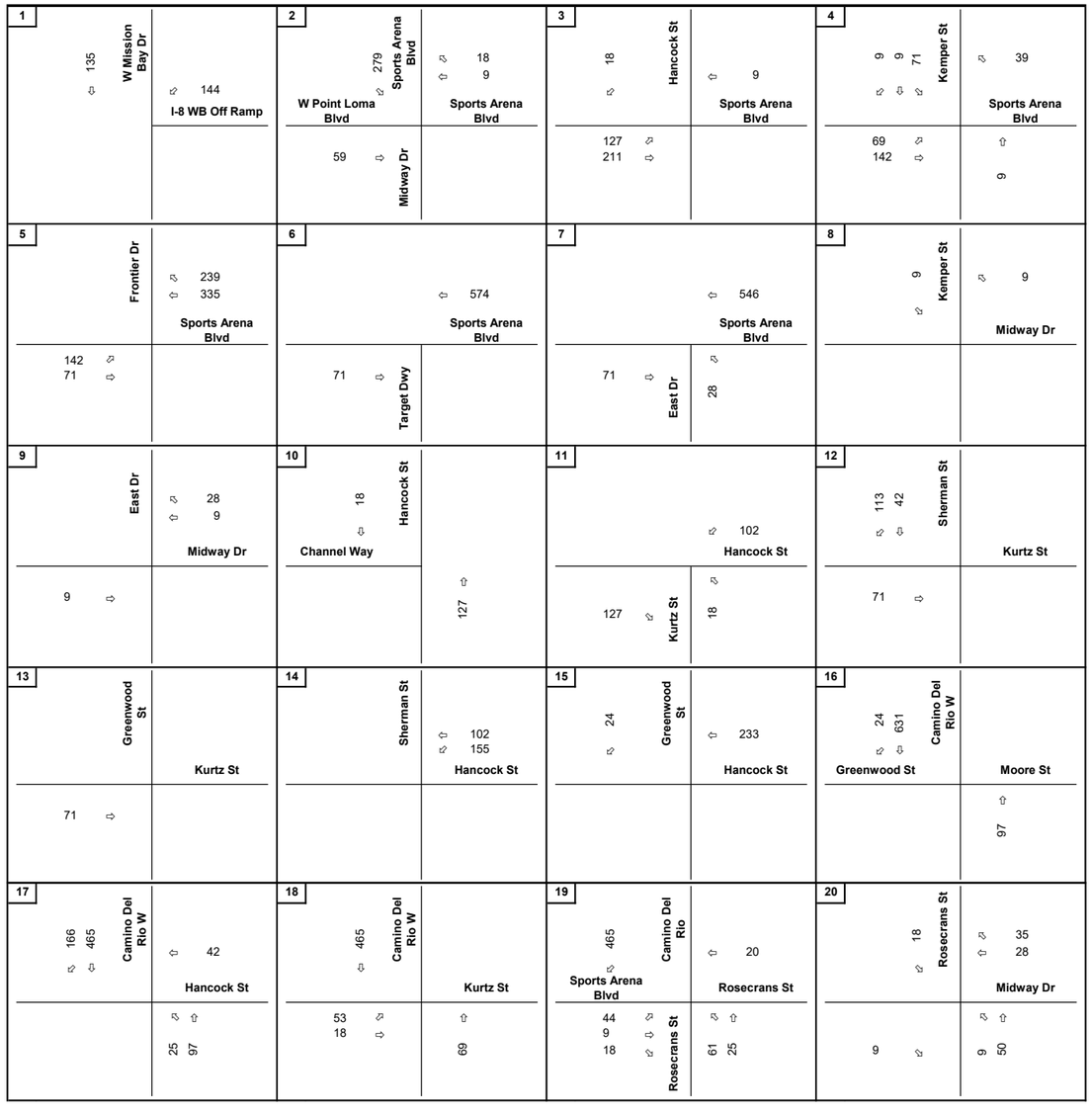
X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

North

Appendix N Figure 6 - Opening Year (2030) Plus Project Phase 1 Entertainment Center Trip Assignment (14,500 spectators) (Page 1 of 3)



Appendix N Figure 6 - Opening Year (2030) Plus Project Phase 1 Entertainment Center Trip Assignment (14,500 spectators) (Page 2 of 3)

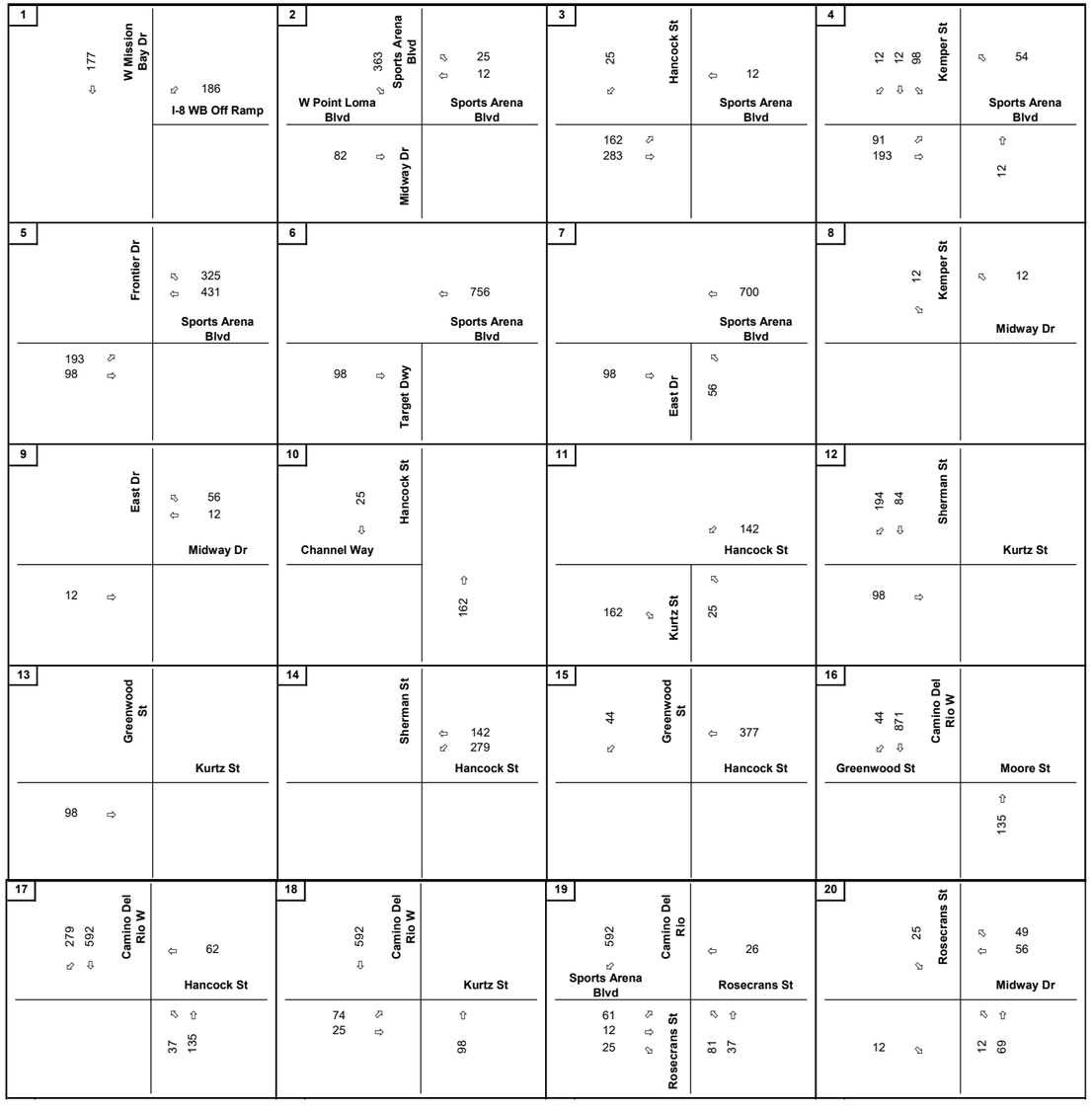


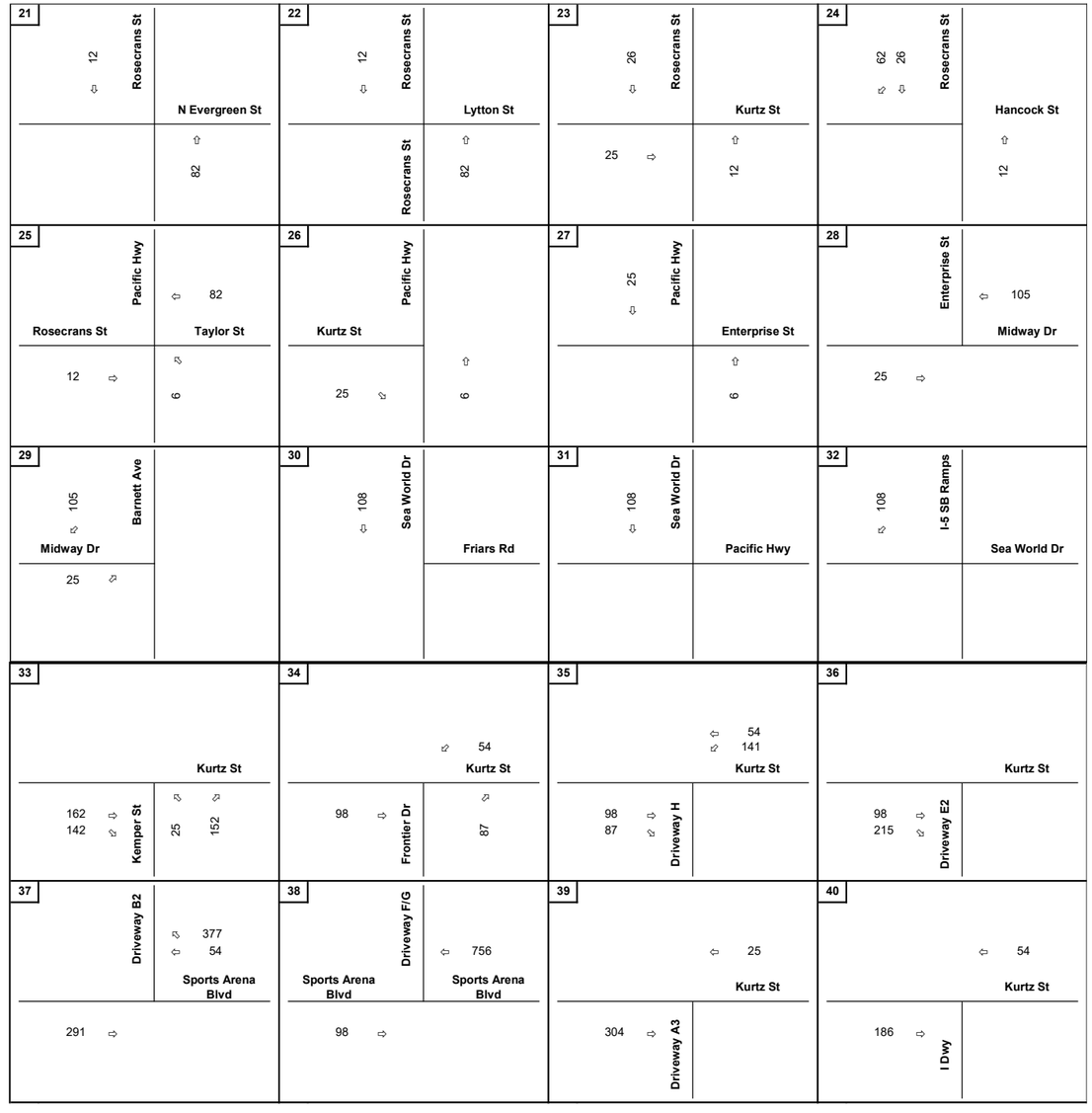
Legend

X = PM Peak Hour Turning Volumes

North

Appendix N Figure 6 - Opening Year (2030) Plus Project Phase 1 Entertainment Center Trip Assignment (14,500 spectators) (Page 3 of 3)





Legend

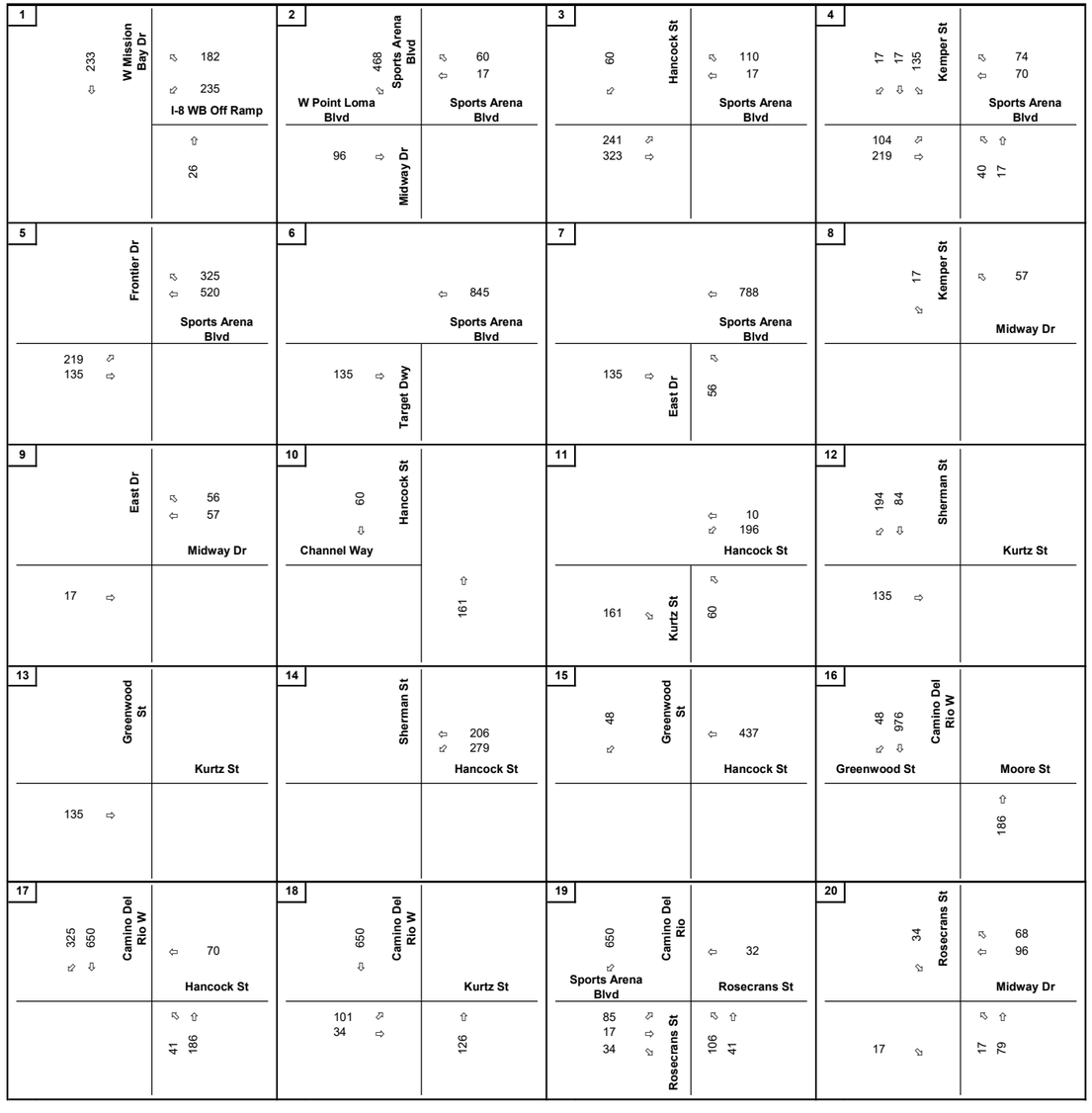
X = Pre-Event Peak Hour Turning Volumes

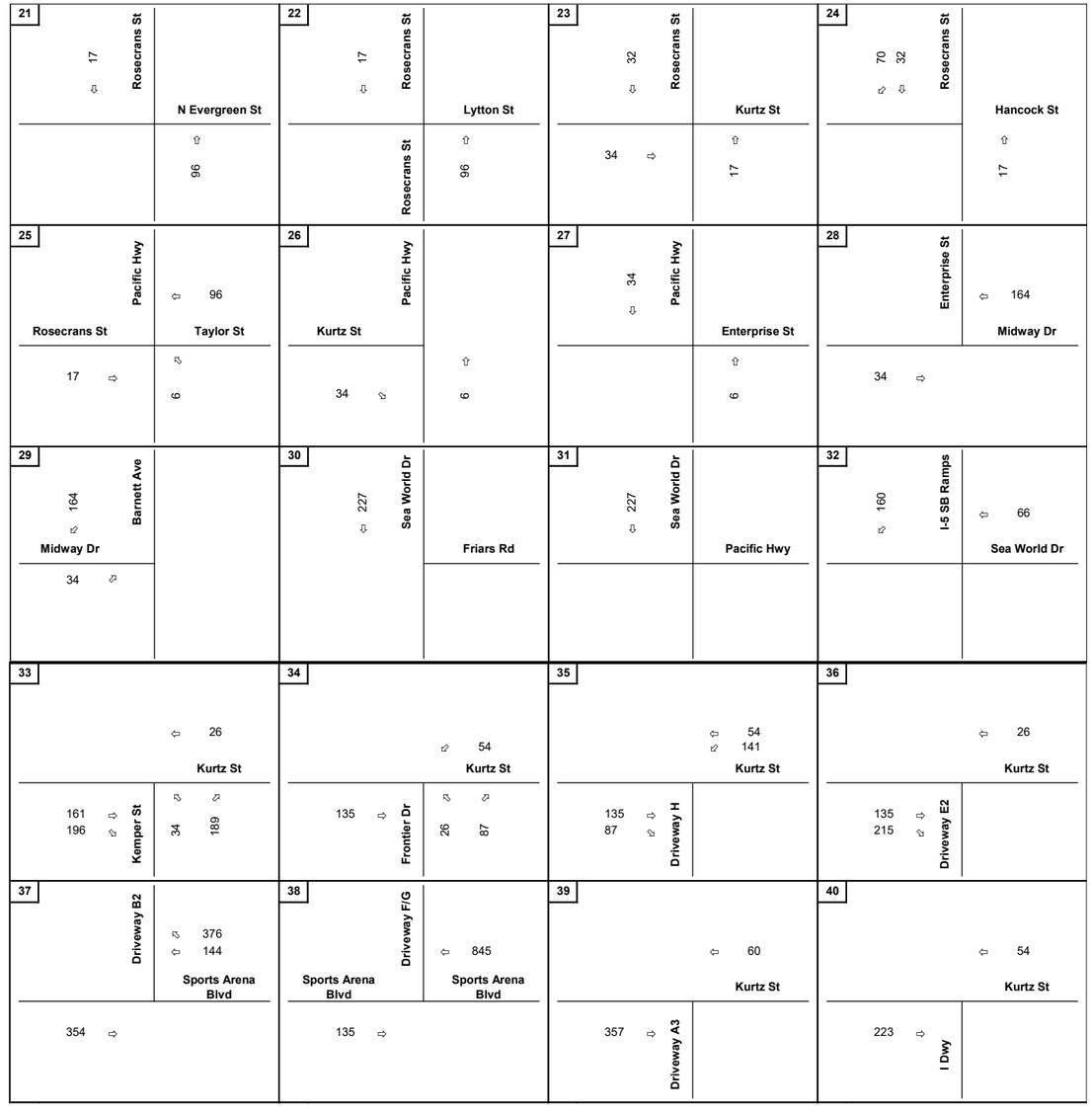
North

Appendix N Figure 7 - Opening Year (2030) Plus Project Phase 1 Entertainment Center Trip Assignment (20,000 spectators) (Page 1 of 2)



Appendix N Figure 7 - Opening Year (2030) Plus Project Phase 1 Entertainment Center Trip Assignment (20,000 spectators) (Page 2 of 2)





Legend

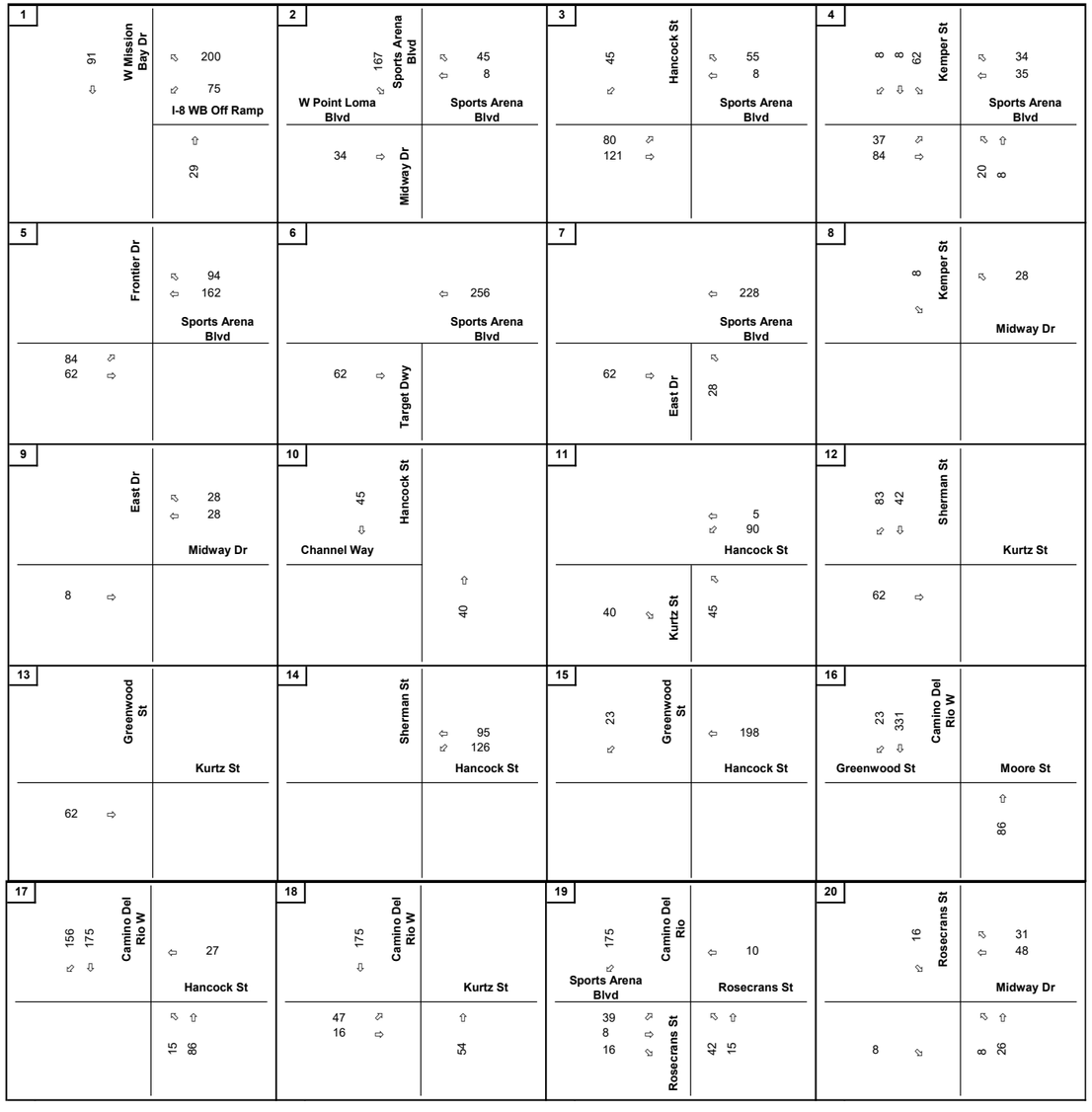
X = Pre-Event Peak Hour Turning Volumes

North

Appendix N Figure 8 - Opening Year (2035) Plus Project Phase 2 Entertainment Center Trip Assignment (14,500 spectators) (Page 1 of 3)



Appendix N Figure 8 - Opening Year (2035) Plus Project Phase 2 Entertainment Center Trip Assignment (14,500 spectators) (Page 2 of 3)

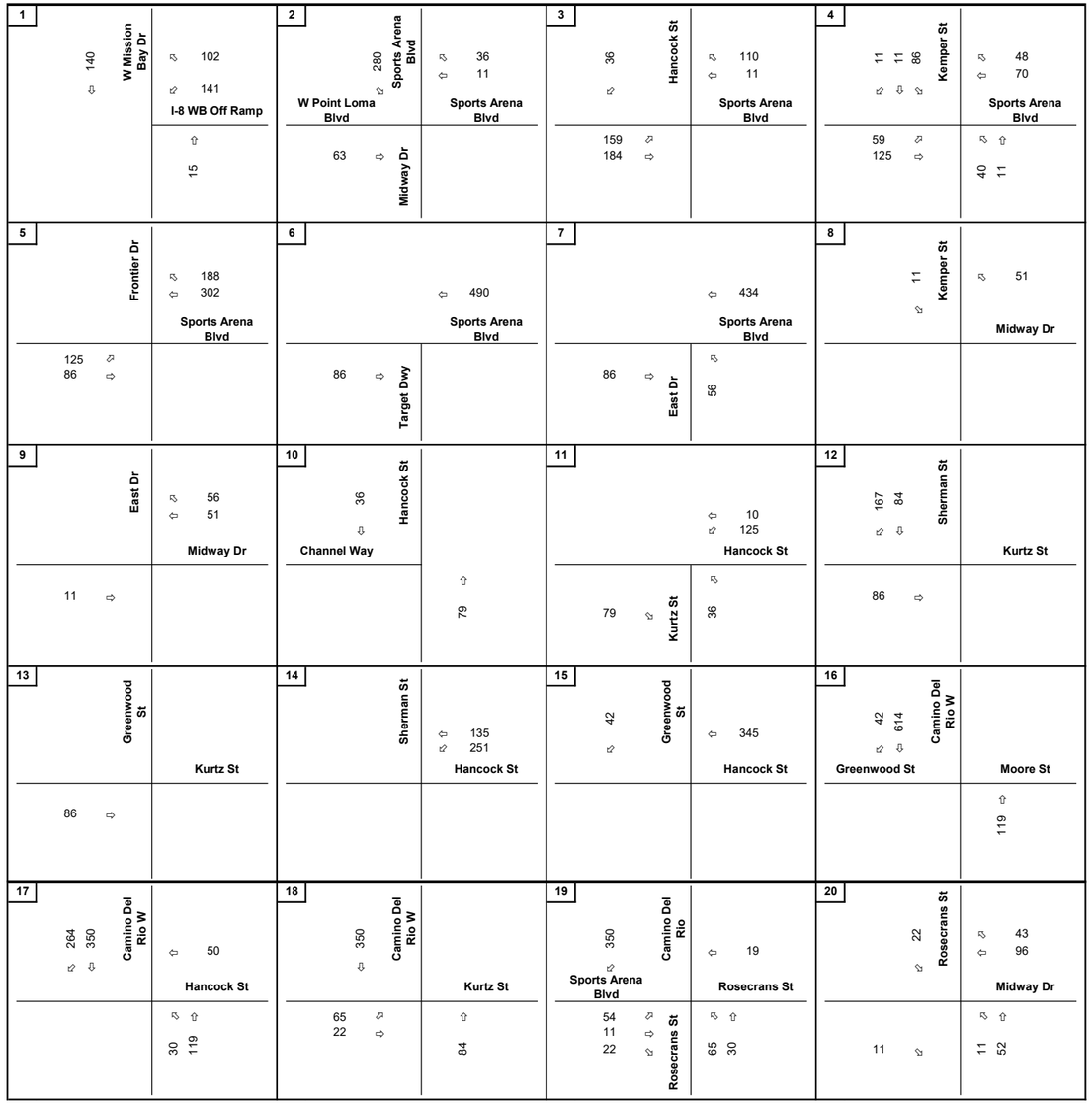


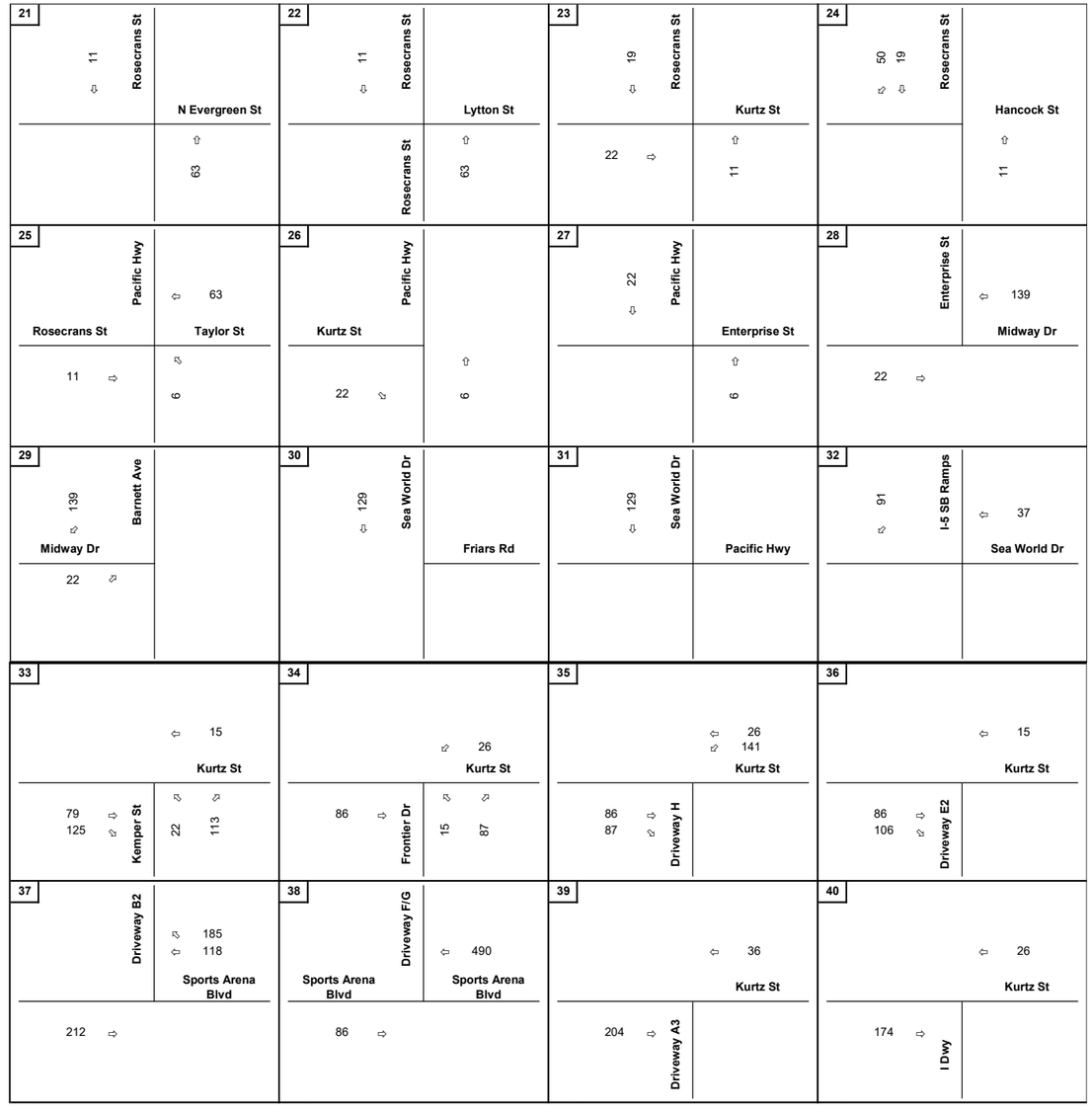
Legend

X = PM Peak Hour Turning Volumes

North

Appendix N Figure 8 - Opening Year (2035) Plus Project Phase 2 Entertainment Center Trip Assignment (14,500 spectators) (Page 3 of 3)



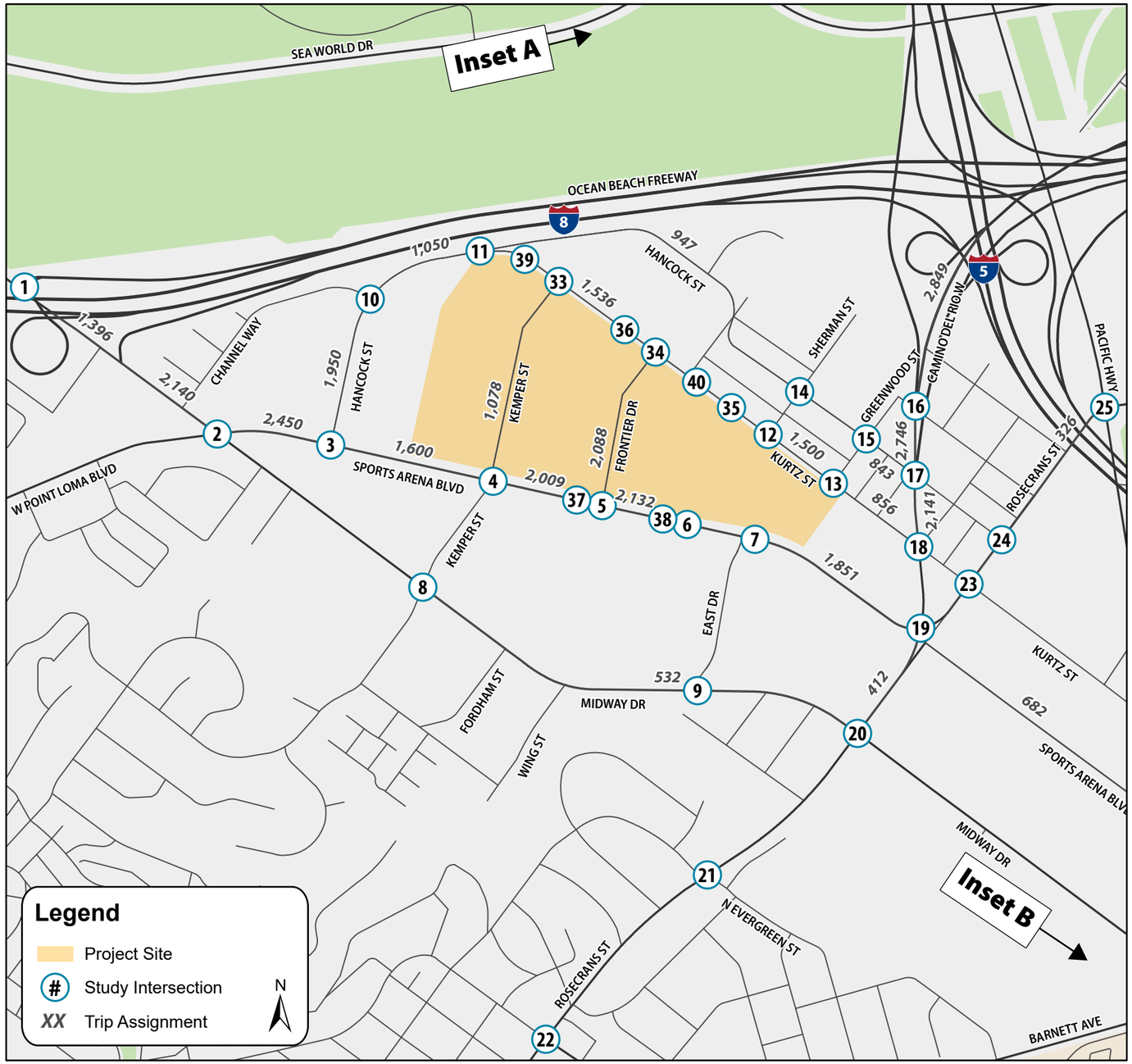


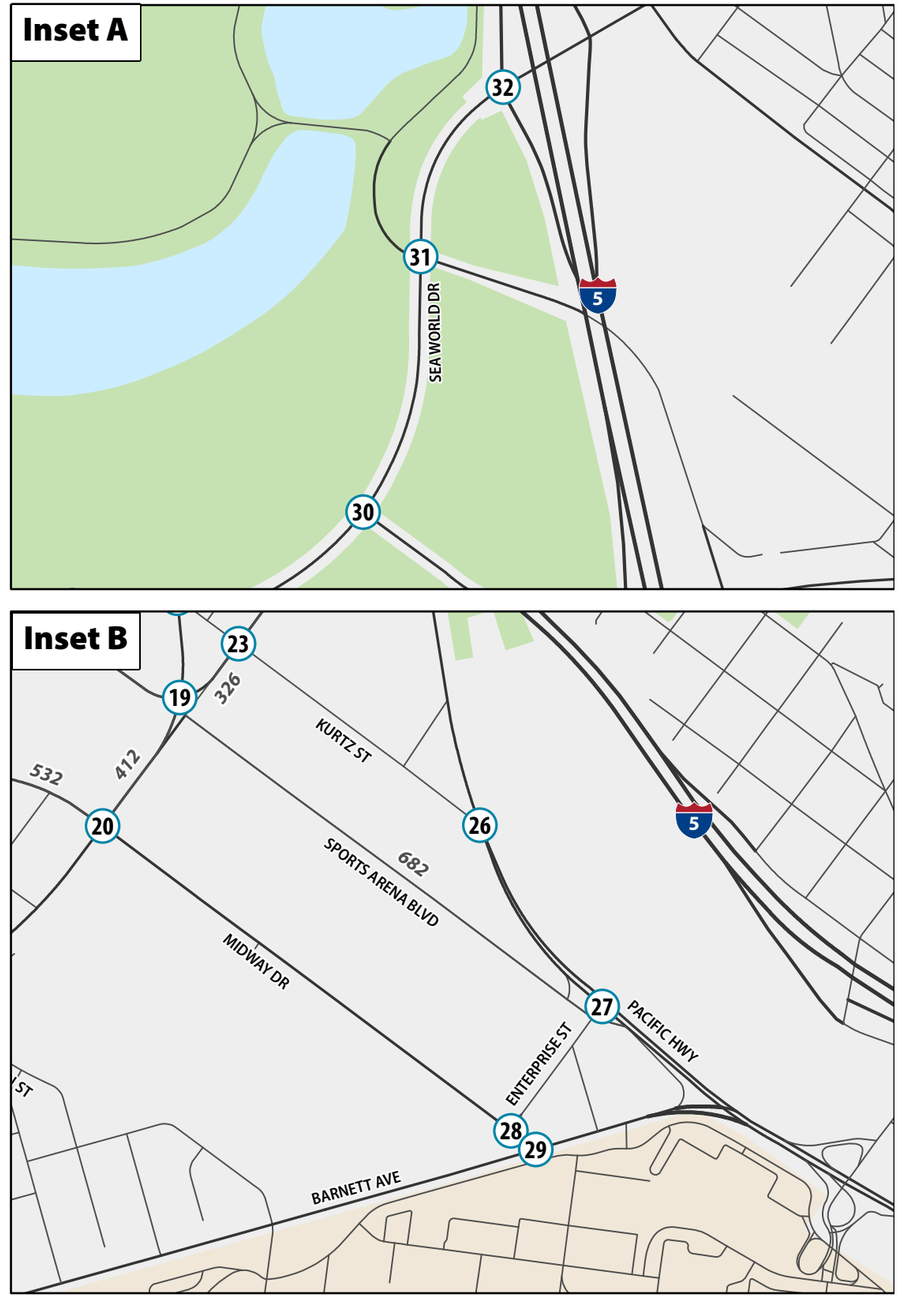
Legend

X = Pre-Event Peak Hour Turning Volumes

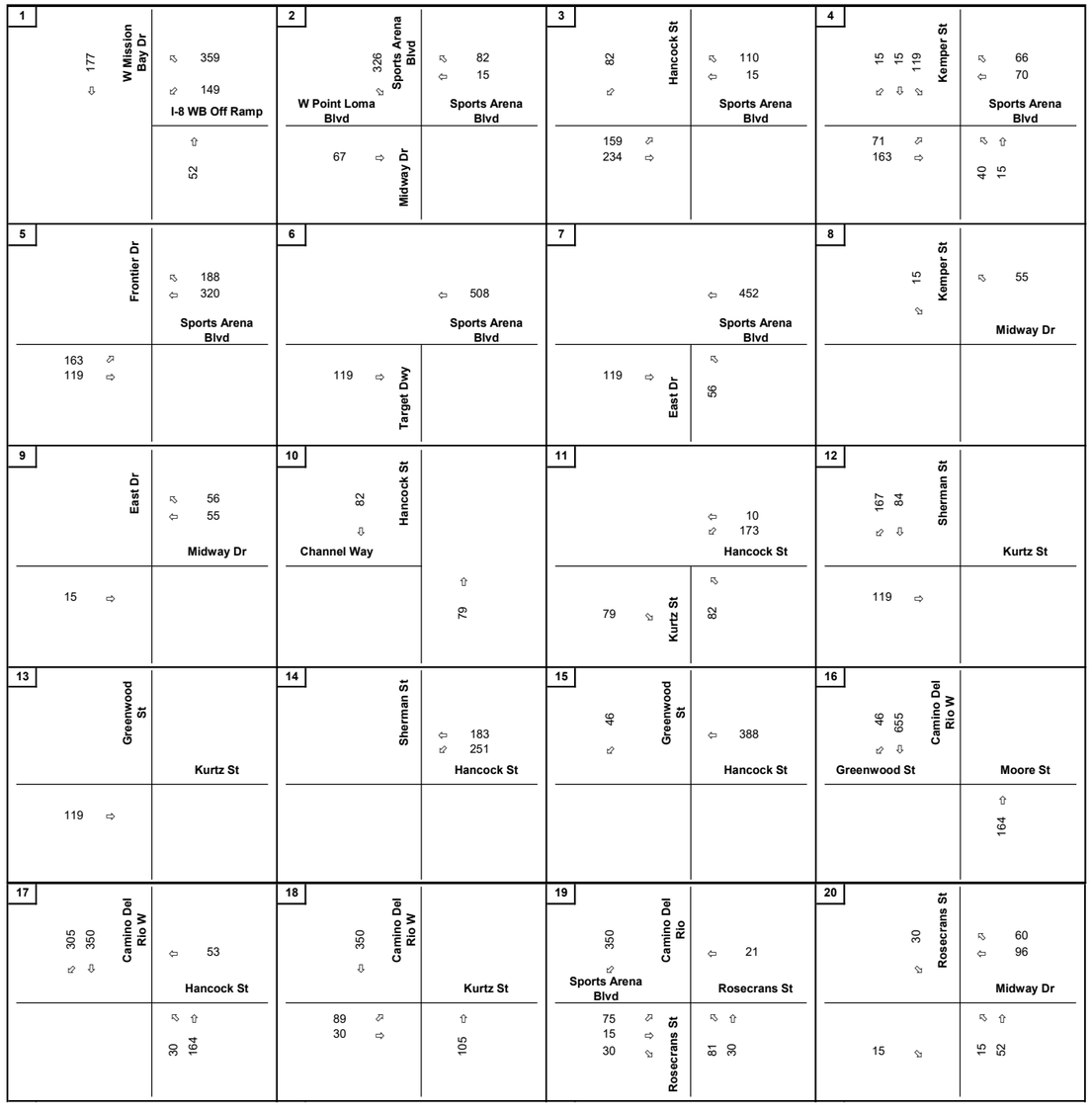
North

Appendix N Figure 9 - Opening Year (2035) Plus Project Phase 2 Entertainment Center Trip Assignment (20,000 spectators) (Page 1 of 2)





Appendix N Figure 9 - Opening Year (2035) Plus Project Phase 2 Entertainment Center Trip Assignment (20,000 spectators) (Page 2 of 2)

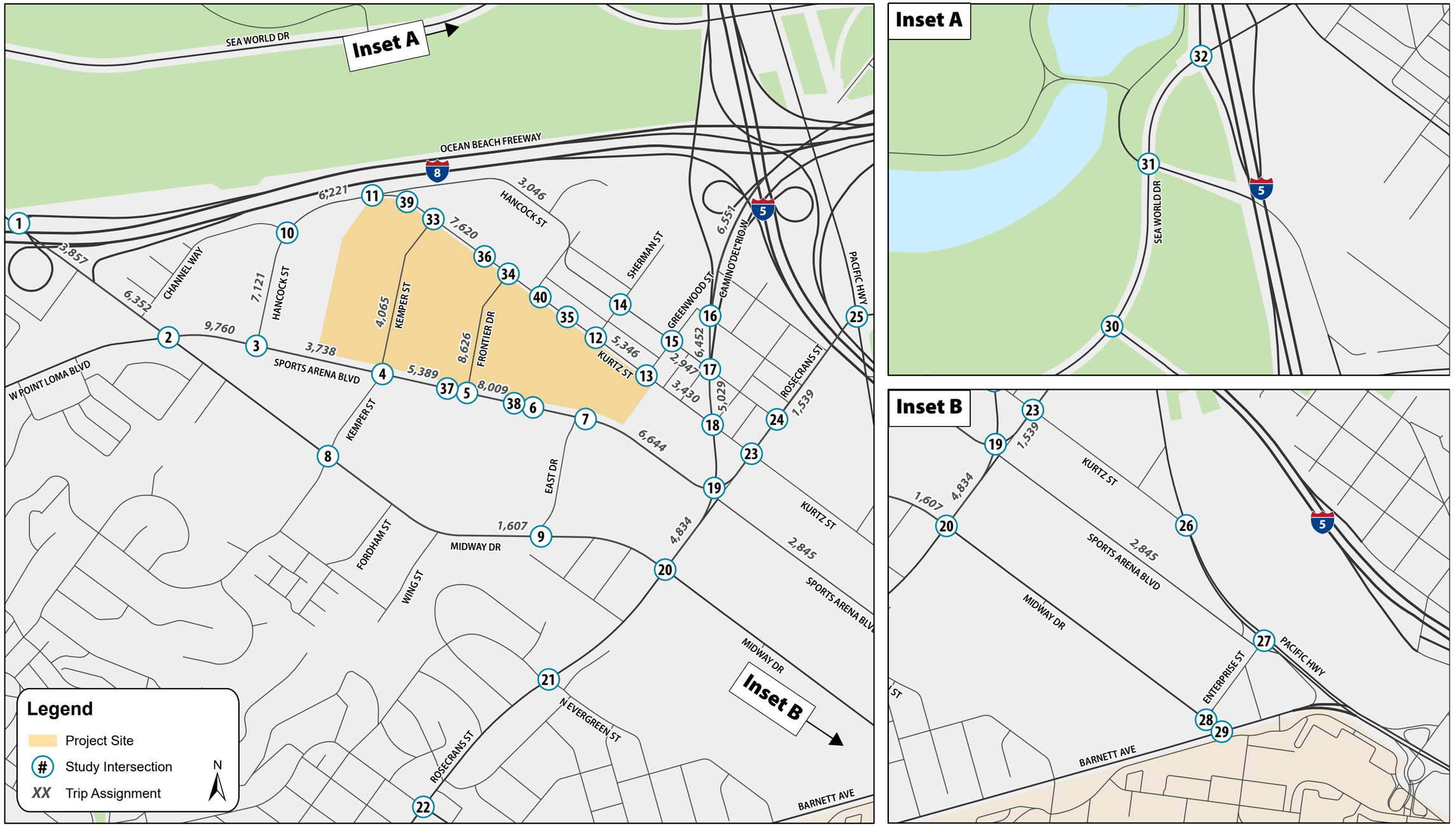


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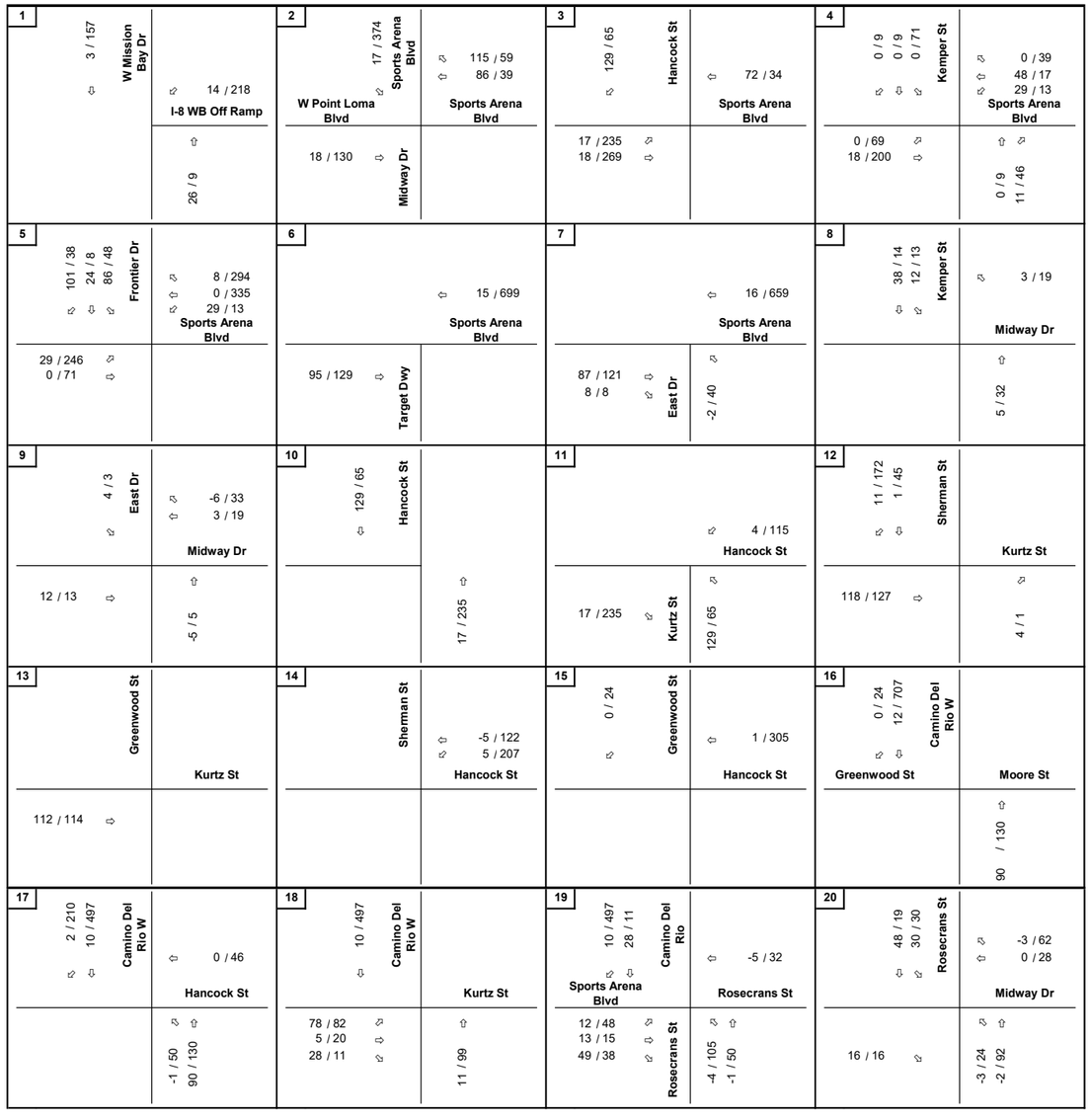
X = Pre-Event Peak Hour Turning Volumes

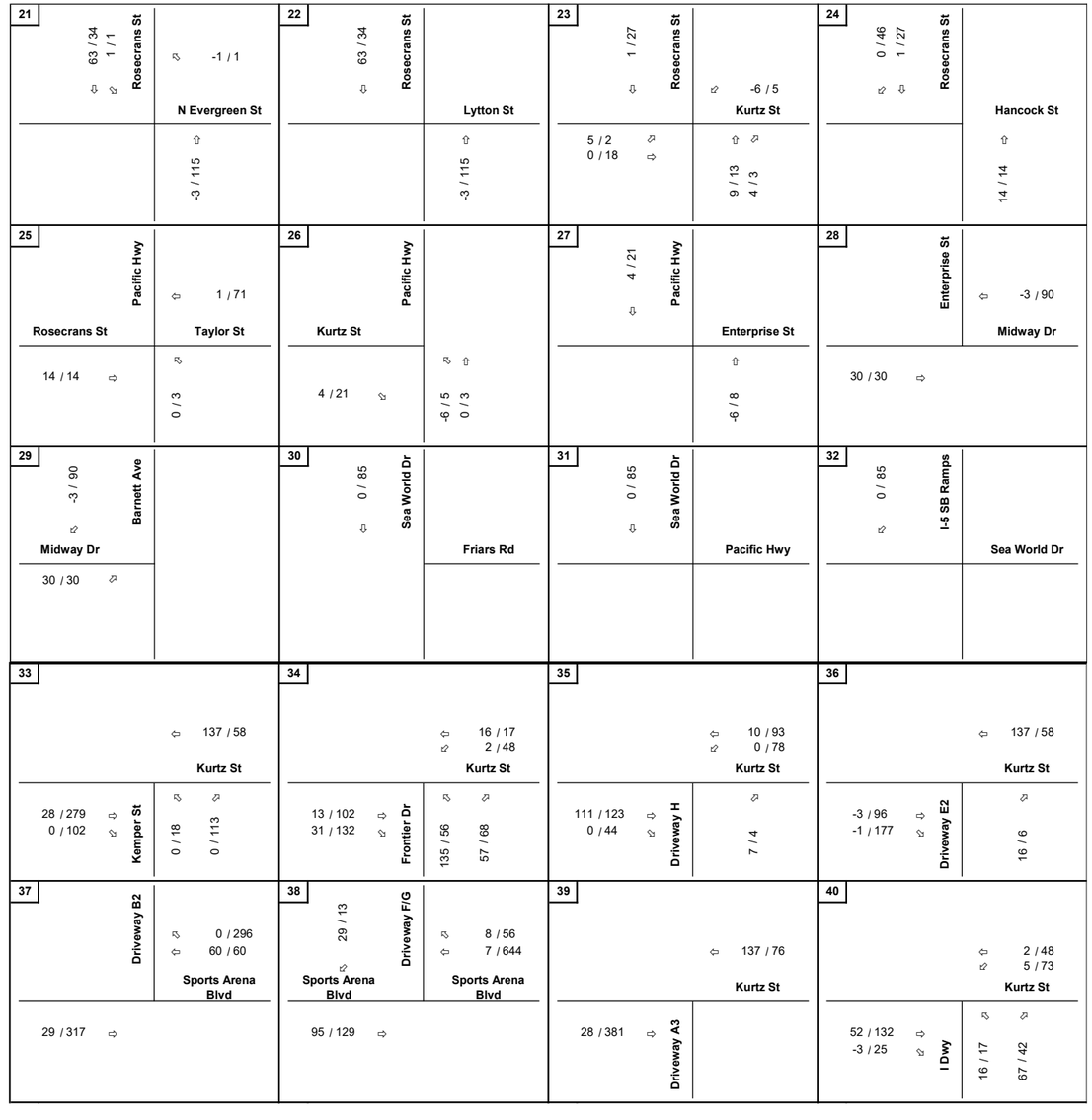
North

Appendix N Figure 10 - Opening Year (2030) Plus Project Phase 1 Total Trip Assignment (14,500 spectators) (Page 1 of 3)



Appendix N Figure 10 - Opening Year (2030) Plus Project Phase 1 Total Trip Assignment (14,500 spectators) (Page 2 of 3)



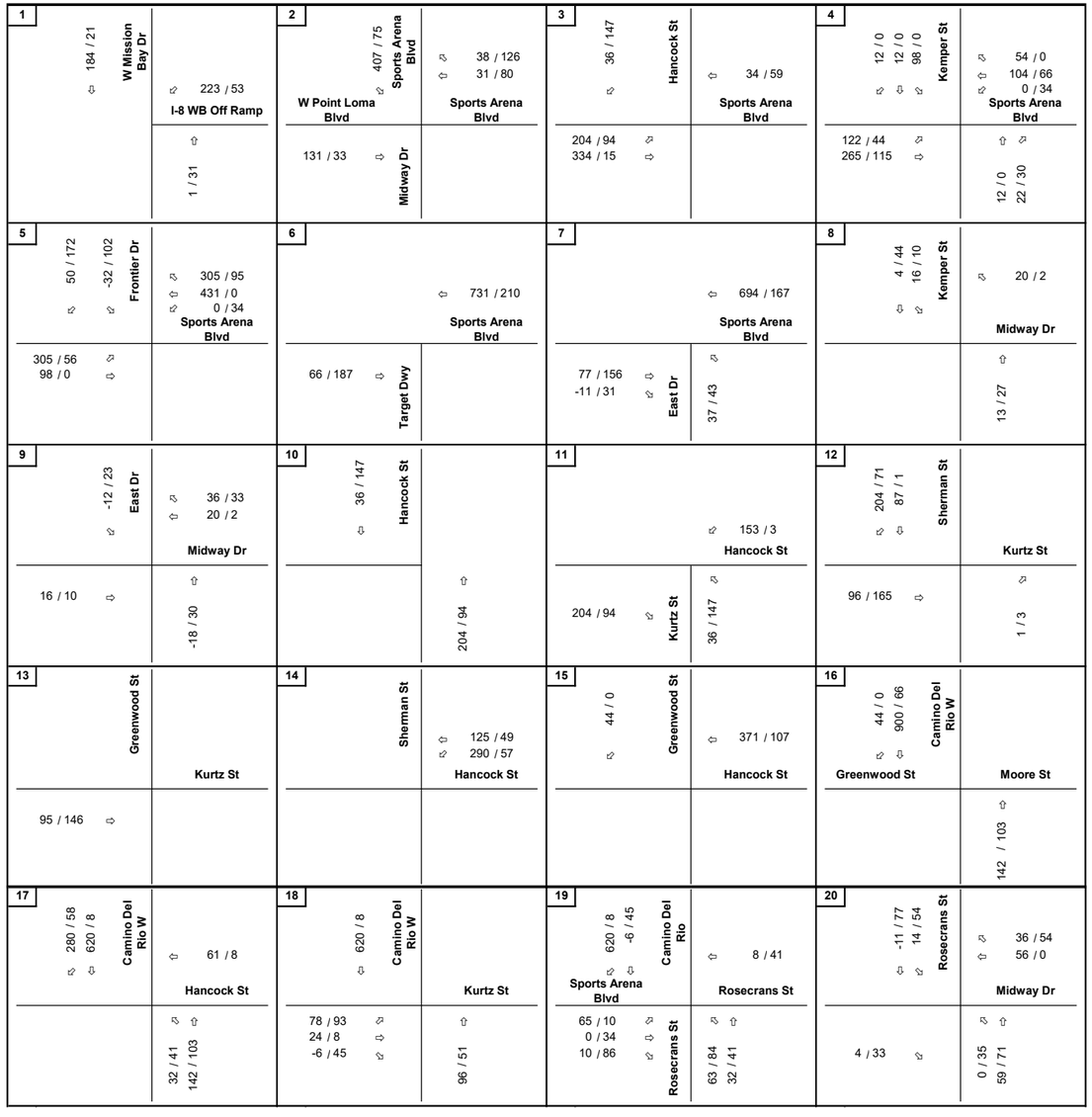


Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Appendix N Figure 10 - Opening Year (2030) Plus Project Phase 1 Total Trip Assignment (14,500 spectators) (Page 3 of 3)

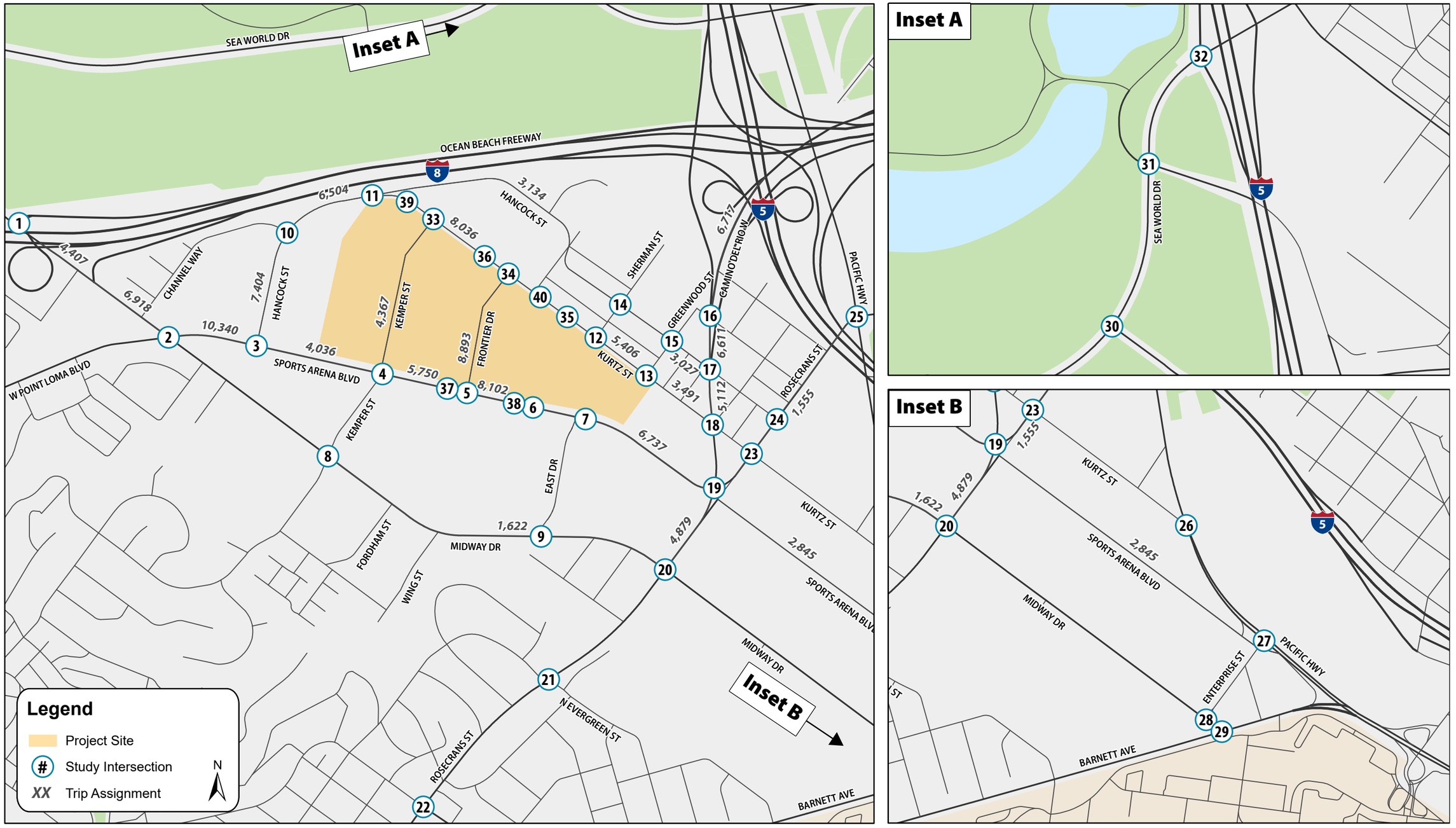


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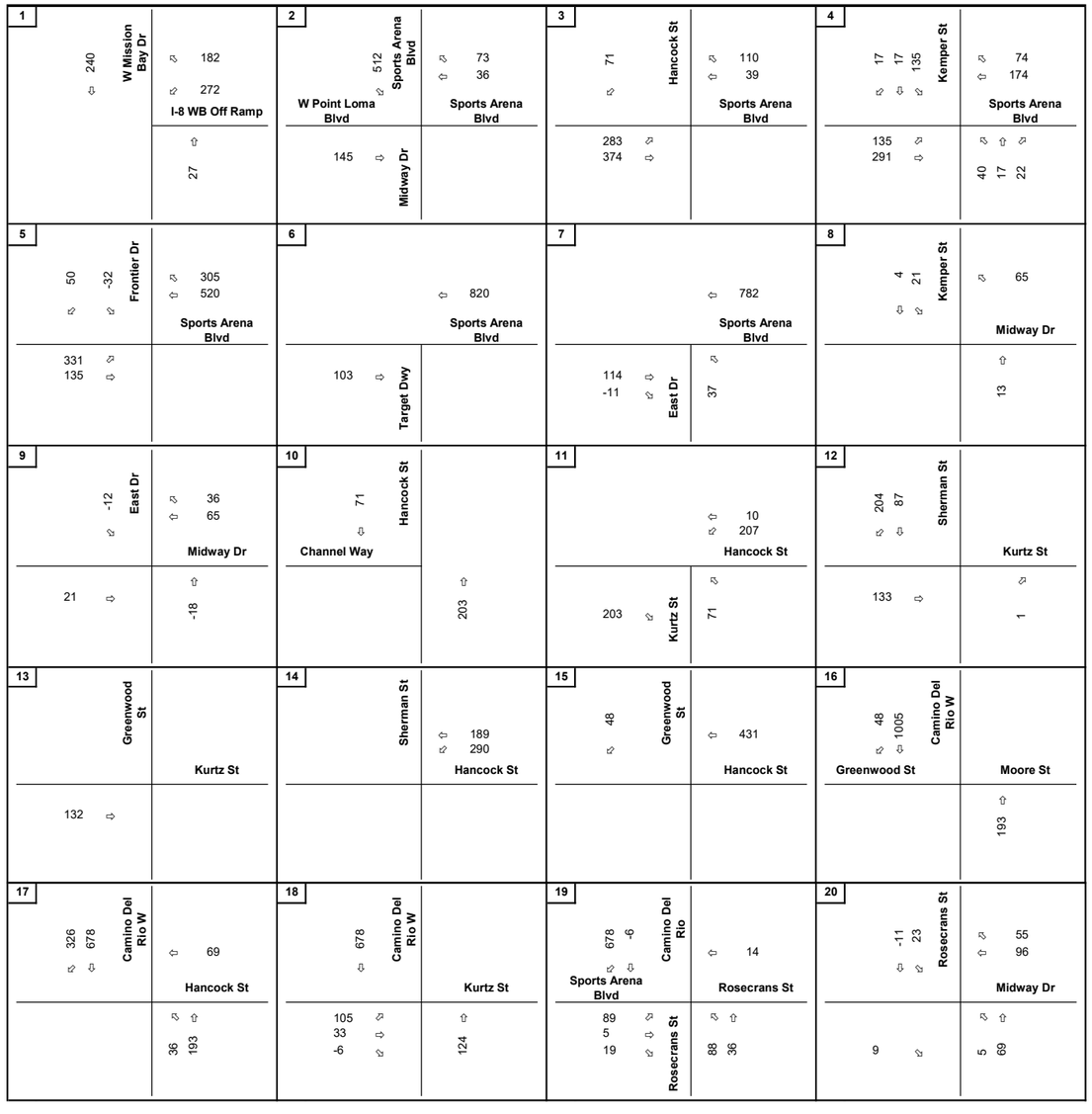
X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

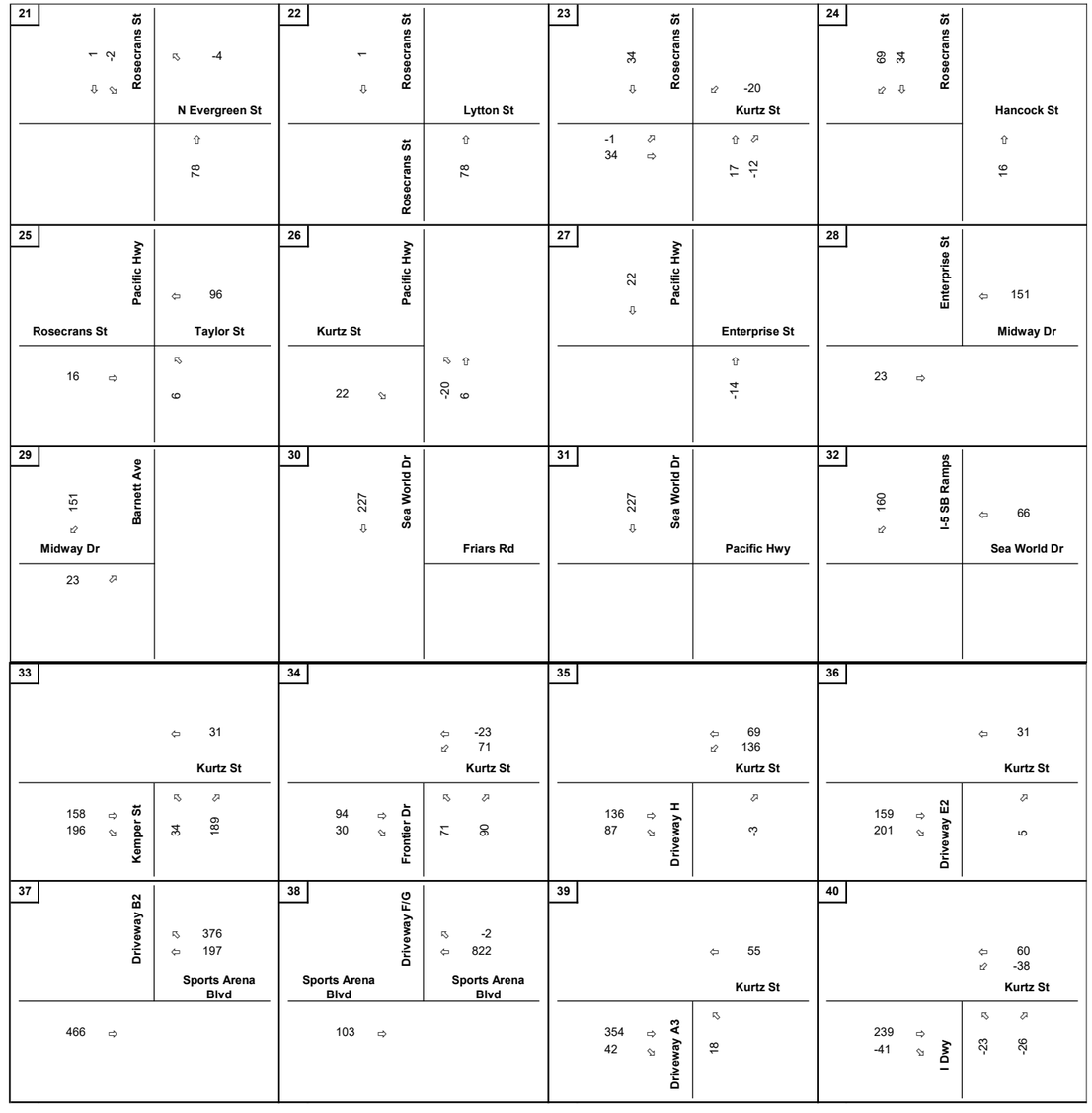
North

Appendix N Figure 11 - Opening Year (2030) Plus Project Phase 1 Total Trip Assignment (20,000 spectators) (Page 1 of 2)



Appendix N Figure 11 - Opening Year (2030) Plus Project Phase 1 Total Trip Assignment (20,000 spectators) (Page 2 of 2)





Legend

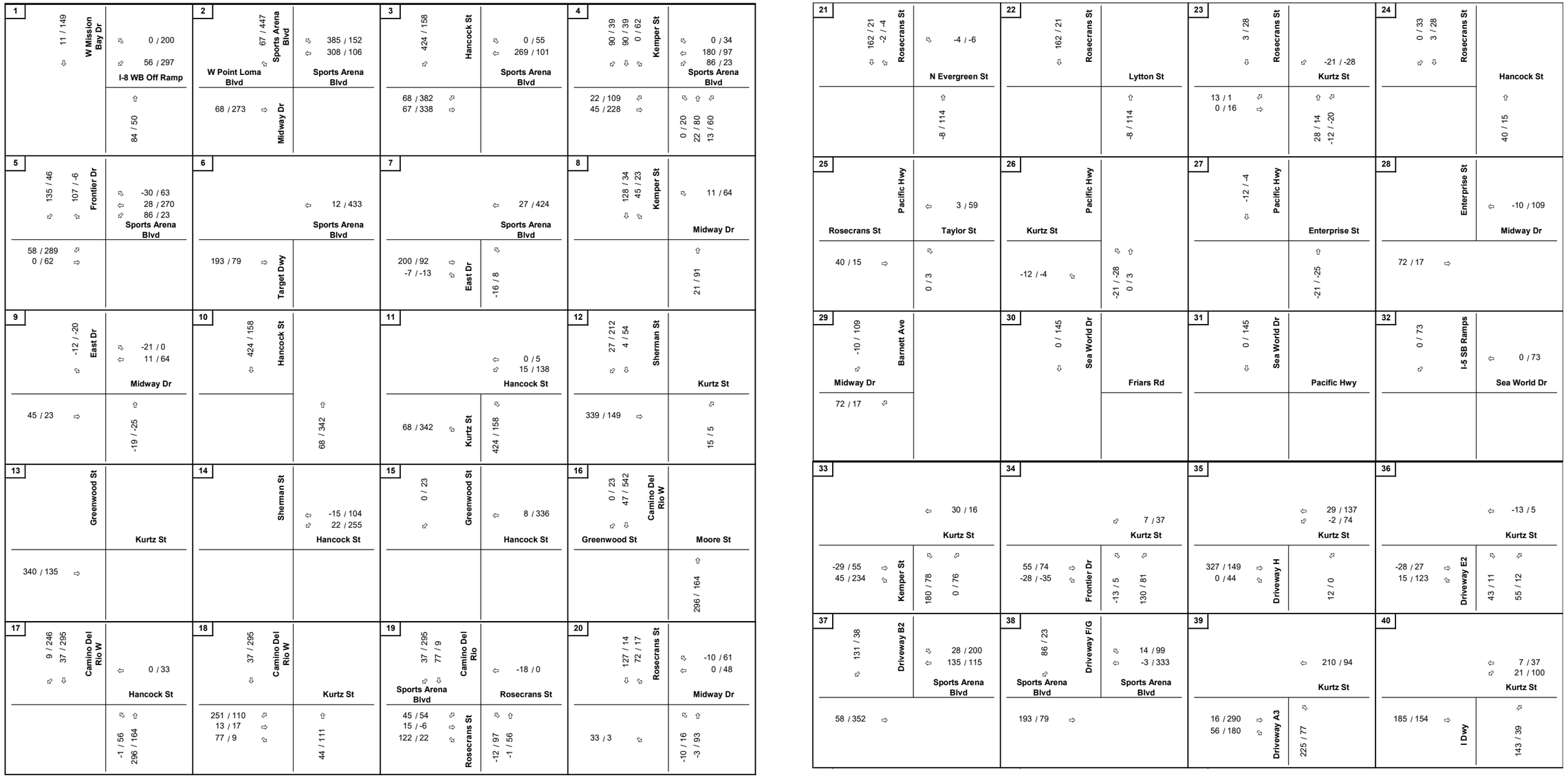
X = Pre-Event Peak Hour Turning Volumes

North

Appendix N Figure 12 - Opening Year (2035) Plus Project Phase 2 Total Trip Assignment (14,500 spectators) (Page 1 of 3)



Appendix N Figure 12 - Opening Year (2035) Plus Project Phase 2 Total Trip Assignment (14,500 spectators) (Page 2 of 3)

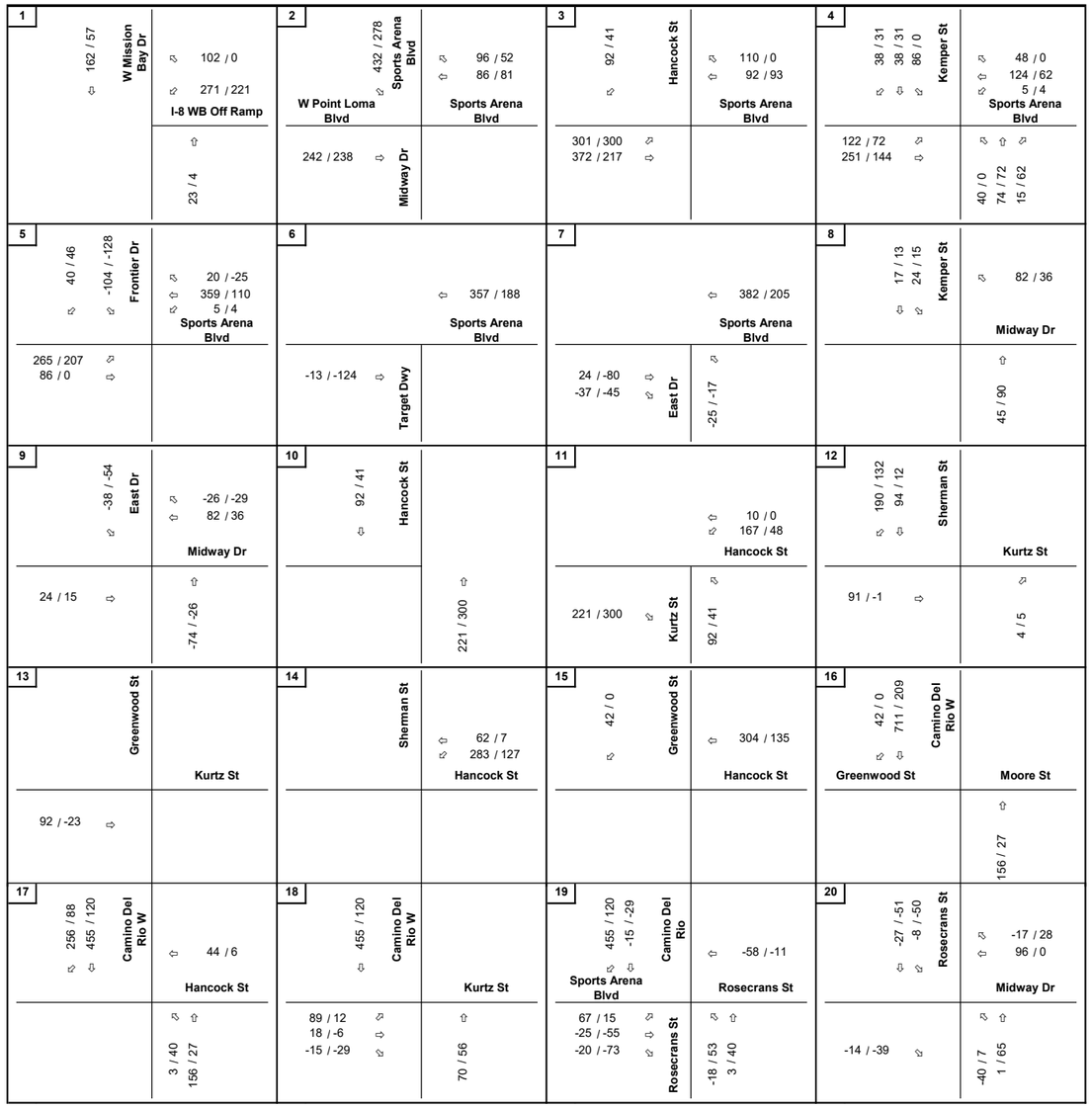


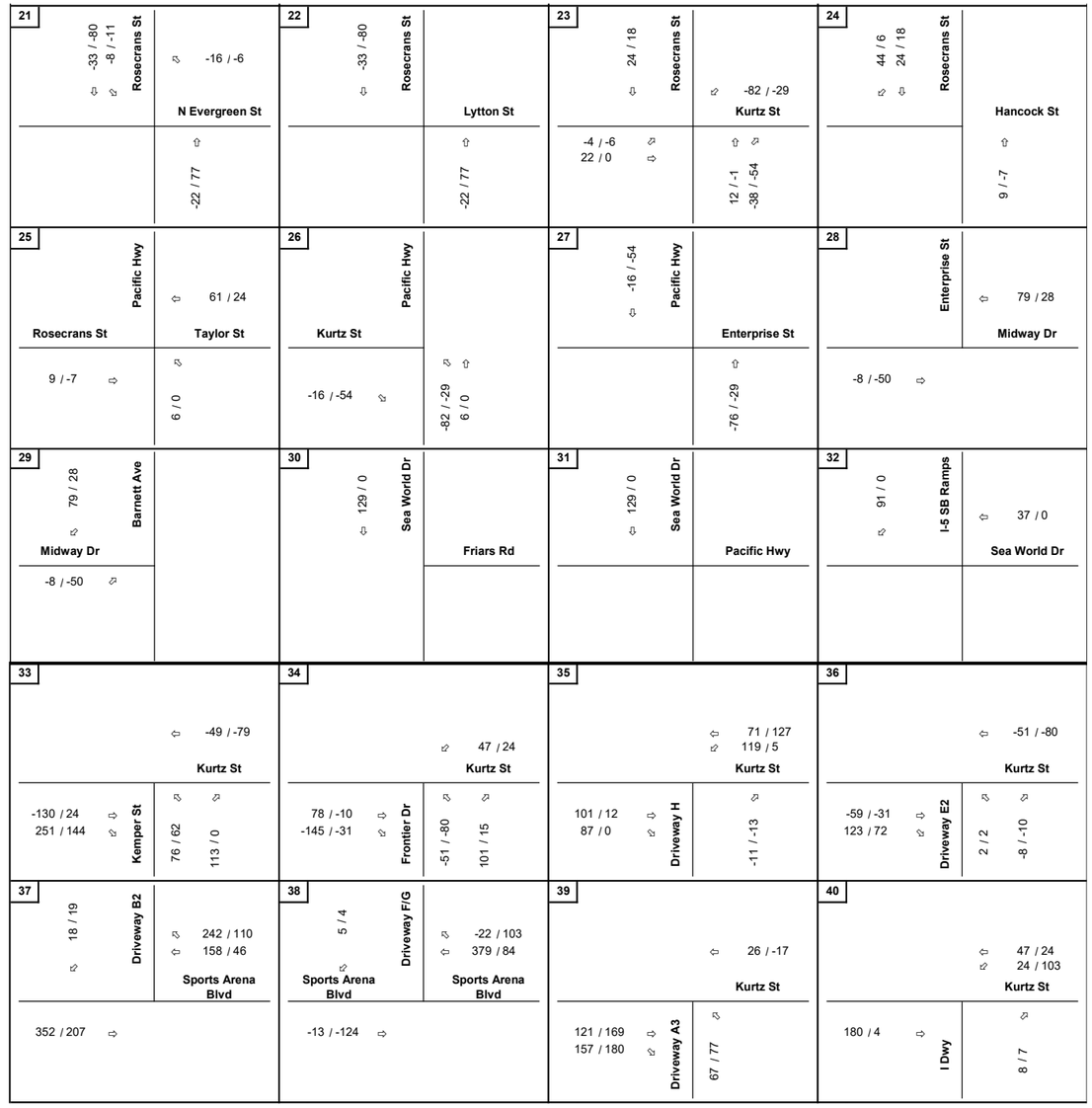
Legend

X/Y = AM/PM Peak Hour Turning Volumes

North

Appendix N Figure 12 - Opening Year (2035) Plus Project Phase 2 Total Trip Assignment (14,500 spectators) (Page 3 of 3)



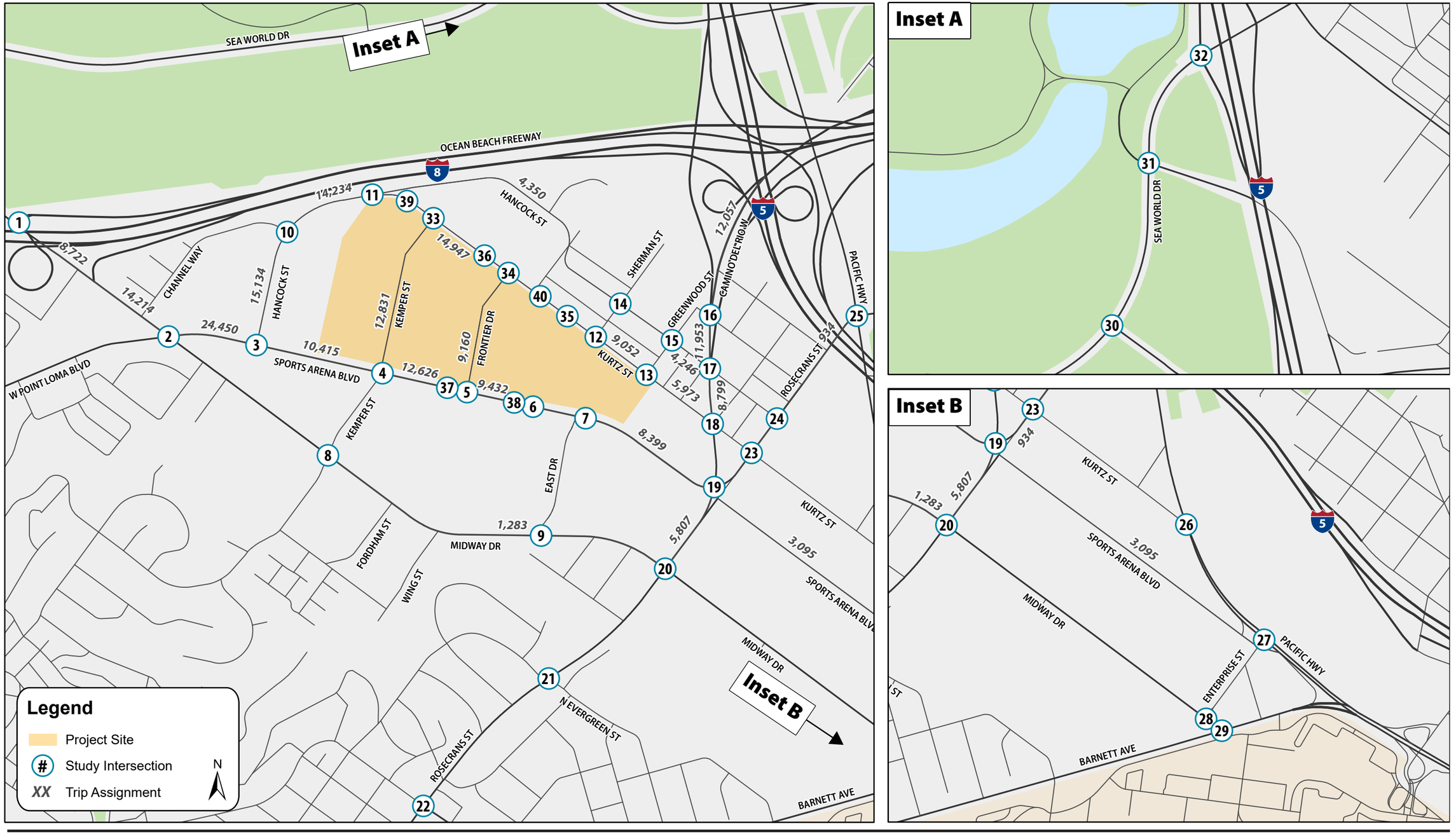


Legend

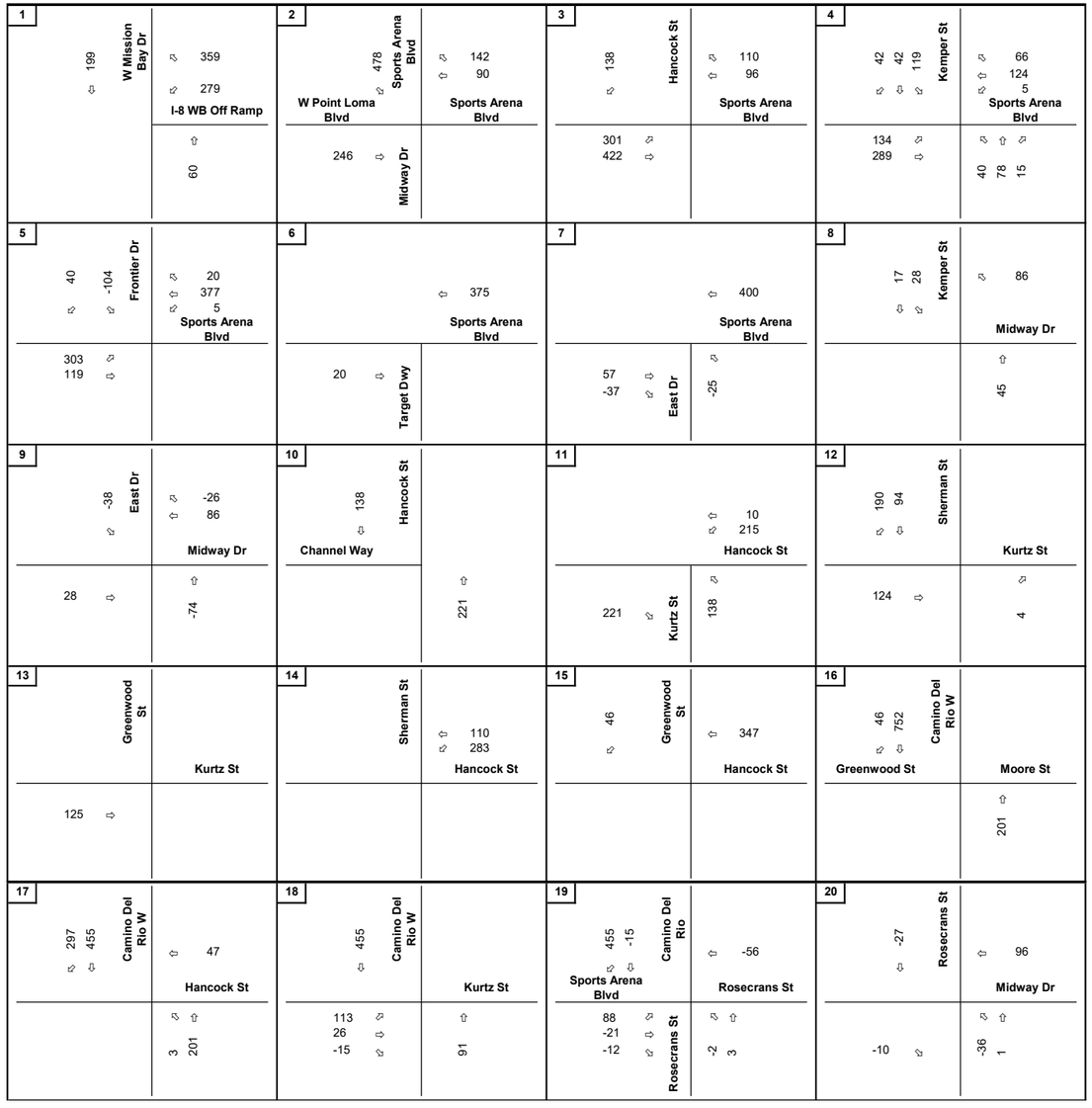
X/Y = Pre-Event/Weekend Midday Peak Hour Turning Volumes

North

Appendix N Figure 13 - Opening Year (2035) Plus Project Phase 2 Total Trip Assignment (20,000 spectators) (Page 1 of 2)



Appendix N Figure 13 - Opening Year (2035) Plus Project Phase 2 Total Trip Assignment (20,000 spectators) (Page 2 of 2)



Legend

X = Pre-Event Peak Hour Turning Volumes

North

Appendix O

Opening Year (2030) Base Conditions Intersection LOS Worksheets



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	780	1374	391	0	0	1338
Future Volume (vph)	780	1374	391	0	0	1338
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	848	1493	425	0	0	1454
RTOR Reduction (vph)	0	100	0	0	0	0
Lane Group Flow (vph)	848	1393	425	0	0	1454
Confl. Bikes (#/hr)				1		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	34.0	57.5	17.2			40.7
Effective Green, g (s)	34.0	57.5	14.2			40.7
Actuated g/C Ratio	0.38	0.64	0.16			0.45
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1301	1786	804			2907
v/s Ratio Prot	0.25	c0.50	0.08			c0.23
v/s Ratio Perm						
v/c Ratio	0.65	0.78	0.53			0.50
Uniform Delay, d1	23.0	11.6	34.7			17.3
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.9	2.0	0.3			0.0
Delay (s)	23.9	13.6	35.0			17.4
Level of Service	C	B	C			B
Approach Delay (s)	17.3		35.0			17.4
Approach LOS	B		C			B

Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	89.7	Sum of lost time (s)	25.5
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
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)	339	218	201	17	202	354	160	310	17	269	312	162
Future Volume (veh/h)	339	218	201	17	202	354	160	310	17	269	312	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	329	218	18	220	0	170	342	0	210	453	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	503	528	664	297	592		254	534		317	665	
Arrive On Green	0.28	0.28	0.28	0.17	0.17	0.00	0.14	0.14	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1781	1870	1552	1781	3554	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	302	329	218	18	220	0	170	342	0	210	453	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1552	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	12.5	13.0	8.0	0.7	4.7	0.0	7.7	7.3	0.0	9.3	9.6	0.0
Cycle Q Clear(g_c), s	12.5	13.0	8.0	0.7	4.7	0.0	7.7	7.3	0.0	9.3	9.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	503	528	664	297	592		254	534		317	665	
V/C Ratio(X)	0.60	0.62	0.33	0.06	0.37		0.67	0.64		0.66	0.68	
Avail Cap(c_a), veh/h	736	772	867	1050	2095		631	1325		631	1325	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.4	26.6	16.3	29.8	31.5	0.0	34.5	34.4	0.0	32.6	32.7	0.0
Incr Delay (d2), s/veh	3.2	3.3	0.8	0.3	1.5	0.0	2.4	1.0	0.0	1.5	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	5.9	3.6	0.3	2.1	0.0	3.4	3.3	0.0	4.1	4.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	29.9	17.1	30.1	32.9	0.0	37.0	35.4	0.0	34.0	33.4	0.0
LnGrp LOS	C	C	B	C	C		D	D		C	C	
Approach Vol, veh/h		849			238			512			663	
Approach Delay, s/veh		26.5			32.7			35.9			33.6	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	28.9	20.0	19.1	17.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	35.1	30.1	50.1	30.1
Max Q Clear Time (g_c+I1), s	15.0	11.6	6.7	9.7
Green Ext Time (p_c), s	8.3	2.6	3.9	2.2

Intersection Summary	
HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	436	12	5	474	47	0	0	0	49	0	79
Future Volume (veh/h)	100	436	12	5	474	47	0	0	0	49	0	79
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99				1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	109	474	13	5	515	51				53	0	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	140	1485	41	10	1640	160				200	0	173
Arrive On Green	0.08	0.42	0.42	0.01	0.35	0.35				0.11	0.00	0.11
Sat Flow, veh/h	1781	3529	97	1781	4722	461				1781	0	1545
Grp Volume(v), veh/h	109	238	249	5	369	197				53	0	86
Grp Sat Flow(s),veh/h/ln	1781	1777	1849	1781	1702	1779				1781	0	1545
Q Serve(g_s), s	1.8	2.8	2.8	0.1	2.4	2.5				0.8	0.0	1.6
Cycle Q Clear(g_c), s	1.8	2.8	2.8	0.1	2.4	2.5				0.8	0.0	1.6
Prop In Lane	1.00		0.05	1.00		0.26				1.00		1.00
Lane Grp Cap(c), veh/h	140	747	778	10	1182	618				200	0	173
V/C Ratio(X)	0.78	0.32	0.32	0.52	0.31	0.32				0.27	0.00	0.50
Avail Cap(c_a), veh/h	1772	3472	3613	1772	6651	3477				2322	0	2015
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	1.00	1.00	1.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	6.0	6.0	15.3	7.3	7.4				12.5	0.0	12.8
Incr Delay (d2), s/veh	3.5	0.3	0.3	14.9	0.2	0.4				0.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.6	0.6	0.1	0.5	0.6				0.3	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	6.3	6.2	30.1	7.5	7.7				12.8	0.0	13.6
LnGrp LOS	B	A	A	C	A	A				B	A	B
Approach Vol, veh/h		596			571						139	
Approach Delay, s/veh		8.3			7.8						13.3	
Approach LOS		A			A						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	4.6	17.8		8.4	6.8	15.6
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1
Max Q Clear Time (g_c+I2), s	2.1	4.8		3.6	3.8	4.5
Green Ext Time (p_c), s	0.0	3.8		0.3	0.1	4.9

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	329	113	122	337	45	122	42	86	28	27	70
Future Volume (veh/h)	53	329	113	122	337	45	122	42	86	28	27	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	358	123	133	366	49	133	46	93	30	29	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	803	271	175	1659	217	419	146	295	274	226	425
Arrive On Green	0.05	0.31	0.31	0.10	0.36	0.36	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	3456	2580	870	1781	4567	598	1289	545	1101	561	845	1585
Grp Volume(v), veh/h	58	244	237	133	271	144	133	0	139	59	0	76
Grp Sat Flow(s),veh/h/ln	1728	1777	1673	1781	1702	1761	1289	0	1645	1406	0	1585
Q Serve(g_s), s	0.7	4.8	5.0	3.2	2.4	2.5	4.1	0.0	3.0	0.0	0.0	1.6
Cycle Q Clear(g_c), s	0.7	4.8	5.0	3.2	2.4	2.5	7.1	0.0	3.0	3.0	0.0	1.6
Prop In Lane	1.00		0.52	1.00		0.34	1.00		0.67	0.51		1.00
Lane Grp Cap(c), veh/h	159	553	521	175	1236	640	419	0	441	500	0	425
V/C Ratio(X)	0.36	0.44	0.45	0.76	0.22	0.23	0.32	0.00	0.32	0.12	0.00	0.18
Avail Cap(c_a), veh/h	2797	2428	2285	2454	4651	2406	1249	0	1500	2799	0	2886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	12.1	12.2	19.3	9.7	9.7	15.8	0.0	12.9	12.2	0.0	12.4
Incr Delay (d2), s/veh	0.5	1.1	1.2	2.6	0.2	0.3	0.2	0.0	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.7	1.6	1.3	0.7	0.8	1.0	0.0	0.9	0.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	13.2	13.4	21.9	9.9	10.1	15.9	0.0	13.0	12.2	0.0	12.5
LnGrp LOS	C	B	B	C	A	B	B	A	B	B	A	B
Approach Vol, veh/h		539			548			272			135	
Approach Delay, s/veh		14.1			12.8			14.4			12.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.4	20.9		16.7	8.7	18.6		16.7
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	35.6	60.1		40.1	60.6	60.1		80.1
Max Q Clear Time (g_c+I1), s	2.7	4.5		9.1	5.2	7.0		5.0
Green Ext Time (p_c), s	0.1	5.4		0.8	0.2	6.2		0.4

Intersection Summary	
HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	403	55	85	408	70	55	9	47	46	9	32
Future Volume (veh/h)	33	403	55	85	408	70	55	9	47	46	9	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	438	60	92	443	76	60	10	51	50	10	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	871	118	117	1366	228	134	22	241	145	29	154
Arrive On Green	0.03	0.28	0.28	0.07	0.31	0.31	0.09	0.09	0.09	0.10	0.10	0.10
Sat Flow, veh/h	3456	3124	425	1781	4387	733	1537	256	1571	1496	299	1585
Grp Volume(v), veh/h	36	248	250	92	341	178	70	0	51	60	0	35
Grp Sat Flow(s),veh/h/ln	1728	1777	1772	1781	1702	1716	1793	0	1571	1796	0	1585
Q Serve(g_s), s	0.4	4.7	4.8	2.1	3.1	3.2	1.5	0.0	1.2	1.3	0.0	0.8
Cycle Q Clear(g_c), s	0.4	4.7	4.8	2.1	3.1	3.2	1.5	0.0	1.2	1.3	0.0	0.8
Prop In Lane	1.00		0.24	1.00		0.43	0.86		1.00	0.83		1.00
Lane Grp Cap(c), veh/h	114	496	494	117	1060	534	157	0	241	175	0	154
V/C Ratio(X)	0.32	0.50	0.51	0.79	0.32	0.33	0.45	0.00	0.21	0.34	0.00	0.23
Avail Cap(c_a), veh/h	435	934	931	466	2250	1134	1593	0	1498	797	0	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.2	12.2	12.3	18.7	10.7	10.7	17.6	0.0	15.0	17.1	0.0	16.9
Incr Delay (d2), s/veh	0.6	1.0	1.0	4.4	0.1	0.1	0.7	0.0	0.2	0.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.6	1.6	0.9	0.9	0.9	0.6	0.0	0.4	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	13.2	13.3	23.1	10.7	10.9	18.3	0.0	15.2	17.5	0.0	17.2
LnGrp LOS	B	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		534			611			121			95	
Approach Delay, s/veh		13.7			12.6			17.0			17.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.1	16.2		8.8	5.7	17.5		8.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	21.3		18.0	5.1	26.8		36.0
Max Q Clear Time (g_c+I1), s	4.1	6.8		3.3	2.4	5.2		3.5
Green Ext Time (p_c), s	0.0	3.0		0.2	0.0	2.1		0.3

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

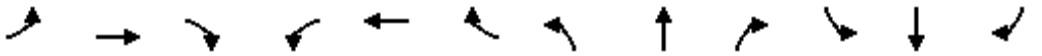
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	477	21	115	561	6	0	0	42	1	0	6
Future Vol, veh/h	24	477	21	115	561	6	0	0	42	1	0	6
Conflicting Peds, #/hr	0	0	5	0	0	10	0	0	1	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	518	23	125	610	7	0	0	46	1	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	627	0	0	546	0	0	-	-	277	1134	1472	319
Stage 1	-	-	-	-	-	-	-	-	-	874	874	-
Stage 2	-	-	-	-	-	-	-	-	-	260	598	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	590	-	-	644	-	-	0	0	614	213	126	577
Stage 1	-	-	-	-	-	-	0	0	-	243	365	-
Stage 2	-	-	-	-	-	-	0	0	-	663	489	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	584	-	-	641	-	-	-	-	610	160	95	572
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	160	95	-
Stage 1	-	-	-	-	-	-	-	-	-	230	291	-
Stage 2	-	-	-	-	-	-	-	-	-	586	465	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	2	11.4	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	610	584	-	-	641	-	-	418
HCM Lane V/C Ratio	0.075	0.045	-	-	0.195	-	-	0.018
HCM Control Delay (s)	11.4	11.5	-	-	12	-	-	13.8
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.7	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	490	14	144	628	41	19	3	88	0	0	0
Future Volume (veh/h)	25	490	14	144	628	41	19	3	88	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	27	533	15	157	683	45	21	3	96			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	47	1823	51	207	2183	143	187	27	184			
Arrive On Green	0.03	0.36	0.36	0.12	0.45	0.45	0.12	0.12	0.12			
Sat Flow, veh/h	1781	5099	143	1781	4882	319	1568	224	1545			
Grp Volume(v), veh/h	27	355	193	157	475	253	24	0	96			
Grp Sat Flow(s),veh/h/ln	1781	1702	1838	1781	1702	1797	1792	0	1545			
Q Serve(g_s), s	0.5	2.6	2.6	3.0	3.1	3.2	0.4	0.0	2.0			
Cycle Q Clear(g_c), s	0.5	2.6	2.6	3.0	3.1	3.2	0.4	0.0	2.0			
Prop In Lane	1.00		0.08	1.00		0.18	0.87		1.00			
Lane Grp Cap(c), veh/h	47	1217	657	207	1522	804	213	0	184			
V/C Ratio(X)	0.57	0.29	0.29	0.76	0.31	0.32	0.11	0.00	0.52			
Avail Cap(c_a), veh/h	1564	5871	3170	1564	5871	3100	2062	0	1778			
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	16.8	8.0	8.0	14.9	6.2	6.2	13.7	0.0	14.4			
Incr Delay (d2), s/veh	4.1	0.3	0.5	2.2	0.2	0.3	0.1	0.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.8	1.1	0.7	0.7	0.1	0.0	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	8.3	8.5	17.1	6.3	6.5	13.8	0.0	15.3			
LnGrp LOS	C	A	A	B	A	A	B	A	B			
Approach Vol, veh/h		575			885			120				
Approach Delay, s/veh		9.0			8.3			15.0				
Approach LOS		A			A			B				
Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	8.4	17.4			5.3	20.5		9.0				
Change Period (Y+Rc), s	4.4	4.9			4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1			30.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	5.0	4.6			2.5	5.2		4.0				
Green Ext Time (p_c), s	0.2	7.6			0.0	7.7		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	388	94	70	328	39	129	107	105	31	80	57
Future Volume (veh/h)	78	388	94	70	328	39	129	107	105	31	80	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	422	102	76	357	42	128	133	114	34	87	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	943	407	173	812	95	273	287	319	326	342	281
Arrive On Green	0.06	0.27	0.27	0.05	0.25	0.25	0.15	0.15	0.15	0.18	0.18	0.18
Sat Flow, veh/h	1781	3554	1533	3456	3203	374	1781	1870	1563	1781	1870	1538
Grp Volume(v), veh/h	85	422	102	76	197	202	128	133	114	34	87	62
Grp Sat Flow(s),veh/h/ln	1781	1777	1533	1728	1777	1800	1781	1870	1563	1781	1870	1538
Q Serve(g_s), s	2.6	5.4	2.9	1.2	5.1	5.2	3.6	3.6	3.4	0.9	2.2	1.9
Cycle Q Clear(g_c), s	2.6	5.4	2.9	1.2	5.1	5.2	3.6	3.6	3.4	0.9	2.2	1.9
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	943	407	173	450	456	273	287	319	326	342	281
V/C Ratio(X)	0.77	0.45	0.25	0.44	0.44	0.44	0.47	0.46	0.36	0.10	0.25	0.22
Avail Cap(c_a), veh/h	962	3897	1681	1867	1949	1974	1303	1369	1223	1303	1369	1126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	16.8	15.8	25.3	17.2	17.2	21.2	21.1	18.8	18.7	19.2	19.1
Incr Delay (d2), s/veh	4.2	0.5	0.5	0.7	1.1	1.2	0.5	0.4	0.3	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.0	1.0	0.5	2.0	2.1	1.4	1.5	1.2	0.3	0.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	17.3	16.3	25.9	18.3	18.4	21.6	21.6	19.0	18.7	19.3	19.2
LnGrp LOS	C	B	B	C	B	B	C	C	B	B	B	B
Approach Vol, veh/h		609			475			375			183	
Approach Delay, s/veh		18.8			19.6			20.8			19.2	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.1	19.4		14.9	7.8	18.8		13.3
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	29.6	60.1		40.1	29.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	3.2	7.4		4.2	4.6	7.2		5.6
Green Ext Time (p_c), s	0.1	5.2		0.5	0.1	4.6		0.8

Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	547	11	23	718	176	12	4	2	58	4	37
Future Volume (veh/h)	34	547	11	23	718	176	12	4	2	58	4	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.96	0.97		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	595	12	25	780	191	13	4	2	63	4	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	1672	34	502	1292	316	303	85	29	259	42	101
Arrive On Green	0.03	0.47	0.47	0.02	0.46	0.46	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3559	72	1781	2804	687	913	474	163	710	233	563
Grp Volume(v), veh/h	37	297	310	25	494	477	19	0	0	107	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1854	1781	1777	1713	1550	0	0	1506	0	0
Q Serve(g_s), s	0.5	4.6	4.6	0.3	9.0	9.0	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.5	4.6	4.6	0.3	9.0	9.0	0.4	0.0	0.0	2.6	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.40	0.68		0.11	0.59		0.37
Lane Grp Cap(c), veh/h	371	835	871	502	819	789	417	0	0	401	0	0
V/C Ratio(X)	0.10	0.36	0.36	0.05	0.60	0.60	0.05	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	1568	2461	2568	1716	2461	2373	1484	0	0	1490	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.7	7.3	7.3	6.1	8.7	8.7	14.8	0.0	0.0	15.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	0.8	0.8	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	1.4	0.1	2.7	2.6	0.1	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.7	7.6	7.6	6.1	9.5	9.6	14.8	0.0	0.0	15.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h		644			996			19			107	
Approach Delay, s/veh		7.5			9.5			14.8			15.8	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	25.3		12.7	5.8	24.9		12.7				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1		40.1				
Max Q Clear Time (g_c+I2), s	2.3	6.6		4.6	2.5	11.0		2.4				
Green Ext Time (p_c), s	0.0	4.6		0.4	0.0	9.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	9.2
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	27	29	97	89	31
Future Vol, veh/h	14	27	29	97	89	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	29	32	105	97	34
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.4	8.2	7.8
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	34%	0%
Vol Thru, %	0%	100%	0%	74%
Vol Right, %	0%	0%	66%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	97	41	120
LT Vol	29	0	14	0
Through Vol	0	97	0	89
RT Vol	0	0	27	31
Lane Flow Rate	32	105	45	130
Geometry Grp	7	7	2	5
Degree of Util (X)	0.045	0.137	0.052	0.147
Departure Headway (Hd)	5.18	4.679	4.212	4.058
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	690	764	855	874
Service Time	2.923	2.422	2.212	2.13
HCM Lane V/C Ratio	0.046	0.137	0.053	0.149
HCM Control Delay	8.2	8.2	7.4	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.2	0.5

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	115	0	0	83	0
Future Vol, veh/h	0	115	0	0	83	0
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	0	125	0	0	90	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	125	-
Stage 1	-	-	0	-
Stage 2	-	-	125	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	870	0
Stage 1	0	-	-	0
Stage 2	0	-	901	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	870	-
Mov Cap-2 Maneuver	-	-	823	-
Stage 1	-	-	-	-
Stage 2	-	-	901	-

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

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	823
HCM Lane V/C Ratio	-	0.11
HCM Control Delay (s)	-	9.9
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.4

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	73	149	0	0	97	0
Future Vol, veh/h	73	149	0	0	97	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	162	0	0	105	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	8.7	8.5
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	60%	0%	100%
Vol Thru, %	40%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	123	99	97
LT Vol	73	0	97
Through Vol	50	99	0
RT Vol	0	0	0
Lane Flow Rate	133	108	105
Geometry Grp	7	7	2
Degree of Util (X)	0.186	0.142	0.138
Departure Headway (Hd)	5.018	4.72	4.72
Convergence, Y/N	Yes	Yes	Yes
Cap	707	750	764
Service Time	2.805	2.507	2.72
HCM Lane V/C Ratio	0.188	0.144	0.137
HCM Control Delay	9	8.3	8.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.5	0.5

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	216	0	0	46	0
Future Vol, veh/h	15	216	0	0	46	0
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Stop	Stop	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	16	235	0	0	50	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	150	-
Stage 1	-	-	0	-
Stage 2	-	-	150	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	827	0
Stage 1	-	-	-	0
Stage 2	-	-	862	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	827	-
Mov Cap-2 Maneuver	-	-	827	-
Stage 1	-	-	-	-
Stage 2	-	-	862	-

Approach	EB	SB
HCM Control Delay, s		9.6
HCM LOS		A

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	827
HCM Lane V/C Ratio	-	-	0.06
HCM Control Delay (s)	-	-	9.6
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.2

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	63	207	62	49	20	0	0	46	10
Future Vol, veh/h	0	0	0	63	207	62	49	20	0	0	46	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	68	225	67	53	22	0	0	50	11
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.1	8.6	8.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	71%	38%	0%	0%
Vol Thru, %	29%	62%	63%	82%
Vol Right, %	0%	0%	37%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	167	166	56
LT Vol	49	63	0	0
Through Vol	20	104	104	46
RT Vol	0	0	62	10
Lane Flow Rate	75	181	180	61
Geometry Grp	2	7	7	2
Degree of Util (X)	0.104	0.254	0.23	0.08
Departure Headway (Hd)	4.969	5.06	4.608	4.74
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	723	711	781	757
Service Time	2.988	2.779	2.327	2.762
HCM Lane V/C Ratio	0.104	0.255	0.23	0.081
HCM Control Delay	8.6	9.5	8.7	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1	0.9	0.3

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	267	24	8	4	0	0	39	84
Future Vol, veh/h	0	0	0	20	267	24	8	4	0	0	39	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	22	290	26	9	4	0	0	42	91
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	8.9	8.1	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	67%	13%	0%	0%
Vol Thru, %	33%	87%	85%	32%
Vol Right, %	0%	0%	15%	68%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	154	158	123
LT Vol	8	20	0	0
Through Vol	4	134	134	39
RT Vol	0	0	24	84
Lane Flow Rate	13	167	171	134
Geometry Grp	2	7	7	2
Degree of Util (X)	0.018	0.225	0.223	0.16
Departure Headway (Hd)	4.996	4.855	4.683	4.314
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	719	731	757	837
Service Time	3.006	2.647	2.474	2.315
HCM Lane V/C Ratio	0.018	0.228	0.226	0.16
HCM Control Delay	8.1	9.1	8.8	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0.9	0.6

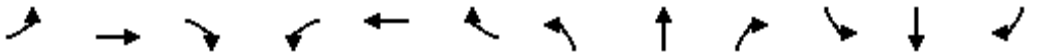
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	5	0	0	26	0	1810	15	0	2300	87
Future Vol, veh/h	0	0	5	0	0	26	0	1810	15	0	2300	87
Conflicting Peds, #/hr	0	0	0	0	0	6	0	0	1	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	0	0	28	0	1967	16	0	2500	95

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1299	-	-	999	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	137	0	0	208	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	137	-	-	207	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.4	25.1	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	137	207	-	-
HCM Lane V/C Ratio	-	-	0.04	0.137	-	-
HCM Control Delay (s)	-	-	32.4	25.1	-	-
HCM Lane LOS	-	-	D	D	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	26	120	81	50	1747	48	0	2215	96
Future Volume (veh/h)	0	0	0	26	120	81	50	1747	48	0	2215	96
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				28	130	88	54	1899	52	0	2408	104
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				62	289	198	815	3909	107	0	1379	423
Arrive On Green				0.16	0.16	0.16	0.46	0.76	0.76	0.00	0.27	0.27
Sat Flow, veh/h				390	1813	1241	1781	5109	140	0	5274	1567
Grp Volume(v), veh/h				133	0	113	54	1265	686	0	2408	104
Grp Sat Flow(s),veh/h/ln				1851	0	1593	1781	1702	1845	0	1702	1567
Q Serve(g_s), s				8.5	0.0	8.3	2.2	18.1	18.1	0.0	35.1	6.7
Cycle Q Clear(g_c), s				8.5	0.0	8.3	2.2	18.1	18.1	0.0	35.1	6.7
Prop In Lane				0.21		0.78	1.00		0.08	0.00		1.00
Lane Grp Cap(c), veh/h				295	0	254	815	2604	1411	0	1379	423
V/C Ratio(X)				0.45	0.00	0.44	0.07	0.49	0.49	0.00	1.75	0.25
Avail Cap(c_a), veh/h				799	0	687	815	2604	1411	0	1379	423
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	0.79	0.79	0.79	0.00	1.00	1.00
Uniform Delay (d), s/veh				49.5	0.0	49.4	19.7	5.7	5.7	0.0	47.5	37.1
Incr Delay (d2), s/veh				0.4	0.0	0.5	0.0	0.5	0.9	0.0	339.0	1.4
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				4.0	0.0	3.4	0.9	5.6	6.2	0.0	57.8	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				49.9	0.0	49.9	19.8	6.2	6.7	0.0	386.5	38.5
LnGrp LOS				D	A	D	B	A	A	A	F	D
Approach Vol, veh/h					246			2005			2512	
Approach Delay, s/veh					49.9			6.7			372.1	
Approach LOS					D			A			F	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	104.3	25.7	64.3	40.0
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	64.1	56.1	24.6	* 35
Max Q Clear Time (g_c+I1), s	20.1	10.5	4.2	37.1
Green Ext Time (p_c), s	6.2	0.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	201.6
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



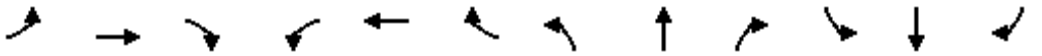
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	82	36	0	0	0	0	1707	15	130	2120	0
Future Volume (veh/h)	110	82	36	0	0	0	0	1707	15	130	2120	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	120	89	39				0	1855	16	141	2304	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	220	231	186				0	3527	30	164	5155	0
Arrive On Green	0.12	0.12	0.12				0.00	1.00	1.00	0.18	1.00	0.00
Sat Flow, veh/h	1781	1870	1505				0	5390	45	1781	6696	0
Grp Volume(v), veh/h	120	89	39				0	1209	662	141	2304	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1505				0	1702	1862	1781	1609	0
Q Serve(g_s), s	8.2	5.7	3.0				0.0	0.0	0.0	10.0	0.0	0.0
Cycle Q Clear(g_c), s	8.2	5.7	3.0				0.0	0.0	0.0	10.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	220	231	186				0	2299	1258	164	5155	0
V/C Ratio(X)	0.55	0.39	0.21				0.00	0.53	0.53	0.86	0.45	0.00
Avail Cap(c_a), veh/h	481	505	406				0	2299	1258	282	5155	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.61	0.61	0.26	0.26	0.00
Uniform Delay (d), s/veh	53.5	52.4	51.3				0.0	0.0	0.0	52.3	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.4	0.2				0.0	0.5	1.0	1.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.7	1.2				0.0	0.2	0.3	4.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	52.8	51.5				0.0	0.5	1.0	53.7	0.1	0.0
LnGrp LOS	D	D	D				A	A	A	D	A	A
Approach Vol, veh/h		248						1871			2445	
Approach Delay, s/veh		53.3						0.7			3.2	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	16.3	92.7	20.9	109.1
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	20.0	60.1	35.1	85.1
Max Q Clear Time (g_c+I1), s	12.0	2.0	10.2	2.0
Green Ext Time (p_c), s	0.0	5.2	0.2	9.6

Intersection Summary	
HCM 6th Ctrl Delay	4.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	179	151	240	250	11	226	1529	277	0	1578	362
Future Volume (vph)	216	179	151	240	250	11	226	1529	277	0	1578	362
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00		1.00	1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.98			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3336	1524	1610	3333		3662	4959			5085	1536
Flt Permitted	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3336	1524	1610	3333		3662	4959			5085	1536
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	235	195	164	261	272	12	246	1662	301	0	1715	393
RTOR Reduction (vph)	0	0	131	0	2	0	0	16	0	0	0	155
Lane Group Flow (vph)	141	289	33	177	366	0	246	1947	0	0	1715	238
Confl. Peds. (#/hr)			20			3						12
Confl. Bikes (#/hr)			4			4			1			3
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	26.1	26.1	26.1	18.2	18.2		12.1	68.0			50.5	50.5
Effective Green, g (s)	26.1	26.1	26.1	18.2	18.2		12.1	68.0			50.5	50.5
Actuated g/C Ratio	0.20	0.20	0.20	0.14	0.14		0.09	0.52			0.39	0.39
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	323	669	305	225	466		340	2593			1975	596
v/s Ratio Prot	c0.09	0.09		c0.11	0.11		0.07	c0.39			c0.34	
v/s Ratio Perm			0.02									0.16
v/c Ratio	0.44	0.43	0.11	0.79	0.79		0.72	0.75			0.87	0.40
Uniform Delay, d1	45.5	45.5	42.4	54.0	54.0		57.3	24.3			36.7	28.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.42	0.33			0.97	1.29
Incremental Delay, d2	0.3	0.2	0.1	15.3	7.9		4.3	1.4			5.0	1.8
Delay (s)	45.9	45.6	42.5	69.3	61.9		85.6	9.3			40.4	38.8
Level of Service	D	D	D	E	E		F	A			D	D
Approach Delay (s)		44.8			64.3			17.8			40.1	
Approach LOS		D			E			B			D	

Intersection Summary			
HCM 2000 Control Delay	34.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
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)	166	231	172	138	402	228	316	1622	76	201	1654	202
Future Volume (veh/h)	166	231	172	138	402	228	316	1622	76	201	1654	202
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	251	187	150	437	248	343	1763	83	218	1798	220
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	644	282	145	682	296	399	1693	80	846	2179	265
Arrive On Green	0.07	0.18	0.18	0.08	0.19	0.19	0.04	0.11	0.11	0.24	0.47	0.47
Sat Flow, veh/h	3456	3554	1554	1781	3554	1542	3456	4991	235	3456	4610	561
Grp Volume(v), veh/h	180	251	187	150	437	248	343	1202	644	218	1325	693
Grp Sat Flow(s),veh/h/ln	1728	1777	1554	1781	1777	1542	1728	1702	1822	1728	1702	1766
Q Serve(g_s), s	6.7	8.1	14.6	10.6	14.7	20.1	12.8	44.1	44.1	6.6	43.7	44.3
Cycle Q Clear(g_c), s	6.7	8.1	14.6	10.6	14.7	20.1	12.8	44.1	44.1	6.6	43.7	44.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.32
Lane Grp Cap(c), veh/h	232	644	282	145	682	296	399	1155	618	846	1609	835
V/C Ratio(X)	0.78	0.39	0.66	1.03	0.64	0.84	0.86	1.04	1.04	0.26	0.82	0.83
Avail Cap(c_a), veh/h	441	959	419	145	795	345	574	1155	618	846	1609	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	46.9	49.5	59.7	48.4	50.6	61.5	57.7	57.7	39.6	29.6	29.8
Incr Delay (d2), s/veh	2.0	0.1	1.0	83.6	0.8	12.9	4.6	33.2	41.5	0.1	3.4	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.6	5.7	8.1	6.6	8.8	6.2	25.5	28.7	2.8	17.8	19.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.7	47.0	50.5	143.3	49.2	63.5	66.1	90.9	99.2	39.6	33.0	36.4
LnGrp LOS	E	D	D	F	D	E	E	F	F	D	C	D
Approach Vol, veh/h		618			835			2189			2236	
Approach Delay, s/veh		52.4			70.4			89.5			34.7	
Approach LOS		D			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.5	49.0	15.0	28.5	19.4	67.1	13.6	29.8
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	31.8	* 44	10.6	35.1	21.6	43.3	16.6	* 29
Max Q Clear Time (g_c+I1), s	8.6	46.1	12.6	16.6	14.8	46.3	8.7	22.1
Green Ext Time (p_c), s	0.1	0.0	0.0	0.7	0.2	0.0	0.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	62.0
HCM 6th LOS	E

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	10	12	63	16	85	20	1840	24	140	1815	73
Future Volume (veh/h)	112	10	12	63	16	85	20	1840	24	140	1815	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	11	13	68	17	92	22	2000	26	152	1973	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	188	15	15	126	37	134	38	3292	43	177	3586	143
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.02	0.63	0.63	0.10	0.71	0.71
Sat Flow, veh/h	902	100	98	578	241	887	1781	5195	67	1781	5037	201
Grp Volume(v), veh/h	146	0	0	177	0	0	22	1310	716	152	1332	720
Grp Sat Flow(s),veh/h/ln	1100	0	0	1706	0	0	1781	1702	1858	1781	1702	1834
Q Serve(g_s), s	4.8	0.0	0.0	0.0	0.0	0.0	1.6	29.8	29.8	10.9	24.1	24.2
Cycle Q Clear(g_c), s	17.4	0.0	0.0	12.6	0.0	0.0	1.6	29.8	29.8	10.9	24.1	24.2
Prop In Lane	0.84		0.09	0.38		0.52	1.00		0.04	1.00		0.11
Lane Grp Cap(c), veh/h	218	0	0	297	0	0	38	2157	1177	177	2423	1305
V/C Ratio(X)	0.67	0.00	0.00	0.60	0.00	0.00	0.59	0.61	0.61	0.86	0.55	0.55
Avail Cap(c_a), veh/h	374	0	0	475	0	0	159	2157	1177	296	2423	1305
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.37	0.37	0.37	0.45	0.45	0.45
Uniform Delay (d), s/veh	54.7	0.0	0.0	52.1	0.0	0.0	63.1	14.2	14.2	57.7	8.9	8.9
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.7	0.0	0.0	2.0	0.5	0.9	2.8	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	0.0	5.6	0.0	0.0	0.7	10.7	11.8	5.0	7.9	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	0.0	0.0	52.9	0.0	0.0	65.1	14.7	15.1	60.5	9.3	9.6
LnGrp LOS	E	A	A	D	A	A	E	B	B	E	A	A
Approach Vol, veh/h		146			177			2048			2204	
Approach Delay, s/veh		56.0			52.9			15.3			12.9	
Approach LOS		E			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.3	88.1		24.6	7.1	98.2		24.6
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	20.6	* 59		35.1	11.6	68.3		35.1
Max Q Clear Time (g_c+I1), s	12.9	31.8		19.4	3.6	26.2		14.6
Green Ext Time (p_c), s	0.0	5.8		0.3	0.0	6.2		0.4

Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



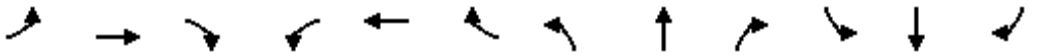
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	375	301	14	591	305	128	10	1381	511	175	1461	288
Future Volume (veh/h)	375	301	14	591	305	128	10	1381	511	175	1461	288
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	408	327	15	642	332	139	11	1501	555	190	1588	313
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	430	431	20	692	370	307	22	1723	534	242	1404	625
Arrive On Green	0.24	0.24	0.24	0.20	0.20	0.20	0.01	0.34	0.34	0.07	0.40	0.40
Sat Flow, veh/h	1781	1772	81	3456	1870	1551	1781	5106	1582	3456	3554	1583
Grp Volume(v), veh/h	408	0	342	642	332	139	11	1501	555	190	1588	313
Grp Sat Flow(s),veh/h/ln	1781	0	1854	1728	1870	1551	1781	1702	1582	1728	1777	1583
Q Serve(g_s), s	29.3	0.0	22.3	23.7	22.5	8.5	0.8	35.9	43.9	7.0	51.4	9.0
Cycle Q Clear(g_c), s	29.3	0.0	22.3	23.7	22.5	8.5	0.8	35.9	43.9	7.0	51.4	9.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	430	0	450	692	370	307	22	1723	534	242	1404	625
V/C Ratio(X)	0.95	0.00	0.76	0.93	0.90	0.45	0.49	0.87	1.04	0.78	1.13	0.50
Avail Cap(c_a), veh/h	488	0	500	813	433	359	145	1723	534	521	1404	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	48.5	0.0	45.7	51.1	50.9	31.2	63.8	40.4	43.1	59.5	39.3	6.4
Incr Delay (d2), s/veh	25.5	0.0	5.0	14.2	17.6	0.4	6.0	6.4	49.5	1.7	66.7	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	0.0	10.9	11.4	12.1	3.2	0.4	15.6	23.9	3.1	34.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	0.0	50.7	65.3	68.5	31.5	69.8	46.8	92.6	61.1	106.0	8.7
LnGrp LOS	E	A	D	E	E	C	E	D	F	E	F	A
Approach Vol, veh/h		750			1113			2067			2091	
Approach Delay, s/veh		63.4			62.0			59.2			87.4	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	49.6	30.4	36.5	6.0	57.1	36.3	30.6
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	9.6	* 26	30.6	35.1	10.6	34.3	35.6	* 30
Max Q Clear Time (g_c+I1), s	9.0	45.9	25.7	24.3	2.8	53.4	31.3	24.5
Green Ext Time (p_c), s	0.1	0.0	0.3	0.6	0.0	0.0	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	70.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	133	5	196	0	148	0	338	145	38	263	0
Future Volume (vph)	34	133	5	196	0	148	0	338	145	38	263	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.97		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1852		1770		1555		3284		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.32	1.00	
Satd. Flow (perm)	1770	1852		1770		1555		3284		589	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	145	5	213	0	161	0	367	158	41	286	0
RTOR Reduction (vph)	0	2	0	0	0	117	0	53	0	0	0	0
Lane Group Flow (vph)	37	148	0	213	0	44	0	472	0	41	286	0
Confl. Peds. (#/hr)			5			4			50			12
Confl. Bikes (#/hr)			2						8			5
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	8.5	8.5		11.1		11.1		17.8		24.6	24.6	
Effective Green, g (s)	8.5	8.5		11.1		11.1		17.8		24.6	24.6	
Actuated g/C Ratio	0.15	0.15		0.19		0.19		0.30		0.42	0.42	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	257	269		336		295		1000		296	1490	
v/s Ratio Prot	0.02	c0.08		c0.12				c0.14		0.01	c0.08	
v/s Ratio Perm						0.03				0.05		
v/c Ratio	0.14	0.55		0.63		0.15		0.47		0.14	0.19	
Uniform Delay, d1	21.8	23.2		21.8		19.7		16.5		10.4	10.6	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.1	1.4		2.9		0.1		0.1		0.1	0.0	
Delay (s)	21.9	24.6		24.6		19.8		16.6		10.5	10.7	
Level of Service	C	C		C		B		B		B	B	
Approach Delay (s)		24.0			22.6			16.6			10.6	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	18.6
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

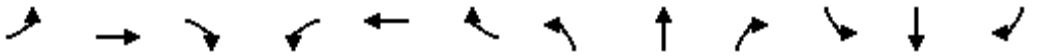
Intersection	
Int Delay, s/veh	1.4

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	139	376	297	58	0	1
Future Vol, veh/h	139	376	297	58	0	1
Conflicting Peds, #/hr	0	0	0	16	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	151	409	323	63	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	402	0	-	0	878	209
Stage 1	-	-	-	-	371	-
Stage 2	-	-	-	-	507	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1153	-	-	-	287	797
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	570	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1135	-	-	-	241	785
Mov Cap-2 Maneuver	-	-	-	-	241	-
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	561	-

Approach	NB	SB	SE
HCM Control Delay, s	2.3	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1135	-	785	-	-
HCM Lane V/C Ratio	0.133	-	0.001	-	-
HCM Control Delay (s)	8.7	-	9.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	228	63	234	247	62	90	132	168	44	91	45
Future Volume (veh/h)	58	228	63	234	247	62	90	132	168	44	91	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	248	68	254	268	67	98	143	183	48	99	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1671	591	361	722	592	127	728	842	119	596	251
Arrive On Green	0.05	0.33	0.33	0.10	0.39	0.39	0.07	0.20	0.20	0.03	0.17	0.17
Sat Flow, veh/h	1781	5106	1458	3456	1870	1533	1781	3554	2683	3456	3554	1498
Grp Volume(v), veh/h	63	248	68	254	268	67	98	143	183	48	99	49
Grp Sat Flow(s),veh/h/ln	1781	1702	1458	1728	1870	1533	1781	1777	1342	1728	1777	1498
Q Serve(g_s), s	2.5	2.4	2.1	5.1	7.3	2.0	3.8	2.4	3.6	1.0	1.7	2.0
Cycle Q Clear(g_c), s	2.5	2.4	2.1	5.1	7.3	2.0	3.8	2.4	3.6	1.0	1.7	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	1671	591	361	722	592	127	728	842	119	596	251
V/C Ratio(X)	0.78	0.15	0.12	0.70	0.37	0.11	0.77	0.20	0.22	0.40	0.17	0.19
Avail Cap(c_a), veh/h	751	2870	933	1457	1051	862	751	1997	1800	1457	1997	842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	16.9	13.5	30.8	15.6	14.0	32.5	23.4	18.2	33.6	25.4	25.5
Incr Delay (d2), s/veh	5.8	0.0	0.1	0.9	0.2	0.0	3.6	0.1	0.1	0.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.9	0.6	2.0	2.9	0.6	1.7	0.9	1.0	0.4	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	17.0	13.6	31.7	15.8	14.1	36.1	23.6	18.3	34.5	25.4	25.6
LnGrp LOS	D	B	B	C	B	B	D	C	B	C	C	C
Approach Vol, veh/h		379			589			424			196	
Approach Delay, s/veh		20.1			22.5			24.2			27.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	29.2	10.5	18.6	8.6	33.4	7.9	21.3
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	7.1	4.4	5.8	4.0	4.5	9.3	3.0	5.6
Green Ext Time (p_c), s	0.4	2.4	0.1	0.4	0.1	1.2	0.1	1.6

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

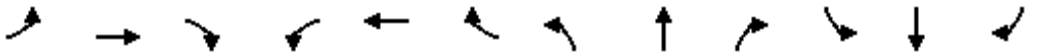
Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	274	316	343	462	8
Future Vol, veh/h	0	274	316	343	462	8
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	298	343	373	502	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	257	512	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	632	669	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	631	668	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.7	7.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	668	-	631	-	-
HCM Lane V/C Ratio	0.514	-	0.472	-	-
HCM Control Delay (s)	16	-	15.7	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	3	-	2.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	11	8	18	4	4	367	690	194	93	580	110
Future Volume (veh/h)	10	11	8	18	4	4	367	690	194	93	580	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.88	1.00		0.95	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	12	9	20	4	4	399	750	211	101	630	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	502	426	30	532	395	432	1490	630	128	736	140
Arrive On Green	0.01	0.27	0.27	0.02	0.28	0.28	0.24	0.42	0.42	0.07	0.25	0.25
Sat Flow, veh/h	1781	1870	1585	1781	1870	1390	1781	3554	1502	1781	2966	564
Grp Volume(v), veh/h	11	12	9	20	4	4	399	750	211	101	377	373
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1390	1781	1777	1502	1781	1777	1753
Q Serve(g_s), s	0.6	0.5	0.4	1.2	0.2	0.2	22.9	16.3	9.9	5.8	21.2	21.3
Cycle Q Clear(g_c), s	0.6	0.5	0.4	1.2	0.2	0.2	22.9	16.3	9.9	5.8	21.2	21.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	19	502	426	30	532	395	432	1490	630	128	441	435
V/C Ratio(X)	0.59	0.02	0.02	0.67	0.01	0.01	0.92	0.50	0.34	0.79	0.85	0.86
Avail Cap(c_a), veh/h	95	603	511	112	656	488	998	3062	1294	334	868	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	28.2	28.1	51.1	26.8	26.8	38.7	22.4	20.5	47.8	37.5	37.5
Incr Delay (d2), s/veh	35.9	0.0	0.0	9.1	0.0	0.0	3.6	0.1	0.1	4.1	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.2	0.2	0.6	0.1	0.1	9.7	6.1	3.2	2.7	9.0	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.4	28.2	28.2	60.2	26.8	26.9	42.3	22.5	20.6	51.9	39.4	39.5
LnGrp LOS	F	C	C	E	C	C	D	C	C	D	D	D
Approach Vol, veh/h		32			28			1360			851	
Approach Delay, s/veh		48.5			50.7			28.0			40.9	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	36.8	29.8	30.9	5.5	38.5	11.9	48.7
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	6.6	33.7	58.6	51.1	5.6	* 37	19.6	90.1
Max Q Clear Time (g_c+I1), s	3.2	2.5	24.9	23.3	2.6	2.2	7.8	18.3
Green Ext Time (p_c), s	0.0	0.1	0.5	2.7	0.0	0.0	0.1	3.3

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

Notes

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

User approved ignoring U-Turning movement.

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

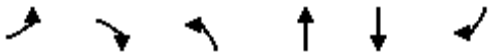
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	588	660	22	0	176
Future Vol, veh/h	0	588	660	22	0	176
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	639	717	24	0	191

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	359
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	638
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	638
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	638
HCM Lane V/C Ratio	-	-	0.3
HCM Control Delay (s)	-	-	13
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.3



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	455	73	0	1032	1407	578
Future Volume (vph)	455	73	0	1032	1407	578
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	495	79	0	1122	1529	628
RTOR Reduction (vph)	0	65	0	0	0	0
Lane Group Flow (vph)	495	14	0	1122	1529	628
Confl. Peds. (#/hr)						3
Confl. Bikes (#/hr)						4
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	20.8	20.8		60.8	60.8	104.8
Effective Green, g (s)	20.8	20.8		60.8	60.8	99.4
Actuated g/C Ratio	0.18	0.18		0.53	0.53	0.86
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	620	286		1871	1871	1368
v/s Ratio Prot	c0.14			0.32	c0.43	c0.40
v/s Ratio Perm		0.01				
v/c Ratio	0.80	0.05		0.60	0.82	0.46
Uniform Delay, d1	45.1	38.9		18.7	22.5	1.8
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	6.9	0.1		0.5	2.9	0.2
Delay (s)	52.0	39.0		19.2	25.4	1.9
Level of Service	D	D		B	C	A
Approach Delay (s)	50.2			19.2	18.5	
Approach LOS	D			B	B	

Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	939	284	110	813
Future Volume (veh/h)	0	1	939	284	110	813
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1021	309	120	884
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	4	7	2028	887	234	2604
Arrive On Green	0.00	0.00	0.57	0.57	0.07	0.73
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	1021	309	120	884
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	8.1	5.0	1.6	4.1
Cycle Q Clear(g_c), s	0.0	0.0	8.1	5.0	1.6	4.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	4	7	2028	887	234	2604
V/C Ratio(X)	0.00	0.15	0.50	0.35	0.51	0.34
Avail Cap(c_a), veh/h	1529	2722	4577	2001	2225	4577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	23.2	6.0	5.3	21.0	2.2
Incr Delay (d2), s/veh	0.0	3.6	0.3	0.3	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.7	0.9	0.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	26.8	6.3	5.7	21.6	2.4
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1330			1004
Approach Delay, s/veh	26.8		6.2			4.7
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.6	32.8			40.3	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	3.6	10.1			6.1	2.0
Green Ext Time (p_c), s	0.2	16.5			16.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	34	50	50	38	88	50	864	34	112	828	161
Future Volume (veh/h)	62	34	50	50	38	88	50	864	34	112	828	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	37	54	54	41	96	54	939	37	122	900	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	175	144	70	165	135	136	1627	772	159	1805	875
Arrive On Green	0.04	0.09	0.09	0.04	0.09	0.09	0.04	0.46	0.46	0.09	0.51	0.51
Sat Flow, veh/h	3456	1870	1539	1781	1870	1530	3456	3554	1549	1781	3554	1584
Grp Volume(v), veh/h	67	37	54	54	41	96	54	939	37	122	900	175
Grp Sat Flow(s),veh/h/ln	1728	1870	1539	1781	1870	1530	1728	1777	1549	1781	1777	1584
Q Serve(g_s), s	1.2	1.1	2.0	1.8	1.3	3.7	0.9	11.9	0.8	4.1	10.2	3.4
Cycle Q Clear(g_c), s	1.2	1.1	2.0	1.8	1.3	3.7	0.9	11.9	0.8	4.1	10.2	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	154	175	144	70	165	135	136	1627	772	159	1805	875
V/C Ratio(X)	0.44	0.21	0.38	0.77	0.25	0.71	0.40	0.58	0.05	0.77	0.50	0.20
Avail Cap(c_a), veh/h	1694	917	754	873	917	750	1694	4064	1834	873	4064	1882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	25.7	26.1	29.1	26.0	27.1	28.7	12.2	7.9	27.3	9.9	6.9
Incr Delay (d2), s/veh	0.7	0.6	1.6	6.6	0.3	2.6	0.7	0.5	0.0	2.9	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	0.7	0.8	0.5	1.3	0.4	3.9	0.2	1.7	3.3	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	26.3	27.7	35.7	26.3	29.7	29.4	12.8	8.0	30.2	10.3	7.1
LnGrp LOS	C	C	C	D	C	C	C	B	A	C	B	A
Approach Vol, veh/h		158			191			1030			1197	
Approach Delay, s/veh		28.0			30.7			13.5			11.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	33.3	6.8	11.2	6.8	36.4	7.1	10.9
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	5.1	13.9	3.8	4.0	2.9	12.2	3.2	5.7
Green Ext Time (p_c), s	0.1	14.1	0.0	0.3	0.1	14.4	0.1	0.2

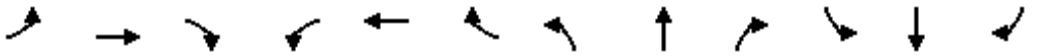
Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1051	62	351	374	0	0	0	0	246	0	0
Future Volume (vph)	0	1051	62	351	374	0	0	0	0	246	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.99	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1560	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1560	3433	3539					1770		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1142	67	382	407	0	0	0	0	267	0	0
RTOR Reduction (vph)	0	0	34	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1142	33	382	407	0	0	0	0	267	0	0
Confl. Peds. (#/hr)			2			5						
Confl. Bikes (#/hr)			2			5						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		47.9	47.9	10.3	62.9					15.5		
Effective Green, g (s)		43.9	43.9	10.3	58.9					15.5		
Actuated g/C Ratio		0.49	0.49	0.11	0.65					0.17		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1726	760	392	2316					304		
v/s Ratio Prot		c0.32		c0.11	0.11					c0.15		
v/s Ratio Perm			0.02									
v/c Ratio		0.66	0.04	0.97	0.18					0.88		
Uniform Delay, d1		17.4	12.1	39.7	6.1					36.3		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		1.0	0.0	38.3	0.0					22.9		
Delay (s)		18.4	12.1	78.0	6.1					59.3		
Level of Service		B	B	E	A					E		
Approach Delay (s)		18.0			40.9			0.0			59.3	
Approach LOS		B			D			A			E	

Intersection Summary			
HCM 2000 Control Delay	30.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	843	1551	584	0	0	1961
Future Volume (vph)	843	1551	584	0	0	1961
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	916	1686	635	0	0	2132
RTOR Reduction (vph)	0	100	0	0	0	0
Lane Group Flow (vph)	916	1586	635	0	0	2132
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)				4		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.4	58.1	22.6			45.3
Effective Green, g (s)	35.4	58.1	19.6			45.3
Actuated g/C Ratio	0.37	0.61	0.20			0.47
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1269	1692	1041			3033
v/s Ratio Prot	0.27	c0.57	0.12			c0.33
v/s Ratio Perm						
v/c Ratio	0.72	0.94	0.61			0.70
Uniform Delay, d1	25.9	17.1	34.6			19.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.7	10.2	0.7			0.6
Delay (s)	27.7	27.4	35.3			20.5
Level of Service	C	C	D			C
Approach Delay (s)	27.5		35.3			20.5
Approach LOS	C		D			C

Intersection Summary			
HCM 2000 Control Delay	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	95.7	Sum of lost time (s)	25.5
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
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)	314	280	285	27	307	445	297	431	33	490	488	341
Future Volume (veh/h)	314	280	285	27	307	445	297	431	33	490	488	341
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	322	330	310	29	334	0	264	551	0	595	444	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	398	418	704	243	485		402	844		1040	546	
Arrive On Green	0.22	0.22	0.22	0.14	0.14	0.00	0.07	0.07	0.00	0.29	0.29	0.00
Sat Flow, veh/h	1781	1870	1548	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	322	330	310	29	334	0	264	551	0	595	444	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1548	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	27.4	26.6	22.1	2.3	14.3	0.0	23.1	22.9	0.0	22.7	35.3	0.0
Cycle Q Clear(g_c), s	27.4	26.6	22.1	2.3	14.3	0.0	23.1	22.9	0.0	22.7	35.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	398	418	704	243	485		402	844		1040	546	
V/C Ratio(X)	0.81	0.79	0.44	0.12	0.69		0.66	0.65		0.57	0.81	
Avail Cap(c_a), veh/h	435	457	736	357	713		402	844		1040	546	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.00	0.90	0.90	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.9	58.6	30.4	60.7	65.9	0.0	68.0	67.9	0.0	48.1	52.6	0.0
Incr Delay (d2), s/veh	13.1	11.2	1.2	0.8	6.3	0.0	7.4	3.5	0.0	0.6	8.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	13.8	12.3	1.1	6.9	0.0	12.0	12.0	0.0	10.3	18.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.0	69.8	31.6	61.5	72.1	0.0	75.4	71.5	0.0	48.7	61.4	0.0
LnGrp LOS	E	E	C	E	E		E	E		D	E	
Approach Vol, veh/h		962			363			815			1039	
Approach Delay, s/veh		58.2			71.3			72.7			54.1	
Approach LOS		E			E			E			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.7	51.6	26.7	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	29.4	37.3	16.3	25.1
Green Ext Time (p_c), s	5.7	0.0	4.2	3.0

Intersection Summary	
HCM 6th Ctrl Delay	62.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	700	0	6	578	85	0	0	0	68	0	121
Future Volume (veh/h)	141	700	0	6	578	85	0	0	0	68	0	121
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	153	761	0	7	628	92				74	0	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	184	1747	0	101	2017	291				562	0	496
Arrive On Green	0.10	0.49	0.00	0.11	0.90	0.90				0.32	0.00	0.32
Sat Flow, veh/h	1781	3647	0	1781	4488	648				1781	0	1570
Grp Volume(v), veh/h	153	761	0	7	474	246				74	0	132
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1702	1732				1781	0	1570
Q Serve(g_s), s	9.1	15.0	0.0	0.4	2.1	2.2				3.2	0.0	6.8
Cycle Q Clear(g_c), s	9.1	15.0	0.0	0.4	2.1	2.2				3.2	0.0	6.8
Prop In Lane	1.00		0.00	1.00		0.37				1.00		1.00
Lane Grp Cap(c), veh/h	184	1747	0	101	1530	778				562	0	496
V/C Ratio(X)	0.83	0.44	0.00	0.07	0.31	0.32				0.13	0.00	0.27
Avail Cap(c_a), veh/h	538	1747	0	109	1530	778				562	0	496
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.49	0.49	0.00	0.97	0.97	0.97				1.00	0.00	1.00
Uniform Delay (d), s/veh	47.5	17.8	0.0	45.4	3.1	3.1				26.4	0.0	27.6
Incr Delay (d2), s/veh	1.8	0.4	0.0	0.1	0.5	1.0				0.5	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	6.0	0.0	0.2	0.7	0.8				1.4	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	18.1	0.0	45.5	3.6	4.2				26.9	0.0	28.9
LnGrp LOS	D	B	A	D	A	A				C	A	C
Approach Vol, veh/h		914			727						206	
Approach Delay, s/veh		23.4			4.2						28.2	
Approach LOS		C			A						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	15.6	53.4
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I2), s	2.4	17.0		8.8	11.1	4.2
Green Ext Time (p_c), s	0.0	7.2		0.5	0.2	5.6

Intersection Summary	
HCM 6th Ctrl Delay	16.4
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 (veh/h)	108	557	85	129	585	76	99	64	129	3	1	14
Future Volume (veh/h)	108	557	85	129	585	76	99	64	129	3	1	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.92	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	605	92	140	636	83	108	70	140	3	1	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	1548	235	168	2497	322	349	103	205	38	13	44
Arrive On Green	0.10	1.00	1.00	0.09	0.55	0.55	0.20	0.20	0.20	0.03	0.03	0.03
Sat Flow, veh/h	3456	3070	465	1781	4556	587	1781	524	1047	1352	451	1561
Grp Volume(v), veh/h	117	349	348	140	473	246	108	0	210	4	0	15
Grp Sat Flow(s),veh/h/ln	1728	1777	1758	1781	1702	1739	1781	0	1571	1803	0	1561
Q Serve(g_s), s	3.5	0.0	0.0	8.3	7.9	8.0	5.6	0.0	13.4	0.2	0.0	1.0
Cycle Q Clear(g_c), s	3.5	0.0	0.0	8.3	7.9	8.0	5.6	0.0	13.4	0.2	0.0	1.0
Prop In Lane	1.00		0.26	1.00		0.34	1.00		0.67	0.75		1.00
Lane Grp Cap(c), veh/h	176	896	887	168	1866	953	349	0	308	51	0	44
V/C Ratio(X)	0.67	0.39	0.39	0.83	0.25	0.26	0.31	0.00	0.68	0.08	0.00	0.34
Avail Cap(c_a), veh/h	595	896	887	191	1866	953	414	0	365	285	0	247
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)	0.93	0.93	0.93	0.77	0.77	0.77	0.77	0.00	0.77	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.6	0.0	0.0	48.1	12.8	12.8	37.2	0.0	40.3	51.1	0.0	51.5
Incr Delay (d2), s/veh	1.5	1.2	1.2	16.8	0.3	0.5	0.1	0.0	2.1	0.2	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.3	0.3	4.4	2.9	3.1	2.5	0.0	5.3	0.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.1	1.2	1.2	64.9	13.1	13.4	37.3	0.0	42.4	51.4	0.0	53.2
LnGrp LOS	D	A	A	E	B	B	D	A	D	D	A	D
Approach Vol, veh/h		814			859			318			19	
Approach Delay, s/veh		8.1			21.6			40.6			52.8	
Approach LOS		A			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.9	64.1		26.1	14.6	59.4		7.9
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	5.5	10.0		15.4	10.3	2.0		3.0
Green Ext Time (p_c), s	0.1	7.1		0.7	0.0	8.9		0.0

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	557	70	75	539	246	116	31	73	163	26	134
Future Volume (veh/h)	61	557	70	75	539	246	116	31	73	163	26	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.91	1.00		0.92	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	605	76	82	586	267	126	34	79	177	28	146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	794	99	105	935	398	437	118	545	221	35	224
Arrive On Green	0.04	0.25	0.25	0.06	0.27	0.27	0.31	0.31	0.31	0.14	0.14	0.14
Sat Flow, veh/h	3456	3132	392	1781	3404	1450	1417	382	1460	1548	245	1565
Grp Volume(v), veh/h	66	342	339	82	586	267	160	0	79	205	0	146
Grp Sat Flow(s),veh/h/ln	1728	1777	1747	1781	1702	1450	1800	0	1460	1793	0	1565
Q Serve(g_s), s	1.5	14.4	14.5	3.7	12.2	13.3	5.5	0.0	2.9	9.0	0.0	7.1
Cycle Q Clear(g_c), s	1.5	14.4	14.5	3.7	12.2	13.3	5.5	0.0	2.9	9.0	0.0	7.1
Prop In Lane	1.00		0.22	1.00		1.00	0.79		1.00	0.86		1.00
Lane Grp Cap(c), veh/h	132	451	443	105	935	398	555	0	545	256	0	224
V/C Ratio(X)	0.50	0.76	0.76	0.78	0.63	0.67	0.29	0.00	0.15	0.80	0.00	0.65
Avail Cap(c_a), veh/h	226	530	522	167	1113	474	799	0	742	400	0	349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.2	28.0	28.0	37.6	25.8	26.1	21.3	0.0	17.1	33.6	0.0	32.8
Incr Delay (d2), s/veh	1.1	5.8	6.1	4.6	0.4	1.8	0.1	0.0	0.0	2.8	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	6.5	6.5	1.7	4.7	4.5	2.2	0.0	1.0	4.0	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	33.8	34.1	42.2	26.2	27.9	21.4	0.0	17.2	36.4	0.0	34.0
LnGrp LOS	D	C	C	D	C	C	C	A	B	D	A	C
Approach Vol, veh/h		747			935			239			351	
Approach Delay, s/veh		34.4			28.1			20.0			35.4	
Approach LOS		C			C			B			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.2	25.5		16.5	7.5	27.2		29.9
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	5.7	16.5		11.0	3.5	15.3		7.5
Green Ext Time (p_c), s	0.0	2.9		0.6	0.0	3.1		0.7

Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

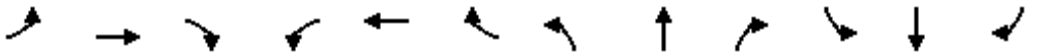
Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	744	24	122	848	14	0	0	105	4	3	19
Future Vol, veh/h	46	744	24	122	848	14	0	0	105	4	3	19
Conflicting Peds, #/hr	0	0	25	0	0	25	0	0	4	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	809	26	133	922	15	0	0	114	4	3	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	962	0	0	860	0	0	-	-	447	1649	2181	496
Stage 1	-	-	-	-	-	-	-	-	-	1221	1221	-
Stage 2	-	-	-	-	-	-	-	-	-	428	960	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	408	-	-	457	-	-	0	0	478	104	45	444
Stage 1	-	-	-	-	-	-	0	0	-	139	251	-
Stage 2	-	-	-	-	-	-	0	0	-	526	333	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	398	-	-	446	-	-	-	-	465	53	26	433
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	53	26	-
Stage 1	-	-	-	-	-	-	-	-	-	119	172	-
Stage 2	-	-	-	-	-	-	-	-	-	346	284	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	2	15.2	48.2
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	465	398	-	-	446	-	-	111
HCM Lane V/C Ratio	0.245	0.126	-	-	0.297	-	-	0.255
HCM Control Delay (s)	15.2	15.3	-	-	16.5	-	-	48.2
HCM Lane LOS	C	C	-	-	C	-	-	E
HCM 95th %tile Q(veh)	1	0.4	-	-	1.2	-	-	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	809	30	215	902	5	105	3	161	0	0	0
Future Volume (veh/h)	26	809	30	215	902	5	105	3	161	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	28	879	33	234	980	5	114	3	175			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	276	2760	103	267	2820	14	297	8	255			
Arrive On Green	0.15	0.55	0.55	0.15	0.54	0.54	0.17	0.17	0.17			
Sat Flow, veh/h	1781	5040	189	1781	5241	27	1738	46	1488			
Grp Volume(v), veh/h	28	593	319	234	636	349	117	0	175			
Grp Sat Flow(s),veh/h/ln	1781	1702	1825	1781	1702	1864	1783	0	1488			
Q Serve(g_s), s	1.5	10.3	10.3	13.9	11.5	11.5	6.3	0.0	11.9			
Cycle Q Clear(g_c), s	1.5	10.3	10.3	13.9	11.5	11.5	6.3	0.0	11.9			
Prop In Lane	1.00		0.10	1.00		0.01	0.97		1.00			
Lane Grp Cap(c), veh/h	276	1864	999	267	1831	1003	305	0	255			
V/C Ratio(X)	0.10	0.32	0.32	0.88	0.35	0.35	0.38	0.00	0.69			
Avail Cap(c_a), veh/h	276	1864	999	785	1831	1003	398	0	332			
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	1.00	1.00	0.50	0.50	0.50	0.99	0.00	0.99			
Uniform Delay (d), s/veh	39.2	13.4	13.4	44.9	14.2	14.2	39.7	0.0	42.1			
Incr Delay (d2), s/veh	0.1	0.4	0.8	1.9	0.3	0.5	0.3	0.0	2.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	3.9	4.3	6.2	4.3	4.7	2.8	0.0	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	13.8	14.2	46.8	14.4	14.7	40.0	0.0	44.0			
LnGrp LOS	D	B	B	D	B	B	D	A	D			
Approach Vol, veh/h		940			1219			292				
Approach Delay, s/veh		14.7			20.7			42.4				
Approach LOS		B			C			D				
Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	20.6	64.0			21.6	63.0		23.4				
Change Period (Y+Rc), s	4.4	4.9			4.9	* 4.9		4.9				
Max Green Setting (Gmax), s	47.6	22.1			11.6	* 58		24.1				
Max Q Clear Time (g_c+I1), s	15.9	12.3			3.5	13.5		13.9				
Green Ext Time (p_c), s	0.3	5.9			0.0	11.1		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	485	122	154	506	60	162	151	162	32	137	64
Future Volume (veh/h)	71	485	122	154	506	60	162	151	162	32	137	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	527	133	167	550	65	170	172	176	35	149	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	617	2028	885	210	897	106	237	249	305	207	217	179
Arrive On Green	0.69	1.00	1.00	0.12	0.56	0.56	0.13	0.13	0.13	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1550	3456	3183	375	1781	1870	1564	1781	1870	1544
Grp Volume(v), veh/h	77	527	133	167	306	309	170	172	176	35	149	70
Grp Sat Flow(s),veh/h/ln	1781	1777	1550	1728	1777	1781	1781	1870	1564	1781	1870	1544
Q Serve(g_s), s	2.3	0.0	0.0	7.5	18.3	18.5	14.6	14.0	16.4	2.8	12.2	6.7
Cycle Q Clear(g_c), s	2.3	0.0	0.0	7.5	18.3	18.5	14.6	14.0	16.4	2.8	12.2	6.7
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	617	2028	885	210	501	502	237	249	305	207	217	179
V/C Ratio(X)	0.12	0.26	0.15	0.79	0.61	0.62	0.72	0.69	0.58	0.17	0.69	0.39
Avail Cap(c_a), veh/h	617	2028	885	467	501	502	391	410	439	391	410	339
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.74	0.74	0.74	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	16.4	0.0	0.0	69.3	29.1	29.1	66.5	66.2	58.6	63.8	67.9	65.5
Incr Delay (d2), s/veh	0.0	0.2	0.2	1.9	4.1	4.1	1.5	1.3	0.6	0.1	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1	0.1	3.2	6.9	7.0	6.8	6.8	6.6	1.3	6.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.4	0.2	0.2	71.2	33.2	33.2	68.0	67.5	59.2	63.9	69.0	65.9
LnGrp LOS	B	A	A	E	C	C	E	E	E	E	E	E
Approach Vol, veh/h		737			782			518			254	
Approach Delay, s/veh		1.9			41.3			64.8			67.4	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.1	96.2		23.5	60.3	50.0		26.2
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	9.5	2.0		14.2	4.3	20.5		18.4
Green Ext Time (p_c), s	0.2	6.8		0.7	0.1	6.5		1.1

Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	842	9	16	762	304	10	3	7	164	11	79
Future Volume (veh/h)	62	842	9	16	762	304	10	3	7	164	11	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	0.96		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	915	10	17	828	330	11	3	8	178	12	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	2057	22	407	1340	532	220	69	127	288	21	106
Arrive On Green	0.05	0.76	0.76	0.02	0.55	0.55	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3600	39	1781	2444	971	647	295	538	910	89	452
Grp Volume(v), veh/h	67	452	473	17	601	557	22	0	0	276	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1638	1479	0	0	1451	0	0
Q Serve(g_s), s	1.3	7.4	7.4	0.3	18.5	18.6	0.0	0.0	0.0	13.5	0.0	0.0
Cycle Q Clear(g_c), s	1.3	7.4	7.4	0.3	18.5	18.6	0.8	0.0	0.0	14.3	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.59	0.50		0.36	0.64		0.31
Lane Grp Cap(c), veh/h	312	1015	1064	407	974	898	416	0	0	416	0	0
V/C Ratio(X)	0.21	0.44	0.44	0.04	0.62	0.62	0.05	0.00	0.00	0.66	0.00	0.00
Avail Cap(c_a), veh/h	435	1015	1064	570	974	898	456	0	0	456	0	0
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)	0.97	0.97	0.97	0.40	0.40	0.40	1.00	0.00	0.00	0.59	0.00	0.00
Uniform Delay (d), s/veh	9.5	5.0	5.0	7.9	12.3	12.4	23.7	0.0	0.0	28.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.4	1.3	0.0	1.2	1.3	0.0	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.3	2.4	0.1	6.8	6.4	0.3	0.0	0.0	5.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	6.4	6.3	7.9	13.5	13.7	23.7	0.0	0.0	30.1	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		992			1175			22			276	
Approach Delay, s/veh		6.6			13.5			23.7			30.1	
Approach LOS		A			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	50.6		23.7	7.5	48.8		23.7
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.3	9.4		16.3	3.3	20.6		2.8
Green Ext Time (p_c), s	0.0	7.2		0.5	0.0	7.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	21	24	135	156	37
Future Vol, veh/h	17	21	24	135	156	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	23	26	147	170	40
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.8	8.5	8.5
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	45%	0%
Vol Thru, %	0%	100%	0%	81%
Vol Right, %	0%	0%	55%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	135	38	193
LT Vol	24	0	17	0
Through Vol	0	135	0	156
RT Vol	0	0	21	37
Lane Flow Rate	26	147	41	210
Geometry Grp	7	7	2	5
Degree of Util (X)	0.038	0.192	0.052	0.24
Departure Headway (Hd)	5.214	4.713	4.549	4.118
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	683	756	792	858
Service Time	2.977	2.475	2.549	2.21
HCM Lane V/C Ratio	0.038	0.194	0.052	0.245
HCM Control Delay	8.2	8.6	7.8	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.7	0.2	0.9

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	148	0	0	162	0
Future Vol, veh/h	0	148	0	0	162	0
Conflicting Peds, #/hr	0	0	0	1	0	5
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	0	161	0	0	176	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	161	-
Stage 1	-	-	0	-
Stage 2	-	-	161	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	830	0
Stage 1	0	-	-	0
Stage 2	0	-	868	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	830	-
Mov Cap-2 Maneuver	-	-	794	-
Stage 1	-	-	-	-
Stage 2	-	-	868	-

Approach	EB	SB
HCM Control Delay, s	0	10.8
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	794
HCM Lane V/C Ratio	-	0.222
HCM Control Delay (s)	-	10.8
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.8

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	248	0	0	162	0
Future Vol, veh/h	65	248	0	0	162	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	270	0	0	176	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.4	9.5
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	44%	0%	100%
Vol Thru, %	56%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	148	165	162
LT Vol	65	0	162
Through Vol	83	165	0
RT Vol	0	0	0
Lane Flow Rate	161	180	176
Geometry Grp	7	7	2
Degree of Util (X)	0.232	0.249	0.241
Departure Headway (Hd)	5.208	4.987	4.937
Convergence, Y/N	Yes	Yes	Yes
Cap	690	721	729
Service Time	2.931	2.71	2.957
HCM Lane V/C Ratio	0.233	0.25	0.241
HCM Control Delay	9.5	9.4	9.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	1	0.9

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	396	0	0	50	0
Future Vol, veh/h	23	396	0	0	50	0
Conflicting Peds, #/hr	0	0	0	2	0	3
Sign Control	Free	Free	Stop	Stop	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	25	430	0	0	54	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	265	-
Stage 1	-	-	0	-
Stage 2	-	-	265	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	702	0
Stage 1	-	-	-	0
Stage 2	-	-	755	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	702	-
Mov Cap-2 Maneuver	-	-	702	-
Stage 1	-	-	-	-
Stage 2	-	-	755	-

Approach	EB	SB
HCM Control Delay, s		10.6
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	702
HCM Lane V/C Ratio	-	-	0.077
HCM Control Delay (s)	-	-	10.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	70	286	27	62	14	0	0	87	10
Future Vol, veh/h	0	0	0	70	286	27	62	14	0	0	87	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	76	311	29	67	15	0	0	95	11
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	10	8.9	8.8
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	82%	33%	0%	0%
Vol Thru, %	18%	67%	84%	90%
Vol Right, %	0%	0%	16%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	76	213	170	97
LT Vol	62	70	0	0
Through Vol	14	143	143	87
RT Vol	0	0	27	10
Lane Flow Rate	83	232	185	105
Geometry Grp	2	7	7	2
Degree of Util (X)	0.119	0.333	0.251	0.145
Departure Headway (Hd)	5.192	5.172	4.895	4.94
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	690	695	734	725
Service Time	3.227	2.905	2.629	2.973
HCM Lane V/C Ratio	0.12	0.334	0.252	0.145
HCM Control Delay	8.9	10.5	9.3	8.8
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.4	1.5	1	0.5

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	22	268	38	19	6	0	0	24	89
Future Vol, veh/h	0	0	0	22	268	38	19	6	0	0	24	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	24	291	41	21	7	0	0	26	97
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.1	8.3	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	76%	14%	0%	0%
Vol Thru, %	24%	86%	78%	21%
Vol Right, %	0%	0%	22%	79%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	156	172	113
LT Vol	19	22	0	0
Through Vol	6	134	134	24
RT Vol	0	0	38	89
Lane Flow Rate	27	170	187	123
Geometry Grp	2	7	7	2
Degree of Util (X)	0.038	0.234	0.246	0.147
Departure Headway (Hd)	5.036	4.964	4.738	4.303
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	712	727	763	835
Service Time	3.061	2.664	2.438	2.32
HCM Lane V/C Ratio	0.038	0.234	0.245	0.147
HCM Control Delay	8.3	9.2	9	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	1	0.5

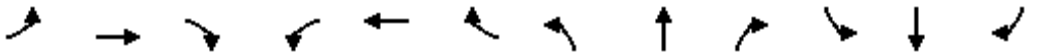
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	8	0	0	30	0	1962	10	0	2109	97
Future Vol, veh/h	0	0	8	0	0	30	0	1962	10	0	2109	97
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	5	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	9	0	0	33	0	2133	11	0	2292	105

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1205	-	-	1078	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	151	0	0	186	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	150	-	-	185	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.5	28.6	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	150	185	-	-
HCM Lane V/C Ratio	-	-	0.058	0.176	-	-
HCM Control Delay (s)	-	-	30.5	28.6	-	-
HCM Lane LOS	-	-	D	D	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	68	145	70	72	1887	9	0	1966	131
Future Volume (veh/h)	0	0	0	68	145	70	72	1887	9	0	1966	131
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				74	158	76	78	2051	10	0	2137	142
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				115	251	125	95	4209	21	0	3695	1118
Arrive On Green				0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.72	0.72
Sat Flow, veh/h				819	1788	886	1781	5244	26	0	5274	1545
Grp Volume(v), veh/h				165	0	143	78	1331	730	0	2137	142
Grp Sat Flow(s),veh/h/ln				1829	0	1664	1781	1702	1866	0	1702	1545
Q Serve(g_s), s				14.7	0.0	13.9	7.4	0.0	0.0	0.0	34.2	4.8
Cycle Q Clear(g_c), s				14.7	0.0	13.9	7.4	0.0	0.0	0.0	34.2	4.8
Prop In Lane				0.45		0.53	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				257	0	234	95	2732	1497	0	3695	1118
V/C Ratio(X)				0.64	0.00	0.61	0.82	0.49	0.49	0.00	0.58	0.13
Avail Cap(c_a), veh/h				373	0	340	275	2732	1497	0	3695	1118
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.78	0.00	1.00	1.00
Uniform Delay (d), s/veh				69.8	0.0	69.5	76.0	0.0	0.0	0.0	11.3	7.2
Incr Delay (d2), s/veh				1.0	0.0	1.0	5.1	0.5	0.9	0.0	0.7	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.0	0.0	6.0	3.4	0.2	0.4	0.0	12.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				70.8	0.0	70.4	81.1	0.5	0.9	0.0	12.0	7.5
LnGrp LOS				E	A	E	F	A	A	A	B	A
Approach Vol, veh/h					308			2139			2279	
Approach Delay, s/veh					70.7			3.6			11.7	
Approach LOS					E			A			B	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	142.9	29.1	13.6	129.4
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	16.7	9.4	36.2
Green Ext Time (p_c), s	6.9	0.6	0.0	8.3

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



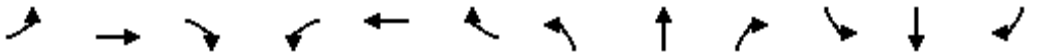
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	148	101	0	0	0	0	1741	32	53	1972	0
Future Volume (veh/h)	227	148	101	0	0	0	0	1741	32	53	1972	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	247	161	110				0	1892	35	58	2143	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	386	406	320				0	3405	63	73	4672	0
Arrive On Green	0.22	0.22	0.22				0.00	1.00	1.00	0.08	1.00	0.00
Sat Flow, veh/h	1781	1870	1474				0	5330	95	1781	6696	0
Grp Volume(v), veh/h	247	161	110				0	1247	680	58	2143	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1474				0	1702	1853	1781	1609	0
Q Serve(g_s), s	21.7	12.7	10.9				0.0	0.0	0.0	5.5	0.0	0.0
Cycle Q Clear(g_c), s	21.7	12.7	10.9				0.0	0.0	0.0	5.5	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	386	406	320				0	2245	1222	73	4672	0
V/C Ratio(X)	0.64	0.40	0.34				0.00	0.56	0.56	0.80	0.46	0.00
Avail Cap(c_a), veh/h	529	556	438				0	2245	1222	182	4672	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.58	0.58	0.77	0.77	0.00
Uniform Delay (d), s/veh	61.2	57.7	57.0				0.0	0.0	0.0	78.3	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.2	0.2				0.0	0.6	1.1	5.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	6.1	4.1				0.0	0.2	0.4	2.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.9	57.9	57.2				0.0	0.6	1.1	83.8	0.3	0.0
LnGrp LOS	E	E	E				A	A	A	F	A	A
Approach Vol, veh/h		518						1927			2201	
Approach Delay, s/veh		59.7						0.8			2.5	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	11.4	118.3	42.2	129.8
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	7.0	89.1	51.1	111.1
Max Q Clear Time (g_c+I1), s	7.5	2.0	23.7	2.0
Green Ext Time (p_c), s	0.0	5.5	0.5	8.2

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	351	415	238	219	245	7	380	1432	456	0	1451	578
Future Volume (vph)	351	415	238	219	245	7	380	1432	456	0	1451	578
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.92	1.00	1.00		1.00	1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.96			1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3357	1462	1610	3342		3662	4881			5085	1504
Flt Permitted	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3357	1462	1610	3342		3662	4881			5085	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	382	451	259	238	266	8	413	1557	496	0	1577	628
RTOR Reduction (vph)	0	0	206	0	1	0	0	28	0	0	0	227
Lane Group Flow (vph)	271	562	53	167	344	0	413	2025	0	0	1577	401
Confl. Peds. (#/hr)			44			1			3			21
Confl. Bikes (#/hr)			3			7						
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	35.4	35.4	35.4	22.0	22.0		22.6	96.9			68.9	68.9
Effective Green, g (s)	35.4	35.4	35.4	22.0	22.0		22.6	96.9			68.9	68.9
Actuated g/C Ratio	0.21	0.21	0.21	0.13	0.13		0.13	0.56			0.40	0.40
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	331	690	300	205	427		481	2749			2036	602
v/s Ratio Prot	c0.17	0.17		c0.10	0.10		c0.11	0.41			c0.31	
v/s Ratio Perm			0.04									0.27
v/c Ratio	0.82	0.81	0.18	0.81	0.81		0.86	0.74			0.77	0.67
Uniform Delay, d1	65.2	65.2	56.3	73.0	72.9		73.1	28.0			44.8	42.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.18	0.45			0.63	0.43
Incremental Delay, d2	13.8	7.0	0.1	20.4	10.0		10.0	1.3			2.7	5.2
Delay (s)	79.1	72.1	56.4	93.4	83.0		96.6	13.8			30.9	23.5
Level of Service	E	E	E	F	F		F	B			C	C
Approach Delay (s)		70.1			86.4			27.7			28.8	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	40.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	497	247	126	557	286	304	1671	90	286	1386	234
Future Volume (veh/h)	228	497	247	126	557	286	304	1671	90	286	1386	234
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.95	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	248	540	268	137	605	311	330	1816	98	311	1507	254
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	622	262	156	648	275	371	2074	112	689	2256	379
Arrive On Green	0.08	0.18	0.18	0.09	0.18	0.18	0.07	0.28	0.28	0.20	0.51	0.51
Sat Flow, veh/h	3456	3554	1495	1781	3554	1505	3456	4947	266	3456	4387	737
Grp Volume(v), veh/h	248	540	268	137	605	311	330	1248	666	311	1168	593
Grp Sat Flow(s),veh/h/ln	1728	1777	1495	1781	1777	1505	1728	1702	1809	1728	1702	1721
Q Serve(g_s), s	12.2	25.4	24.2	13.1	28.9	21.4	16.3	60.1	60.4	13.6	43.7	43.9
Cycle Q Clear(g_c), s	12.2	25.4	24.2	13.1	28.9	21.4	16.3	60.1	60.4	13.6	43.7	43.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.43
Lane Grp Cap(c), veh/h	288	622	262	156	648	275	371	1427	758	689	1750	885
V/C Ratio(X)	0.86	0.87	1.02	0.88	0.93	1.13	0.89	0.87	0.88	0.45	0.67	0.67
Avail Cap(c_a), veh/h	434	684	288	193	648	275	675	1427	758	689	1750	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.9	69.0	45.9	77.6	69.3	32.6	78.8	57.5	57.6	60.6	30.9	31.0
Incr Delay (d2), s/veh	6.8	9.2	55.9	26.3	20.3	94.9	2.2	6.0	10.7	0.2	0.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	12.4	13.1	7.1	14.9	15.1	7.5	27.8	30.6	6.0	17.9	18.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.7	78.2	101.8	103.8	89.6	127.4	81.0	63.5	68.3	60.7	31.7	32.6
LnGrp LOS	F	E	F	F	F	F	F	E	E	E	C	C
Approach Vol, veh/h		1056			1053			2244			2072	
Approach Delay, s/veh		85.7			102.6			67.5			36.3	
Approach LOS		F			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	77.0	20.0	35.0	22.9	94.1	18.7	36.3
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	15.6	62.4	15.1	27.4	18.3	45.9	14.2	30.9
Green Ext Time (p_c), s	0.2	3.9	0.0	1.0	0.2	4.7	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	66.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	10	6	99	17	109	8	1901	33	100	1508	36
Future Volume (veh/h)	44	10	6	99	17	109	8	1901	33	100	1508	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	11	7	108	18	118	9	2066	36	109	1639	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	35	18	143	22	126	18	3479	61	128	3769	90
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.01	0.67	0.67	0.07	0.74	0.74
Sat Flow, veh/h	720	208	110	672	130	751	1781	5166	90	1781	5127	122
Grp Volume(v), veh/h	66	0	0	244	0	0	9	1360	742	109	1088	590
Grp Sat Flow(s),veh/h/ln	1037	0	0	1553	0	0	1781	1702	1852	1781	1702	1845
Q Serve(g_s), s	0.0	0.0	0.0	17.1	0.0	0.0	0.9	37.4	37.5	10.4	21.4	21.4
Cycle Q Clear(g_c), s	9.6	0.0	0.0	26.6	0.0	0.0	0.9	37.4	37.5	10.4	21.4	21.4
Prop In Lane	0.73		0.11	0.44		0.48	1.00		0.05	1.00		0.07
Lane Grp Cap(c), veh/h	210	0	0	290	0	0	18	2293	1247	128	2503	1356
V/C Ratio(X)	0.31	0.00	0.00	0.84	0.00	0.00	0.50	0.59	0.59	0.85	0.43	0.43
Avail Cap(c_a), veh/h	220	0	0	302	0	0	162	2293	1247	369	2503	1356
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.62	0.62	0.62	0.64	0.64	0.64
Uniform Delay (d), s/veh	63.4	0.0	0.0	70.4	0.0	0.0	84.7	15.3	15.3	78.9	8.9	8.9
Incr Delay (d2), s/veh	0.3	0.0	0.0	17.2	0.0	0.0	4.8	0.7	1.3	3.9	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	12.1	0.0	0.0	0.4	14.1	15.6	4.9	7.6	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.7	0.0	0.0	87.6	0.0	0.0	89.5	16.0	16.6	82.8	9.2	9.5
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		66			244			2111			1787	
Approach Delay, s/veh		63.7			87.6			16.5			13.8	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.8	121.5		33.7	6.1	132.2		33.7
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	12.4	39.5		11.6	2.9	23.4		28.6
Green Ext Time (p_c), s	0.0	6.4		0.1	0.0	4.4		0.1

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	256	15	537	328	175	22	1584	729	140	1240	300
Future Volume (veh/h)	218	256	15	537	328	175	22	1584	729	140	1240	300
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	237	278	16	584	357	190	24	1722	792	152	1348	326
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	304	18	615	380	317	35	2453	748	190	1832	799
Arrive On Green	0.15	0.17	0.17	0.18	0.20	0.20	0.02	0.48	0.48	0.11	1.00	1.00
Sat Flow, veh/h	1781	1749	101	3456	1870	1562	1781	5106	1558	3456	3554	1551
Grp Volume(v), veh/h	237	0	294	584	357	190	24	1722	792	152	1348	326
Grp Sat Flow(s),veh/h/ln	1781	0	1849	1728	1870	1562	1781	1702	1558	1728	1777	1551
Q Serve(g_s), s	22.5	0.0	26.9	28.8	32.3	16.4	2.3	45.5	82.6	7.4	0.0	0.0
Cycle Q Clear(g_c), s	22.5	0.0	26.9	28.8	32.3	16.4	2.3	45.5	82.6	7.4	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	0	322	615	380	317	35	2453	748	190	1832	799
V/C Ratio(X)	0.91	0.00	0.91	0.95	0.94	0.60	0.68	0.70	1.06	0.80	0.74	0.41
Avail Cap(c_a), veh/h	265	0	442	615	501	419	120	2453	748	434	1832	799
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	72.4	0.0	69.8	69.9	67.5	46.3	83.8	35.0	44.7	75.6	0.0	0.0
Incr Delay (d2), s/veh	32.1	0.0	16.1	24.3	19.9	0.7	8.2	1.7	49.5	2.7	2.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	0.0	14.2	14.7	17.4	6.4	1.1	19.0	41.2	3.2	0.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.5	0.0	85.9	94.2	87.4	47.0	91.9	36.7	94.2	78.3	2.4	1.4
LnGrp LOS	F	A	F	F	F	D	F	D	F	E	A	A
Approach Vol, veh/h		531			1131			2538			1826	
Approach Delay, s/veh		94.2			84.1			55.2			8.5	
Approach LOS		F			F			E			A	

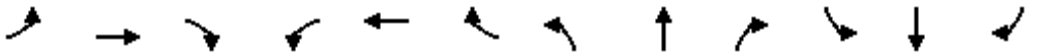
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	88.3	35.0	34.8	7.8	94.4	30.0	39.9
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	9.4	84.6	30.8	28.9	4.3	2.0	24.5	34.3
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	4.0	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	49.9
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	171	4	141	0	136	0	697	287	64	303	0
Future Volume (vph)	76	171	4	141	0	136	0	697	287	64	303	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.94		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	1.00		1.00		0.85		0.96		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1856		1770		1552		3177		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.14	1.00	
Satd. Flow (perm)	1770	1856		1770		1552		3177		259	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	83	186	4	153	0	148	0	758	312	70	329	0
RTOR Reduction (vph)	0	1	0	0	0	132	0	41	0	0	0	0
Lane Group Flow (vph)	83	189	0	153	0	16	0	1029	0	70	329	0
Confl. Peds. (#/hr)			15			3			91			10
Confl. Bikes (#/hr)									11			8
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	16.5	16.5		9.9		9.9		41.0		49.4	49.4	
Effective Green, g (s)	16.5	16.5		9.9		9.9		41.0		49.4	49.4	
Actuated g/C Ratio	0.18	0.18		0.11		0.11		0.46		0.55	0.55	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	324	340		194		170		1447		209	1942	
v/s Ratio Prot	0.05	c0.10		c0.09				c0.32		c0.01	0.09	
v/s Ratio Perm						0.01				0.17		
v/c Ratio	0.26	0.56		0.79		0.10		0.71		0.33	0.17	
Uniform Delay, d1	31.5	33.4		39.0		36.0		19.7		12.6	10.1	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.2	1.1		17.5		0.1		3.0		0.3	0.2	
Delay (s)	31.6	34.5		56.6		36.1		22.7		13.0	10.3	
Level of Service	C	C		E		D		C		B	B	
Approach Delay (s)		33.7			46.5			22.7			10.8	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	25.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

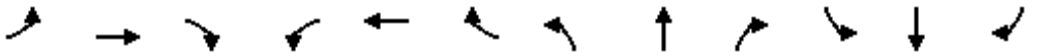
Intersection	
Int Delay, s/veh	1.2

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	174	714	383	71	0	1
Future Vol, veh/h	174	714	383	71	0	1
Conflicting Peds, #/hr	0	0	0	23	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	189	776	416	77	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	516	0	-	0	1244	270
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	766	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1046	-	-	-	166	728
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	419	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1023	-	-	-	129	712
Mov Cap-2 Maneuver	-	-	-	-	129	-
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	410	-

Approach	NB	SB	SE
HCM Control Delay, s	1.8	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1023	-	712	-	-
HCM Lane V/C Ratio	0.185	-	0.002	-	-
HCM Control Delay (s)	9.3	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.7	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	575	103	331	261	76	150	142	460	75	306	90
Future Volume (veh/h)	81	575	103	331	261	76	150	142	460	75	306	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.97	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	625	112	360	284	83	163	154	500	82	333	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	1746	646	445	761	624	197	870	1012	139	620	261
Arrive On Green	0.06	0.34	0.34	0.13	0.41	0.41	0.11	0.24	0.24	0.04	0.17	0.17
Sat Flow, veh/h	1781	5106	1376	3456	1870	1533	1781	3554	2667	3456	3554	1497
Grp Volume(v), veh/h	88	625	112	360	284	83	163	154	500	82	333	98
Grp Sat Flow(s),veh/h/ln	1781	1702	1376	1728	1870	1533	1781	1777	1334	1728	1777	1497
Q Serve(g_s), s	4.7	8.8	4.6	9.7	10.2	3.3	8.6	3.3	13.8	2.2	8.2	5.5
Cycle Q Clear(g_c), s	4.7	8.8	4.6	9.7	10.2	3.3	8.6	3.3	13.8	2.2	8.2	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	114	1746	646	445	761	624	197	870	1012	139	620	261
V/C Ratio(X)	0.77	0.36	0.17	0.81	0.37	0.13	0.83	0.18	0.49	0.59	0.54	0.38
Avail Cap(c_a), veh/h	558	2131	750	1082	781	640	558	1483	1472	1082	1483	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	23.6	15.6	40.6	19.9	17.8	41.7	28.6	23.1	45.2	36.0	35.0
Incr Delay (d2), s/veh	4.2	0.1	0.2	1.4	0.2	0.1	3.3	0.1	0.4	1.5	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.5	1.4	4.1	4.3	1.1	3.8	1.3	4.1	1.0	3.4	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	23.8	15.8	42.0	20.0	17.9	45.0	28.7	23.5	46.7	36.3	35.3
LnGrp LOS	D	C	B	D	C	B	D	C	C	D	D	D
Approach Vol, veh/h		825			727			817			513	
Approach Delay, s/veh		25.3			30.6			28.8			37.8	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.7	38.7	16.0	23.4	11.5	44.9	9.3	30.2
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	11.7	10.8	10.6	10.2	6.7	12.2	4.2	15.8
Green Ext Time (p_c), s	0.6	6.3	0.2	1.4	0.1	1.3	0.1	3.0

Intersection Summary	
HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	21.7

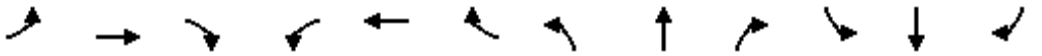
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	482	283	600	731	15
Future Vol, veh/h	0	482	283	600	731	15
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
Veh in Median Storage, #	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	0	524	308	652	795	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	410	815	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	~ 505	480	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	~ 503	478	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	80.2	8.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	478	-	503	-	-
HCM Lane V/C Ratio	0.644	-	1.042	-	-
HCM Control Delay (s)	25.1	-	80.2	-	-
HCM Lane LOS	D	-	F	-	-
HCM 95th %tile Q(veh)	4.5	-	15.4	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	7	73	41	21	63	228	973	14	24	1141	98
Future Volume (veh/h)	56	7	73	41	21	63	228	973	14	24	1141	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.95	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	8	79	45	23	68	248	1058	15	26	1240	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	331	277	58	326	261	279	1985	864	35	1393	120
Arrive On Green	0.04	0.18	0.18	0.03	0.17	0.17	0.16	0.56	0.56	0.02	0.42	0.42
Sat Flow, veh/h	1781	1870	1564	1781	1870	1500	1781	3554	1548	1781	3304	284
Grp Volume(v), veh/h	61	8	79	45	23	68	248	1058	15	26	665	682
Grp Sat Flow(s),veh/h/ln	1781	1870	1564	1781	1870	1500	1781	1777	1548	1781	1777	1811
Q Serve(g_s), s	3.7	0.4	4.8	2.8	1.1	4.3	15.0	20.6	0.5	1.6	38.2	38.5
Cycle Q Clear(g_c), s	3.7	0.4	4.8	2.8	1.1	4.3	15.0	20.6	0.5	1.6	38.2	38.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	79	331	277	58	326	261	279	1985	864	35	749	764
V/C Ratio(X)	0.77	0.02	0.29	0.78	0.07	0.26	0.89	0.53	0.02	0.73	0.89	0.89
Avail Cap(c_a), veh/h	155	595	498	165	639	513	510	3150	1372	111	1177	1200
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	37.5	39.3	53.0	38.1	39.4	45.6	15.3	10.9	53.8	29.5	29.6
Incr Delay (d2), s/veh	19.9	0.0	0.7	8.2	0.3	1.4	3.8	0.1	0.0	10.3	3.6	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.2	1.8	1.4	0.6	1.6	6.6	7.2	0.1	0.8	15.8	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.0	37.6	40.0	61.1	38.3	40.8	49.4	15.4	10.9	64.1	33.1	33.3
LnGrp LOS	E	D	D	E	D	D	D	B	B	E	C	C
Approach Vol, veh/h		148			136			1321			1373	
Approach Delay, s/veh		53.1			47.1			21.7			33.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	28.2	21.7	51.4	9.3	27.9	6.6	66.5
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	10.2	35.1	31.6	73.1	9.6	* 38	6.9	97.8
Max Q Clear Time (g_c+I1), s	4.8	6.8	17.0	40.5	5.7	6.3	3.6	22.6
Green Ext Time (p_c), s	0.0	0.3	0.3	6.0	0.0	0.8	0.0	4.6

Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

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

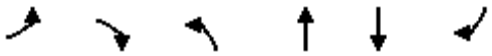
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	959	965	9	0	285
Future Vol, veh/h	0	959	965	9	0	285
Conflicting Peds, #/hr	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	1042	1049	10	0	310

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	528
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	495
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	494
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	23.8
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	494
HCM Lane V/C Ratio	-	-	0.627
HCM Control Delay (s)	-	-	23.8
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	4.3



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	833	109	0	1315	1140	975
Future Volume (vph)	833	109	0	1315	1140	975
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1563		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1563		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	905	118	0	1429	1239	1060
RTOR Reduction (vph)	0	53	0	0	0	0
Lane Group Flow (vph)	905	65	0	1429	1239	1060
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)		1				1
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	40.2	40.2		70.3	70.3	141.6
Effective Green, g (s)	40.2	40.2		70.3	70.3	136.2
Actuated g/C Ratio	0.26	0.26		0.46	0.46	0.90
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	907	413		1636	1636	1418
v/s Ratio Prot	c0.26			c0.40	0.35	c0.67
v/s Ratio Perm		0.04				
v/c Ratio	1.00	0.16		0.87	0.76	0.75
Uniform Delay, d1	55.9	42.9		36.8	33.8	2.5
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	29.1	0.1		5.5	2.0	2.1
Delay (s)	85.0	43.0		42.3	35.8	4.6
Level of Service	F	D		D	D	A
Approach Delay (s)	80.1			42.3	21.4	
Approach LOS	F			D	C	

Intersection Summary			
HCM 2000 Control Delay	40.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	152.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	1255	463	143	1318
Future Volume (veh/h)	0	1	1255	463	143	1318
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1364	503	155	1433
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	5	2358	1031	255	2864
Arrive On Green	0.00	0.00	0.66	0.66	0.07	0.81
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	1364	503	155	1433
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	13.5	10.3	2.8	8.4
Cycle Q Clear(g_c), s	0.0	0.0	13.5	10.3	2.8	8.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	5	2358	1031	255	2864
V/C Ratio(X)	0.00	0.20	0.58	0.49	0.61	0.50
Avail Cap(c_a), veh/h	1109	1974	3319	1451	1614	3319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	32.0	5.9	5.3	28.9	2.0
Incr Delay (d2), s/veh	0.0	7.3	0.3	0.5	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.6	2.5	1.1	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	39.3	6.2	5.9	29.7	2.3
LnGrp LOS	A	D	A	A	C	A
Approach Vol, veh/h	1		1867			1588
Approach Delay, s/veh	39.3		6.1			5.0
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.1	48.8			58.0	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	4.8	15.5			10.4	2.0
Green Ext Time (p_c), s	0.3	27.2			32.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	98	188	80	47	133	72	1046	146	180	1179	181
Future Volume (veh/h)	164	98	188	80	47	133	72	1046	146	180	1179	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	107	204	87	51	145	78	1137	159	196	1282	197
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	301	246	112	284	234	131	1636	813	229	1958	976
Arrive On Green	0.07	0.16	0.16	0.06	0.15	0.15	0.04	0.46	0.46	0.13	0.55	0.55
Sat Flow, veh/h	3456	1870	1524	1781	1870	1538	3456	3554	1550	1781	3554	1565
Grp Volume(v), veh/h	178	107	204	87	51	145	78	1137	159	196	1282	197
Grp Sat Flow(s),veh/h/ln	1728	1870	1524	1781	1870	1538	1728	1777	1550	1781	1777	1565
Q Serve(g_s), s	5.3	5.3	13.6	5.0	2.5	9.2	2.3	26.6	5.7	11.3	26.5	5.7
Cycle Q Clear(g_c), s	5.3	5.3	13.6	5.0	2.5	9.2	2.3	26.6	5.7	11.3	26.5	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	301	246	112	284	234	131	1636	813	229	1958	976
V/C Ratio(X)	0.72	0.36	0.83	0.78	0.18	0.62	0.59	0.70	0.20	0.86	0.65	0.20
Avail Cap(c_a), veh/h	991	536	437	511	536	441	991	2377	1136	511	2377	1161
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	39.1	42.5	48.3	38.7	41.6	49.5	22.4	13.3	44.6	16.5	8.5
Incr Delay (d2), s/veh	1.4	0.7	7.1	4.4	0.1	1.0	1.6	0.9	0.2	3.5	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.5	5.4	2.3	1.1	3.4	1.0	10.9	1.9	5.2	10.4	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	39.8	49.6	52.7	38.8	42.6	51.1	23.3	13.5	48.2	17.2	8.7
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	B	A
Approach Vol, veh/h		489			283			1374			1675	
Approach Delay, s/veh		47.2			45.0			23.7			19.8	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	53.5	11.0	22.4	8.4	63.0	11.9	21.4
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	13.3	28.6	7.0	15.6	4.3	28.5	7.3	11.2
Green Ext Time (p_c), s	0.2	19.6	0.1	1.1	0.1	22.0	0.3	0.3

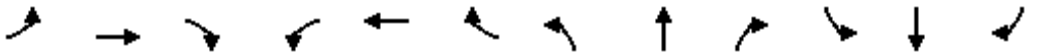
Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1053	289	281	610	0	0	0	0	217	0	0
Future Volume (vph)	0	1053	289	281	610	0	0	0	0	217	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.99	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1562	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1562	3433	3539					1770		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1145	314	305	663	0	0	0	0	236	0	0
RTOR Reduction (vph)	0	0	170	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1145	144	305	663	0	0	0	0	236	0	0
Confl. Peds. (#/hr)						4						
Confl. Bikes (#/hr)			3			2						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		49.8	49.8	15.3	69.8					18.6		
Effective Green, g (s)		45.8	45.8	15.3	65.8					18.6		
Actuated g/C Ratio		0.46	0.46	0.15	0.66					0.19		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1620	715	525	2328					329		
v/s Ratio Prot		c0.32		c0.09	0.19					c0.13		
v/s Ratio Perm			0.09									
v/c Ratio		0.71	0.20	0.58	0.28					0.72		
Uniform Delay, d1		21.7	16.2	39.4	7.2					38.2		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		1.4	0.1	1.1	0.1					6.1		
Delay (s)		23.1	16.3	40.4	7.3					44.3		
Level of Service		C	B	D	A					D		
Approach Delay (s)		21.7			17.7			0.0			44.3	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	857	1206	477	0	0	1950
Future Volume (vph)	857	1206	477	0	0	1950
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	932	1311	518	0	0	2120
RTOR Reduction (vph)	0	169	0	0	0	0
Lane Group Flow (vph)	932	1142	518	0	0	2120
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)				2		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	34.3	54.0	23.5			43.2
Effective Green, g (s)	34.3	54.0	23.5			43.2
Actuated g/C Ratio	0.37	0.58	0.25			0.47
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1272	1627	1291			2992
v/s Ratio Prot	0.27	c0.41	0.10			c0.33
v/s Ratio Perm						
v/c Ratio	0.73	0.70	0.40			0.71
Uniform Delay, d1	25.1	13.6	28.7			19.6
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.9	1.1	0.1			0.6
Delay (s)	27.0	14.7	28.7			20.3
Level of Service	C	B	C			C
Approach Delay (s)	19.8		28.7			20.3
Approach LOS	B		C			C

Intersection Summary			
HCM 2000 Control Delay	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	92.5	Sum of lost time (s)	22.5
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
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)	289	259	229	25	242	411	236	442	22	575	453	221
Future Volume (veh/h)	289	259	229	25	242	411	236	442	22	575	453	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	298	304	249	27	263	0	246	496	0	625	492	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	380	399	688	239	477		402	844		1084	569	
Arrive On Green	0.21	0.21	0.21	0.13	0.13	0.00	0.07	0.07	0.00	0.30	0.30	0.00
Sat Flow, veh/h	1781	1870	1545	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	298	304	249	27	263	0	246	496	0	625	492	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1545	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	25.3	24.4	17.2	2.1	11.1	0.0	21.4	20.5	0.0	23.7	39.7	0.0
Cycle Q Clear(g_c), s	25.3	24.4	17.2	2.1	11.1	0.0	21.4	20.5	0.0	23.7	39.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	399	688	239	477		402	844		1084	569	
V/C Ratio(X)	0.78	0.76	0.36	0.11	0.55		0.61	0.59		0.58	0.86	
Avail Cap(c_a), veh/h	435	457	735	357	713		402	844		1084	569	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.00	0.90	0.90	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	59.4	59.1	30.0	60.9	64.8	0.0	67.3	66.8	0.0	47.0	52.6	0.0
Incr Delay (d2), s/veh	11.4	9.6	0.9	0.8	3.7	0.0	6.1	2.7	0.0	0.6	12.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	12.6	9.6	1.0	5.3	0.0	11.0	10.7	0.0	10.7	20.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	68.7	30.9	61.7	68.4	0.0	73.4	69.5	0.0	47.6	65.4	0.0
LnGrp LOS	E	E	C	E	E		E	E		D	E	
Approach Vol, veh/h		851			290			742			1117	
Approach Delay, s/veh		58.4			67.8			70.8			55.4	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	39.1	53.6	26.4	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	27.3	41.7	13.1	23.4
Green Ext Time (p_c), s	5.9	0.0	3.6	2.9

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	754	3	0	544	67	0	0	0	72	1	135
Future Volume (veh/h)	99	754	3	0	544	67	0	0	0	72	1	135
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	108	820	3	0	591	73				78	1	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	136	1785	7	101	2187	266				556	7	494
Arrive On Green	0.08	0.49	0.49	0.00	0.95	0.95				0.32	0.32	0.32
Sat Flow, veh/h	1781	3631	13	1781	4589	558				1760	23	1564
Grp Volume(v), veh/h	108	401	422	0	436	228				79	0	147
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1702	1743				1782	0	1564
Q Serve(g_s), s	6.4	16.0	16.0	0.0	0.9	0.9				3.4	0.0	7.7
Cycle Q Clear(g_c), s	6.4	16.0	16.0	0.0	0.9	0.9				3.4	0.0	7.7
Prop In Lane	1.00		0.01	1.00		0.32				0.99		1.00
Lane Grp Cap(c), veh/h	136	874	918	101	1622	831				563	0	494
V/C Ratio(X)	0.80	0.46	0.46	0.00	0.27	0.27				0.14	0.00	0.30
Avail Cap(c_a), veh/h	538	874	918	109	1622	831				563	0	494
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	0.00	0.98	0.98				1.00	0.00	1.00
Uniform Delay (d), s/veh	49.1	18.0	18.0	0.0	1.3	1.3				26.5	0.0	27.9
Incr Delay (d2), s/veh	2.1	0.9	0.9	0.0	0.4	0.8				0.5	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	6.5	6.8	0.0	0.3	0.4				1.5	0.0	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	18.9	18.9	0.0	1.7	2.1				27.0	0.0	29.4
LnGrp LOS	D	B	B	A	A	A				C	A	C
Approach Vol, veh/h		931			664						226	
Approach Delay, s/veh		22.7			1.9						28.6	
Approach LOS		C			A						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	12.6	56.4
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I1), s	10.0	18.0		9.7	8.4	2.9
Green Ext Time (p_c), s	0.0	7.0		0.5	0.1	5.2

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	466	106	101	491	52	104	140	104	2	0	11
Future Volume (veh/h)	248	466	106	101	491	52	104	140	104	2	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	1.00		0.94	1.00		0.76	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	270	507	115	110	534	57	113	152	113	2	0	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	333	1386	311	137	2211	232	410	199	148	40	0	35
Arrive On Green	0.19	0.99	0.99	0.08	0.47	0.47	0.23	0.23	0.23	0.02	0.00	0.02
Sat Flow, veh/h	3456	2803	630	1781	4658	488	1781	866	644	1781	0	1585
Grp Volume(v), veh/h	270	320	302	110	388	203	113	0	265	2	0	12
Grp Sat Flow(s),veh/h/ln	1728	1777	1656	1781	1702	1743	1781	0	1509	1781	0	1585
Q Serve(g_s), s	8.1	0.3	0.4	6.6	7.3	7.5	5.6	0.0	17.7	0.1	0.0	0.8
Cycle Q Clear(g_c), s	8.1	0.3	0.4	6.6	7.3	7.5	5.6	0.0	17.7	0.1	0.0	0.8
Prop In Lane	1.00		0.38	1.00		0.28	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	333	878	819	137	1616	827	410	0	347	40	0	35
V/C Ratio(X)	0.81	0.36	0.37	0.81	0.24	0.25	0.28	0.00	0.76	0.05	0.00	0.34
Avail Cap(c_a), veh/h	595	878	819	191	1616	827	414	0	351	282	0	251
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)	0.93	0.93	0.93	0.65	0.65	0.65	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.7	0.3	0.3	49.1	16.8	16.9	34.2	0.0	38.8	51.7	0.0	52.0
Incr Delay (d2), s/veh	1.7	1.1	1.2	7.2	0.2	0.5	0.1	0.0	7.7	0.2	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.4	0.4	3.2	2.8	3.0	2.5	0.0	7.2	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	1.4	1.5	56.2	17.0	17.3	34.3	0.0	46.6	51.9	0.0	54.1
LnGrp LOS	D	A	A	E	B	B	C	A	D	D	A	D
Approach Vol, veh/h		892			701			378			14	
Approach Delay, s/veh		14.4			23.3			42.9			53.8	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.8	56.2		29.7	12.7	58.3		7.3
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	10.1	9.5		19.7	8.6	2.4		2.8
Green Ext Time (p_c), s	0.3	5.9		0.7	0.0	7.8		0.0

Intersection Summary	
HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	469	81	78	420	464	104	43	75	122	35	127
Future Volume (veh/h)	45	469	81	78	420	464	104	43	75	122	35	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.75	1.00		0.84	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	510	88	85	457	504	113	47	82	133	38	138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	753	129	109	968	338	459	191	575	168	48	185
Arrive On Green	0.03	0.25	0.25	0.06	0.28	0.28	0.36	0.36	0.36	0.12	0.12	0.12
Sat Flow, veh/h	3456	2963	507	1781	3404	1190	1276	531	1328	1400	400	1545
Grp Volume(v), veh/h	49	304	294	85	457	504	160	0	82	171	0	138
Grp Sat Flow(s),veh/h/ln	1728	1777	1693	1781	1702	1190	1807	0	1328	1800	0	1545
Q Serve(g_s), s	1.3	14.3	14.6	4.4	10.3	26.5	5.8	0.0	3.5	8.6	0.0	8.0
Cycle Q Clear(g_c), s	1.3	14.3	14.6	4.4	10.3	26.5	5.8	0.0	3.5	8.6	0.0	8.0
Prop In Lane	1.00		0.30	1.00		1.00	0.71		1.00	0.78		1.00
Lane Grp Cap(c), veh/h	107	452	431	109	968	338	651	0	575	215	0	185
V/C Ratio(X)	0.46	0.67	0.68	0.78	0.47	1.49	0.25	0.00	0.14	0.79	0.00	0.75
Avail Cap(c_a), veh/h	197	462	440	145	968	338	698	0	610	350	0	300
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.4	31.3	31.3	43.1	27.6	33.3	20.9	0.0	16.6	39.9	0.0	39.6
Incr Delay (d2), s/veh	1.1	4.0	4.5	12.5	0.1	235.5	0.1	0.0	0.0	2.5	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	6.4	6.3	2.3	4.1	29.4	2.4	0.0	1.1	3.9	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	35.3	35.8	55.6	27.7	268.9	21.0	0.0	16.7	42.4	0.0	41.9
LnGrp LOS	D	D	D	E	C	F	C	A	B	D	A	D
Approach Vol, veh/h		647			1046			242			309	
Approach Delay, s/veh		36.3			146.2			19.5			42.2	
Approach LOS		D			F			B			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.1	28.6		16.0	7.3	31.4		38.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	5.4	16.6		10.6	3.3	28.5		7.8
Green Ext Time (p_c), s	0.0	2.5		0.5	0.0	0.0		0.8

Intersection Summary	
HCM 6th Ctrl Delay	86.5
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

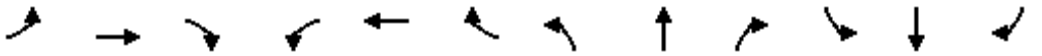
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	630	18	81	923	63	0	0	133	2	1	29
Future Vol, veh/h	46	630	18	81	923	63	0	0	133	2	1	29
Conflicting Peds, #/hr	0	0	24	0	0	78	0	0	3	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	685	20	88	1003	68	0	0	145	2	1	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1149	0	0	729	0	0	-	-	380	1668	2120	617
Stage 1	-	-	-	-	-	-	-	-	-	1291	1291	-
Stage 2	-	-	-	-	-	-	-	-	-	377	829	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	331	-	-	528	-	-	0	0	528	102	50	371
Stage 1	-	-	-	-	-	-	0	0	-	124	232	-
Stage 2	-	-	-	-	-	-	0	0	-	565	383	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	306	-	-	516	-	-	-	-	514	52	31	342
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	52	31	-
Stage 1	-	-	-	-	-	-	-	-	-	96	178	-
Stage 2	-	-	-	-	-	-	-	-	-	339	313	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	1	14.7	26
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	514	306	-	-	516	-	-	206
HCM Lane V/C Ratio	0.281	0.163	-	-	0.171	-	-	0.169
HCM Control Delay (s)	14.7	19	-	-	13.4	-	-	26
HCM Lane LOS	B	C	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.1	0.6	-	-	0.6	-	-	0.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	716	41	195	1001	1	114	0	155	0	0	0
Future Volume (veh/h)	26	716	41	195	1001	1	114	0	155	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.87	1.00		0.89			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	28	778	45	212	1088	1	124	0	168			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	235	2644	152	245	2834	3	345	0	272			
Arrive On Green	0.13	0.54	0.54	0.14	0.54	0.54	0.19	0.00	0.19			
Sat Flow, veh/h	1781	4921	283	1781	5268	5	1781	0	1406			
Grp Volume(v), veh/h	28	537	286	212	703	386	124	0	168			
Grp Sat Flow(s),veh/h/ln	1781	1702	1800	1781	1702	1869	1781	0	1406			
Q Serve(g_s), s	1.5	9.4	9.4	12.6	13.0	13.0	6.5	0.0	11.8			
Cycle Q Clear(g_c), s	1.5	9.4	9.4	12.6	13.0	13.0	6.5	0.0	11.8			
Prop In Lane	1.00		0.16	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	235	1829	967	245	1831	1005	345	0	272			
V/C Ratio(X)	0.12	0.29	0.30	0.87	0.38	0.38	0.36	0.00	0.62			
Avail Cap(c_a), veh/h	235	1829	967	785	1831	1005	397	0	314			
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	1.00	1.00	0.60	0.60	0.60	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.3	13.7	13.7	45.6	14.5	14.5	37.7	0.0	39.9			
Incr Delay (d2), s/veh	0.1	0.4	0.8	2.2	0.4	0.7	0.2	0.0	1.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.7	3.5	3.9	5.6	4.8	5.4	2.9	0.0	4.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	14.1	14.5	47.8	14.9	15.2	38.0	0.0	41.4			
LnGrp LOS	D	B	B	D	B	B	D	A	D			
Approach Vol, veh/h		851			1301			292				
Approach Delay, s/veh		15.2			20.3			39.9				
Approach LOS		B			C			D				
Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	19.2	62.9			19.2	63.0		25.8				
Change Period (Y+Rc), s	4.4	4.9			4.9	* 4.9		4.9				
Max Green Setting (Gmax), s	47.6	22.1			11.6	* 58		24.1				
Max Q Clear Time (g_c+I1), s	14.6	11.4			3.5	15.0		13.8				
Green Ext Time (p_c), s	0.3	5.8			0.0	12.7		0.6				

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	460	132	130	387	180	136	122	121	42	86	67
Future Volume (veh/h)	82	460	132	130	387	180	136	122	121	42	86	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.94	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	500	143	141	421	196	140	143	132	46	93	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	597	2014	878	184	657	302	250	262	294	214	225	180
Arrive On Green	0.67	1.00	1.00	0.11	0.56	0.56	0.14	0.14	0.14	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1549	3456	2330	1070	1781	1870	1494	1781	1870	1494
Grp Volume(v), veh/h	89	500	143	141	320	297	140	143	132	46	93	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1549	1728	1777	1623	1781	1870	1494	1781	1870	1494
Q Serve(g_s), s	2.9	0.0	0.0	6.4	19.6	20.2	11.7	11.4	12.5	3.7	7.4	7.2
Cycle Q Clear(g_c), s	2.9	0.0	0.0	6.4	19.6	20.2	11.7	11.4	12.5	3.7	7.4	7.2
Prop In Lane	1.00		1.00	1.00		0.66	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	597	2014	878	184	501	458	250	262	294	214	225	180
V/C Ratio(X)	0.15	0.25	0.16	0.77	0.64	0.65	0.56	0.54	0.45	0.21	0.41	0.41
Avail Cap(c_a), veh/h	597	2014	878	467	501	458	391	410	412	391	410	328
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.74	0.74	0.74	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	18.1	0.0	0.0	70.5	29.3	29.5	64.2	64.0	57.1	63.5	65.1	65.1
Incr Delay (d2), s/veh	0.0	0.2	0.3	1.9	4.6	5.2	0.7	0.7	0.4	0.1	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.1	0.1	2.8	7.4	7.0	5.4	5.5	4.8	1.7	3.6	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	0.2	0.3	72.4	33.9	34.7	64.9	64.7	57.5	63.7	65.5	65.5
LnGrp LOS	B	A	A	E	C	C	E	E	E	E	E	E
Approach Vol, veh/h		732			758			415			212	
Approach Delay, s/veh		2.4			41.4			62.5			65.1	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.9	95.6		24.2	58.5	50.0		27.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	8.4	2.0		9.4	4.9	22.2		14.5
Green Ext Time (p_c), s	0.2	6.5		0.5	0.1	6.5		0.9

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	693	11	9	738	387	5	6	5	162	8	52
Future Volume (veh/h)	42	693	11	9	738	387	5	6	5	162	8	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	0.96		0.98	0.99		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	753	12	10	802	421	5	7	5	176	9	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	2098	33	441	1255	654	139	185	111	306	18	76
Arrive On Green	0.03	0.59	0.59	0.01	0.56	0.56	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	3576	57	1781	2222	1158	360	819	491	1011	80	336
Grp Volume(v), veh/h	46	374	391	10	640	583	17	0	0	242	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1857	1781	1777	1603	1670	0	0	1427	0	0
Q Serve(g_s), s	0.9	8.8	8.8	0.2	19.6	19.9	0.0	0.0	0.0	12.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	8.8	8.8	0.2	19.6	19.9	0.6	0.0	0.0	12.6	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.72	0.29		0.29	0.73		0.24
Lane Grp Cap(c), veh/h	291	1042	1089	441	1003	905	436	0	0	400	0	0
V/C Ratio(X)	0.16	0.36	0.36	0.02	0.64	0.64	0.04	0.00	0.00	0.60	0.00	0.00
Avail Cap(c_a), veh/h	425	1042	1089	615	1003	905	495	0	0	454	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.45	0.45	0.45	1.00	0.00	0.00	0.61	0.00	0.00
Uniform Delay (d), s/veh	9.4	8.7	8.7	7.6	11.9	11.9	24.2	0.0	0.0	28.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.0	1.4	1.6	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.3	3.4	0.1	7.2	6.6	0.2	0.0	0.0	4.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.5	9.6	9.6	7.6	13.3	13.5	24.2	0.0	0.0	29.4	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		811			1233			17			242	
Approach Delay, s/veh		9.6			13.3			24.2			29.4	
Approach LOS		A			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.2	51.8		23.0	7.0	50.1		23.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.2	10.8		14.6	2.9	21.9		2.6
Green Ext Time (p_c), s	0.0	5.6		0.5	0.0	7.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	30	16	126	132	32
Future Vol, veh/h	8	30	16	126	132	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	33	17	137	143	35
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.5	8.5	8.2
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	21%	0%
Vol Thru, %	0%	100%	0%	80%
Vol Right, %	0%	0%	79%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	126	38	164
LT Vol	16	0	8	0
Through Vol	0	126	0	132
RT Vol	0	0	30	32
Lane Flow Rate	17	137	41	178
Geometry Grp	7	7	2	5
Degree of Util (X)	0.025	0.179	0.049	0.203
Departure Headway (Hd)	5.198	4.697	4.251	4.103
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	686	760	848	863
Service Time	2.949	2.448	2.251	2.182
HCM Lane V/C Ratio	0.025	0.18	0.048	0.206
HCM Control Delay	8.1	8.5	7.5	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0.2	0.8

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	136	0	0	266	0
Future Vol, veh/h	0	136	0	0	266	0
Conflicting Peds, #/hr	0	0	0	1	0	7
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	0	148	0	0	289	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	148	-
Stage 1	-	-	0	-
Stage 2	-	-	148	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	844	0
Stage 1	0	-	-	0
Stage 2	0	-	880	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	844	-
Mov Cap-2 Maneuver	-	-	805	-
Stage 1	-	-	-	-
Stage 2	-	-	880	-

Approach	EB	SB
HCM Control Delay, s	0	12
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	805
HCM Lane V/C Ratio	-	0.359
HCM Control Delay (s)	-	12
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	1.6

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	75	205	0	0	177	0
Future Vol, veh/h	75	205	0	0	177	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	223	0	0	192	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.4	9.6
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	52%	0%	100%
Vol Thru, %	48%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	143	137	177
LT Vol	75	0	177
Through Vol	68	137	0
RT Vol	0	0	0
Lane Flow Rate	156	149	192
Geometry Grp	7	7	2
Degree of Util (X)	0.229	0.207	0.26
Departure Headway (Hd)	5.285	5.022	4.87
Convergence, Y/N	Yes	Yes	Yes
Cap	681	716	739
Service Time	3.011	2.748	2.889
HCM Lane V/C Ratio	0.229	0.208	0.26
HCM Control Delay	9.6	9.1	9.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.8	1

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	282	0	0	54	0
Future Vol, veh/h	35	282	0	0	54	0
Conflicting Peds, #/hr	0	0	0	7	0	0
Sign Control	Free	Free	Stop	Stop	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	38	307	0	0	59	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	230	-
Stage 1	-	-	0	-
Stage 2	-	-	230	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	738	0
Stage 1	-	-	-	0
Stage 2	-	-	786	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	738	-
Mov Cap-2 Maneuver	-	-	738	-
Stage 1	-	-	-	-
Stage 2	-	-	786	-

Approach	EB	SB
HCM Control Delay, s		10.3
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	738
HCM Lane V/C Ratio	-	-	0.08
HCM Control Delay (s)	-	-	10.3
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	137	380	21	63	18	0	0	39	10
Future Vol, veh/h	0	0	0	137	380	21	63	18	0	0	39	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	149	413	23	68	20	0	0	42	11
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	11.7	9.3	8.7
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	78%	42%	0%	0%
Vol Thru, %	22%	58%	90%	80%
Vol Right, %	0%	0%	10%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	81	327	211	49
LT Vol	63	137	0	0
Through Vol	18	190	190	39
RT Vol	0	0	21	10
Lane Flow Rate	88	355	229	53
Geometry Grp	2	7	7	2
Degree of Util (X)	0.133	0.505	0.308	0.077
Departure Headway (Hd)	5.426	5.119	4.839	5.204
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	661	704	743	688
Service Time	3.459	2.849	2.569	3.241
HCM Lane V/C Ratio	0.133	0.504	0.308	0.077
HCM Control Delay	9.3	13	9.7	8.7
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.5	2.9	1.3	0.2

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	31	392	17	30	3	0	0	28	113
Future Vol, veh/h	0	0	0	31	392	17	30	3	0	0	28	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	34	426	18	33	3	0	0	30	123
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	10.2	8.7	8.7
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	91%	14%	0%	0%
Vol Thru, %	9%	86%	92%	20%
Vol Right, %	0%	0%	8%	80%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	227	213	141
LT Vol	30	31	0	0
Through Vol	3	196	196	28
RT Vol	0	0	17	113
Lane Flow Rate	36	247	232	153
Geometry Grp	2	7	7	2
Degree of Util (X)	0.053	0.346	0.317	0.194
Departure Headway (Hd)	5.369	5.048	4.923	4.56
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	666	713	729	788
Service Time	3.406	2.78	2.656	2.584
HCM Lane V/C Ratio	0.054	0.346	0.318	0.194
HCM Control Delay	8.7	10.4	9.9	8.7
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.2	1.5	1.4	0.7

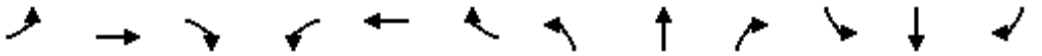
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	0	0	25	0	1761	12	0	1756	136
Future Vol, veh/h	0	0	11	0	0	25	0	1761	12	0	1756	136
Conflicting Peds, #/hr	0	0	0	0	0	2	0	0	4	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	27	0	1914	13	0	1909	148

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1033	-	-	970	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	197	0	0	220	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	196	-	-	219	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.6	23.8	0	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	196	219	-	-
HCM Lane V/C Ratio	-	-	0.061	0.124	-	-
HCM Control Delay (s)	-	-	24.6	23.8	-	-
HCM Lane LOS	-	-	C	C	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	122	200	48	78	1724	14	0	1544	193
Future Volume (veh/h)	0	0	0	122	200	48	78	1724	14	0	1544	193
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				133	217	52	85	1874	15	0	1678	210
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				177	306	75	102	4111	33	0	3594	1107
Arrive On Green				0.16	0.16	0.16	0.11	1.00	1.00	0.00	0.70	0.70
Sat Flow, veh/h				1136	1957	483	1781	5225	42	0	5274	1573
Grp Volume(v), veh/h				212	0	190	85	1221	668	0	1678	210
Grp Sat Flow(s),veh/h/ln				1814	0	1762	1781	1702	1863	0	1702	1573
Q Serve(g_s), s				19.3	0.0	17.5	8.0	0.0	0.0	0.0	24.9	7.9
Cycle Q Clear(g_c), s				19.3	0.0	17.5	8.0	0.0	0.0	0.0	24.9	7.9
Prop In Lane				0.63		0.27	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				283	0	275	102	2678	1466	0	3594	1107
V/C Ratio(X)				0.75	0.00	0.69	0.83	0.46	0.46	0.00	0.47	0.19
Avail Cap(c_a), veh/h				370	0	360	275	2678	1466	0	3594	1107
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.83	0.83	0.83	0.00	1.00	1.00
Uniform Delay (d), s/veh				69.4	0.0	68.6	75.3	0.0	0.0	0.0	11.2	8.7
Incr Delay (d2), s/veh				4.0	0.0	1.9	5.3	0.5	0.9	0.0	0.4	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.3	0.0	8.1	3.7	0.2	0.3	0.0	9.2	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				73.3	0.0	70.5	80.6	0.5	0.9	0.0	11.7	9.1
LnGrp LOS				E	A	E	F	A	A	A	B	A
Approach Vol, veh/h					402			1974			1888	
Approach Delay, s/veh					72.0			4.0			11.4	
Approach LOS					E			A			B	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	140.2	31.8	14.3	126.0
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	21.3	10.0	26.9
Green Ext Time (p_c), s	5.9	0.8	0.0	5.4

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



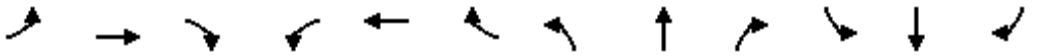
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	110	90	0	0	0	0	1619	23	57	1585	0
Future Volume (veh/h)	198	110	90	0	0	0	0	1619	23	57	1585	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	215	120	98				0	1760	25	62	1723	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	308	323	253				0	3637	52	77	4955	0
Arrive On Green	0.17	0.17	0.17				0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	1781	1870	1463				0	5356	74	1781	6696	0
Grp Volume(v), veh/h	215	120	98				0	1155	630	62	1723	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1463				0	1702	1857	1781	1609	0
Q Serve(g_s), s	19.5	9.8	10.2				0.0	0.0	0.0	5.9	0.0	0.0
Cycle Q Clear(g_c), s	19.5	9.8	10.2				0.0	0.0	0.0	5.9	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	308	323	253				0	2387	1302	77	4955	0
V/C Ratio(X)	0.70	0.37	0.39				0.00	0.48	0.48	0.80	0.35	0.00
Avail Cap(c_a), veh/h	364	382	298				0	2387	1302	162	4955	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.74	0.74	0.86	0.86	0.00
Uniform Delay (d), s/veh	66.9	62.9	63.1				0.0	0.0	0.0	77.8	0.0	0.0
Incr Delay (d2), s/veh	3.3	0.3	0.4				0.0	0.5	1.0	6.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	4.7	3.9				0.0	0.2	0.3	2.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.2	63.1	63.4				0.0	0.5	1.0	83.8	0.2	0.0
LnGrp LOS	E	E	E				A	A	A	F	A	A
Approach Vol, veh/h		433						1785			1785	
Approach Delay, s/veh		66.7						0.7			3.1	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	11.9	125.5	34.6	137.4
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	15.6	107.1	35.1	127.1
Max Q Clear Time (g_c+I1), s	7.9	2.0	21.5	2.0
Green Ext Time (p_c), s	0.0	4.9	0.3	5.6

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	327	340	236	210	259	9	455	1320	275	0	1195	460
Future Volume (vph)	327	340	236	210	259	9	455	1320	275	0	1195	460
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	0.99			1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3349	1481	1610	3345		3662	4929			5085	1486
Flt Permitted	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3349	1481	1610	3345		3662	4929			5085	1486
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	355	370	257	228	282	10	495	1435	299	0	1299	500
RTOR Reduction (vph)	0	0	206	0	1	0	0	15	0	0	0	233
Lane Group Flow (vph)	234	491	51	169	350	0	495	1719	0	0	1299	267
Confl. Peds. (#/hr)			36			4			10			27
Confl. Bikes (#/hr)			2			3			1			1
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	33.9	33.9	33.9	22.2	22.2		30.4	98.2			62.4	62.4
Effective Green, g (s)	33.9	33.9	33.9	22.2	22.2		30.4	98.2			62.4	62.4
Actuated g/C Ratio	0.20	0.20	0.20	0.13	0.13		0.18	0.57			0.36	0.36
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	317	660	291	207	431		647	2814			1844	539
v/s Ratio Prot	0.15	c0.15		c0.10	0.10		c0.14	0.35			c0.26	
v/s Ratio Perm			0.03									0.18
v/c Ratio	0.74	0.74	0.17	0.82	0.81		0.77	0.61			0.70	0.50
Uniform Delay, d1	64.9	65.0	57.4	72.9	72.9		67.4	24.3			46.9	42.6
Progression Factor	1.00	1.00	1.00	1.15	1.14		0.96	0.54			0.69	0.47
Incremental Delay, d2	7.5	4.0	0.1	20.1	10.4		3.8	0.8			2.2	3.1
Delay (s)	72.4	68.9	57.5	104.2	93.5		68.2	13.8			34.7	23.0
Level of Service	E	E	E	F	F		E	B			C	C
Approach Delay (s)		66.8			97.0			25.9			31.4	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	41.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
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)	199	420	250	86	552	336	307	1474	98	242	1091	294
Future Volume (veh/h)	199	420	250	86	552	336	307	1474	98	242	1091	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	457	272	93	600	365	334	1602	107	263	1186	320
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	610	257	133	622	263	377	2045	136	747	2102	567
Arrive On Green	0.07	0.17	0.17	0.07	0.17	0.17	0.04	0.14	0.14	0.22	0.53	0.53
Sat Flow, veh/h	3456	3554	1499	1781	3554	1501	3456	4878	326	3456	3972	1072
Grp Volume(v), veh/h	216	457	272	93	600	365	334	1118	591	263	1016	490
Grp Sat Flow(s),veh/h/ln	1728	1777	1499	1781	1777	1501	1728	1702	1799	1728	1702	1640
Q Serve(g_s), s	10.6	21.0	23.7	8.8	28.8	20.0	16.6	54.6	54.6	11.1	34.5	34.5
Cycle Q Clear(g_c), s	10.6	21.0	23.7	8.8	28.8	20.0	16.6	54.6	54.6	11.1	34.5	34.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.65
Lane Grp Cap(c), veh/h	256	610	257	133	622	263	377	1427	754	747	1801	868
V/C Ratio(X)	0.84	0.75	1.06	0.70	0.96	1.39	0.89	0.78	0.78	0.35	0.56	0.56
Avail Cap(c_a), veh/h	434	684	288	193	622	263	675	1427	754	747	1801	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	78.7	67.7	46.0	77.7	70.4	31.2	81.8	66.6	66.6	57.2	27.2	27.2
Incr Delay (d2), s/veh	2.8	3.2	67.8	2.5	27.3	197.2	2.4	3.7	6.8	0.1	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	9.9	13.7	4.1	15.5	21.7	7.9	25.8	28.0	4.9	13.9	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.5	70.9	113.7	80.2	97.7	228.4	84.2	70.2	73.4	57.3	27.4	27.7
LnGrp LOS	F	E	F	F	F	F	F	E	E	E	C	C
Approach Vol, veh/h		945			1058			2043			1769	
Approach Delay, s/veh		85.6			141.2			73.4			32.0	
Approach LOS		F			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	77.0	17.7	34.4	23.2	96.7	17.1	35.0
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	13.1	56.6	10.8	25.7	18.6	36.5	12.6	30.8
Green Ext Time (p_c), s	0.2	4.1	0.0	1.0	0.2	4.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	75.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	8	9	92	10	81	7	1682	16	100	1285	33
Future Volume (veh/h)	41	8	9	92	10	81	7	1682	16	100	1285	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	9	10	100	11	88	8	1828	17	109	1397	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	30	26	140	15	98	16	3633	34	128	3883	100
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.70	0.70	0.07	0.76	0.76
Sat Flow, veh/h	781	208	183	752	102	677	1781	5216	48	1781	5114	132
Grp Volume(v), veh/h	64	0	0	199	0	0	8	1193	652	109	930	503
Grp Sat Flow(s),veh/h/ln	1172	0	0	1530	0	0	1781	1702	1861	1781	1702	1842
Q Serve(g_s), s	0.0	0.0	0.0	13.5	0.0	0.0	0.8	28.2	28.2	10.4	15.6	15.6
Cycle Q Clear(g_c), s	8.4	0.0	0.0	21.9	0.0	0.0	0.8	28.2	28.2	10.4	15.6	15.6
Prop In Lane	0.70		0.16	0.50		0.44	1.00		0.03	1.00		0.07
Lane Grp Cap(c), veh/h	205	0	0	252	0	0	16	2371	1296	128	2584	1399
V/C Ratio(X)	0.31	0.00	0.00	0.79	0.00	0.00	0.49	0.50	0.50	0.85	0.36	0.36
Avail Cap(c_a), veh/h	247	0	0	298	0	0	162	2371	1296	369	2584	1399
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.80	0.80	0.80	0.75	0.75	0.75
Uniform Delay (d), s/veh	66.3	0.0	0.0	72.1	0.0	0.0	84.8	12.2	12.2	78.9	6.9	6.9
Incr Delay (d2), s/veh	0.3	0.0	0.0	9.4	0.0	0.0	6.5	0.6	1.1	4.5	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	9.4	0.0	0.0	0.4	10.5	11.6	4.9	5.3	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	0.0	0.0	81.5	0.0	0.0	91.3	12.8	13.3	83.4	7.2	7.4
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		64			199			1853			1542	
Approach Delay, s/veh		66.7			81.5			13.3			12.6	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.8	125.5		29.7	6.0	136.3		29.7				
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9				
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1				
Max Q Clear Time (g_c+I1), s	12.4	30.2		10.4	2.8	17.6		23.9				
Green Ext Time (p_c), s	0.0	5.1		0.1	0.0	3.5		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	150	7	499	303	243	18	1298	516	79	1033	262
Future Volume (veh/h)	177	150	7	499	303	243	18	1298	516	79	1033	262
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.99	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	163	8	542	329	264	20	1411	561	86	1123	285
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	251	12	578	353	295	32	2765	847	123	1987	866
Arrive On Green	0.12	0.14	0.14	0.17	0.19	0.19	0.02	0.54	0.54	0.07	1.00	1.00
Sat Flow, veh/h	1781	1761	86	3456	1870	1562	1781	5106	1564	3456	3554	1548
Grp Volume(v), veh/h	192	0	171	542	329	264	20	1411	561	86	1123	285
Grp Sat Flow(s),veh/h/ln	1781	0	1847	1728	1870	1562	1781	1702	1564	1728	1777	1548
Q Serve(g_s), s	18.3	0.0	15.0	26.6	29.8	25.2	1.9	30.1	44.1	4.2	0.0	0.0
Cycle Q Clear(g_c), s	18.3	0.0	15.0	26.6	29.8	25.2	1.9	30.1	44.1	4.2	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	0	264	578	353	295	32	2765	847	123	1987	866
V/C Ratio(X)	0.91	0.00	0.65	0.94	0.93	0.90	0.63	0.51	0.66	0.70	0.57	0.33
Avail Cap(c_a), veh/h	265	0	441	615	501	419	120	2765	847	434	1987	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	74.9	0.0	69.6	70.7	68.7	53.9	83.9	25.0	28.2	79.0	0.0	0.0
Incr Delay (d2), s/veh	26.0	0.0	1.0	20.9	16.6	13.1	7.3	0.7	4.1	2.5	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	7.2	13.4	15.8	11.0	0.9	12.2	17.2	1.9	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.9	0.0	70.6	91.7	85.3	67.0	91.2	25.7	32.2	81.5	1.1	1.0
LnGrp LOS	F	A	E	F	F	E	F	C	C	F	A	A
Approach Vol, veh/h		363			1135			1992			1494	
Approach Delay, s/veh		86.7			84.1			28.2			5.7	
Approach LOS		F			F			C			A	

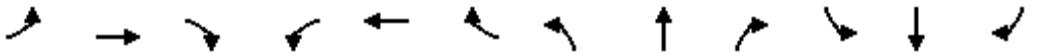
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	98.9	33.2	29.5	7.5	101.9	25.3	37.4
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	5.2	46.1	28.6	17.0	3.9	2.0	20.3	31.8
Green Ext Time (p_c), s	0.0	3.8	0.1	0.3	0.0	3.1	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	108	8	95	0	78	0	433	266	49	369	0
Future Volume (vph)	37	108	8	95	0	78	0	433	266	49	369	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		1.00		0.94		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.94		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1838		1770		1583		3126		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.27	1.00	
Satd. Flow (perm)	1770	1838		1770		1583		3126		507	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	117	9	103	0	85	0	471	289	53	401	0
RTOR Reduction (vph)	0	4	0	0	0	78	0	79	0	0	0	0
Lane Group Flow (vph)	40	122	0	103	0	7	0	681	0	53	401	0
Confl. Peds. (#/hr)			22						73			11
Confl. Bikes (#/hr)									11			6
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	14.7	14.7		6.9		6.9		42.8		50.2	50.2	
Effective Green, g (s)	14.7	14.7		6.9		6.9		42.8		50.2	50.2	
Actuated g/C Ratio	0.17	0.17		0.08		0.08		0.50		0.58	0.58	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	302	314		142		127		1555		340	2065	
v/s Ratio Prot	0.02	c0.07		c0.06				c0.22		0.01	c0.11	
v/s Ratio Perm						0.00				0.09		
v/c Ratio	0.13	0.39		0.73		0.05		0.44		0.16	0.19	
Uniform Delay, d1	30.2	31.7		38.6		36.5		13.9		8.6	8.4	
Progression Factor	1.24	1.37		1.00		1.00		0.56		1.00	1.00	
Incremental Delay, d2	0.1	0.3		14.4		0.1		0.8		0.1	0.2	
Delay (s)	37.5	43.8		53.0		36.6		8.6		8.6	8.6	
Level of Service	D	D		D		D		A		A	A	
Approach Delay (s)		42.3			45.6			8.6			8.6	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

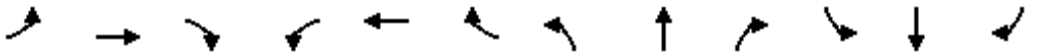
Intersection	
Int Delay, s/veh	1

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	114	425	433	221	0	1
Future Vol, veh/h	114	425	433	221	0	1
Conflicting Peds, #/hr	0	0	0	12	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	124	462	471	240	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	723	0	-	0	1082	368
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	479	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	875	-	-	-	212	629
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	589	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	865	-	-	-	178	622
Mov Cap-2 Maneuver	-	-	-	-	178	-
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	583	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	865	-	622	-	-
HCM Lane V/C Ratio	0.143	-	0.002	-	-
HCM Control Delay (s)	9.9	-	10.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	318	90	292	364	60	322	128	216	52	170	114
Future Volume (veh/h)	53	318	90	292	364	60	322	128	216	52	170	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	346	98	317	396	65	350	139	235	57	185	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1522	758	398	694	569	384	1130	1174	111	478	207
Arrive On Green	0.04	0.30	0.30	0.12	0.37	0.37	0.22	0.32	0.32	0.03	0.13	0.13
Sat Flow, veh/h	1781	5106	1396	3456	1870	1534	1781	3554	2680	3456	3554	1538
Grp Volume(v), veh/h	58	346	98	317	396	65	350	139	235	57	185	124
Grp Sat Flow(s),veh/h/ln	1781	1702	1396	1728	1870	1534	1781	1777	1340	1728	1777	1538
Q Serve(g_s), s	3.2	5.0	3.6	8.8	16.7	2.8	19.0	2.7	5.4	1.6	4.7	7.5
Cycle Q Clear(g_c), s	3.2	5.0	3.6	8.8	16.7	2.8	19.0	2.7	5.4	1.6	4.7	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	1522	758	398	694	569	384	1130	1174	111	478	207
V/C Ratio(X)	0.77	0.23	0.13	0.80	0.57	0.11	0.91	0.12	0.20	0.52	0.39	0.60
Avail Cap(c_a), veh/h	541	2066	907	1049	757	621	541	1438	1406	1049	1438	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	26.1	12.6	42.6	24.8	20.4	37.8	23.9	17.4	47.1	39.1	40.3
Incr Delay (d2), s/veh	6.1	0.1	0.1	1.4	0.5	0.0	12.8	0.0	0.1	1.4	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.0	1.0	3.8	7.2	0.9	9.2	1.1	1.6	0.7	2.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	26.2	12.7	44.0	25.4	20.5	50.6	24.0	17.5	48.5	39.2	41.3
LnGrp LOS	D	C	B	D	C	C	D	C	B	D	D	D
Approach Vol, veh/h		502			778			724			366	
Approach Delay, s/veh		26.7			32.5			34.8			41.4	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	35.4	26.7	20.0	9.6	42.6	8.6	38.1
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	10.8	7.0	21.0	9.5	5.2	18.7	3.6	7.4
Green Ext Time (p_c), s	0.5	3.5	0.4	0.9	0.1	1.7	0.1	1.8

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

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	15.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	510	274	603	549	14
Future Vol, veh/h	0	510	274	603	549	14
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	554	298	655	597	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	308	614	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	587	598	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	586	597	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	51.6	5.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	597	-	586	-	-
HCM Lane V/C Ratio	0.499	-	0.946	-	-
HCM Control Delay (s)	16.9	-	51.6	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	2.8	-	12.6	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	3	32	15	1	14	304	1016	10	20	938	146
Future Volume (veh/h)	52	3	32	15	1	14	304	1016	10	20	938	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	3	35	16	1	15	330	1104	11	22	1020	159
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	278	232	26	248	206	367	2021	880	33	1174	183
Arrive On Green	0.04	0.15	0.15	0.01	0.13	0.13	0.21	0.57	0.57	0.02	0.38	0.38
Sat Flow, veh/h	1781	1870	1561	1781	1870	1556	1781	3554	1548	1781	3079	479
Grp Volume(v), veh/h	57	3	35	16	1	15	330	1104	11	22	588	591
Grp Sat Flow(s),veh/h/ln	1781	1870	1561	1781	1870	1556	1781	1777	1548	1781	1777	1782
Q Serve(g_s), s	3.0	0.1	1.8	0.8	0.0	0.8	16.9	18.2	0.3	1.2	28.7	28.8
Cycle Q Clear(g_c), s	3.0	0.1	1.8	0.8	0.0	0.8	16.9	18.2	0.3	1.2	28.7	28.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	74	278	232	26	248	206	367	2021	880	33	678	679
V/C Ratio(X)	0.77	0.01	0.15	0.62	0.00	0.07	0.90	0.55	0.01	0.66	0.87	0.87
Avail Cap(c_a), veh/h	182	766	639	112	732	609	771	3758	1636	123	1233	1236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	34.1	34.8	46.0	35.3	35.7	36.3	12.7	8.8	45.7	26.8	26.9
Incr Delay (d2), s/veh	21.1	0.0	0.4	8.6	0.0	0.4	3.3	0.1	0.0	8.2	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.1	0.7	0.4	0.0	0.3	7.1	5.8	0.1	0.6	11.3	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	34.1	35.2	54.6	35.3	36.1	39.6	12.7	8.8	53.9	28.2	28.3
LnGrp LOS	E	C	D	D	D	D	D	B	A	D	C	C
Approach Vol, veh/h		95			32			1445			1201	
Approach Delay, s/veh		53.4			45.3			18.8			28.7	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	22.6	23.7	40.7	8.3	21.1	6.1	58.3
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	5.9	38.4	40.6	65.1	9.6	* 37	6.5	99.2
Max Q Clear Time (g_c+I1), s	2.8	3.8	18.9	30.8	5.0	2.8	3.2	20.2
Green Ext Time (p_c), s	0.0	0.1	0.4	5.0	0.1	0.1	0.0	4.9

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

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

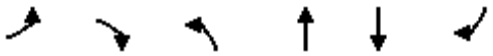
Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	893	983	6	0	278
Future Vol, veh/h	0	893	983	6	0	278
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	971	1068	7	0	302

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	534
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	491
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	491
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	23.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	491
HCM Lane V/C Ratio	-	-	0.615
HCM Control Delay (s)	-	-	23.4
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	4.1



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	772	120	0	901	1126	992
Future Volume (vph)	772	120	0	901	1126	992
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1563		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1563		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	839	130	0	979	1224	1078
RTOR Reduction (vph)	0	59	0	0	0	0
Lane Group Flow (vph)	839	71	0	979	1224	1078
Confl. Peds. (#/hr)		1				5
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	41.2	41.2		52.0	52.0	124.6
Effective Green, g (s)	41.2	41.2		52.0	52.0	119.2
Actuated g/C Ratio	0.31	0.31		0.39	0.39	0.88
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1049	477		1365	1365	1399
v/s Ratio Prot	0.24			0.28	c0.35	c0.68
v/s Ratio Perm		0.05				
v/c Ratio	0.80	0.15		0.72	0.90	0.77
Uniform Delay, d1	43.0	34.0		35.2	38.9	2.8
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.2	0.1		1.8	8.0	2.6
Delay (s)	47.2	34.2		37.0	46.9	5.4
Level of Service	D	C		D	D	A
Approach Delay (s)	45.5			37.0	27.5	
Approach LOS	D			D	C	

Intersection Summary			
HCM 2000 Control Delay	33.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	134.8	Sum of lost time (s)	19.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	792	171	117	1394
Future Volume (veh/h)	0	1	792	171	117	1394
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	861	186	127	1515
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	6	2283	999	222	2784
Arrive On Green	0.00	0.00	0.64	0.64	0.06	0.78
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	861	186	127	1515
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	6.6	2.8	2.1	9.3
Cycle Q Clear(g_c), s	0.0	0.0	6.6	2.8	2.1	9.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	6	2283	999	222	2784
V/C Ratio(X)	0.00	0.18	0.38	0.19	0.57	0.54
Avail Cap(c_a), veh/h	1239	2205	3707	1621	1803	3707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.7	4.9	4.2	26.1	2.4
Incr Delay (d2), s/veh	0.0	5.7	0.1	0.1	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.6	0.6	0.8	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	34.4	5.0	4.3	27.0	2.7
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1047			1642
Approach Delay, s/veh	34.4		4.9			4.6
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.1	43.1			51.2	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	4.1	8.6			11.3	2.0
Green Ext Time (p_c), s	0.2	13.0			33.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	57	130	67	35	81	49	686	57	160	1323	179
Future Volume (veh/h)	163	57	130	67	35	81	49	686	57	160	1323	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	62	141	73	38	88	53	746	62	174	1438	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	255	236	191	95	197	162	111	1749	847	210	2054	1033
Arrive On Green	0.07	0.13	0.13	0.05	0.11	0.11	0.03	0.49	0.49	0.12	0.58	0.58
Sat Flow, veh/h	3456	1870	1516	1781	1870	1536	3456	3554	1549	1781	3554	1584
Grp Volume(v), veh/h	177	62	141	73	38	88	53	746	62	174	1438	195
Grp Sat Flow(s),veh/h/ln	1728	1870	1516	1781	1870	1536	1728	1777	1549	1781	1777	1584
Q Serve(g_s), s	4.7	2.8	8.3	3.8	1.7	5.1	1.4	12.6	1.8	8.9	26.7	4.5
Cycle Q Clear(g_c), s	4.7	2.8	8.3	3.8	1.7	5.1	1.4	12.6	1.8	8.9	26.7	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	236	191	95	197	162	111	1749	847	210	2054	1033
V/C Ratio(X)	0.69	0.26	0.74	0.77	0.19	0.54	0.48	0.43	0.07	0.83	0.70	0.19
Avail Cap(c_a), veh/h	1113	602	488	574	602	495	1113	2671	1249	574	2671	1308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.1	36.8	39.2	43.5	38.0	39.5	44.3	15.2	10.0	40.2	13.9	6.4
Incr Delay (d2), s/veh	1.3	0.6	5.4	4.9	0.2	1.1	1.2	0.3	0.1	3.2	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.3	3.2	1.7	0.8	1.9	0.6	4.9	0.5	4.0	9.9	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	37.4	44.6	48.4	38.2	40.6	45.5	15.5	10.1	43.3	14.7	6.6
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	A
Approach Vol, veh/h		380			199			861			1807	
Approach Delay, s/veh		42.9			43.0			16.9			16.6	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.4	51.1	9.4	17.3	7.4	59.1	11.3	15.3
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	10.9	14.6	5.8	10.3	3.4	28.7	6.7	7.1
Green Ext Time (p_c), s	0.2	11.3	0.1	0.7	0.1	25.1	0.3	0.2

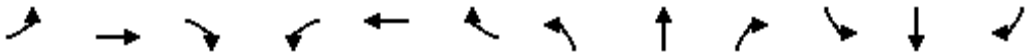
Intersection Summary	
HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	758	171	295	530	0	0	0	0	200	0	0
Future Volume (vph)	0	758	171	295	530	0	0	0	0	200	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.99	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1560	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1560	3433	3539					1770		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	824	186	321	576	0	0	0	0	217	0	0
RTOR Reduction (vph)	0	0	110	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	824	76	321	576	0	0	0	0	217	0	0
Confl. Peds. (#/hr)			1			8						
Confl. Bikes (#/hr)			3			1						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		40.6	40.6	13.2	58.5					32.4		
Effective Green, g (s)		40.6	40.6	13.2	58.5					32.4		
Actuated g/C Ratio		0.41	0.41	0.13	0.58					0.32		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1436	633	453	2070					573		
v/s Ratio Prot		c0.23		c0.09	0.16					c0.12		
v/s Ratio Perm			0.05									
v/c Ratio		0.57	0.12	0.71	0.28					0.38		
Uniform Delay, d1		23.0	18.5	41.6	10.3					26.0		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		0.6	0.1	4.1	0.1					0.2		
Delay (s)		23.6	18.6	45.7	10.4					26.2		
Level of Service		C	B	D	B					C		
Approach Delay (s)		22.7			23.0			0.0			26.2	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	536	1773	627	0	0	1718
Future Volume (vph)	536	1773	627	0	0	1718
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.96	0.96	0.90	0.90	0.89	0.89
Adj. Flow (vph)	558	1847	697	0	0	1930
RTOR Reduction (vph)	0	23	0	0	0	0
Lane Group Flow (vph)	558	1824	697	0	0	1930
Confl. Bikes (#/hr)				12		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.0	82.5	21.0			68.5
Effective Green, g (s)	35.0	82.5	18.0			68.5
Actuated g/C Ratio	0.30	0.70	0.15			0.58
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1013	1940	772			3704
v/s Ratio Prot	0.16	c0.65	c0.14			0.30
v/s Ratio Perm						
v/c Ratio	0.55	0.94	0.90			0.52
Uniform Delay, d1	35.1	15.8	49.4			15.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.4	9.6	13.6			0.1
Delay (s)	35.5	25.4	63.0			15.2
Level of Service	D	C	E			B
Approach Delay (s)	27.8		63.0			15.2
Approach LOS	C		E			B

Intersection Summary			
HCM 2000 Control Delay	27.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	118.5	Sum of lost time (s)	25.5
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	382	306	341	33	292	666	280	492	21	471	430	206
Future Volume (veh/h)	382	306	341	33	292	666	280	492	21	471	430	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	382	399	379	38	340	0	289	589	0	529	406	0
Peak Hour Factor	0.90	0.90	0.90	0.86	0.86	0.86	0.89	0.89	0.89	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	449	472	699	322	643		347	729		803	421	
Arrive On Green	0.25	0.25	0.25	0.18	0.18	0.00	0.19	0.19	0.00	0.23	0.23	0.00
Sat Flow, veh/h	1781	1870	1548	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	382	399	379	38	340	0	289	589	0	529	406	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1548	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	27.3	27.1	23.9	2.4	11.6	0.0	20.8	20.1	0.0	18.1	28.7	0.0
Cycle Q Clear(g_c), s	27.3	27.1	23.9	2.4	11.6	0.0	20.8	20.1	0.0	18.1	28.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	449	472	699	322	643		347	729		803	421	
V/C Ratio(X)	0.85	0.85	0.54	0.12	0.53		0.83	0.81		0.66	0.96	
Avail Cap(c_a), veh/h	468	491	716	668	1332		401	843		803	421	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.6	47.5	27.0	45.8	49.6	0.0	51.7	51.4	0.0	47.1	51.2	0.0
Incr Delay (d2), s/veh	15.7	14.7	1.9	0.6	2.6	0.0	12.0	4.9	0.0	1.8	34.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	14.3	12.6	1.1	5.4	0.0	10.5	9.9	0.0	8.2	17.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	62.2	28.9	46.4	52.1	0.0	63.7	56.3	0.0	48.8	85.5	0.0
LnGrp LOS	E	E	C	D	D		E	E		D	F	
Approach Vol, veh/h		1160			378			878			935	
Approach Delay, s/veh		51.7			51.6			58.7			64.7	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	38.6	35.0	29.1	30.9
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	35.1	30.1	50.1	30.1
Max Q Clear Time (g_c+I1), s	29.3	30.7	13.6	22.8
Green Ext Time (p_c), s	4.3	0.0	6.3	2.5

Intersection Summary	
HCM 6th Ctrl Delay	57.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	646	16	27	993	2	0	0	0	61	1	138
Future Volume (veh/h)	138	646	16	27	993	2	0	0	0	61	1	138
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	145	680	17	28	1034	2				69	1	155
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96				0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	190	1763	44	47	2197	4				296	4	263
Arrive On Green	0.11	0.50	0.50	0.03	0.42	0.42				0.17	0.17	0.17
Sat Flow, veh/h	1781	3539	88	1781	5262	10				1757	25	1562
Grp Volume(v), veh/h	145	341	356	28	669	367				70	0	155
Grp Sat Flow(s),veh/h/ln	1781	1777	1851	1781	1702	1868				1783	0	1562
Q Serve(g_s), s	3.7	5.5	5.5	0.7	6.6	6.6				1.6	0.0	4.2
Cycle Q Clear(g_c), s	3.7	5.5	5.5	0.7	6.6	6.6				1.6	0.0	4.2
Prop In Lane	1.00		0.05	1.00		0.01				0.99		1.00
Lane Grp Cap(c), veh/h	190	885	922	47	1421	780				300	0	263
V/C Ratio(X)	0.76	0.39	0.39	0.60	0.47	0.47				0.23	0.00	0.59
Avail Cap(c_a), veh/h	1180	2311	2407	1180	4428	2430				1547	0	1356
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	1.00	1.00	1.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	7.2	7.2	22.3	9.8	9.8				16.6	0.0	17.7
Incr Delay (d2), s/veh	2.4	0.3	0.3	4.6	0.3	0.5				0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.5	1.5	0.3	1.9	2.1				0.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	7.5	7.5	26.8	10.0	10.3				16.8	0.0	18.5
LnGrp LOS	C	A	A	C	B	B				B	A	B
Approach Vol, veh/h		842			1064						225	
Approach Delay, s/veh		10.1			10.6						18.0	
Approach LOS		B			B						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	5.6	27.9		12.7	9.3	24.2
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1
Max Q Clear Time (g_c+I2), s	2.7	7.5		6.2	5.7	8.6
Green Ext Time (p_c), s	0.0	5.9		0.5	0.2	10.4

Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	503	113	150	818	101	136	72	122	46	30	108
Future Volume (veh/h)	125	503	113	150	818	101	136	72	122	46	30	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.94	0.97		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	132	529	119	158	861	106	143	76	128	61	39	142
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.76	0.76	0.76
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	965	216	200	1778	218	366	208	350	289	166	548
Arrive On Green	0.06	0.34	0.34	0.11	0.39	0.39	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	3456	2851	638	1781	4590	562	1201	601	1012	597	480	1581
Grp Volume(v), veh/h	132	329	319	158	637	330	143	0	204	100	0	142
Grp Sat Flow(s),veh/h/ln	1728	1777	1712	1781	1702	1748	1201	0	1612	1077	0	1581
Q Serve(g_s), s	2.6	10.5	10.6	6.1	9.9	10.0	7.4	0.0	6.6	2.3	0.0	4.5
Cycle Q Clear(g_c), s	2.6	10.5	10.6	6.1	9.9	10.0	16.3	0.0	6.6	8.9	0.0	4.5
Prop In Lane	1.00		0.37	1.00		0.32	1.00		0.63	0.61		1.00
Lane Grp Cap(c), veh/h	220	601	579	200	1318	677	366	0	559	456	0	548
V/C Ratio(X)	0.60	0.55	0.55	0.79	0.48	0.49	0.39	0.00	0.37	0.22	0.00	0.26
Avail Cap(c_a), veh/h	1756	1524	1469	1541	2920	1500	637	0	923	1529	0	1808
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.9	18.8	18.9	30.3	16.2	16.2	24.2	0.0	17.1	18.0	0.0	16.4
Incr Delay (d2), s/veh	1.0	1.5	1.6	2.6	0.5	1.1	0.3	0.0	0.1	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.2	4.1	2.6	3.6	3.8	2.0	0.0	2.3	1.2	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	20.3	20.5	32.9	16.7	17.3	24.5	0.0	17.3	18.1	0.0	16.5
LnGrp LOS	C	C	C	C	B	B	C	A	B	B	A	B
Approach Vol, veh/h		780			1125			347			242	
Approach Delay, s/veh		22.5			19.1			20.3			17.2	
Approach LOS		C			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.9	32.0		29.2	12.3	28.6		29.2
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	4.5	60.1		40.1	60.6	60.1		80.1
Max Q Clear Time (g_c+I1), s	4.6	12.0		18.3	8.1	12.6		10.9
Green Ext Time (p_c), s	0.2	15.2		1.1	0.2	8.8		0.7

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	552	112	149	615	341	134	50	118	273	72	311
Future Volume (veh/h)	67	552	112	149	615	341	134	50	118	273	72	311
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	613	124	154	634	352	143	53	126	284	75	324
Peak Hour Factor	0.90	0.90	0.90	0.97	0.97	0.97	0.94	0.94	0.94	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	722	146	189	1071	477	256	95	463	312	82	347
Arrive On Green	0.04	0.25	0.25	0.11	0.31	0.31	0.19	0.19	0.19	0.22	0.22	0.22
Sat Flow, veh/h	3456	2908	587	1781	3404	1516	1317	488	1517	1423	376	1585
Grp Volume(v), veh/h	74	374	363	154	634	352	196	0	126	359	0	324
Grp Sat Flow(s),veh/h/ln	1728	1777	1718	1781	1702	1516	1805	0	1517	1799	0	1585
Q Serve(g_s), s	1.7	16.5	16.6	7.0	12.9	17.0	8.1	0.0	5.2	16.0	0.0	16.5
Cycle Q Clear(g_c), s	1.7	16.5	16.6	7.0	12.9	17.0	8.1	0.0	5.2	16.0	0.0	16.5
Prop In Lane	1.00		0.34	1.00		1.00	0.73		1.00	0.79		1.00
Lane Grp Cap(c), veh/h	137	441	426	189	1071	477	351	0	463	394	0	347
V/C Ratio(X)	0.54	0.85	0.85	0.82	0.59	0.74	0.56	0.00	0.27	0.91	0.00	0.93
Avail Cap(c_a), veh/h	214	460	445	230	1110	494	790	0	833	394	0	347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.7	29.4	29.5	35.9	23.7	25.2	29.9	0.0	21.9	31.3	0.0	31.5
Incr Delay (d2), s/veh	1.2	13.7	14.6	14.1	0.5	4.8	0.5	0.0	0.1	24.3	0.0	31.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	8.3	8.2	3.7	5.0	6.4	3.5	0.0	1.8	9.4	0.0	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	43.2	44.0	50.1	24.2	30.0	30.4	0.0	22.0	55.7	0.0	62.7
LnGrp LOS	D	D	D	D	C	C	C	A	C	E	A	E
Approach Vol, veh/h		811			1140			322			683	
Approach Delay, s/veh		43.3			29.5			27.2			59.0	
Approach LOS		D			C			C			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.1	25.3		22.9	7.7	30.8		20.9				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	10.6	21.3		18.0	5.1	26.8		36.0				
Max Q Clear Time (g_c+I1), s	19.0	18.6		18.5	3.7	19.0		10.1				
Green Ext Time (p_c), s	0.0	1.4		0.0	0.0	2.9		1.0				

Intersection Summary	
HCM 6th Ctrl Delay	39.8
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	16.8

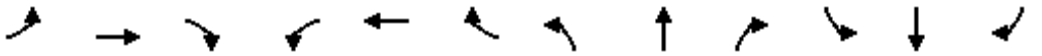
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	957	29	266	1072	4	0	0	204	0	6	26
Future Vol, veh/h	12	957	29	266	1072	4	0	0	204	0	6	26
Conflicting Peds, #/hr	0	0	14	0	0	21	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	94	94	94	81	81	81	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	997	30	283	1140	4	0	0	252	0	7	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1165	0	0	1041	0	0	-	-	528	2154	2796	597
Stage 1	-	-	-	-	-	-	-	-	-	1729	1729	-
Stage 2	-	-	-	-	-	-	-	-	-	425	1067	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	326	-	-	374	-	-	0	0	424	51	18	382
Stage 1	-	-	-	-	-	-	0	0	-	61	141	-
Stage 2	-	-	-	-	-	-	0	0	-	528	297	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	319	-	-	369	-	-	-	-	418	7	~ 4	373
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	7	~ 4	-
Stage 1	-	-	-	-	-	-	-	-	-	57	32	-
Stage 2	-	-	-	-	-	-	-	-	-	201	281	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	8	25.8	$ 786.2
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	418	319	-	-	369	-	-	20
HCM Lane V/C Ratio	0.603	0.039	-	-	0.767	-	-	1.798
HCM Control Delay (s)	25.8	16.7	-	-	40.5	-	-	$ 786.2
HCM Lane LOS	D	C	-	-	E	-	-	F
HCM 95th %tile Q(veh)	3.8	0.1	-	-	6.2	-	-	4.8

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	1100	39	232	1204	27	65	8	197	0	0	0
Future Volume (veh/h)	44	1100	39	232	1204	27	65	8	197	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.95			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	46	1158	41	249	1295	29	77	10	235			
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.84	0.84	0.84			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	59	2192	78	291	2892	65	369	48	351			
Arrive On Green	0.03	0.43	0.43	0.16	0.56	0.56	0.23	0.23	0.23			
Sat Flow, veh/h	1781	5059	179	1781	5132	115	1585	206	1508			
Grp Volume(v), veh/h	46	779	420	249	859	465	87	0	235			
Grp Sat Flow(s),veh/h/ln	1781	1702	1834	1781	1702	1843	1791	0	1508			
Q Serve(g_s), s	2.1	14.0	14.0	11.3	12.3	12.3	3.3	0.0	11.8			
Cycle Q Clear(g_c), s	2.1	14.0	14.0	11.3	12.3	12.3	3.3	0.0	11.8			
Prop In Lane	1.00		0.10	1.00		0.06	0.89		1.00			
Lane Grp Cap(c), veh/h	59	1475	795	291	1918	1038	417	0	351			
V/C Ratio(X)	0.79	0.53	0.53	0.86	0.45	0.45	0.21	0.00	0.67			
Avail Cap(c_a), veh/h	655	2457	1324	655	2457	1330	863	0	726			
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	40.0	17.3	17.3	33.9	10.6	10.6	25.7	0.0	29.0			
Incr Delay (d2), s/veh	8.3	0.6	1.1	2.8	0.2	0.4	0.1	0.0	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.0	5.2	5.7	4.9	4.1	4.5	1.4	0.0	4.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	17.9	18.5	36.7	10.8	11.0	25.8	0.0	29.8			
LnGrp LOS	D	B	B	D	B	B	C	A	C			
Approach Vol, veh/h		1245			1573			322				
Approach Delay, s/veh		19.2			15.0			28.8				
Approach LOS		B			B			C				

Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	18.0	41.0			7.1	51.8		24.3				
Change Period (Y+Rc), s	4.4	4.9			4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1			30.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	13.3	16.0			4.1	14.3		13.8				
Green Ext Time (p_c), s	0.3	20.1			0.0	17.2		0.8				

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	536	108	185	459	81	158	203	179	69	152	106
Future Volume (veh/h)	162	536	108	185	459	81	158	203	179	69	152	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	570	115	191	473	84	170	218	192	77	169	118
Peak Hour Factor	0.94	0.94	0.94	0.97	0.97	0.97	0.93	0.93	0.93	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	1060	463	286	782	138	364	382	442	294	308	255
Arrive On Green	0.12	0.30	0.30	0.08	0.26	0.26	0.20	0.20	0.20	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1552	3456	2994	528	1781	1870	1521	1781	1870	1545
Grp Volume(v), veh/h	172	570	115	191	279	278	170	218	192	77	169	118
Grp Sat Flow(s),veh/h/ln	1781	1777	1552	1728	1777	1745	1781	1870	1521	1781	1870	1545
Q Serve(g_s), s	7.2	10.2	4.3	4.1	10.5	10.7	6.4	8.0	7.9	2.9	6.3	5.3
Cycle Q Clear(g_c), s	7.2	10.2	4.3	4.1	10.5	10.7	6.4	8.0	7.9	2.9	6.3	5.3
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	1060	463	286	464	456	364	382	442	294	308	255
V/C Ratio(X)	0.81	0.54	0.25	0.67	0.60	0.61	0.47	0.57	0.43	0.26	0.55	0.46
Avail Cap(c_a), veh/h	690	2793	1220	1338	1397	1371	934	981	929	934	981	810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	22.4	20.3	34.1	24.8	24.8	26.8	27.4	22.2	27.9	29.3	28.9
Incr Delay (d2), s/veh	2.7	0.6	0.4	1.0	2.1	2.3	0.3	0.5	0.3	0.2	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	4.2	1.5	1.7	4.5	4.5	2.7	3.5	2.7	1.2	2.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	23.0	20.7	35.1	26.9	27.1	27.1	27.9	22.5	28.0	29.9	29.4
LnGrp LOS	D	C	C	D	C	C	C	C	C	C	C	C
Approach Vol, veh/h		857			748			580			364	
Approach Delay, s/veh		25.2			29.1			25.9			29.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.7	27.7		17.5	13.6	24.9		20.5
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	29.6	60.1		40.1	29.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	6.1	12.2		8.3	9.2	12.7		10.0
Green Ext Time (p_c), s	0.3	7.3		0.9	0.2	6.9		1.4

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

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	787	16	35	794	387	12	5	14	239	11	96
Future Volume (veh/h)	71	787	16	35	794	387	12	5	14	239	11	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	865	18	38	854	416	14	6	17	285	13	114
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.83	0.83	0.83	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	1752	36	341	1104	533	223	106	230	386	14	126
Arrive On Green	0.04	0.49	0.49	0.03	0.48	0.48	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	3558	74	1781	2295	1108	525	339	735	1004	46	401
Grp Volume(v), veh/h	78	432	451	38	659	611	37	0	0	412	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1855	1781	1777	1626	1600	0	0	1451	0	0
Q Serve(g_s), s	1.9	13.9	13.9	0.9	26.1	26.7	0.0	0.0	0.0	21.9	0.0	0.0
Cycle Q Clear(g_c), s	1.9	13.9	13.9	0.9	26.1	26.7	1.3	0.0	0.0	23.2	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.68	0.38		0.46	0.69		0.28
Lane Grp Cap(c), veh/h	228	875	914	341	854	782	559	0	0	526	0	0
V/C Ratio(X)	0.34	0.49	0.49	0.11	0.77	0.78	0.07	0.00	0.00	0.78	0.00	0.00
Avail Cap(c_a), veh/h	796	1251	1306	930	1251	1145	790	0	0	750	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.3	14.5	14.5	11.6	18.3	18.4	20.6	0.0	0.0	27.9	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.5	0.4	0.1	1.9	2.3	0.0	0.0	0.0	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.3	5.6	0.3	10.3	9.7	0.5	0.0	0.0	8.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.7	15.0	15.0	11.6	20.2	20.7	20.6	0.0	0.0	30.0	0.0	0.0
LnGrp LOS	B	B	B	B	C	C	C	A	A	C	A	A
Approach Vol, veh/h		961			1308			37			412	
Approach Delay, s/veh		15.0			20.2			20.6			30.0	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.8	46.9		31.7	7.8	46.0		31.7
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	2.9	15.9		25.2	3.9	28.7		3.3
Green Ext Time (p_c), s	0.0	7.5		1.6	0.1	12.4		0.1

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

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	20	12	137	151	30
Future Vol, veh/h	16	20	12	137	151	30
Peak Hour Factor	0.65	0.65	0.80	0.80	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	31	15	171	184	37
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8	8.8	8.8
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	44%	0%
Vol Thru, %	0%	100%	0%	83%
Vol Right, %	0%	0%	56%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	137	36	181
LT Vol	12	0	16	0
Through Vol	0	137	0	151
RT Vol	0	0	20	30
Lane Flow Rate	15	171	55	221
Geometry Grp	7	7	2	5
Degree of Util (X)	0.022	0.226	0.071	0.262
Departure Headway (Hd)	5.245	4.744	4.611	4.274
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	675	748	780	843
Service Time	3.031	2.529	2.622	2.282
HCM Lane V/C Ratio	0.022	0.229	0.071	0.262
HCM Control Delay	8.2	8.9	8	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0.2	1.1

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	156	0	0	157	0
Future Vol, veh/h	0	156	0	0	157	0
Conflicting Peds, #/hr	0	0	0	0	0	20
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	84	84	92	92	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	186	0	0	165	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	186	-
Stage 1	-	-	0	-
Stage 2	-	-	186	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	803	0
Stage 1	0	-	-	0
Stage 2	0	-	846	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	803	-
Mov Cap-2 Maneuver	-	-	774	-
Stage 1	-	-	-	-
Stage 2	-	-	846	-

Approach	EB	SB
HCM Control Delay, s	0	10.9
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	774
HCM Lane V/C Ratio	-	0.214
HCM Control Delay (s)	-	10.9
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.8

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	73	334	0	0	86	0
Future Vol, veh/h	73	334	0	0	86	0
Peak Hour Factor	0.93	0.93	0.50	0.50	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	359	0	0	104	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.7	9
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	40%	0%	100%
Vol Thru, %	60%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	184	223	86
LT Vol	73	0	86
Through Vol	111	223	0
RT Vol	0	0	0
Lane Flow Rate	198	239	104
Geometry Grp	7	7	2
Degree of Util (X)	0.277	0.321	0.147
Departure Headway (Hd)	5.023	4.825	5.106
Convergence, Y/N	Yes	Yes	Yes
Cap	719	749	705
Service Time	2.723	2.525	3.124
HCM Lane V/C Ratio	0.275	0.319	0.148
HCM Control Delay	9.6	9.8	9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	1.4	0.5

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	442	0	0	52	0
Future Vol, veh/h	9	442	0	0	52	0
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	92	92	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	465	0	0	63	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	251	-
Stage 1	-	-	0	-
Stage 2	-	-	251	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	716	0
Stage 1	-	-	-	0
Stage 2	-	-	768	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	716	-
Mov Cap-2 Maneuver	-	-	716	-
Stage 1	-	-	-	-
Stage 2	-	-	768	-

Approach	EB	SB
HCM Control Delay, s		10.5
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	716
HCM Lane V/C Ratio	-	-	0.088
HCM Control Delay (s)	-	-	10.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	38	267	27	48	16	0	0	45	4
Future Vol, veh/h	0	0	0	38	267	27	48	16	0	0	45	4
Peak Hour Factor	0.25	0.25	0.25	0.84	0.84	0.84	0.80	0.80	0.80	0.59	0.59	0.59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	45	318	32	60	20	0	0	76	7
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.5	8.8	8.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	75%	22%	0%	0%
Vol Thru, %	25%	78%	83%	92%
Vol Right, %	0%	0%	17%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	172	161	49
LT Vol	48	38	0	0
Through Vol	16	134	134	45
RT Vol	0	0	27	4
Lane Flow Rate	80	204	191	83
Geometry Grp	2	7	7	2
Degree of Util (X)	0.113	0.287	0.256	0.113
Departure Headway (Hd)	5.089	5.054	4.824	4.888
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	705	713	745	733
Service Time	3.118	2.78	2.551	2.917
HCM Lane V/C Ratio	0.113	0.286	0.256	0.113
HCM Control Delay	8.8	9.8	9.2	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	1.2	1	0.4

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	23	227	25	6	6	0	0	50	88
Future Vol, veh/h	0	0	0	23	227	25	6	6	0	0	50	88
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.60	0.60	0.60	0.74	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	28	277	30	10	10	0	0	68	119
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.2	8.2	8.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	50%	17%	0%	0%
Vol Thru, %	50%	83%	82%	36%
Vol Right, %	0%	0%	18%	64%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	137	139	138
LT Vol	6	23	0	0
Through Vol	6	114	114	50
RT Vol	0	0	25	88
Lane Flow Rate	20	166	169	186
Geometry Grp	2	7	7	2
Degree of Util (X)	0.028	0.235	0.229	0.226
Departure Headway (Hd)	5.035	5.084	4.873	4.359
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	711	706	736	826
Service Time	3.064	2.813	2.601	2.376
HCM Lane V/C Ratio	0.028	0.235	0.23	0.225
HCM Control Delay	8.2	9.4	9.1	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0.9	0.9

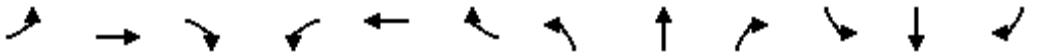
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	9	0	0	45	0	2360	10	0	2503	9
Future Vol, veh/h	0	0	9	0	0	45	0	2360	10	0	2503	9
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	5	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	45	45	45	83	83	83	98	98	98	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	20	0	0	54	0	2408	10	0	2691	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1354	-	-	1214	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	126	0	0	149	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	126	-	-	148	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	38.9	42.8	0	0
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	126	148	-	-
HCM Lane V/C Ratio	-	-	0.159	0.366	-	-
HCM Control Delay (s)	-	-	38.9	42.8	-	-
HCM Lane LOS	-	-	E	E	-	-
HCM 95th %tile Q(veh)	-	-	0.5	1.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	37	56	130	71	2259	8	0	2373	178
Future Volume (veh/h)	0	0	0	37	56	130	71	2259	8	0	2373	178
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				44	67	155	72	2282	8	0	2552	191
Peak Hour Factor				0.84	0.84	0.84	0.99	0.99	0.99	0.93	0.93	0.93
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				107	163	226	440	4112	14	0	2557	791
Arrive On Green				0.15	0.15	0.15	0.49	1.00	1.00	0.00	0.50	0.50
Sat Flow, veh/h				727	1107	1540	1781	5253	18	0	5274	1580
Grp Volume(v), veh/h				111	0	155	72	1479	811	0	2552	191
Grp Sat Flow(s),veh/h/ln				1834	0	1540	1781	1702	1867	0	1702	1580
Q Serve(g_s), s				7.7	0.0	13.4	3.1	0.0	0.0	0.0	69.8	9.6
Cycle Q Clear(g_c), s				7.7	0.0	13.4	3.1	0.0	0.0	0.0	69.8	9.6
Prop In Lane				0.40		1.00	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				270	0	226	440	2665	1462	0	2557	791
V/C Ratio(X)				0.41	0.00	0.68	0.16	0.55	0.56	0.00	1.00	0.24
Avail Cap(c_a), veh/h				460	0	386	440	2665	1462	0	2557	791
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.60	0.60	0.60	0.00	1.00	1.00
Uniform Delay (d), s/veh				54.2	0.0	56.6	27.4	0.0	0.0	0.0	34.9	19.8
Incr Delay (d2), s/veh				0.4	0.0	1.4	0.0	0.5	0.9	0.0	17.4	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.0	5.3	1.3	0.2	0.4	0.0	31.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				54.6	0.0	58.0	27.5	0.5	0.9	0.0	52.3	20.6
LnGrp LOS				D	A	E	C	A	A	A	D	C
Approach Vol, veh/h					266			2362			2743	
Approach Delay, s/veh					56.6			1.5			50.1	
Approach LOS					E			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	114.5	25.5	39.5	75.0
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	95.1	35.1	20.6	* 70
Max Q Clear Time (g_c+I1), s	2.0	15.4	5.1	71.8
Green Ext Time (p_c), s	8.4	0.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



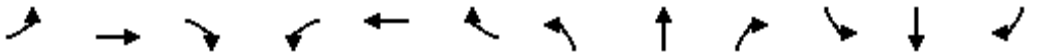
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	142	112	0	0	0	0	2013	44	136	2266	0
Future Volume (veh/h)	310	142	112	0	0	0	0	2013	44	136	2266	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	323	148	117				0	2054	45	145	2411	0
Peak Hour Factor	0.96	0.96	0.96				0.98	0.98	0.98	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	396	416	339				0	2995	66	166	4552	0
Arrive On Green	0.22	0.22	0.22				0.00	1.00	1.00	0.19	1.00	0.00
Sat Flow, veh/h	1781	1870	1523				0	5309	112	1781	6696	0
Grp Volume(v), veh/h	323	148	117				0	1359	740	145	2411	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1523				0	1702	1849	1781	1609	0
Q Serve(g_s), s	24.1	9.4	9.1				0.0	0.0	0.0	11.1	0.0	0.0
Cycle Q Clear(g_c), s	24.1	9.4	9.1				0.0	0.0	0.0	11.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	396	416	339				0	1984	1077	166	4552	0
V/C Ratio(X)	0.81	0.36	0.35				0.00	0.69	0.69	0.87	0.53	0.00
Avail Cap(c_a), veh/h	472	496	404				0	1984	1077	364	4552	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.54	0.54	0.45	0.45	0.00
Uniform Delay (d), s/veh	51.7	45.9	45.8				0.0	0.0	0.0	56.1	0.0	0.0
Incr Delay (d2), s/veh	7.7	0.2	0.2				0.0	1.1	2.0	2.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	4.4	3.5				0.0	0.3	0.6	4.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.4	46.1	46.1				0.0	1.1	2.0	58.7	0.2	0.0
LnGrp LOS	E	D	D				A	A	A	E	A	A
Approach Vol, veh/h		588						2099			2556	
Approach Delay, s/veh		53.4						1.4			3.5	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	17.5	86.5	36.1	103.9
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	28.6	60.1	37.1	93.1
Max Q Clear Time (g_c+I1), s	13.1	2.0	26.1	2.0
Green Ext Time (p_c), s	0.0	6.4	0.4	10.6

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	538	414	302	204	298	21	424	1417	335	0	1530	830
Future Volume (vph)	538	414	302	204	298	21	424	1417	335	0	1530	830
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3331	1496	1610	3339		3662	4923			5085	1508
Flt Permitted	0.95	0.98	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3331	1496	1610	3339		3662	4923			5085	1508
Peak-hour factor, PHF	0.86	0.86	0.86	0.93	0.93	0.93	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	626	481	351	219	320	23	461	1540	364	0	1594	865
RTOR Reduction (vph)	0	0	196	0	4	0	0	27	0	0	0	374
Lane Group Flow (vph)	363	744	155	184	374	0	461	1877	0	0	1594	491
Confl. Peds. (#/hr)			38			5			4			24
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	34.2	34.2	34.2	16.3	16.3		18.7	71.8			47.7	47.7
Effective Green, g (s)	34.2	34.2	34.2	16.3	16.3		18.7	71.8			47.7	47.7
Actuated g/C Ratio	0.24	0.24	0.24	0.12	0.12		0.13	0.51			0.34	0.34
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	393	813	365	187	388		489	2524			1732	513
v/s Ratio Prot	c0.23	0.22		c0.11	0.11		c0.13	0.38			0.31	
v/s Ratio Perm			0.10									c0.33
v/c Ratio	0.92	0.92	0.43	0.98	0.97		0.94	0.74			0.92	0.96
Uniform Delay, d1	51.6	51.5	44.6	61.7	61.6		60.1	26.9			44.3	45.2
Progression Factor	1.00	1.00	1.00	0.77	0.77		1.31	0.20			0.48	1.58
Incremental Delay, d2	26.7	14.5	0.3	59.7	35.5		17.5	1.1			8.5	27.9
Delay (s)	78.3	66.0	44.9	107.1	82.7		96.5	6.5			29.9	99.3
Level of Service	E	E	D	F	F		F	A			C	F
Approach Delay (s)		64.0			90.7			24.0			54.3	
Approach LOS		E			F			C			D	

Intersection Summary			
HCM 2000 Control Delay	48.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	97.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	522	273	143	600	372	391	1546	130	462	1405	298
Future Volume (veh/h)	295	522	273	143	600	372	391	1546	130	462	1405	298
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.97	1.00		0.98
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	328	580	303	159	667	413	420	1662	140	491	1495	317
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	713	306	182	637	274	470	1713	144	681	1776	375
Arrive On Green	0.12	0.20	0.20	0.10	0.18	0.18	0.09	0.24	0.24	0.20	0.42	0.42
Sat Flow, veh/h	3456	3554	1523	1781	3554	1529	3456	4786	402	3456	4203	887
Grp Volume(v), veh/h	328	580	303	159	667	413	420	1181	621	491	1209	603
Grp Sat Flow(s),veh/h/ln	1728	1777	1523	1781	1777	1529	1728	1702	1784	1728	1702	1686
Q Serve(g_s), s	12.9	21.8	27.8	12.3	25.1	25.1	16.8	48.1	48.3	18.6	44.6	45.0
Cycle Q Clear(g_c), s	12.9	21.8	27.8	12.3	25.1	25.1	16.8	48.1	48.3	18.6	44.6	45.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		0.53
Lane Grp Cap(c), veh/h	415	713	306	182	637	274	470	1218	638	681	1438	712
V/C Ratio(X)	0.79	0.81	0.99	0.87	1.05	1.51	0.89	0.97	0.97	0.72	0.84	0.85
Avail Cap(c_a), veh/h	533	713	306	237	637	274	632	1218	638	681	1438	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	0.63	0.63	0.63	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.9	53.4	55.8	61.9	57.5	57.5	62.6	52.5	52.5	52.6	36.2	36.3
Incr Delay (d2), s/veh	3.8	5.6	44.5	19.9	48.5	245.9	6.8	14.5	22.3	3.2	4.4	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	10.3	14.4	6.6	15.5	28.3	8.0	23.5	26.1	8.3	18.8	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.7	59.0	100.3	81.9	106.0	303.4	69.4	66.9	74.8	55.9	40.6	45.1
LnGrp LOS	E	E	F	F	F	F	E	E	E	E	D	D
Approach Vol, veh/h		1211			1239			2222			2303	
Approach Delay, s/veh		70.6			168.7			69.6			45.1	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.3	55.0	18.7	33.0	23.4	64.8	21.7	30.0
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 50	18.6	28.1	25.6	48.3	21.6	* 25
Max Q Clear Time (g_c+I1), s	20.6	50.3	14.3	29.8	18.8	47.0	14.9	27.1
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.2	0.8	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	79.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	5	4	101	10	100	22	1858	33	197	1660	47
Future Volume (veh/h)	37	5	4	101	10	100	22	1858	33	197	1660	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	6	5	123	12	122	24	2020	36	210	1766	50
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	27	18	171	17	135	39	2993	53	233	3512	99
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.02	0.58	0.58	0.13	0.69	0.69
Sat Flow, veh/h	822	148	99	727	91	739	1781	5164	92	1781	5100	144
Grp Volume(v), veh/h	54	0	0	257	0	0	24	1331	725	210	1178	638
Grp Sat Flow(s),veh/h/ln	1069	0	0	1557	0	0	1781	1702	1852	1781	1702	1840
Q Serve(g_s), s	0.0	0.0	0.0	16.5	0.0	0.0	1.9	37.8	37.9	16.3	23.1	23.1
Cycle Q Clear(g_c), s	6.0	0.0	0.0	22.5	0.0	0.0	1.9	37.8	37.9	16.3	23.1	23.1
Prop In Lane	0.80		0.09	0.48		0.47	1.00		0.05	1.00		0.08
Lane Grp Cap(c), veh/h	241	0	0	322	0	0	39	1973	1073	233	2345	1267
V/C Ratio(X)	0.22	0.00	0.00	0.80	0.00	0.00	0.62	0.67	0.68	0.90	0.50	0.50
Avail Cap(c_a), veh/h	313	0	0	403	0	0	211	1973	1073	377	2345	1267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.61	0.61	0.61	0.43	0.43	0.43
Uniform Delay (d), s/veh	49.1	0.0	0.0	55.6	0.0	0.0	67.9	20.3	20.3	59.9	10.4	10.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	6.8	0.0	0.0	3.7	1.1	2.1	5.0	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	9.6	0.0	0.0	0.9	14.5	16.1	7.6	8.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	0.0	0.0	62.5	0.0	0.0	71.6	21.5	22.4	65.0	10.7	11.0
LnGrp LOS	D	A	A	E	A	A	E	C	C	E	B	B
Approach Vol, veh/h		54			257			2080			2026	
Approach Delay, s/veh		49.3			62.5			22.4			16.4	
Approach LOS		D			E			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	22.7	86.8		30.4	7.4	102.1		30.4
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	29.6	* 63		33.1	16.6	75.3		33.1
Max Q Clear Time (g_c+I1), s	18.3	39.9		8.0	3.9	25.1		24.5
Green Ext Time (p_c), s	0.1	5.8		0.1	0.0	5.0		0.4

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	152	19	371	198	228	20	1451	442	239	1213	289
Future Volume (veh/h)	255	152	19	371	198	228	20	1451	442	239	1213	289
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	283	169	21	391	208	240	21	1511	460	260	1318	314
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	305	348	43	440	311	256	36	2343	725	212	1778	776
Arrive On Green	0.17	0.21	0.21	0.13	0.17	0.17	0.02	0.46	0.46	0.12	1.00	1.00
Sat Flow, veh/h	1781	1627	202	3456	1870	1542	1781	5106	1580	3456	3554	1551
Grp Volume(v), veh/h	283	0	190	391	208	240	21	1511	460	260	1318	314
Grp Sat Flow(s),veh/h/ln	1781	0	1829	1728	1870	1542	1781	1702	1580	1728	1777	1551
Q Serve(g_s), s	21.9	0.0	12.8	15.6	14.6	18.2	1.6	31.8	31.1	8.6	0.0	0.0
Cycle Q Clear(g_c), s	21.9	0.0	12.8	15.6	14.6	18.2	1.6	31.8	31.1	8.6	0.0	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	0	391	440	311	256	36	2343	725	212	1778	776
V/C Ratio(X)	0.93	0.00	0.49	0.89	0.67	0.94	0.59	0.65	0.63	1.22	0.74	0.40
Avail Cap(c_a), veh/h	415	0	446	805	456	376	211	2343	725	212	1778	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	57.1	0.0	48.3	60.1	54.8	41.3	68.0	29.1	28.9	61.4	0.0	0.0
Incr Delay (d2), s/veh	19.5	0.0	0.3	2.5	0.9	20.3	5.7	1.4	4.2	131.1	2.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	0.0	5.9	6.9	6.9	8.3	0.8	13.0	12.3	7.4	0.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.6	0.0	48.6	62.6	55.7	61.6	73.7	30.5	33.1	192.5	2.4	1.3
LnGrp LOS	E	A	D	E	E	E	E	C	C	F	A	A
Approach Vol, veh/h		473			839			1992			1892	
Approach Delay, s/veh		65.3			60.6			31.6			28.3	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	69.9	22.2	34.8	7.2	75.7	28.9	28.2
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	8.6	* 46	32.6	34.1	16.6	37.3	32.6	* 34
Max Q Clear Time (g_c+I1), s	10.6	33.8	17.6	14.8	3.6	2.0	23.9	20.2
Green Ext Time (p_c), s	0.0	3.9	0.2	0.3	0.0	3.9	0.1	0.4

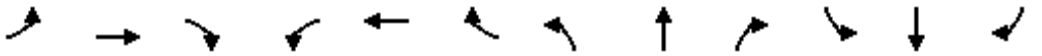
Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	195	11	179	0	120	0	535	257	43	311	0
Future Volume (vph)	54	195	11	179	0	120	0	535	257	43	311	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.92		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1843		1770		1551		3105		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.25	1.00	
Satd. Flow (perm)	1770	1843		1770		1551		3105		470	3539	
Peak-hour factor, PHF	0.86	0.86	0.86	0.96	0.96	0.96	0.94	0.94	0.94	0.79	0.79	0.79
Adj. Flow (vph)	63	227	13	186	0	125	0	569	273	54	394	0
RTOR Reduction (vph)	0	2	0	0	0	76	0	29	0	0	0	0
Lane Group Flow (vph)	63	238	0	186	0	49	0	813	0	54	394	0
Confl. Peds. (#/hr)			19			3			69			16
Confl. Bikes (#/hr)						1			9			11
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	21.6	21.6		18.2		18.2		76.9		86.0	86.0	
Effective Green, g (s)	21.6	21.6		18.2		18.2		76.9		86.0	86.0	
Actuated g/C Ratio	0.15	0.15		0.13		0.13		0.55		0.61	0.61	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	273	284		230		201		1705		332	2173	
v/s Ratio Prot	0.04	c0.13		c0.11				c0.26		0.01	c0.11	
v/s Ratio Perm						0.03				0.09		
v/c Ratio	0.23	0.84		0.81		0.25		0.48		0.16	0.18	
Uniform Delay, d1	51.9	57.5		59.2		54.7		19.3		12.3	11.7	
Progression Factor	0.86	0.88		1.00		1.00		0.80		1.00	1.00	
Incremental Delay, d2	0.1	17.3		17.6		0.2		0.7		0.1	0.2	
Delay (s)	44.6	68.0		76.8		55.0		16.1		12.4	11.9	
Level of Service	D	E		E		D		B		B	B	
Approach Delay (s)		63.1			68.0			16.1			12.0	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

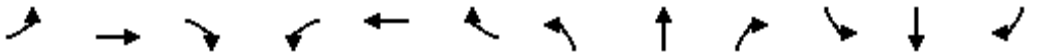
Intersection	
Int Delay, s/veh	1.3

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	166	558	318	39	0	1
Future Vol, veh/h	166	558	318	39	0	1
Conflicting Peds, #/hr	0	0	0	11	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	77	77	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	175	587	413	51	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	475	0	-	0	1094	243
Stage 1	-	-	-	-	450	-
Stage 2	-	-	-	-	644	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1083	-	-	-	208	758
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	485	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1072	-	-	-	171	750
Mov Cap-2 Maneuver	-	-	-	-	171	-
Stage 1	-	-	-	-	505	-
Stage 2	-	-	-	-	480	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1072	-	750	-	-
HCM Lane V/C Ratio	0.163	-	0.001	-	-
HCM Control Delay (s)	9	-	9.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.6	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	314	98	149	227	60	104	95	145	63	92	91
Future Volume (veh/h)	49	314	98	149	227	60	104	95	145	63	92	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.96	1.00		0.95	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	378	118	164	249	66	125	114	175	68	100	99
Peak Hour Factor	0.83	0.83	0.83	0.91	0.91	0.91	0.83	0.83	0.83	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	1838	658	256	732	598	160	753	771	140	577	241
Arrive On Green	0.04	0.36	0.36	0.07	0.39	0.39	0.09	0.21	0.21	0.04	0.16	0.16
Sat Flow, veh/h	1781	5106	1430	3456	1870	1529	1781	3554	2664	3456	3554	1483
Grp Volume(v), veh/h	59	378	118	164	249	66	125	114	175	68	100	99
Grp Sat Flow(s),veh/h/ln	1781	1702	1430	1728	1870	1529	1781	1777	1332	1728	1777	1483
Q Serve(g_s), s	2.4	3.8	3.7	3.4	7.0	2.0	5.1	1.9	3.7	1.4	1.8	4.5
Cycle Q Clear(g_c), s	2.4	3.8	3.7	3.4	7.0	2.0	5.1	1.9	3.7	1.4	1.8	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	1838	658	256	732	598	160	753	771	140	577	241
V/C Ratio(X)	0.78	0.21	0.18	0.64	0.34	0.11	0.78	0.15	0.23	0.49	0.17	0.41
Avail Cap(c_a), veh/h	716	2736	909	1389	1002	819	716	1904	1634	1389	1904	795
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	16.5	12.3	33.6	15.9	14.4	33.2	23.9	20.4	35.0	26.9	28.1
Incr Delay (d2), s/veh	6.2	0.1	0.2	1.0	0.1	0.0	3.1	0.1	0.1	1.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.4	1.0	1.4	2.8	0.6	2.2	0.8	1.1	0.6	0.7	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	16.6	12.5	34.6	16.1	14.5	36.3	24.0	20.5	36.0	27.0	28.5
LnGrp LOS	D	B	B	C	B	B	D	C	C	D	C	C
Approach Vol, veh/h		555			479			414			267	
Approach Delay, s/veh		18.4			22.2			26.3			29.8	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	32.8	12.1	18.8	8.6	35.1	8.4	22.5
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	5.4	5.8	7.1	6.5	4.4	9.0	3.4	5.7
Green Ext Time (p_c), s	0.3	3.9	0.1	0.5	0.1	1.1	0.1	1.4

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	397	237	322	287	12
Future Vol, veh/h	0	397	237	322	287	12
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	91	91	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	473	260	354	330	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	175	347	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	713	799	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	711	797	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.5	5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	797	-	711	-	-
HCM Lane V/C Ratio	0.327	-	0.665	-	-
HCM Control Delay (s)	11.7	-	19.5	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	1.4	-	5.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	3	18	2	2	3	188	526	3	7	692	82
Future Volume (veh/h)	18	3	18	2	2	3	188	526	3	7	692	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	5	27	4	4	6	200	560	3	8	744	88
Peak Hour Factor	0.66	0.66	0.66	0.50	0.50	0.50	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	323	274	8	317	268	250	1512	655	15	935	111
Arrive On Green	0.02	0.17	0.17	0.00	0.17	0.17	0.14	0.43	0.43	0.01	0.29	0.29
Sat Flow, veh/h	1781	1870	1585	1781	1870	1582	1781	3554	1539	1781	3187	377
Grp Volume(v), veh/h	27	5	27	4	4	6	200	560	3	8	415	417
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1582	1781	1777	1539	1781	1777	1787
Q Serve(g_s), s	0.9	0.1	0.9	0.1	0.1	0.2	6.5	6.5	0.1	0.3	12.9	13.0
Cycle Q Clear(g_c), s	0.9	0.1	0.9	0.1	0.1	0.2	6.5	6.5	0.1	0.3	12.9	13.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	43	323	274	8	317	268	250	1512	655	15	521	524
V/C Ratio(X)	0.63	0.02	0.10	0.52	0.01	0.02	0.80	0.37	0.00	0.54	0.80	0.80
Avail Cap(c_a), veh/h	888	1865	1581	888	1865	1578	888	1772	767	888	886	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	20.6	20.9	29.9	20.8	20.8	25.0	11.8	9.9	29.7	19.6	19.6
Incr Delay (d2), s/veh	19.5	0.0	0.2	19.0	0.0	0.1	2.2	0.1	0.0	10.9	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1	0.3	0.1	0.0	0.1	2.5	1.9	0.0	0.1	4.6	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	20.7	21.1	48.8	20.8	20.9	27.3	11.8	9.9	40.6	20.7	20.7
LnGrp LOS	D	C	C	D	C	C	C	B	A	D	C	C
Approach Vol, veh/h		59			14			763			840	
Approach Delay, s/veh		33.6			28.9			15.9			20.8	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	19.1	12.9	22.5	5.9	18.9	4.9	30.5
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0
Max Q Clear Time (g_c+I1), s	2.1	2.9	8.5	15.0	2.9	2.2	2.3	8.5
Green Ext Time (p_c), s	0.0	0.1	0.2	2.7	0.1	0.1	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Notes

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

User approved ignoring U-Turning movement.

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

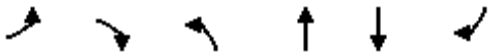
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	795	859	11	0	153
Future Vol, veh/h	0	795	859	11	0	153
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	94	94	73	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	924	914	12	0	210

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	460
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	548
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	546
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	546
HCM Lane V/C Ratio	-	-	0.384
HCM Control Delay (s)	-	-	15.6
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.8



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	691	105	0	812	879	871
Future Volume (vph)	691	105	0	812	879	871
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.86	0.86	0.93	0.93	0.93	0.93
Adj. Flow (vph)	803	122	0	873	945	937
RTOR Reduction (vph)	0	61	0	0	0	0
Lane Group Flow (vph)	803	61	0	873	945	937
Confl. Peds. (#/hr)						7
Confl. Bikes (#/hr)						2
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	35.9	35.9		37.0	37.0	101.0
Effective Green, g (s)	35.9	35.9		37.0	37.0	95.6
Actuated g/C Ratio	0.32	0.32		0.33	0.33	0.86
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1111	512		1180	1180	1364
v/s Ratio Prot	0.23			0.25	c0.27	c0.59
v/s Ratio Perm		0.04				
v/c Ratio	0.72	0.12		0.74	0.80	0.69
Uniform Delay, d1	33.1	26.4		32.7	33.6	2.6
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.2	0.1		2.4	4.0	1.3
Delay (s)	35.3	26.5		35.1	37.6	3.9
Level of Service	D	C		D	D	A
Approach Delay (s)	34.1			35.1	20.8	
Approach LOS	C			D	C	

Intersection Summary			
HCM 2000 Control Delay	27.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	110.9	Sum of lost time (s)	19.0
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	901	207	105	1372
Future Volume (veh/h)	0	1	901	207	105	1372
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	969	223	118	1542
Peak Hour Factor	0.92	0.92	0.93	0.93	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	6	2286	997	209	2776
Arrive On Green	0.00	0.00	0.64	0.64	0.06	0.78
Sat Flow, veh/h	1781	3170	3647	1547	3456	3647
Grp Volume(v), veh/h	0	1	969	223	118	1542
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1547	1728	1777
Q Serve(g_s), s	0.0	0.0	7.6	3.4	1.9	9.6
Cycle Q Clear(g_c), s	0.0	0.0	7.6	3.4	1.9	9.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	6	2286	997	209	2776
V/C Ratio(X)	0.00	0.18	0.42	0.22	0.56	0.56
Avail Cap(c_a), veh/h	1251	2227	3745	1632	1821	3745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.4	5.0	4.2	26.0	2.4
Incr Delay (d2), s/veh	0.0	5.6	0.2	0.2	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.6	0.6	0.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	34.0	5.2	4.4	26.9	2.8
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1192			1660
Approach Delay, s/veh	34.0		5.0			4.5
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.8	42.8			50.7	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	3.9	9.6			11.6	2.0
Green Ext Time (p_c), s	0.2	14.4			32.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



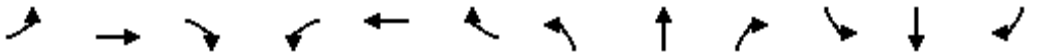
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	263	58	154	34	37	79	78	806	24	88	1299	248
Future Volume (veh/h)	263	58	154	34	37	79	78	806	24	88	1299	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.92	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	289	64	169	37	41	87	85	876	26	94	1382	264
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	374	302	240	47	149	116	144	1899	889	121	1992	1060
Arrive On Green	0.11	0.16	0.16	0.03	0.08	0.08	0.04	0.53	0.53	0.07	0.56	0.56
Sat Flow, veh/h	3456	1870	1488	1781	1870	1455	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	289	64	169	37	41	87	85	876	26	94	1382	264
Grp Sat Flow(s),veh/h/ln	1728	1870	1488	1781	1870	1455	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.6	2.8	10.0	1.9	1.9	5.5	2.3	14.2	0.7	4.8	26.1	6.2
Cycle Q Clear(g_c), s	7.6	2.8	10.0	1.9	1.9	5.5	2.3	14.2	0.7	4.8	26.1	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	302	240	47	149	116	144	1899	889	121	1992	1060
V/C Ratio(X)	0.77	0.21	0.70	0.79	0.28	0.75	0.59	0.46	0.03	0.78	0.69	0.25
Avail Cap(c_a), veh/h	1110	601	478	572	601	468	1110	2665	1230	572	2665	1360
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	34.0	37.0	45.2	40.4	42.1	43.9	13.4	9.2	42.8	14.7	6.1
Incr Delay (d2), s/veh	1.3	0.3	3.7	10.2	0.4	3.7	1.4	0.3	0.0	4.0	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.3	3.7	1.0	0.9	2.0	1.0	5.2	0.2	2.2	9.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	34.3	40.8	55.4	40.8	45.7	45.4	13.7	9.2	46.8	15.5	6.3
LnGrp LOS	D	C	D	E	D	D	D	B	A	D	B	A
Approach Vol, veh/h		522			165			987			1740	
Approach Delay, s/veh		40.6			46.7			16.3			15.8	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	55.2	6.9	20.6	8.3	57.6	14.5	12.9
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	6.3	16.2	3.9	12.0	4.3	28.1	9.6	7.5
Green Ext Time (p_c), s	0.1	12.5	0.0	0.8	0.1	24.2	0.5	0.2

Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	922	261	270	616	0	0	0	0	200	0	0
Future Volume (vph)	0	922	261	270	616	0	0	0	0	200	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.99	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1561	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1561	3433	3539					1770		
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	0	971	275	293	670	0	0	0	0	225	0	0
RTOR Reduction (vph)	0	0	140	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	971	135	293	670	0	0	0	0	225	0	0
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			5			2						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		48.3	48.3	10.3	63.3					15.1		
Effective Green, g (s)		44.3	44.3	10.3	59.3					15.1		
Actuated g/C Ratio		0.49	0.49	0.11	0.66					0.17		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1741	768	392	2331					296		
v/s Ratio Prot		c0.27		c0.09	0.19					c0.13		
v/s Ratio Perm			0.09									
v/c Ratio		0.56	0.18	0.75	0.29					0.76		
Uniform Delay, d1		16.0	12.7	38.6	6.5					35.7		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		0.4	0.1	6.7	0.1					9.9		
Delay (s)		16.4	12.8	45.3	6.5					45.6		
Level of Service		B	B	D	A					D		
Approach Delay (s)		15.6			18.3			0.0			45.6	
Approach LOS		B			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Appendix P

Opening Year (2030) Base Conditions 95th Percentile Queue Worksheets

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	304	304	309	320	257	213	100	280	255	217	102
Average Queue (ft)	188	192	172	179	163	121	11	190	163	98	15
95th Queue (ft)	271	283	271	280	237	202	53	256	240	194	58
Link Distance (ft)	2519	2519	2519	2519				1147	1147	1147	1147
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	293	334	58	10	53	75	122	189	211	100	90	106
Average Queue (ft)	117	169	8	1	9	11	34	89	106	15	59	83
95th Queue (ft)	228	275	28	5	34	47	90	156	174	74	102	100
Link Distance (ft)		1939	1939		629	629		1525	1525			
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	0	0						0	63	0		
Queuing Penalty (veh)	0	0						0	11	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	100	38
Average Queue (ft)	68	3
95th Queue (ft)	105	23
Link Distance (ft)		
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		100
Storage Blk Time (%)	1	
Queuing Penalty (veh)	1	

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	94	107	120	32	58	93	179	64	79
Average Queue (ft)	36	22	28	3	14	25	70	27	32
95th Queue (ft)	70	70	83	17	41	70	144	55	58
Link Distance (ft)		629	629		959	959	959	857	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	42	60	128	194	134	79	109	173	110	119	112	76
Average Queue (ft)	5	29	59	93	55	22	46	80	52	40	37	31
95th Queue (ft)	24	57	110	161	108	57	88	143	97	87	79	60
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)									1	0		
Queuing Penalty (veh)									1	0		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	LT	R	LT	R
Maximum Queue (ft)	30	47	134	147	106	118	96	131	80	52	74	67
Average Queue (ft)	4	12	36	53	49	27	26	50	32	20	35	22
95th Queue (ft)	20	34	89	115	93	75	72	110	66	44	67	50
Link Distance (ft)			636	636		202	202	202	444		292	292
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	330	330			175					50		
Storage Blk Time (%)									6	0		
Queuing Penalty (veh)									3	0		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	TR	L	T	LTR
Maximum Queue (ft)	64	6	5	16	72	10	30
Average Queue (ft)	9	0	0	1	24	1	5
95th Queue (ft)	37	4	4	7	57	7	22
Link Distance (ft)		232	232	232		364	458
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	150				125		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	42	96	118	135	157	367	707	350	44	64
Average Queue (ft)	16	31	44	51	59	60	38	49	12	28
95th Queue (ft)	40	74	91	106	119	270	254	120	37	53
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)						0	0			
Queuing Penalty (veh)						0	0			
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)		0			1	1				
Queuing Penalty (veh)		0			2	1				

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	118	161	174	78	96	63	186	184	146	202	62	56
Average Queue (ft)	50	76	81	28	38	9	78	84	39	80	26	15
95th Queue (ft)	94	129	143	59	76	40	142	151	103	151	51	46
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			1				0		1	10		
Queuing Penalty (veh)			1				0		1	6		

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	118	62
Average Queue (ft)	41	27
95th Queue (ft)	85	56
Link Distance (ft)	708	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	1	
Queuing Penalty (veh)	1	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	65	176	181	53	263	272	27	100
Average Queue (ft)	12	57	74	9	94	125	6	32
95th Queue (ft)	41	131	150	36	200	227	22	73
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		3			6			
Queuing Penalty (veh)		1			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	48	53	62	73
Average Queue (ft)	25	19	36	40
95th Queue (ft)	48	46	59	64
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	SB
Directions Served	L
Maximum Queue (ft)	55
Average Queue (ft)	32
95th Queue (ft)	49
Link Distance (ft)	80
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	62	75	64
Average Queue (ft)	38	36	31
95th Queue (ft)	56	60	49
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	SB
Directions Served	L
Maximum Queue (ft)	47
Average Queue (ft)	26
95th Queue (ft)	46
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	57	77	43	55
Average Queue (ft)	34	38	27	27
95th Queue (ft)	50	59	45	51
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	79	83	31	77
Average Queue (ft)	43	43	10	39
95th Queue (ft)	67	69	34	62
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	41	48	52	86	102	1304	1357	1338
Average Queue (ft)	11	11	4	8	9	570	608	655
95th Queue (ft)	35	32	26	48	61	1724	1751	1765
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	118	162	110	219	250	287	417	416	428	205
Average Queue (ft)	42	51	24	67	78	94	369	373	389	101
95th Queue (ft)	99	122	70	169	192	269	471	480	476	258
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)				0	0	2	46	45	49	
Queuing Penalty (veh)				1	1	12	357	344	374	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			0	3					49	
Queuing Penalty (veh)			1	2					47	

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	185	246	54	345	346	341	175	340	329	322	272
Average Queue (ft)	83	125	12	99	116	120	137	191	135	110	56
95th Queue (ft)	159	218	37	272	291	293	211	402	343	285	198
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)				0	0	0		13	2	1	0
Queuing Penalty (veh)				2	2	2		75	10	7	2
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		4					47	7			
Queuing Penalty (veh)		1					250	9			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	264	277	241	206	180	172	174	262	281	338	328	341
Average Queue (ft)	117	141	108	84	137	153	133	154	151	153	139	151
95th Queue (ft)	226	249	219	169	202	186	188	290	308	379	321	312
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)					54	70	54	1	2	9	1	2
Queuing Penalty (veh)					81	105	81	0	0	60	9	11
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			0					6	13	4		
Queuing Penalty (veh)			0					29	64	9		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	394	406	419	76
Average Queue (ft)	233	247	256	3
95th Queue (ft)	409	419	432	56
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	7	7	9	0
Queuing Penalty (veh)	35	39	48	1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	132	160	180	170	135	260	250	288	254	201	316	434
Average Queue (ft)	54	80	71	83	65	132	144	161	109	110	135	163
95th Queue (ft)	107	134	140	143	119	224	226	246	209	181	238	328
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	1	5	2			1	0	7	1		0	1
Queuing Penalty (veh)	1	6	4			2	1	16	3		0	3

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	398	450	167	263	351	347	342
Average Queue (ft)	196	231	58	126	269	277	272
95th Queue (ft)	361	402	120	276	398	399	401
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)				0	17	22	21
Queuing Penalty (veh)				0	109	140	133
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	17		
Queuing Penalty (veh)				1	34		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	258	275	62	204	447	224	342	449	436	403
Average Queue (ft)	123	138	18	80	78	89	143	114	123	98
95th Queue (ft)	214	245	50	178	180	199	289	339	356	310
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				0			1	1		
Queuing Penalty (veh)				0			7	2		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	513	452	282	320	816	115	174	470	459	428	296	146
Average Queue (ft)	281	227	211	262	341	47	20	308	301	273	132	73
95th Queue (ft)	452	382	301	359	657	93	99	440	435	397	240	128
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			4	9	21			51		0		
Queuing Penalty (veh)			13	29	126			5		0		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	545	1020	1022	788
Average Queue (ft)	224	630	637	235
95th Queue (ft)	584	1123	1136	769
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)		1	1	0
Queuing Penalty (veh)		4	6	2
Storage Bay Dist (ft)	470			
Storage Blk Time (%)		30		
Queuing Penalty (veh)		52		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	82	226	685	140	188	212	84	238	165
Average Queue (ft)	26	112	306	79	88	114	22	93	34
95th Queue (ft)	67	235	948	165	190	221	63	249	102
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)		5	2		5	10		5	0
Queuing Penalty (veh)		6	6		12	23		8	0
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			39	3			0	15	
Queuing Penalty (veh)			58	7			0	6	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	SB	SB	SE
Directions Served	L	T	TR	LR
Maximum Queue (ft)	82	62	47	18
Average Queue (ft)	27	8	2	1
95th Queue (ft)	68	66	35	10
Link Distance (ft)		640	640	527
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	120			
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	80	85	97	95	55	106	104	110	51	137	63	80
Average Queue (ft)	23	22	32	30	19	83	58	75	8	48	14	20
95th Queue (ft)	62	58	69	68	45	115	116	128	26	107	45	58
Link Distance (ft)		242	242	242							1877	1877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)		0		0				0		0		
Queuing Penalty (veh)		0		0				0		0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	64	62	20	65	82	37	46
Average Queue (ft)	13	12	3	19	24	6	5
95th Queue (ft)	43	42	13	49	60	23	23
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						0	0
Queuing Penalty (veh)						0	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	152	207	73	64	18	22	10
Average Queue (ft)	33	88	7	2	1	3	1
95th Queue (ft)	95	183	88	47	10	14	10
Link Distance (ft)	1396		357	357	1877	1877	1877
Upstream Blk Time (%)			0				
Queuing Penalty (veh)			0				
Storage Bay Dist (ft)		200					
Storage Blk Time (%)		2					
Queuing Penalty (veh)		2					

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	55	44	31	60	26	38	354	453	228	75	253	338
Average Queue (ft)	13	9	5	16	3	5	216	185	95	5	74	168
95th Queue (ft)	41	33	24	44	16	23	334	348	182	37	162	291
Link Distance (ft)		692		222	222	222		1615	1615			706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			300	200	
Storage Blk Time (%)							5	0			0	5
Queuing Penalty (veh)							18	1			1	5

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB
Directions Served	TR
Maximum Queue (ft)	356
Average Queue (ft)	189
95th Queue (ft)	308
Link Distance (ft)	706
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	205	166	22	16	145
Average Queue (ft)	46	22	1	1	60
95th Queue (ft)	137	95	11	11	107
Link Distance (ft)	2538	2538	113	113	692
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	T	T	T
Maximum Queue (ft)	208	194	96	1744	1743	465	440	395	366	245
Average Queue (ft)	160	130	3	984	988	412	384	176	128	34
95th Queue (ft)	227	198	38	1830	1814	496	483	429	379	219
Link Distance (ft)	113	113	113	2912	2912	360	360	393	393	393
Upstream Blk Time (%)	34	26	0			33	23	5	3	1
Queuing Penalty (veh)	66	51	0			0	0	0	0	0
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LR	T	T	R	L	L	T	T
Maximum Queue (ft)	16	215	181	77	58	62	132	153
Average Queue (ft)	0	79	54	30	11	37	21	31
95th Queue (ft)	5	159	121	62	39	60	77	97
Link Distance (ft)	899	980	980				1274	1274
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				185	300	300		
Storage Blk Time (%)			0					
Queuing Penalty (veh)			1					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	43	71	46	35	72	63	46	65	37	212	229	100
Average Queue (ft)	2	20	9	4	18	12	10	17	2	100	114	13
95th Queue (ft)	17	51	29	19	46	36	31	44	18	176	195	55
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											9	
Queuing Penalty (veh)											3	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	90	205	216	74
Average Queue (ft)	40	81	91	25
95th Queue (ft)	78	158	166	57
Link Distance (ft)		511	511	511
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	123	135	45	157	195	247	198	141
Average Queue (ft)	91	103	14	134	179	164	48	117
95th Queue (ft)	131	137	39	187	218	311	129	153
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	8	12						61
Queuing Penalty (veh)	30	44						150
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				5	52	0		
Queuing Penalty (veh)				9	97	0		

Intersection: 41: Kurtz St & Hancock St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 42: Hancock St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	42	93	150	220	173	40
Average Queue (ft)	4	13	67	117	60	8
95th Queue (ft)	36	84	178	257	173	32
Link Distance (ft)	96	96		152	152	294
Upstream Blk Time (%)	0	2	0	26	6	
Queuing Penalty (veh)	0	4	0	60	13	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			16	41		
Queuing Penalty (veh)			24	61		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	152	142	158	318	336	349
Average Queue (ft)	21	14	11	74	78	79
95th Queue (ft)	120	107	90	259	260	263
Link Distance (ft)	263	263	263	301	301	301
Upstream Blk Time (%)	1	0	0	2	2	2
Queuing Penalty (veh)	4	2	2	12	11	12
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB
Directions Served	T	T	T
Maximum Queue (ft)	187	205	17
Average Queue (ft)	48	68	0
95th Queue (ft)	131	156	8
Link Distance (ft)	511	511	95
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	212	256
Average Queue (ft)	57	47
95th Queue (ft)	162	171
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B39	B39	B39
Directions Served	T	T	
Maximum Queue (ft)	17	43	39
Average Queue (ft)	1	2	1
95th Queue (ft)	9	21	15
Link Distance (ft)	142	142	142
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	402	419
Average Queue (ft)	354	323
95th Queue (ft)	485	524
Link Distance (ft)	360	360
Upstream Blk Time (%)	8	4
Queuing Penalty (veh)	63	28
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 3701

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	1665	1868	2030	1984	292	240	117	340	332	278	196
Average Queue (ft)	687	963	1332	1309	196	136	19	250	224	173	59
95th Queue (ft)	1664	2011	2332	2272	277	228	67	317	291	259	148
Link Distance (ft)	2519	2519	2519	2519				1147	1147	1147	1147
Upstream Blk Time (%)	1	2	3	2							
Queuing Penalty (veh)	0	0	0	0							
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	T	T	R	L	LT	T	R	L
Maximum Queue (ft)	435	1396	821	154	265	254	11	192	353	263	100	94
Average Queue (ft)	352	782	223	10	112	113	0	34	87	90	12	73
95th Queue (ft)	518	1647	1090	66	214	218	8	113	231	195	62	110
Link Distance (ft)		1939	1939		629	629	629		1525	1525		
Upstream Blk Time (%)		2	2									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	360			150				230			25	
Storage Blk Time (%)	6	45			8			0	1	43	0	
Queuing Penalty (veh)	27	72			2			1	1	14	0	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB
Directions Served	LT	T	R
Maximum Queue (ft)	109	108	80
Average Queue (ft)	84	79	26
95th Queue (ft)	104	109	70
Link Distance (ft)			
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			100
Storage Blk Time (%)		3	0
Queuing Penalty (veh)		10	0

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	187	219	212	33	80	143	220	86	91
Average Queue (ft)	77	67	72	5	29	39	93	35	41
95th Queue (ft)	149	162	166	22	68	101	179	75	76
Link Distance (ft)		629	629		959	959	959	857	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	1	1			0				
Queuing Penalty (veh)	3	1			0				

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	78	97	157	179	183	166	187	251	175	274	31	36
Average Queue (ft)	21	46	49	65	85	39	68	105	61	97	3	13
95th Queue (ft)	61	85	114	143	155	108	150	209	137	201	17	38
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)					1	0			2	10		
Queuing Penalty (veh)					1	0			4	10		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B83	B83	NB	NB
Directions Served	L	L	T	TR	L	T	T	TR	T	T	LT	R
Maximum Queue (ft)	40	60	229	268	124	197	238	295	87	178	192	121
Average Queue (ft)	9	25	95	133	56	91	134	212	4	22	69	31
95th Queue (ft)	29	54	180	229	109	165	230	310	46	101	134	81
Link Distance (ft)			636	636		202	202	202	232	232	444	
Upstream Blk Time (%)					0	0	1	20		0		
Queuing Penalty (veh)					0	0	4	57		1		
Storage Bay Dist (ft)	330	330			175							50
Storage Blk Time (%)						0					23	2
Queuing Penalty (veh)						0					17	2

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	236	91
Average Queue (ft)	113	44
95th Queue (ft)	193	76
Link Distance (ft)	292	292
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LTR
Maximum Queue (ft)	59	46	44	22	99	16	28	45	43
Average Queue (ft)	17	2	2	1	32	1	1	2	16
95th Queue (ft)	47	18	17	10	73	7	8	19	43
Link Distance (ft)		232	232	232		364	364	364	458
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150				125				
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	85	183	205	220	200	789	809	592	303	175
Average Queue (ft)	21	67	86	102	153	193	96	88	103	58
95th Queue (ft)	60	150	180	204	232	465	409	267	213	129
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)						0	0	0		
Queuing Penalty (veh)						0	1	0		
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)	0	1			37	2			14	1
Queuing Penalty (veh)	0	0			111	3			24	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	103	177	177	67	190	237	347	339	165	377	106	14
Average Queue (ft)	41	54	61	16	105	53	138	147	115	193	38	1
95th Queue (ft)	92	131	136	45	172	154	289	299	199	316	78	13
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)										1		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)			1				2		10	49		
Queuing Penalty (veh)			1				4		24	40		

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	132	237	141
Average Queue (ft)	32	95	32
95th Queue (ft)	87	182	81
Link Distance (ft)		708	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		115
Storage Blk Time (%)	0	14	0
Queuing Penalty (veh)	0	13	0

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	122	222	233	90	427	447	40	410
Average Queue (ft)	24	89	105	11	171	214	10	188
95th Queue (ft)	73	174	192	54	349	393	30	366
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	5			12			
Queuing Penalty (veh)	1	3			2			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	40	45	89	78
Average Queue (ft)	21	13	44	48
95th Queue (ft)	44	39	75	73
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	1	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	SB
Directions Served	L
Maximum Queue (ft)	76
Average Queue (ft)	41
95th Queue (ft)	64
Link Distance (ft)	80
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	68	63	67
Average Queue (ft)	39	41	36
95th Queue (ft)	62	62	55
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	SB
Directions Served	LT	L
Maximum Queue (ft)	6	72
Average Queue (ft)	0	30
95th Queue (ft)	4	56
Link Distance (ft)	455	321
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	83	82	58	61
Average Queue (ft)	40	46	30	35
95th Queue (ft)	68	73	52	54
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	94	98	36	68
Average Queue (ft)	39	47	16	34
95th Queue (ft)	76	80	42	50
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	33	49	25	26	25	52	204	316
Average Queue (ft)	5	14	2	1	1	2	11	39
95th Queue (ft)	23	37	18	18	18	28	90	170
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	328	345	168	240	251	162	371	375	417	205
Average Queue (ft)	190	182	83	57	49	29	131	140	199	46
95th Queue (ft)	323	319	154	178	160	102	350	366	487	176
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)				0	0	0	4	5	11	
Queuing Penalty (veh)				0	1	0	27	33	75	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			24	2					16	
Queuing Penalty (veh)			154	2					21	

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	241	283	272	206	207	201	122	208	254	272	331
Average Queue (ft)	131	169	48	77	80	77	34	83	81	87	116
95th Queue (ft)	214	260	141	172	172	171	84	184	185	202	266
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)									0	0	1
Queuing Penalty (veh)									0	1	6
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		6	0				0	6			
Queuing Penalty (veh)		6	0				0	3			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	319	345	350	278	179	168	172	265	272	306	304	367
Average Queue (ft)	141	189	185	110	95	141	120	162	167	122	114	151
95th Queue (ft)	247	291	304	218	168	186	178	251	265	281	248	282
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)					17	42	34	0	0	0	0	1
Queuing Penalty (veh)					25	61	49	0	0	2	1	5
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			1	1				0	1	1		
Queuing Penalty (veh)			2	2				1	5	3		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	395	398	407	38
Average Queue (ft)	195	186	193	1
95th Queue (ft)	362	352	365	20
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	2	2	3	
Queuing Penalty (veh)	13	11	13	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	419	416	287	324	441	471	255	246	354	461
Average Queue (ft)	88	136	221	220	97	140	243	275	198	130	159	208
95th Queue (ft)	150	209	357	357	220	269	383	432	307	210	276	388
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	9	24	39	8		0	9	29	7	0	0	2
Queuing Penalty (veh)	23	60	89	20		1	12	84	20	0	1	7

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	489	526	227	261	335	337	338
Average Queue (ft)	245	297	104	146	201	213	224
95th Queue (ft)	437	494	193	253	329	335	352
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)			0	0	7	9	12
Queuing Penalty (veh)			0	0	44	56	77
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	0	7		
Queuing Penalty (veh)			0	1	20		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	158	424	45	393	405	155	225	320	340	308
Average Queue (ft)	57	240	9	56	44	42	80	129	150	95
95th Queue (ft)	120	409	30	251	244	116	175	296	318	247
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)				0	0					
Queuing Penalty (veh)				0	0					
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)								0		
Queuing Penalty (veh)								0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	370	424	282	320	2400	2383	174	438	432	454	499	134
Average Queue (ft)	193	227	226	305	2157	1933	27	294	280	258	237	73
95th Queue (ft)	340	389	331	385	2935	3298	94	424	416	404	436	116
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)					71	32						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			22	31	56		0	36			1	
Queuing Penalty (veh)			73	102	299		1	8			3	

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	151	229	241	89
Average Queue (ft)	74	110	114	31
95th Queue (ft)	125	199	206	70
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	154	235	264	145	229	248	76	147	104
Average Queue (ft)	60	120	109	67	120	162	31	52	27
95th Queue (ft)	126	206	217	141	203	257	65	116	68
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)		1			3	11			
Queuing Penalty (veh)		1			15	49			
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			27	3			0	2	
Queuing Penalty (veh)			36	4			0	1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	SB	SE
Directions Served	L	TR	LR
Maximum Queue (ft)	90	17	18
Average Queue (ft)	36	0	1
95th Queue (ft)	73	5	9
Link Distance (ft)		640	527
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	120		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	131	161	160	182	143	112	101	122	61	193	115	74
Average Queue (ft)	44	95	98	94	37	93	82	80	11	103	23	20
95th Queue (ft)	103	156	159	157	91	115	127	131	34	173	71	57
Link Distance (ft)		242	242	242							1877	1877
Upstream Blk Time (%)				0								
Queuing Penalty (veh)				0								
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)	0	7		9	0	0		0		4	0	
Queuing Penalty (veh)	1	6		10	0	0		0		3	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	145	144	59	103	176	151	110
Average Queue (ft)	55	56	12	40	96	72	18
95th Queue (ft)	120	123	40	86	153	139	69
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						11	0
Queuing Penalty (veh)						10	1

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	174	200	56	31	29	6
Average Queue (ft)	56	84	2	2	3	0
95th Queue (ft)	128	168	41	12	16	4
Link Distance (ft)	1396		357	1877	1877	1877
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		200				
Storage Blk Time (%)		1				
Queuing Penalty (veh)		2				

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	108	52	83	93	50	130	330	349	337	274	559	571
Average Queue (ft)	52	7	35	36	14	55	176	173	156	31	309	328
95th Queue (ft)	98	31	69	78	42	107	289	301	275	133	491	511
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)							2	1	0		22	
Queuing Penalty (veh)							11	1	0		5	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	2315	2334	23	44	381
Average Queue (ft)	1523	1537	1	4	165
95th Queue (ft)	2595	2617	12	25	343
Link Distance (ft)	2538	2538	113	113	692
Upstream Blk Time (%)	1	1			0
Queuing Penalty (veh)	5	5			0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T	T
Maximum Queue (ft)	220	203	176	2965	2962	443	434	182	179	186	82
Average Queue (ft)	190	179	16	2794	2783	376	334	14	39	14	3
95th Queue (ft)	206	204	95	3331	3330	483	437	110	134	85	60
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393	393	393
Upstream Blk Time (%)	85	80	1	79	78	14	5	0		0	0
Queuing Penalty (veh)	270	256	2	0	0	0	0	0		0	0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	4	9	561	630	260	69	148	351	377
Average Queue (ft)	0	0	215	232	118	22	50	137	155
95th Queue (ft)	3	4	431	498	278	58	102	298	322
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)				14				1	
Queuing Penalty (veh)				67				1	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	112	140	106	133	84	64	90	98	330	686	711	175
Average Queue (ft)	19	61	33	36	36	14	28	34	38	310	353	125
95th Queue (ft)	72	116	79	92	75	41	70	76	221	577	618	239
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)										13	47	0
Queuing Penalty (veh)										10	69	0

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	288	388	415	272
Average Queue (ft)	101	213	220	41
95th Queue (ft)	225	349	360	188
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		0	0	0
Queuing Penalty (veh)		0	1	1
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	9		
Queuing Penalty (veh)	1	17		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	137	143	110	157	193	230	89	139
Average Queue (ft)	96	110	57	87	140	92	45	115
95th Queue (ft)	136	143	100	171	204	205	85	152
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	17	23	1					53
Queuing Penalty (veh)	78	101	4					115
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	16	1		
Queuing Penalty (veh)				2	50	2		

Intersection: 41: Kurtz St & Hancock St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 42: Hancock St

Movement	WB
Directions Served	L
Maximum Queue (ft)	29
Average Queue (ft)	1
95th Queue (ft)	13
Link Distance (ft)	967
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	62	149	67	121	120	78
Average Queue (ft)	2	12	4	22	18	26
95th Queue (ft)	25	70	33	77	72	62
Link Distance (ft)	96	96		152	152	294
Upstream Blk Time (%)	0	1	0	0	0	
Queuing Penalty (veh)	0	3	0	0	0	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			0	2		
Queuing Penalty (veh)			0	3		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	19	63	62	92	99	106
Average Queue (ft)	0	3	3	9	8	9
95th Queue (ft)	9	32	27	65	68	67
Link Distance (ft)	263	263	263	301	301	301
Upstream Blk Time (%)				0	0	0
Queuing Penalty (veh)				0	1	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB
Directions Served	T	T	T	T
Maximum Queue (ft)	354	375	6	6
Average Queue (ft)	145	170	0	0
95th Queue (ft)	311	334	0	3
Link Distance (ft)	511	511	95	95
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	150	351
Average Queue (ft)	38	109
95th Queue (ft)	115	242
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B39	B39	B39
Directions Served	T	T	
Maximum Queue (ft)	94	134	64
Average Queue (ft)	5	9	3
95th Queue (ft)	45	68	39
Link Distance (ft)	142	142	142
Upstream Blk Time (%)	0	0	0
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	411	419
Average Queue (ft)	371	350
95th Queue (ft)	463	517
Link Distance (ft)	360	360
Upstream Blk Time (%)	13	5
Queuing Penalty (veh)	135	57
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 3391

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	384	396	436	437	248	210	74	342	293	267	170
Average Queue (ft)	248	252	258	261	158	109	10	245	220	163	60
95th Queue (ft)	366	369	398	401	234	195	44	313	289	252	140
Link Distance (ft)	2519	2519	2519	2519				1147	1147	1147	1147
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1263	344	79	198	210	186	223	237	100	99	110
Average Queue (ft)	366	664	48	8	67	74	44	104	104	12	78	81
95th Queue (ft)	521	1227	311	46	152	164	126	203	208	63	103	104
Link Distance (ft)		1939	1939		629	629		1525	1525			
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	9	48			3		0	0	46	0		
Queuing Penalty (veh)	36	70			1		0	0	10	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	103	71
Average Queue (ft)	72	25
95th Queue (ft)	111	70
Link Distance (ft)		
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		100
Storage Blk Time (%)	3	0
Queuing Penalty (veh)	7	0

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	TR	LT	R
Maximum Queue (ft)	194	238	222	67	76	166	103	107
Average Queue (ft)	55	74	68	22	17	68	42	46
95th Queue (ft)	123	180	166	52	47	126	87	82
Link Distance (ft)		629	629	959	959	959	857	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	160							210
Storage Blk Time (%)	0	1		0				
Queuing Penalty (veh)	0	1		0				

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	146	152	150	188	161	112	198	231	174	283	18	40
Average Queue (ft)	62	80	47	72	67	34	68	103	65	121	1	9
95th Queue (ft)	122	133	115	153	132	84	148	184	148	235	9	33
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)					0				2	20		
Queuing Penalty (veh)					1				5	20		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B83	B83	B83	NB
Directions Served	L	L	T	TR	L	T	T	TR	T	T	T	LT
Maximum Queue (ft)	40	46	237	258	180	219	235	303	52	235	304	135
Average Queue (ft)	9	15	88	125	61	85	154	260	3	73	188	66
95th Queue (ft)	29	40	189	223	129	179	259	367	42	229	352	125
Link Distance (ft)			636	636		202	202	202	232	232	232	444
Upstream Blk Time (%)					0	1	2	72	0	1	15	
Queuing Penalty (veh)					0	2	6	230	0	2	50	
Storage Bay Dist (ft)	330	330			175							
Storage Blk Time (%)			0		0	1						21
Queuing Penalty (veh)			0		1	1						16

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	NB	SB	SB
Directions Served	R	LT	R
Maximum Queue (ft)	110	167	80
Average Queue (ft)	35	94	43
95th Queue (ft)	77	154	71
Link Distance (ft)		292	292
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	50		
Storage Blk Time (%)	2		
Queuing Penalty (veh)	3		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	EB	B83	WB	WB	WB	WB	SB
Directions Served	L	T	T	TR	T	L	T	T	TR	LTR
Maximum Queue (ft)	106	83	81	30	14	70	72	308	363	173
Average Queue (ft)	30	8	4	2	0	20	9	75	126	49
95th Queue (ft)	96	83	40	16	10	54	63	287	373	158
Link Distance (ft)		232	232	232	202		364	364	364	458
Upstream Blk Time (%)		2	0					6	8	
Queuing Penalty (veh)		5	0					23	30	
Storage Bay Dist (ft)	150					125				
Storage Blk Time (%)	4						0			
Queuing Penalty (veh)	8						0			

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	80	191	210	234	199	637	492	477	470	175
Average Queue (ft)	29	58	81	103	140	198	171	172	165	73
95th Queue (ft)	67	145	175	217	240	581	640	531	467	168
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)						3	3	0	3	
Queuing Penalty (veh)						12	13	0	15	
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)		2			32	2			27	1
Queuing Penalty (veh)		0			106	3			42	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	156	168	179	65	191	172	319	363	164	309	73	139
Average Queue (ft)	56	49	59	17	89	35	147	182	90	153	31	31
95th Queue (ft)	128	123	133	46	154	111	289	333	176	253	59	85
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)										0		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			1		0		2		8	38		0
Queuing Penalty (veh)			1		0		2		14	26		1

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	155	90
Average Queue (ft)	59	32
95th Queue (ft)	124	75
Link Distance (ft)	708	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	4	
Queuing Penalty (veh)	4	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	72	170	175	81	512	518	35	341
Average Queue (ft)	16	57	70	7	175	232	7	163
95th Queue (ft)	48	125	142	48	423	481	25	315
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)					1	2		
Queuing Penalty (veh)					8	9		
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	2	2			10			
Queuing Penalty (veh)	6	1			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	55	31	73	80
Average Queue (ft)	21	12	40	47
95th Queue (ft)	49	36	64	72
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)			1	
Queuing Penalty (veh)			0	

Intersection: 11: Kurtz St & Hancock St

Movement	SB
Directions Served	L
Maximum Queue (ft)	83
Average Queue (ft)	50
95th Queue (ft)	74
Link Distance (ft)	80
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	63	65	72
Average Queue (ft)	38	38	36
95th Queue (ft)	56	57	55
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	SB
Directions Served	L
Maximum Queue (ft)	52
Average Queue (ft)	26
95th Queue (ft)	49
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	96	90	53	58
Average Queue (ft)	46	47	29	26
95th Queue (ft)	77	76	47	50
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	104	126	40	68
Average Queue (ft)	49	52	21	37
95th Queue (ft)	91	97	46	58
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	29	40	23	13	5	118	356	450
Average Queue (ft)	5	9	1	0	0	4	14	36
95th Queue (ft)	19	27	13	7	4	63	124	197
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	534	544	169	274	264	217	310	303	410	205
Average Queue (ft)	438	413	100	70	59	45	98	105	163	60
95th Queue (ft)	608	619	177	210	180	148	267	283	425	199
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	23	15		0	0	0	2	1	9	
Queuing Penalty (veh)	39	25		2	1	0	10	6	51	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			32	4					17	0
Queuing Penalty (veh)			186	3					33	2

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	358	426	275	263	285	314	161	279	265	209	238
Average Queue (ft)	194	241	91	63	70	75	91	85	46	47	56
95th Queue (ft)	335	406	272	193	213	236	179	256	166	152	181
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)						0		5	0		1
Queuing Penalty (veh)						2		21	0		6
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		34	0				35	2			
Queuing Penalty (veh)		30	1				137	1			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	297	333	316	233	171	172	160	287	297	345	314	306
Average Queue (ft)	147	181	173	108	93	141	130	195	203	159	106	124
95th Queue (ft)	252	284	284	196	168	190	184	293	304	355	251	251
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)					16	43	41	0	2	6	0	0
Queuing Penalty (veh)					24	64	62	0	0	38	1	3
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			1					3	9	2		
Queuing Penalty (veh)			3					15	37	9		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	329	346	349	86
Average Queue (ft)	165	171	179	13
95th Queue (ft)	305	306	319	128
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	0	0	0	2
Queuing Penalty (veh)	1	1	2	10
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	331	310	238	310	575	642	255	260	354	747
Average Queue (ft)	82	123	172	175	70	88	252	297	211	134	186	271
95th Queue (ft)	143	200	291	272	158	196	426	498	313	227	335	575
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												1
Queuing Penalty (veh)												4
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	9	18	30	3		0	11	30	16	0	0	8
Queuing Penalty (veh)	19	37	59	7		0	10	99	44	0	1	24

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	611	622	178	247	300	304	337
Average Queue (ft)	262	293	90	118	160	175	196
95th Queue (ft)	503	536	164	197	260	267	294
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)		0		0	1	2	5
Queuing Penalty (veh)		0		0	6	8	25
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				0	3		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	151	393	36	191	401	160	178	234	259	219
Average Queue (ft)	58	176	6	52	41	43	65	87	97	60
95th Queue (ft)	125	311	24	138	236	105	135	209	228	165
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				1						
Queuing Penalty (veh)				0						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	309	247	282	320	2255	2146	154	394	387	310	218	78
Average Queue (ft)	163	127	225	313	1731	1099	24	230	207	168	99	33
95th Queue (ft)	268	221	325	364	2691	2736	95	342	319	277	173	67
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)					26	9						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			19	31	59		0	29				
Queuing Penalty (veh)			57	94	292		0	5				

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	95	215	215	73
Average Queue (ft)	43	75	88	20
95th Queue (ft)	83	164	181	53
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	107	260	276	142	174	241	111	272	253
Average Queue (ft)	25	87	85	42	70	108	25	63	44
95th Queue (ft)	79	228	188	99	158	210	61	158	152
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)		1			3	6		1	0
Queuing Penalty (veh)		0			9	17		2	1
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			20	3			0	5	
Queuing Penalty (veh)			16	3			0	2	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73	SE
Directions Served	L	T	T	T	TR	T	LR
Maximum Queue (ft)	147	165	109	371	396	56	12
Average Queue (ft)	61	24	7	47	112	6	1
95th Queue (ft)	156	148	75	268	424	71	9
Link Distance (ft)		274	274	640	640	242	527
Upstream Blk Time (%)		4	0	0	2	1	
Queuing Penalty (veh)		11	0	0	8	10	
Storage Bay Dist (ft)	120						
Storage Blk Time (%)	14	0					
Queuing Penalty (veh)	29	0					

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	107	104	110	97	76	113	108	126	57	225	482	287
Average Queue (ft)	26	44	51	49	26	91	84	90	10	196	180	36
95th Queue (ft)	75	88	92	92	59	119	130	137	38	257	483	139
Link Distance (ft)		242	242	242							1877	1877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)	0	0		0	0	0		0		34	0	
Queuing Penalty (veh)	0	0		0	0	0		0		22	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	82	88	20	78	112	103	99
Average Queue (ft)	17	21	4	26	52	27	27
95th Queue (ft)	57	65	15	60	101	73	73
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						1	3
Queuing Penalty (veh)						1	2

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	NB	SB	SB
Directions Served	R	L	T	T	T	T
Maximum Queue (ft)	235	184	66	69	13	35
Average Queue (ft)	77	66	2	2	0	2
95th Queue (ft)	178	135	48	50	6	14
Link Distance (ft)	1396		357	357	1877	1877
Upstream Blk Time (%)				0		
Queuing Penalty (veh)				0		
Storage Bay Dist (ft)		200				
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	129	19	63	51	11	56	349	362	346	228	484	511
Average Queue (ft)	49	2	19	12	1	13	192	175	128	31	232	257
95th Queue (ft)	99	13	50	34	8	41	305	300	252	133	393	414
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)							3	0	0		13	
Queuing Penalty (veh)							13	1	0		3	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	1680	1720	13	274
Average Queue (ft)	949	960	0	126
95th Queue (ft)	1810	1838	6	217
Link Distance (ft)	2538	2538	113	692
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T	T
Maximum Queue (ft)	220	200	182	1901	1887	444	419	247	220	162	161
Average Queue (ft)	188	179	21	1312	1303	373	326	18	38	12	6
95th Queue (ft)	201	206	108	2123	2093	492	444	138	144	84	84
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393	393	393
Upstream Blk Time (%)	85	79	1			15	6	0			0
Queuing Penalty (veh)	253	236	3			0	0	0			0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	16	3	118	97	67	48	63	143	170
Average Queue (ft)	1	0	59	48	25	8	40	19	31
95th Queue (ft)	8	2	103	87	56	33	62	80	101
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	83	119	62	83	85	45	53	70	28	204	235	147
Average Queue (ft)	11	50	12	24	27	12	13	21	2	105	126	26
95th Queue (ft)	48	94	39	62	62	34	36	52	14	175	198	87
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											13	
Queuing Penalty (veh)											8	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	289	480	524	578
Average Queue (ft)	123	276	293	145
95th Queue (ft)	292	478	518	574
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		1	3	3
Queuing Penalty (veh)		3	18	17
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	18		
Queuing Penalty (veh)	0	29		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	121	137	95	157	194	235	188	134
Average Queue (ft)	90	101	39	92	149	119	70	101
95th Queue (ft)	134	143	83	173	204	237	149	153
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	13	20	0					41
Queuing Penalty (veh)	41	62	1					81
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				2	24	2		
Queuing Penalty (veh)				4	65	7		

Intersection: 41: Kurtz St & Hancock St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 42: Hancock St

Movement	WB
Directions Served	L
Maximum Queue (ft)	39
Average Queue (ft)	3
95th Queue (ft)	20
Link Distance (ft)	967
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	38	60	111	168	174	96
Average Queue (ft)	3	6	8	39	33	22
95th Queue (ft)	33	49	53	124	118	70
Link Distance (ft)	96	96		152	152	294
Upstream Blk Time (%)	1	1	0	3	3	
Queuing Penalty (veh)	4	4	0	7	7	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			0	9		
Queuing Penalty (veh)			0	13		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	126	98	43	16	7	31
Average Queue (ft)	19	5	2	1	0	1
95th Queue (ft)	130	54	30	12	5	12
Link Distance (ft)	263	263	263	301	301	301
Upstream Blk Time (%)	3	0				
Queuing Penalty (veh)	22	0				
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	230	267	57	69	131
Average Queue (ft)	68	101	5	11	20
95th Queue (ft)	183	228	34	56	144
Link Distance (ft)	511	511	95	95	216
Upstream Blk Time (%)			0	1	2
Queuing Penalty (veh)			1	2	28
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	296	631
Average Queue (ft)	42	236
95th Queue (ft)	196	538
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B39	B39	B39
Directions Served	T	T	
Maximum Queue (ft)	92	162	36
Average Queue (ft)	4	8	2
95th Queue (ft)	43	67	22
Link Distance (ft)	142	142	142
Upstream Blk Time (%)	0	0	0
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: Bend

Movement	SB
Directions Served	T
Maximum Queue (ft)	80
Average Queue (ft)	3
95th Queue (ft)	58
Link Distance (ft)	355
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	411	415
Average Queue (ft)	376	360
95th Queue (ft)	438	495
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	5
Queuing Penalty (veh)	104	45
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 3631

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	304	368	516	540	277	268	221	216	248	304	237
Average Queue (ft)	129	220	312	320	178	158	99	112	164	213	133
95th Queue (ft)	252	330	470	486	255	245	183	199	233	285	237
Link Distance (ft)	2519	2519	2519	2519	757	757	757	1147	1147	1147	1147
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	T	T	R	L	LT	T	R	L
Maximum Queue (ft)	435	1979	1984	33	127	144	39	301	364	347	100	217
Average Queue (ft)	424	1546	1169	4	39	46	1	96	189	216	15	170
95th Queue (ft)	497	2456	2592	20	100	110	18	220	312	326	71	237
Link Distance (ft)		1939	1939		629	629	629		1525	1525		142
Upstream Blk Time (%)		36	25									21
Queuing Penalty (veh)		0	0									80
Storage Bay Dist (ft)	360			150				230			25	
Storage Blk Time (%)	7	80			0			0	6	73	0	
Queuing Penalty (veh)	34	153			0			0	8	15	0	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	B39	B39	B39
Directions Served	LT	T	R	T	T	T
Maximum Queue (ft)	224	228	142	141	177	174
Average Queue (ft)	187	164	84	19	36	30
95th Queue (ft)	248	244	197	78	114	113
Link Distance (ft)	142	142		402	402	402
Upstream Blk Time (%)	30	16	2			
Queuing Penalty (veh)	111	59	0			
Storage Bay Dist (ft)			100			
Storage Blk Time (%)		26	1			
Queuing Penalty (veh)		54	2			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	136	164	308	62	146	250	333	66	88
Average Queue (ft)	55	58	76	17	41	76	164	31	45
95th Queue (ft)	106	134	206	42	97	178	288	60	75
Link Distance (ft)		629	629		959	959	959	857	
Upstream Blk Time (%)			0						
Queuing Penalty (veh)			0						
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	0	0			0				
Queuing Penalty (veh)	0	0			0				

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	72	94	259	295	154	177	243	281	147	137	120	86
Average Queue (ft)	25	51	110	161	76	83	122	168	61	63	47	38
95th Queue (ft)	61	82	200	260	133	152	211	266	112	118	90	70
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)					0	0			2	2		
Queuing Penalty (veh)					0	0			3	3		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B83	B83	NB	NB
Directions Served	L	L	T	TR	L	T	T	TR	T	T	LT	R
Maximum Queue (ft)	66	56	269	335	189	227	213	291	154	248	227	125
Average Queue (ft)	16	26	139	195	94	93	133	216	8	43	105	61
95th Queue (ft)	44	55	234	310	157	178	226	319	73	166	194	127
Link Distance (ft)			636	636		202	202	202	232	232	444	
Upstream Blk Time (%)					0	0	1	23	0	1		
Queuing Penalty (veh)					0	1	2	83	0	4		
Storage Bay Dist (ft)	330	330			175							50
Storage Blk Time (%)					1	1					35	4
Queuing Penalty (veh)					2	1					41	7

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	325	311
Average Queue (ft)	256	150
95th Queue (ft)	369	319
Link Distance (ft)	292	292
Upstream Blk Time (%)	29	5
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	T	TR	L	T	TR	R	LTR
Maximum Queue (ft)	34	17	28	49	170	53	41	94	78
Average Queue (ft)	5	1	2	5	82	2	2	4	27
95th Queue (ft)	24	13	14	26	149	32	19	48	60
Link Distance (ft)		232	232	232		364	364	468	458
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150				125				
Storage Blk Time (%)					3	0			
Queuing Penalty (veh)					11	0			

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	74	224	270	361	199	741	1113	875	88	125
Average Queue (ft)	28	112	151	181	90	143	209	149	35	52
95th Queue (ft)	61	199	242	301	170	389	772	415	71	94
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)				1		0	0	0		
Queuing Penalty (veh)				2		0	2	0		
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)		4			3	7			0	1
Queuing Penalty (veh)		2			13	17			0	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	217	265	282	222	176	147	226	254	165	289	98	158
Average Queue (ft)	102	145	147	44	91	32	121	136	75	149	41	45
95th Queue (ft)	180	240	245	144	151	96	204	219	164	254	79	106
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)										0		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)		0	13				0		2	30		1
Queuing Penalty (veh)		0	14				0		5	23		2

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	236	119
Average Queue (ft)	87	43
95th Queue (ft)	166	90
Link Distance (ft)	708	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	6	
Queuing Penalty (veh)	11	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	147	297	299	172	378	395	40	209
Average Queue (ft)	39	118	141	26	183	226	9	90
95th Queue (ft)	109	237	257	100	321	356	28	168
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	10			18			
Queuing Penalty (veh)	0	7			6			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	52	41	90	82
Average Queue (ft)	23	14	50	47
95th Queue (ft)	48	40	79	72
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	SB
Directions Served	L
Maximum Queue (ft)	72
Average Queue (ft)	42
95th Queue (ft)	66
Link Distance (ft)	80
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	72	81	57
Average Queue (ft)	42	45	31
95th Queue (ft)	64	70	49
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	99	192	96
Average Queue (ft)	17	41	36
95th Queue (ft)	92	158	82
Link Distance (ft)	455	455	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	65	80	48	65
Average Queue (ft)	34	38	29	26
95th Queue (ft)	57	59	45	52
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	66	76	31	92
Average Queue (ft)	36	40	11	41
95th Queue (ft)	60	64	35	74
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	148	84	59	75	50	3987	3990	4000
Average Queue (ft)	72	20	3	4	3	2955	2962	2969
95th Queue (ft)	167	55	30	36	29	5128	5119	5073
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						46	49	46
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	329	368	174	330	335	324	404	398	421	205
Average Queue (ft)	152	142	60	145	147	132	380	236	320	72
95th Queue (ft)	353	354	143	329	333	310	444	441	555	221
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)		4		1	1	1	83	19	26	
Queuing Penalty (veh)		4		7	11	11	694	159	218	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			5	13					27	0
Queuing Penalty (veh)			34	9					48	1

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	551	552	275	362	364	370	175	344	250	279	311
Average Queue (ft)	373	423	172	166	175	179	163	313	46	41	40
95th Queue (ft)	588	631	354	398	411	416	183	366	190	180	187
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)	6	14		1	1	2		73	0	0	1
Queuing Penalty (veh)	15	34		7	9	10		438	0	1	5
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		64	4				89	1			
Queuing Penalty (veh)		71	13				505	1			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	473	490	516	336	180	188	169	290	300	386	316	324
Average Queue (ft)	235	257	233	161	113	158	137	237	243	248	166	166
95th Queue (ft)	431	447	463	313	192	189	188	323	337	460	307	291
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)			0		29	65	43	3	11	24	2	2
Queuing Penalty (veh)			1		50	115	75	0	0	172	11	17
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			5	3				23	30	9		
Queuing Penalty (veh)			15	6				107	139	38		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	407	398	402	51
Average Queue (ft)	167	146	158	3
95th Queue (ft)	366	310	325	32
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	4	2	1	
Queuing Penalty (veh)	27	9	8	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	444	417	314	324	635	727	255	269	355	934
Average Queue (ft)	99	143	223	208	114	160	280	339	221	144	253	516
95th Queue (ft)	159	212	379	338	243	294	532	644	308	229	423	1084
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												4
Queuing Penalty (veh)												28
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	12	26	28	4	1	1	9	25	32	0	0	21
Queuing Penalty (veh)	31	69	84	11	2	4	14	96	96	0	1	81

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	924	931	234	263	328	296	324
Average Queue (ft)	537	570	114	138	186	177	183
95th Queue (ft)	1064	1082	212	235	297	267	291
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	3	4	0	0	2	1	3
Queuing Penalty (veh)	22	24	0	0	17	7	19
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	0	2		
Queuing Penalty (veh)			0	1	11		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	111	367	145	654	613	575	318	428	440	375
Average Queue (ft)	40	174	23	202	179	189	140	71	80	48
95th Queue (ft)	96	321	81	688	660	657	274	314	329	264
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)				1	0	0				
Queuing Penalty (veh)				3	3	2				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				11			2	0		
Queuing Penalty (veh)				2			12	0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	338	223	267	266	262	211	156	438	406	371	282	158
Average Queue (ft)	200	113	146	157	145	91	38	273	255	223	93	88
95th Queue (ft)	304	195	228	232	238	170	128	382	371	332	166	149
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			0	1	1		0	39		0		
Queuing Penalty (veh)			0	1	4		1	8		1		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	242	456	598	177
Average Queue (ft)	100	215	233	65
95th Queue (ft)	156	383	453	140
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		1		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	153	270	649	145	192	237	88	233	115
Average Queue (ft)	39	156	261	86	102	140	25	72	33
95th Queue (ft)	107	323	733	176	199	243	65	178	91
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)		7	1		6	10		1	
Queuing Penalty (veh)		12	3		23	41		2	
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			54	5				6	
Queuing Penalty (veh)			65	8				3	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73	SE
Directions Served	L	T	T	T	TR	T	LR
Maximum Queue (ft)	112	59	55	145	137	56	18
Average Queue (ft)	37	14	6	25	23	5	1
95th Queue (ft)	106	114	69	216	204	61	8
Link Distance (ft)		274	274	640	640	242	527
Upstream Blk Time (%)		3	0	1	1	1	
Queuing Penalty (veh)		12	0	2	2	2	
Storage Bay Dist (ft)	120						
Storage Blk Time (%)	4						
Queuing Penalty (veh)	12						

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	98	120	97	101	66	109	94	112	60	151	64	65
Average Queue (ft)	21	36	41	42	26	72	33	75	8	65	12	17
95th Queue (ft)	68	88	85	88	56	112	89	124	30	127	41	49
Link Distance (ft)		242	242	242							1877	1877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)	0	0		0	0	0				0		
Queuing Penalty (veh)	0	0		0	0	0				0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	58	60	50	84	81	38	50
Average Queue (ft)	11	11	8	31	24	6	9
95th Queue (ft)	36	40	33	70	61	22	33
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						0	0
Queuing Penalty (veh)						0	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	124	162	66	13	13	11
Average Queue (ft)	38	47	5	0	1	0
95th Queue (ft)	87	120	68	4	9	8
Link Distance (ft)	1396		357	1877	1877	1877
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		200				
Storage Blk Time (%)		1				
Queuing Penalty (veh)		1				

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	59	25	42	30	21	34	191	197	164	85	298	297
Average Queue (ft)	19	2	10	2	1	3	108	108	58	8	159	178
95th Queue (ft)	50	15	35	16	9	17	170	180	122	49	265	281
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)											4	
Queuing Penalty (veh)											0	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	473	466	18	34	140
Average Queue (ft)	175	164	1	1	60
95th Queue (ft)	417	431	9	13	107
Link Distance (ft)	2538	2538	113	113	692
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54
Directions Served	L	L	R	T	T	T	T	R	T
Maximum Queue (ft)	207	204	188	1422	1412	438	375	285	68
Average Queue (ft)	184	167	26	848	850	303	261	22	4
95th Queue (ft)	209	212	124	1493	1482	424	375	135	31
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393
Upstream Blk Time (%)	62	51	1			4	0	0	
Queuing Penalty (veh)	163	134	2			0	0	0	
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	13	19	13	145	132	81	40	64	121	144
Average Queue (ft)	0	1	0	63	49	26	9	39	16	24
95th Queue (ft)	6	7	5	114	99	60	33	59	73	91
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	122	155	53	116	79	60	53	98	57	255	256	116
Average Queue (ft)	33	80	13	31	17	12	14	31	8	112	130	12
95th Queue (ft)	97	137	36	79	47	39	39	71	35	194	214	56
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0					0	14	
Queuing Penalty (veh)					0					0	3	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	516	562	773
Average Queue (ft)	115	330	349	252
95th Queue (ft)	310	546	583	783
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		2	6	6
Queuing Penalty (veh)		10	32	32
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		34		
Queuing Penalty (veh)		30		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	123	135	93	157	193	238	171	144
Average Queue (ft)	85	99	42	93	143	101	58	110
95th Queue (ft)	129	138	80	176	202	226	132	152
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	7	11	0					52
Queuing Penalty (veh)	27	44	1					105
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	22	0		
Queuing Penalty (veh)				4	70	1		

Intersection: 41: Kurtz St & Hancock St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 42: Hancock St

Movement	WB
Directions Served	L
Maximum Queue (ft)	24
Average Queue (ft)	1
95th Queue (ft)	13
Link Distance (ft)	967
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	1
95th Queue (ft)	13
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	37	67	150	218	187	122
Average Queue (ft)	7	12	42	93	53	40
95th Queue (ft)	59	76	146	204	155	95
Link Distance (ft)	96	96		152	152	294
Upstream Blk Time (%)	2	3	0	8	3	
Queuing Penalty (veh)	6	10	0	20	8	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			3	24		
Queuing Penalty (veh)			5	42		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	234	188	136	158	114	113
Average Queue (ft)	76	47	23	11	6	5
95th Queue (ft)	277	210	138	95	65	53
Link Distance (ft)	263	263	263	301	301	301
Upstream Blk Time (%)	7	1	1	0	0	0
Queuing Penalty (veh)	52	9	9	2	0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	205	228	72	114	221
Average Queue (ft)	46	74	9	20	45
95th Queue (ft)	144	177	53	80	217
Link Distance (ft)	511	511	95	95	216
Upstream Blk Time (%)			0	2	7
Queuing Penalty (veh)			1	7	60
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	216	487
Average Queue (ft)	32	104
95th Queue (ft)	131	413
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	NB	NB	B39	B39	B39
Directions Served	T	TR	T	T	
Maximum Queue (ft)	221	305	193	281	278
Average Queue (ft)	17	36	46	78	31
95th Queue (ft)	148	214	164	235	162
Link Distance (ft)	402	402	142	142	142
Upstream Blk Time (%)	0	0	1	5	1
Queuing Penalty (veh)	0	2	3	24	5
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	414	412
Average Queue (ft)	366	352
95th Queue (ft)	483	494
Link Distance (ft)	360	360
Upstream Blk Time (%)	11	5
Queuing Penalty (veh)	83	35
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 5764

Appendix Q

Opening Year (2030) Plus Project Phase 1 (14,500-spectator) Conditions Intersection LOS Worksheets



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	765	1322	402	0	0	1291
Future Volume (vph)	765	1322	402	0	0	1291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	832	1437	437	0	0	1403
RTOR Reduction (vph)	0	83	0	0	0	0
Lane Group Flow (vph)	832	1354	437	0	0	1403
Confl. Bikes (#/hr)				1		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	33.2	55.4	17.3			39.5
Effective Green, g (s)	33.2	55.4	14.3			39.5
Actuated g/C Ratio	0.38	0.63	0.16			0.45
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1299	1760	829			2886
v/s Ratio Prot	0.24	c0.49	0.09			c0.22
v/s Ratio Perm						
v/c Ratio	0.64	0.77	0.53			0.49
Uniform Delay, d1	22.4	11.6	33.6			17.0
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.8	1.9	0.3			0.0
Delay (s)	23.2	13.4	33.9			17.0
Level of Service	C	B	C			B
Approach Delay (s)	17.0		33.9			17.0
Approach LOS	B		C			B

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	87.7	Sum of lost time (s)	25.5
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
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)	326	228	193	16	282	456	154	298	16	276	300	156
Future Volume (veh/h)	326	228	193	16	282	456	154	298	16	276	300	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	301	322	210	17	307	0	164	329	0	209	454	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	485	509	638	348	694		243	511		313	657	
Arrive On Green	0.27	0.27	0.27	0.20	0.20	0.00	0.14	0.14	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1781	1870	1551	1781	3554	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	301	322	210	17	307	0	164	329	0	209	454	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1551	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	13.2	13.5	8.2	0.7	6.8	0.0	7.8	7.4	0.0	9.7	10.1	0.0
Cycle Q Clear(g_c), s	13.2	13.5	8.2	0.7	6.8	0.0	7.8	7.4	0.0	9.7	10.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	485	509	638	348	694		243	511		313	657	
V/C Ratio(X)	0.62	0.63	0.33	0.05	0.44		0.67	0.64		0.67	0.69	
Avail Cap(c_a), veh/h	703	739	829	1004	2003		603	1267		603	1267	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.3	28.4	18.0	29.1	31.5	0.0	36.5	36.3	0.0	34.2	34.4	0.0
Incr Delay (d2), s/veh	3.6	3.6	0.8	0.2	1.7	0.0	2.6	1.1	0.0	1.5	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	6.2	3.7	0.3	3.0	0.0	3.5	3.4	0.0	4.3	4.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	32.0	18.8	29.3	33.2	0.0	39.1	37.4	0.0	35.7	35.2	0.0
LnGrp LOS	C	C	B	C	C		D	D		D	D	
Approach Vol, veh/h		833			324			493			663	
Approach Delay, s/veh		28.6			33.0			38.0			35.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	29.1	20.5	22.3	17.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	35.1	30.1	50.1	30.1
Max Q Clear Time (g_c+I1), s	15.5	12.1	8.8	9.8
Green Ext Time (p_c), s	8.0	2.5	5.6	2.1

Intersection Summary	
HCM 6th Ctrl Delay	33.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	438	12	5	529	45	0	0	0	47	0	205
Future Volume (veh/h)	113	438	12	5	529	45	0	0	0	47	0	205
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98				1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	123	476	13	5	575	49				51	0	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	160	1417	39	10	1517	128				373	0	325
Arrive On Green	0.09	0.40	0.40	0.01	0.32	0.32				0.21	0.00	0.21
Sat Flow, veh/h	1781	3530	96	1781	4790	404				1781	0	1553
Grp Volume(v), veh/h	123	239	250	5	407	217				51	0	223
Grp Sat Flow(s),veh/h/ln	1781	1777	1849	1781	1702	1790				1781	0	1553
Q Serve(g_s), s	2.5	3.4	3.5	0.1	3.4	3.5				0.9	0.0	4.9
Cycle Q Clear(g_c), s	2.5	3.4	3.5	0.1	3.4	3.5				0.9	0.0	4.9
Prop In Lane	1.00		0.05	1.00		0.23				1.00		1.00
Lane Grp Cap(c), veh/h	160	713	742	10	1078	567				373	0	325
V/C Ratio(X)	0.77	0.34	0.34	0.52	0.38	0.38				0.14	0.00	0.69
Avail Cap(c_a), veh/h	1474	2888	3005	1474	5532	2909				1931	0	1684
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	1.00	1.00	1.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	7.7	7.7	18.3	9.8	9.8				11.9	0.0	13.5
Incr Delay (d2), s/veh	2.9	0.3	0.3	15.1	0.3	0.5				0.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.9	0.9	0.1	0.9	1.0				0.3	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	8.0	8.0	33.4	10.1	10.3				12.0	0.0	14.5
LnGrp LOS	B	A	A	C	B	B				B	A	B
Approach Vol, veh/h		612			629						274	
Approach Delay, s/veh		10.3			10.3						14.0	
Approach LOS		B			B						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	14.6	19.7		12.6	7.7	16.6
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1
Max Q Clear Time (g_c+I2), s	12.1	5.5		6.9	4.5	5.5
Green Ext Time (p_c), s	0.0	3.8		0.6	0.1	5.5

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	335	109	146	373	43	117	40	94	27	26	67
Future Volume (veh/h)	51	335	109	146	373	43	117	40	94	27	26	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	0.98		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	364	118	159	405	47	127	43	102	29	28	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	1129	345	209	1704	194	431	121	286	387	114	298
Arrive On Green	0.05	0.29	0.29	0.12	0.37	0.37	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3834	1172	1781	4647	529	1294	484	1149	1224	459	1196
Grp Volume(v), veh/h	55	321	161	159	295	157	127	0	145	29	0	101
Grp Sat Flow(s),veh/h/ln	1781	1702	1602	1781	1702	1772	1294	0	1633	1224	0	1655
Q Serve(g_s), s	1.3	3.1	3.3	3.6	2.5	2.6	3.6	0.0	3.1	0.8	0.0	2.0
Cycle Q Clear(g_c), s	1.3	3.1	3.3	3.6	2.5	2.6	5.7	0.0	3.1	3.9	0.0	2.0
Prop In Lane	1.00		0.73	1.00		0.30	1.00		0.70	1.00		0.72
Lane Grp Cap(c), veh/h	80	1002	472	209	1248	650	431	0	407	387	0	412
V/C Ratio(X)	0.68	0.32	0.34	0.76	0.24	0.24	0.29	0.00	0.36	0.07	0.00	0.24
Avail Cap(c_a), veh/h	1514	4883	2299	2577	4883	2543	1347	0	1563	2423	0	3164
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.7	11.5	11.6	17.9	9.2	9.2	14.9	0.0	13.0	14.6	0.0	12.6
Incr Delay (d2), s/veh	3.8	0.4	0.8	2.1	0.2	0.4	0.1	0.0	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.0	1.0	1.4	0.7	0.8	0.9	0.0	1.0	0.2	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	11.9	12.4	20.1	9.4	9.6	15.0	0.0	13.2	14.6	0.0	12.7
LnGrp LOS	C	B	B	C	A	A	B	A	B	B	A	B
Approach Vol, veh/h		537			611			272			130	
Approach Delay, s/veh		13.2			12.2			14.0			13.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	20.3		15.3	9.3	17.2		15.3
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	35.6	60.1		40.1	60.6	60.1		80.1
Max Q Clear Time (g_c+I1), s	3.3	4.6		7.7	5.6	5.3		5.9
Green Ext Time (p_c), s	0.1	5.9		0.8	0.2	6.5		0.5

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

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	388	53	111	394	75	53	9	45	130	33	132
Future Volume (veh/h)	61	388	53	111	394	75	53	9	45	130	33	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	422	58	121	428	82	58	10	49	141	36	143
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	1748	234	155	1831	340	118	20	259	261	48	191
Arrive On Green	0.05	0.39	0.39	0.09	0.43	0.43	0.08	0.08	0.08	0.15	0.15	0.15
Sat Flow, veh/h	1781	4531	607	1781	4298	797	1530	264	1567	1781	329	1306
Grp Volume(v), veh/h	66	314	166	121	336	174	68	0	49	141	0	179
Grp Sat Flow(s),veh/h/ln	1781	1702	1734	1781	1702	1691	1794	0	1567	1781	0	1635
Q Serve(g_s), s	2.3	3.9	4.1	4.2	4.0	4.1	2.3	0.0	1.7	4.6	0.0	6.6
Cycle Q Clear(g_c), s	2.3	3.9	4.1	4.2	4.0	4.1	2.3	0.0	1.7	4.6	0.0	6.6
Prop In Lane	1.00		0.35	1.00		0.47	0.85		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	84	1313	669	155	1450	720	138	0	259	261	0	239
V/C Ratio(X)	0.79	0.24	0.25	0.78	0.23	0.24	0.49	0.00	0.19	0.54	0.00	0.75
Avail Cap(c_a), veh/h	144	1313	669	300	1450	720	1027	0	1035	510	0	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.7	13.1	13.1	28.1	11.5	11.5	27.8	0.0	22.7	24.9	0.0	25.7
Incr Delay (d2), s/veh	6.1	0.4	0.9	3.2	0.4	0.8	1.0	0.0	0.1	0.7	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.4	1.6	1.8	1.4	1.5	1.0	0.0	0.6	1.9	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	13.5	14.0	31.3	11.9	12.3	28.9	0.0	22.8	25.5	0.0	27.5
LnGrp LOS	D	B	B	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		546			631			117			320	
Approach Delay, s/veh		16.3			15.7			26.3			26.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.9	29.2		14.1	7.4	31.7		9.7
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	21.3		18.0	5.1	26.8		36.0
Max Q Clear Time (g_c+I1), s	5.2	6.1		8.6	4.3	6.1		4.3
Green Ext Time (p_c), s	0.1	3.1		0.6	0.0	2.0		0.3

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	555	43	117	556	0	40
Future Vol, veh/h	555	43	117	556	0	40
Conflicting Peds, #/hr	0	5	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	603	47	127	604	0	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	655	0	-	331
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	572	-	0	567
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	569	-	-	564
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	564	-	-	569	-
HCM Lane V/C Ratio	0.077	-	-	0.224	-
HCM Control Delay (s)	11.9	-	-	13.1	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	-



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	559	45	178	621	16	85
Future Volume (veh/h)	559	45	178	621	16	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	608	49	193	675	17	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1923	153	253	3370	139	123
Arrive On Green	0.40	0.40	0.14	0.66	0.08	0.08
Sat Flow, veh/h	4973	383	1781	5274	1781	1585
Grp Volume(v), veh/h	429	228	193	675	17	92
Grp Sat Flow(s),veh/h/ln	1702	1784	1781	1702	1781	1585
Q Serve(g_s), s	3.2	3.3	3.9	1.9	0.3	2.1
Cycle Q Clear(g_c), s	3.2	3.3	3.9	1.9	0.3	2.1
Prop In Lane		0.21	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1362	714	253	3370	139	123
V/C Ratio(X)	0.31	0.32	0.76	0.20	0.12	0.75
Avail Cap(c_a), veh/h	5472	2868	1458	12988	1911	1700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	7.7	15.4	2.5	16.0	16.9
Incr Delay (d2), s/veh	0.3	0.5	1.8	0.0	0.1	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.9	1.4	0.1	0.1	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.0	8.2	17.2	2.5	16.2	20.2
LnGrp LOS	A	A	B	A	B	C
Approach Vol, veh/h	657			868	109	
Approach Delay, s/veh	8.1			5.8	19.6	
Approach LOS	A			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	9.7	19.9				29.6	7.8
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	30.6	60.1				95.1	40.1
Max Q Clear Time (g_c+I1), s	5.9	5.3				3.9	4.1
Green Ext Time (p_c), s	0.2	9.5				7.6	0.2

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	373	90	67	316	41	124	108	101	42	115	55
Future Volume (veh/h)	75	373	90	67	316	41	124	108	101	42	115	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	405	98	73	343	45	126	130	110	46	125	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	920	397	170	785	102	275	288	319	333	350	288
Arrive On Green	0.06	0.26	0.26	0.05	0.25	0.25	0.15	0.15	0.15	0.19	0.19	0.19
Sat Flow, veh/h	1781	3554	1532	3456	3159	411	1781	1870	1563	1781	1870	1539
Grp Volume(v), veh/h	82	405	98	73	192	196	126	130	110	46	125	60
Grp Sat Flow(s),veh/h/ln	1781	1777	1532	1728	1777	1793	1781	1870	1563	1781	1870	1539
Q Serve(g_s), s	2.5	5.2	2.8	1.1	4.9	5.0	3.5	3.4	3.3	1.2	3.2	1.8
Cycle Q Clear(g_c), s	2.5	5.2	2.8	1.1	4.9	5.0	3.5	3.4	3.3	1.2	3.2	1.8
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	920	397	170	442	446	275	288	319	333	350	288
V/C Ratio(X)	0.77	0.44	0.25	0.43	0.43	0.44	0.46	0.45	0.35	0.14	0.36	0.21
Avail Cap(c_a), veh/h	968	3922	1691	1878	1961	1979	1312	1377	1229	1312	1377	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	16.9	16.0	25.2	17.2	17.3	21.0	20.9	18.6	18.5	19.3	18.7
Incr Delay (d2), s/veh	4.4	0.5	0.5	0.6	1.2	1.2	0.4	0.4	0.2	0.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.0	0.9	0.4	2.0	2.0	1.4	1.4	1.1	0.4	1.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	17.3	16.4	25.8	18.4	18.4	21.4	21.3	18.8	18.5	19.5	18.9
LnGrp LOS	C	B	B	C	B	B	C	C	B	B	B	B
Approach Vol, veh/h		585			461			366			231	
Approach Delay, s/veh		18.9			19.6			20.6			19.2	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	19.0		15.1	7.6	18.4		13.3				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	29.6	60.1		40.1	29.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	3.1	7.2		5.2	4.5	7.0		5.5				
Green Ext Time (p_c), s	0.1	5.0		0.6	0.1	4.5		0.8				

Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	539	11	22	694	163	12	0	2	60	4	36
Future Volume (veh/h)	33	539	11	22	694	163	12	0	2	60	4	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.96	0.97		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	586	12	24	754	177	13	0	2	65	4	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	379	1629	33	499	1270	298	380	12	36	269	42	98
Arrive On Green	0.03	0.46	0.46	0.02	0.45	0.45	0.18	0.00	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3558	73	1781	2830	664	1220	64	198	731	232	544
Grp Volume(v), veh/h	36	292	306	24	473	458	15	0	0	108	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1853	1781	1777	1718	1481	0	0	1508	0	0
Q Serve(g_s), s	0.4	4.5	4.5	0.3	8.4	8.4	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.4	4.5	4.5	0.3	8.4	8.4	0.3	0.0	0.0	2.5	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.39	0.87		0.13	0.60		0.36
Lane Grp Cap(c), veh/h	379	814	849	499	797	771	427	0	0	409	0	0
V/C Ratio(X)	0.10	0.36	0.36	0.05	0.59	0.59	0.04	0.00	0.00	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1619	2544	2654	1756	2544	2460	1473	0	0	1543	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.7	7.4	7.4	6.1	8.7	8.7	14.2	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	0.8	0.8	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	1.3	0.1	2.5	2.4	0.1	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.7	7.7	7.7	6.2	9.5	9.5	14.2	0.0	0.0	15.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h		634			955			15			108	
Approach Delay, s/veh		7.6			9.4			14.2			15.2	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	24.1		12.5	5.8	23.7		12.5				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	2.3	6.5		4.5	2.4	10.4		2.3				
Green Ext Time (p_c), s	0.0	4.5		0.4	0.0	8.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	26	28	110	215	30
Future Vol, veh/h	13	26	28	110	215	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	28	30	120	234	33
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.8	8.4	9.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	33%	0%
Vol Thru, %	0%	100%	0%	88%
Vol Right, %	0%	0%	67%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	110	39	245
LT Vol	28	0	13	0
Through Vol	0	110	0	215
RT Vol	0	0	26	30
Lane Flow Rate	30	120	42	266
Geometry Grp	7	7	2	5
Degree of Util (X)	0.044	0.158	0.053	0.307
Departure Headway (Hd)	5.245	4.744	4.529	4.145
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	677	750	796	855
Service Time	3.018	2.516	2.529	2.23
HCM Lane V/C Ratio	0.044	0.16	0.053	0.311
HCM Control Delay	8.3	8.4	7.8	9.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0.2	1.3

LANE SUMMARY

Site: 1 [OY WP 2030 Phase 1 AM_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	129	0.0	129	0.0	1380	0.093	100	3.1	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	129	0.0	129	0.0		0.093		3.1	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	211	0.0	211	0.0	1210	0.174	100	4.4	LOS A	0.8	21.2	Full	1600	0.0	0.0
Approach	211	0.0	211	0.0		0.174		4.4	LOS A	0.8	21.2				
West: Hancock Street															
Lane 1[d]	128	0.0	128	0.0	1267	0.101	100	3.6	LOS A	0.5	11.5	Full	1600	0.0	0.0
Approach	128	0.0	128	0.0		0.101		3.6	LOS A	0.5	11.5				
All Vehicles	468	0.0	468	0.0		0.174		3.8	LOS A	0.8	21.2				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	129	129	0.0	1380	0.093	100	NA	NA
Approach	129	129	0.0		0.093			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	84	127	211	0.0	1210	0.174	100	NA	NA
Approach	84	127	211	0.0		0.174			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	128	128	0.0	1267	0.101	100	NA	NA
Approach	128	128	0.0		0.101			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	468	0.0	0.174

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	261	0	0	0	0	0	0	4	93	1	11
Future Vol, veh/h	70	261	0	0	0	0	0	0	4	93	1	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	284	0	0	0	0	0	0	4	101	1	12
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	10.5	7.4	8.8
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	21%	89%
Vol Thru, %	0%	79%	1%
Vol Right, %	100%	0%	10%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	4	331	105
LT Vol	0	70	93
Through Vol	0	261	1
RT Vol	4	0	11
Lane Flow Rate	4	360	114
Geometry Grp	1	1	1
Degree of Util (X)	0.005	0.429	0.155
Departure Headway (Hd)	4.303	4.288	4.879
Convergence, Y/N	Yes	Yes	Yes
Cap	831	845	736
Service Time	2.332	2.288	2.901
HCM Lane V/C Ratio	0.005	0.426	0.155
HCM Control Delay	7.4	10.5	8.8
HCM Lane LOS	A	B	A
HCM 95th-tile Q	0	2.2	0.5

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	320	0	0	44	0
Future Vol, veh/h	14	320	0	0	44	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	348	0	0	48	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9	8.3
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	12%	0%	100%
Vol Thru, %	88%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	121	213	44
LT Vol	14	0	44
Through Vol	107	213	0
RT Vol	0	0	0
Lane Flow Rate	131	232	48
Geometry Grp	7	7	2
Degree of Util (X)	0.17	0.298	0.066
Departure Headway (Hd)	4.677	4.619	4.945
Convergence, Y/N	Yes	Yes	Yes
Cap	765	774	729
Service Time	2.423	2.364	2.945
HCM Lane V/C Ratio	0.171	0.3	0.066
HCM Control Delay	8.4	9.3	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	1.3	0.2

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	66	194	60	47	19	0	0	44	10
Future Vol, veh/h	0	0	0	66	194	60	47	19	0	0	44	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	72	211	65	51	21	0	0	48	11
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.1	8.5	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	71%	40%	0%	0%
Vol Thru, %	29%	60%	62%	81%
Vol Right, %	0%	0%	38%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	163	157	54
LT Vol	47	66	0	0
Through Vol	19	97	97	44
RT Vol	0	0	60	10
Lane Flow Rate	72	177	171	59
Geometry Grp	2	7	7	2
Degree of Util (X)	0.098	0.25	0.218	0.077
Departure Headway (Hd)	4.94	5.075	4.604	4.706
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	727	712	785	762
Service Time	2.962	2.775	2.304	2.728
HCM Lane V/C Ratio	0.099	0.249	0.218	0.077
HCM Control Delay	8.5	9.5	8.6	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1	0.8	0.2

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	19	258	23	8	4	0	0	38	81
Future Vol, veh/h	0	0	0	19	258	23	8	4	0	0	38	81
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	21	280	25	9	4	0	0	41	88
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	8.9	8.1	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	67%	13%	0%	0%
Vol Thru, %	33%	87%	85%	32%
Vol Right, %	0%	0%	15%	68%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	148	152	119
LT Vol	8	19	0	0
Through Vol	4	129	129	38
RT Vol	0	0	23	81
Lane Flow Rate	13	161	165	129
Geometry Grp	2	7	7	2
Degree of Util (X)	0.018	0.217	0.215	0.154
Departure Headway (Hd)	4.966	4.847	4.676	4.291
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	724	732	758	841
Service Time	2.974	2.634	2.464	2.292
HCM Lane V/C Ratio	0.018	0.22	0.218	0.153
HCM Control Delay	8.1	9	8.8	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.8	0.5

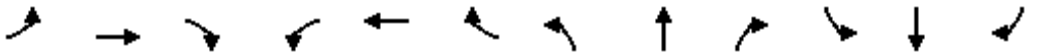
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	5	0	0	25	0	1833	14	0	2226	84
Future Vol, veh/h	0	0	5	0	0	25	0	1833	14	0	2226	84
Conflicting Peds, #/hr	0	0	0	0	0	6	0	0	1	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	0	0	27	0	1992	15	0	2420	91

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1257	-	-	1011	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	146	0	0	204	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	146	-	-	203	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.6	25.5	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	146	203	-	-
HCM Lane V/C Ratio	-	-	0.037	0.134	-	-
HCM Control Delay (s)	-	-	30.6	25.5	-	-
HCM Lane LOS	-	-	D	D	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	25	115	78	47	1773	46	0	2142	94
Future Volume (veh/h)	0	0	0	25	115	78	47	1773	46	0	2142	94
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				27	125	85	51	1927	50	0	2328	102
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				62	286	196	818	3925	102	0	1379	423
Arrive On Green				0.16	0.16	0.16	0.46	0.77	0.77	0.00	0.27	0.27
Sat Flow, veh/h				390	1810	1242	1781	5118	133	0	5274	1567
Grp Volume(v), veh/h				128	0	109	51	1281	696	0	2328	102
Grp Sat Flow(s),veh/h/ln				1851	0	1592	1781	1702	1846	0	1702	1567
Q Serve(g_s), s				8.1	0.0	8.0	2.1	18.3	18.3	0.0	35.1	6.6
Cycle Q Clear(g_c), s				8.1	0.0	8.0	2.1	18.3	18.3	0.0	35.1	6.6
Prop In Lane				0.21		0.78	1.00		0.07	0.00		1.00
Lane Grp Cap(c), veh/h				292	0	251	818	2610	1416	0	1379	423
V/C Ratio(X)				0.44	0.00	0.43	0.06	0.49	0.49	0.00	1.69	0.24
Avail Cap(c_a), veh/h				799	0	687	818	2610	1416	0	1379	423
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	0.79	0.79	0.79	0.00	1.00	1.00
Uniform Delay (d), s/veh				49.5	0.0	49.5	19.6	5.7	5.7	0.0	47.5	37.0
Incr Delay (d2), s/veh				0.4	0.0	0.4	0.0	0.5	1.0	0.0	313.0	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				3.8	0.0	3.2	0.9	5.7	6.3	0.0	54.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				49.9	0.0	49.9	19.6	6.2	6.6	0.0	360.5	38.4
LnGrp LOS				D	A	D	B	A	A	A	F	D
Approach Vol, veh/h					237			2028			2430	
Approach Delay, s/veh					49.9			6.7			347.0	
Approach LOS					D			A			F	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	104.6	25.4	64.6	40.0
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	64.1	56.1	24.6	* 35
Max Q Clear Time (g_c+I1), s	20.3	10.1	4.1	37.1
Green Ext Time (p_c), s	6.4	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	185.0
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



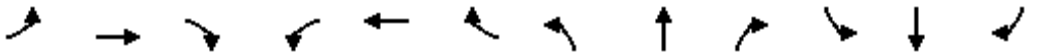
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	84	63	0	0	0	0	1655	14	125	2051	0
Future Volume (veh/h)	184	84	63	0	0	0	0	1655	14	125	2051	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	200	91	68				0	1799	15	136	2229	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	281	154	115				0	3363	28	159	4934	0
Arrive On Green	0.16	0.16	0.16				0.00	1.00	1.00	0.18	1.00	0.00
Sat Flow, veh/h	1781	974	728				0	5391	44	1781	6696	0
Grp Volume(v), veh/h	200	0	159				0	1172	642	136	2229	0
Grp Sat Flow(s),veh/h/ln	1781	0	1702				0	1702	1863	1781	1609	0
Q Serve(g_s), s	13.8	0.0	11.3				0.0	0.0	0.0	9.6	0.0	0.0
Cycle Q Clear(g_c), s	13.8	0.0	11.3				0.0	0.0	0.0	9.6	0.0	0.0
Prop In Lane	1.00		0.43				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	281	0	268				0	2192	1199	159	4934	0
V/C Ratio(X)	0.71	0.00	0.59				0.00	0.53	0.53	0.86	0.45	0.00
Avail Cap(c_a), veh/h	481	0	459				0	2192	1199	282	4934	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.73	0.73	0.64	0.64	0.00
Uniform Delay (d), s/veh	51.9	0.0	50.9				0.0	0.0	0.0	52.6	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.8				0.0	0.7	1.3	3.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	4.9				0.0	0.2	0.4	4.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	0.0	51.6				0.0	0.7	1.3	56.0	0.2	0.0
LnGrp LOS	D	A	D				A	A	A	E	A	A
Approach Vol, veh/h		359						1814			2365	
Approach Delay, s/veh		52.5						0.9			3.4	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	16.0	88.6		25.4		104.6
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9
Max Green Setting (Gmax), s	20.6	60.1		35.1		85.1
Max Q Clear Time (g_c+I1), s	11.6	2.0		15.8		2.0
Green Ext Time (p_c), s	0.0	5.0		0.4		8.9

Intersection Summary	
HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	186	195	232	236	11	214	1472	267	0	1547	358
Future Volume (vph)	220	186	195	232	236	11	214	1472	267	0	1547	358
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00		1.00	1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.98			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3336	1520	1610	3331		3662	4959			5085	1536
Flt Permitted	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3336	1520	1610	3331		3662	4959			5085	1536
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	202	212	252	257	12	233	1600	290	0	1682	389
RTOR Reduction (vph)	0	0	186	0	2	0	0	13	0	0	0	134
Lane Group Flow (vph)	143	298	26	169	350	0	233	1877	0	0	1682	255
Confl. Peds. (#/hr)			20			3						12
Confl. Bikes (#/hr)			4			4			1			3
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	15.9	15.9	15.9	17.7	17.7		11.7	78.7			61.6	61.6
Effective Green, g (s)	15.9	15.9	15.9	17.7	17.7		11.7	78.7			61.6	61.6
Actuated g/C Ratio	0.12	0.12	0.12	0.14	0.14		0.09	0.61			0.47	0.47
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	196	408	185	219	453		329	3002			2409	727
v/s Ratio Prot	0.09	c0.09		0.10	c0.11		0.06	c0.38			c0.33	
v/s Ratio Perm			0.02									0.17
v/c Ratio	0.73	0.73	0.14	0.77	0.77		0.71	0.63			0.70	0.35
Uniform Delay, d1	55.0	55.0	50.9	54.2	54.2		57.5	16.3			26.9	21.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.40	0.26			0.58	0.34
Incremental Delay, d2	10.9	5.7	0.1	14.2	7.3		4.2	0.7			1.6	1.2
Delay (s)	65.9	60.7	51.1	68.4	61.5		84.5	4.9			17.2	8.5
Level of Service	E	E	D	E	E		F	A			B	A
Approach Delay (s)		58.7			63.8			13.6			15.6	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	24.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
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)	160	222	182	133	387	218	301	1560	73	224	1641	195
Future Volume (veh/h)	160	222	182	133	387	218	301	1560	73	224	1641	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	174	241	198	145	421	237	327	1696	79	243	1784	212
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	621	271	145	664	288	383	1694	79	869	2238	265
Arrive On Green	0.07	0.17	0.17	0.08	0.19	0.19	0.04	0.11	0.11	0.25	0.48	0.48
Sat Flow, veh/h	3456	3554	1552	1781	3554	1542	3456	4994	232	3456	4626	547
Grp Volume(v), veh/h	174	241	198	145	421	237	327	1156	619	243	1310	686
Grp Sat Flow(s),veh/h/ln	1728	1777	1552	1781	1777	1542	1728	1702	1822	1728	1702	1769
Q Serve(g_s), s	6.4	7.8	15.7	10.6	14.2	19.2	12.2	44.1	44.1	7.4	42.0	42.5
Cycle Q Clear(g_c), s	6.4	7.8	15.7	10.6	14.2	19.2	12.2	44.1	44.1	7.4	42.0	42.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.31
Lane Grp Cap(c), veh/h	226	621	271	145	664	288	383	1155	618	869	1647	856
V/C Ratio(X)	0.77	0.39	0.73	1.00	0.63	0.82	0.85	1.00	1.00	0.28	0.80	0.80
Avail Cap(c_a), veh/h	441	959	419	145	795	345	574	1155	618	869	1647	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.8	47.5	50.7	59.7	48.7	50.8	61.6	57.7	57.7	39.2	28.2	28.3
Incr Delay (d2), s/veh	2.0	0.1	1.4	74.1	0.6	10.8	4.1	23.1	31.8	0.1	2.6	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.5	6.2	7.7	6.3	8.2	5.9	23.8	27.0	3.1	16.9	18.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	47.6	52.1	133.8	49.4	61.5	65.7	80.8	89.5	39.2	30.7	33.4
LnGrp LOS	E	D	D	F	D	E	E	F	F	D	C	C
Approach Vol, veh/h		613			803			2102			2239	
Approach Delay, s/veh		53.1			68.2			81.0			32.5	
Approach LOS		D			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	49.0	15.0	27.6	18.8	68.6	13.4	29.2
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 44	10.6	35.1	21.6	43.3	16.6	* 29
Max Q Clear Time (g_c+I1), s	9.4	46.1	12.6	17.7	14.2	44.5	8.4	21.2
Green Ext Time (p_c), s	0.1	0.0	0.0	0.6	0.2	0.0	0.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	57.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	10	12	61	15	81	19	1768	23	136	1811	70
Future Volume (veh/h)	108	10	12	61	15	81	19	1768	23	136	1811	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	11	13	66	16	88	21	1922	25	148	1968	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	16	15	123	35	128	36	3337	43	173	3627	140
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.02	0.64	0.64	0.10	0.72	0.72
Sat Flow, veh/h	905	107	103	581	239	880	1781	5195	68	1781	5045	194
Grp Volume(v), veh/h	141	0	0	170	0	0	21	1259	688	148	1327	717
Grp Sat Flow(s),veh/h/ln	1114	0	0	1700	0	0	1781	1702	1858	1781	1702	1835
Q Serve(g_s), s	4.4	0.0	0.0	0.0	0.0	0.0	1.5	27.3	27.3	10.6	23.3	23.5
Cycle Q Clear(g_c), s	16.6	0.0	0.0	12.2	0.0	0.0	1.5	27.3	27.3	10.6	23.3	23.5
Prop In Lane	0.83		0.09	0.39		0.52	1.00		0.04	1.00		0.11
Lane Grp Cap(c), veh/h	213	0	0	285	0	0	36	2187	1194	173	2447	1319
V/C Ratio(X)	0.66	0.00	0.00	0.60	0.00	0.00	0.58	0.58	0.58	0.86	0.54	0.54
Avail Cap(c_a), veh/h	378	0	0	473	0	0	159	2187	1194	296	2447	1319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.47	0.47	0.47	0.53	0.53	0.53
Uniform Delay (d), s/veh	55.0	0.0	0.0	52.7	0.0	0.0	63.1	13.2	13.2	57.8	8.4	8.4
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.7	0.0	0.0	2.5	0.5	1.0	2.5	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	0.0	5.4	0.0	0.0	0.7	9.7	10.7	4.8	7.6	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.3	0.0	0.0	53.4	0.0	0.0	65.6	13.7	14.2	60.3	8.9	9.3
LnGrp LOS	E	A	A	D	A	A	E	B	B	E	A	A
Approach Vol, veh/h		141			170			1968			2192	
Approach Delay, s/veh		56.3			53.4			14.4			12.5	
Approach LOS		E			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	89.2		23.8	7.1	99.2		23.8
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	12.6	* 59		35.1	11.6	68.3		35.1
Max Q Clear Time (g_c+I1), s	12.6	29.3		18.6	3.5	25.5		14.2
Green Ext Time (p_c), s	0.0	5.5		0.3	0.0	6.1		0.4

Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	361	290	13	569	294	123	10	1326	492	168	1469	278
Future Volume (veh/h)	361	290	13	569	294	123	10	1326	492	168	1469	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	392	315	14	618	320	134	11	1441	535	183	1597	302
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	418	19	669	360	298	22	1806	560	235	1454	648
Arrive On Green	0.23	0.24	0.24	0.19	0.19	0.19	0.01	0.35	0.35	0.07	0.41	0.41
Sat Flow, veh/h	1781	1775	79	3456	1870	1551	1781	5106	1582	3456	3554	1583
Grp Volume(v), veh/h	392	0	329	618	320	134	11	1441	535	183	1597	302
Grp Sat Flow(s),veh/h/ln	1781	0	1854	1728	1870	1551	1781	1702	1582	1728	1777	1583
Q Serve(g_s), s	28.1	0.0	21.4	22.8	21.7	8.2	0.8	33.0	42.9	6.8	53.2	8.5
Cycle Q Clear(g_c), s	28.1	0.0	21.4	22.8	21.7	8.2	0.8	33.0	42.9	6.8	53.2	8.5
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	0	437	669	360	298	22	1806	560	235	1454	648
V/C Ratio(X)	0.95	0.00	0.75	0.92	0.89	0.45	0.49	0.80	0.96	0.78	1.10	0.47
Avail Cap(c_a), veh/h	488	0	501	813	433	359	145	1806	560	521	1454	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	49.1	0.0	46.2	51.5	51.2	31.8	63.8	37.8	41.0	59.6	38.4	6.1
Incr Delay (d2), s/veh	24.2	0.0	4.5	13.2	15.9	0.4	6.0	3.8	28.6	1.7	53.5	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.3	0.0	10.4	10.9	11.5	3.1	0.4	14.0	20.6	3.0	33.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.3	0.0	50.7	64.7	67.0	32.1	69.8	41.6	69.6	61.3	91.9	8.1
LnGrp LOS	E	A	D	E	E	C	E	D	E	E	F	A
Approach Vol, veh/h		721			1072			1987			2082	
Approach Delay, s/veh		62.9			61.3			49.3			77.0	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	51.7	29.5	35.5	6.0	58.9	35.2	29.9
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	8.8	* 26	30.6	35.1	10.6	34.3	35.6	* 30
Max Q Clear Time (g_c+I1), s	3.8	44.9	24.8	23.4	2.8	55.2	30.1	23.7
Green Ext Time (p_c), s	0.1	0.0	0.3	0.6	0.0	0.0	0.1	0.4

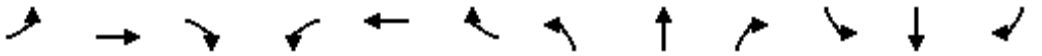
Intersection Summary	
HCM 6th Ctrl Delay	63.0
HCM 6th LOS	E

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	128	5	184	0	142	0	335	145	37	254	0
Future Volume (vph)	38	128	5	184	0	142	0	335	145	37	254	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.95		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1852		1770		1551		3226		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.40	1.00	
Satd. Flow (perm)	1770	1852		1770		1551		3226		740	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	139	5	200	0	154	0	364	158	40	276	0
RTOR Reduction (vph)	0	1	0	0	0	95	0	24	0	0	0	0
Lane Group Flow (vph)	41	143	0	200	0	59	0	498	0	40	276	0
Confl. Peds. (#/hr)			5			4			50			12
Confl. Bikes (#/hr)			2						8			5
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	12.3	12.3		16.2		16.2		60.8		69.3	69.3	
Effective Green, g (s)	12.3	12.3		16.2		16.2		60.8		69.3	69.3	
Actuated g/C Ratio	0.11	0.11		0.14		0.14		0.54		0.62	0.62	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	194	203		256		224		1751		495	2189	
v/s Ratio Prot	0.02	c0.08		c0.11				c0.15		0.00	c0.08	
v/s Ratio Perm						0.04				0.05		
v/c Ratio	0.21	0.70		0.78		0.26		0.28		0.08	0.13	
Uniform Delay, d1	45.4	48.1		46.2		42.6		13.8		8.7	8.8	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.2	8.7		13.3		0.2		0.4		0.0	0.1	
Delay (s)	45.6	56.8		59.5		42.8		14.2		8.7	8.9	
Level of Service	D	E		E		D		B		A	A	
Approach Delay (s)		54.4			52.2			14.2			8.9	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	112.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

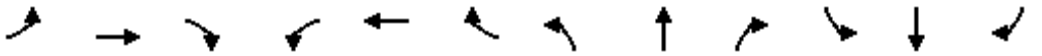
Intersection	
Int Delay, s/veh	1.4

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	134	377	287	56	0	1
Future Vol, veh/h	134	377	287	56	0	1
Conflicting Peds, #/hr	0	0	0	16	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	146	410	312	61	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	389	0	-	0	856	203
Stage 1	-	-	-	-	359	-
Stage 2	-	-	-	-	497	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1166	-	-	-	297	804
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1148	-	-	-	252	792
Mov Cap-2 Maneuver	-	-	-	-	377	-
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	568	-

Approach	NB	SB	SE
HCM Control Delay, s	2.3	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1148	-	792	-	-
HCM Lane V/C Ratio	0.127	-	0.001	-	-
HCM Control Delay (s)	8.6	-	9.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.4	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	233	61	226	239	60	87	128	164	42	89	43
Future Volume (veh/h)	57	233	61	226	239	60	87	128	164	42	89	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	253	66	246	260	65	95	139	178	46	97	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	1679	590	354	723	592	124	724	832	116	597	252
Arrive On Green	0.04	0.33	0.33	0.10	0.39	0.39	0.07	0.20	0.20	0.03	0.17	0.17
Sat Flow, veh/h	1781	5106	1459	3456	1870	1533	1781	3554	2683	3456	3554	1498
Grp Volume(v), veh/h	62	253	66	246	260	65	95	139	178	46	97	47
Grp Sat Flow(s),veh/h/ln	1781	1702	1459	1728	1870	1533	1781	1777	1342	1728	1777	1498
Q Serve(g_s), s	2.4	2.5	2.0	4.9	7.0	1.9	3.7	2.3	3.5	0.9	1.6	1.9
Cycle Q Clear(g_c), s	2.4	2.5	2.0	4.9	7.0	1.9	3.7	2.3	3.5	0.9	1.6	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	1679	590	354	723	592	124	724	832	116	597	252
V/C Ratio(X)	0.78	0.15	0.11	0.70	0.36	0.11	0.77	0.19	0.21	0.40	0.16	0.19
Avail Cap(c_a), veh/h	757	2892	936	1468	1059	868	757	2013	1805	1468	2013	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	16.7	13.4	30.6	15.4	13.9	32.3	23.3	18.2	33.4	25.1	25.2
Incr Delay (d2), s/veh	5.9	0.0	0.1	0.9	0.2	0.0	3.7	0.1	0.1	0.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.9	0.6	2.0	2.7	0.6	1.6	0.9	1.0	0.4	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	16.8	13.5	31.6	15.6	13.9	36.0	23.4	18.3	34.2	25.2	25.4
LnGrp LOS	D	B	B	C	B	B	D	C	B	C	C	C
Approach Vol, veh/h		381			571			412			190	
Approach Delay, s/veh		19.9			22.3			24.1			27.4	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	29.1	10.3	18.6	8.6	33.2	7.8	21.1
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	6.9	4.5	5.7	3.9	4.4	9.0	2.9	5.5
Green Ext Time (p_c), s	0.4	2.5	0.1	0.4	0.1	1.2	0.1	1.5

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

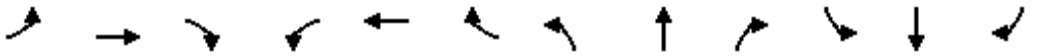
Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	269	300	334	447	8
Future Vol, veh/h	0	269	300	334	447	8
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	292	326	363	486	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	249	496	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	640	680	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	639	679	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.3	7.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	679	-	639	-	-
HCM Lane V/C Ratio	0.48	-	0.458	-	-
HCM Control Delay (s)	15.1	-	15.3	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	2.6	-	2.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	11	8	17	4	4	353	663	187	90	571	106
Future Volume (veh/h)	10	11	8	17	4	4	353	663	187	90	571	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.88	1.00		0.95	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	12	9	18	4	4	384	721	203	98	621	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	532	451	28	561	420	413	1428	603	102	678	125
Arrive On Green	0.01	0.28	0.28	0.02	0.30	0.30	0.23	0.40	0.40	0.06	0.23	0.23
Sat Flow, veh/h	1781	1870	1585	1781	1870	1400	1781	3554	1500	1781	2982	551
Grp Volume(v), veh/h	11	12	9	18	4	4	384	721	203	98	370	366
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1400	1781	1777	1500	1781	1777	1756
Q Serve(g_s), s	0.6	0.4	0.4	1.0	0.1	0.2	20.6	14.8	9.1	5.3	19.8	19.8
Cycle Q Clear(g_c), s	0.6	0.4	0.4	1.0	0.1	0.2	20.6	14.8	9.1	5.3	19.8	19.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	19	532	451	28	561	420	413	1428	603	102	404	399
V/C Ratio(X)	0.58	0.02	0.02	0.64	0.01	0.01	0.93	0.50	0.34	0.96	0.91	0.92
Avail Cap(c_a), veh/h	73	590	500	97	653	489	419	1460	616	102	414	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	25.1	25.1	47.6	23.9	23.9	36.6	21.9	20.2	45.8	36.7	36.7
Incr Delay (d2), s/veh	34.9	0.0	0.0	8.6	0.0	0.0	26.5	0.1	0.1	74.2	23.7	24.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.2	0.1	0.5	0.1	0.1	11.2	5.5	2.9	4.4	10.8	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.8	25.1	25.1	56.2	23.9	23.9	63.1	22.0	20.3	120.0	60.4	61.2
LnGrp LOS	F	C	C	E	C	C	E	C	C	F	E	E
Approach Vol, veh/h		32			26			1308			834	
Approach Delay, s/veh		44.9			46.3			33.8			67.8	
Approach LOS		D			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	36.4	27.0	27.0	5.4	37.9	10.0	44.0
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	5.3	30.7	22.9	22.7	4.0	* 34	5.6	40.0
Max Q Clear Time (g_c+I1), s	3.0	2.4	22.6	21.8	2.6	2.2	7.3	16.8
Green Ext Time (p_c), s	0.0	0.1	0.0	0.3	0.0	0.0	0.0	3.0

Intersection Summary	
HCM 6th Ctrl Delay	47.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

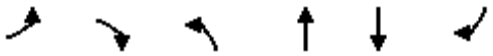
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	602	636	21	0	170
Future Vol, veh/h	0	602	636	21	0	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	654	691	23	0	185

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	346
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	650
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	650
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	650
HCM Lane V/C Ratio	-	-	0.284
HCM Control Delay (s)	-	-	12.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.2



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	473	71	0	994	1354	557
Future Volume (vph)	473	71	0	994	1354	557
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	514	77	0	1080	1472	605
RTOR Reduction (vph)	0	62	0	0	0	0
Lane Group Flow (vph)	514	15	0	1080	1472	605
Confl. Peds. (#/hr)						3
Confl. Bikes (#/hr)						4
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	20.5	20.5		59.7	59.7	106.2
Effective Green, g (s)	20.5	20.5		59.7	59.7	95.4
Actuated g/C Ratio	0.19	0.19		0.56	0.56	0.90
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	662	305		1989	1989	1422
v/s Ratio Prot	c0.15			0.31	c0.42	c0.38
v/s Ratio Perm		0.01				
v/c Ratio	0.78	0.05		0.54	0.74	0.43
Uniform Delay, d1	40.7	34.9		14.7	17.4	0.9
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	5.5	0.0		0.3	1.5	0.1
Delay (s)	46.2	35.0		14.9	18.9	1.0
Level of Service	D	C		B	B	A
Approach Delay (s)	44.7			14.9	13.7	
Approach LOS	D			B	B	

Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	106.2	Sum of lost time (s)	19.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	904	273	106	783
Future Volume (veh/h)	0	1	904	273	106	783
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	983	297	115	851
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	4	7	1986	869	234	2573
Arrive On Green	0.00	0.00	0.56	0.56	0.07	0.72
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	983	297	115	851
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	7.6	4.7	1.4	3.9
Cycle Q Clear(g_c), s	0.0	0.0	7.6	4.7	1.4	3.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	4	7	1986	869	234	2573
V/C Ratio(X)	0.00	0.14	0.49	0.34	0.49	0.33
Avail Cap(c_a), veh/h	1579	2811	4726	2066	2298	4726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	22.5	6.1	5.4	20.3	2.3
Incr Delay (d2), s/veh	0.0	3.4	0.3	0.3	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.6	0.9	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	25.9	6.3	5.7	20.9	2.4
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1280			966
Approach Delay, s/veh	25.9		6.2			4.6
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.5	31.4			38.9	6.2
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	3.4	9.6			5.9	2.0
Green Ext Time (p_c), s	0.2	15.6			15.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	33	48	49	37	86	48	831	33	108	797	155
Future Volume (veh/h)	60	33	48	49	37	86	48	831	33	108	797	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	36	52	53	40	93	52	903	36	117	866	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	171	140	70	161	132	135	1597	759	153	1763	857
Arrive On Green	0.04	0.09	0.09	0.04	0.09	0.09	0.04	0.45	0.45	0.09	0.50	0.50
Sat Flow, veh/h	3456	1870	1538	1781	1870	1529	3456	3554	1549	1781	3554	1584
Grp Volume(v), veh/h	65	36	52	53	40	93	52	903	36	117	866	168
Grp Sat Flow(s),veh/h/ln	1728	1870	1538	1781	1870	1529	1728	1777	1549	1781	1777	1584
Q Serve(g_s), s	1.1	1.0	1.9	1.7	1.2	3.5	0.9	11.0	0.7	3.8	9.5	3.2
Cycle Q Clear(g_c), s	1.1	1.0	1.9	1.7	1.2	3.5	0.9	11.0	0.7	3.8	9.5	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	154	171	140	70	161	132	135	1597	759	153	1763	857
V/C Ratio(X)	0.42	0.21	0.37	0.75	0.25	0.71	0.39	0.57	0.05	0.77	0.49	0.20
Avail Cap(c_a), veh/h	1767	956	786	911	956	782	1767	4240	1911	911	4240	1961
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	24.7	25.1	27.9	25.0	26.1	27.5	11.9	7.8	26.2	9.8	6.9
Incr Delay (d2), s/veh	0.7	0.6	1.6	6.0	0.3	2.6	0.7	0.5	0.0	3.0	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.5	0.7	0.8	0.5	1.2	0.3	3.5	0.2	1.6	3.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	25.3	26.7	33.9	25.3	28.7	28.2	12.4	7.9	29.3	10.2	7.1
LnGrp LOS	C	C	C	C	C	C	C	B	A	C	B	A
Approach Vol, veh/h		153			186			991			1151	
Approach Delay, s/veh		26.9			29.4			13.1			11.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	31.7	6.7	10.9	6.7	34.4	7.0	10.6
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	5.8	13.0	3.7	3.9	2.9	11.5	3.1	5.5
Green Ext Time (p_c), s	0.1	13.3	0.0	0.3	0.1	13.6	0.1	0.2

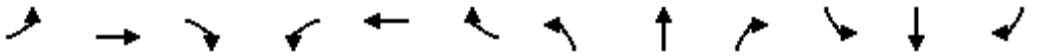
Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1013	60	338	360	0	0	0	0	237	0	0
Future Volume (vph)	0	1013	60	338	360	0	0	0	0	237	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						4.0	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.98	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1559	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1559	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1101	65	367	391	0	0	0	0	258	0	0
RTOR Reduction (vph)	0	0	28	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1101	37	367	391	0	0	0	0	0	258	0
Confl. Peds. (#/hr)			2			5						
Confl. Bikes (#/hr)			2			5						
Turn Type		NA	Perm	Prot	NA					Prot	NA	
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		50.8	50.8	12.3	67.8						10.6	
Effective Green, g (s)		50.8	50.8	12.3	67.8						10.6	
Actuated g/C Ratio		0.56	0.56	0.14	0.75						0.12	
Clearance Time (s)				4.7								
Vehicle Extension (s)				2.0								
Lane Grp Cap (vph)		1997	879	469	2666						208	
v/s Ratio Prot		c0.31		c0.11	0.11						0.15	
v/s Ratio Perm			0.02									
v/c Ratio		0.55	0.04	0.78	0.15						1.24	
Uniform Delay, d1		12.4	8.7	37.6	3.1						39.7	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		0.3	0.0	7.7	0.0						142.0	
Delay (s)		12.7	8.8	45.2	3.1						181.7	
Level of Service		B	A	D	A						F	
Approach Delay (s)		12.5			23.5			0.0			181.7	
Approach LOS		B			C			A			F	

Intersection Summary			
HCM 2000 Control Delay	36.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	219	0	0	137	0	0
Future Vol, veh/h	219	0	0	137	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	238	0	0	149	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	238	0	387	238
Stage 1	-	-	-	-	238	-
Stage 2	-	-	-	-	149	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1329	-	616	801
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	879	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1329	-	616	801
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	879	-

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

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	1329	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	214	31	2	16	135	57
Future Vol, veh/h	214	31	2	16	135	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	233	34	2	17	147	62

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	267	0	271	250
Stage 1	-	-	-	-	250	-
Stage 2	-	-	-	-	21	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1297	-	718	789
Stage 1	-	-	-	-	792	-
Stage 2	-	-	-	-	1002	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1297	-	717	789
Mov Cap-2 Maneuver	-	-	-	-	717	-
Stage 1	-	-	-	-	792	-
Stage 2	-	-	-	-	1000	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	717	789	-	-	1297	-
HCM Lane V/C Ratio	0.205	0.079	-	-	0.002	-
HCM Control Delay (s)	11.3	10	-	-	7.8	0
HCM Lane LOS	B	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	324	0	0	10	0	7
Future Vol, veh/h	324	0	0	10	0	7
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	352	0	0	11	0	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	352	0	363	352
Stage 1	-	-	-	-	352	-
Stage 2	-	-	-	-	11	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1207	-	636	692
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	1012	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1207	-	636	692
Mov Cap-2 Maneuver	-	-	-	-	636	-
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	1012	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	692	-	-	1207	-
HCM Lane V/C Ratio	0.011	-	-	-	-
HCM Control Delay (s)	10.3	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	198	0	0	137	0	16
Future Vol, veh/h	198	0	0	137	0	16
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	215	0	0	149	0	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	215	0	364	215
Stage 1	-	-	-	-	215	-
Stage 2	-	-	-	-	149	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1355	-	635	825
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	879	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1355	-	635	825
Mov Cap-2 Maneuver	-	-	-	-	635	-
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	879	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	825	-	-	1355	-
HCM Lane V/C Ratio	0.021	-	-	-	-
HCM Control Delay (s)	9.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	456	545	0	0	0
Future Vol, veh/h	0	456	545	0	0	0
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	0	496	592	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	296
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	597
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	597
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	572	550	8	0	29
Future Vol, veh/h	0	572	550	8	0	29
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	0	622	598	9	0	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	304
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	590
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	590
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	590
HCM Lane V/C Ratio	-	-	-	0.053
HCM Control Delay (s)	-	-	-	11.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	219	0	0	137	0	0
Future Vol, veh/h	219	0	0	137	0	0
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	238	0	0	149	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	387	238
Stage 1	-	-	-	-	238	-
Stage 2	-	-	-	-	149	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	616	801
Stage 1	-	-	0	-	802	-
Stage 2	-	-	0	-	879	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	616	801
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	879	-

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

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

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	265	0	5	2	16	67
Future Vol, veh/h	265	0	5	2	16	67
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	288	0	5	2	17	73

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	288	0	300	288
Stage 1	-	-	-	-	288	-
Stage 2	-	-	-	-	12	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1274	-	691	751
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	1011	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1274	-	688	751
Mov Cap-2 Maneuver	-	-	-	-	688	-
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	1007	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.6	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	738	-	-	1274	-
HCM Lane V/C Ratio	0.122	-	-	0.004	-
HCM Control Delay (s)	10.6	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1047	1551	593	0	0	2104
Future Volume (vph)	1047	1551	593	0	0	2104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1138	1686	645	0	0	2287
RTOR Reduction (vph)	0	98	0	0	0	0
Lane Group Flow (vph)	1138	1588	645	0	0	2287
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)				4		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.1	57.7	23.4			46.0
Effective Green, g (s)	35.1	57.7	20.4			46.0
Actuated g/C Ratio	0.37	0.60	0.21			0.48
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1253	1673	1079			3067
v/s Ratio Prot	0.33	c0.57	0.13			c0.36
v/s Ratio Perm						
v/c Ratio	0.91	0.95	0.60			0.75
Uniform Delay, d1	29.0	17.8	34.1			20.3
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	9.5	11.8	0.6			0.9
Delay (s)	38.5	29.7	34.7			21.2
Level of Service	D	C	C			C
Approach Delay (s)	33.2		34.7			21.2
Approach LOS	C		C			C

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	96.1	Sum of lost time (s)	25.5
Intersection Capacity Utilization	86.2%	ICU Level of Service	E
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)	314	396	285	27	346	504	297	431	33	836	488	341
Future Volume (veh/h)	314	396	285	27	346	504	297	431	33	836	488	341
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	341	430	310	29	376	0	264	551	0	909	530	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	433	455	735	266	530		402	844		924	485	
Arrive On Green	0.24	0.24	0.24	0.15	0.15	0.00	0.07	0.07	0.00	0.26	0.26	0.00
Sat Flow, veh/h	1781	1870	1553	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	341	430	310	29	376	0	264	551	0	909	530	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1553	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	28.7	36.1	21.2	2.3	16.1	0.0	23.1	22.9	0.0	40.6	41.5	0.0
Cycle Q Clear(g_c), s	28.7	36.1	21.2	2.3	16.1	0.0	23.1	22.9	0.0	40.6	41.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	433	455	735	266	530		402	844		924	485	
V/C Ratio(X)	0.79	0.95	0.42	0.11	0.71		0.66	0.65		0.98	1.09	
Avail Cap(c_a), veh/h	435	457	737	357	713		402	844		924	485	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.00	0.90	0.90	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.7	59.5	28.2	58.9	64.8	0.0	68.0	67.9	0.0	58.9	59.2	0.0
Incr Delay (d2), s/veh	11.3	29.6	1.1	0.6	5.9	0.0	7.4	3.5	0.0	25.4	68.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.1	20.7	11.9	1.1	7.7	0.0	12.0	12.0	0.0	21.6	28.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	89.1	29.3	59.5	70.6	0.0	75.4	71.5	0.0	84.3	127.4	0.0
LnGrp LOS	E	F	C	E	E		E	E		F	F	
Approach Vol, veh/h		1081			405			815			1439	
Approach Delay, s/veh		65.3			69.8			72.7			100.2	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	43.8	46.4	28.8	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	38.1	43.5	18.1	25.1
Green Ext Time (p_c), s	0.7	0.0	4.3	3.0

Intersection Summary	
HCM 6th Ctrl Delay	80.8
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	362	941	0	6	612	85	0	0	0	68	0	186
Future Volume (veh/h)	362	941	0	6	612	85	0	0	0	68	0	186
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.94				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	393	1023	0	7	665	92				74	0	202
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	424	1747	0	101	1418	193				562	0	496
Arrive On Green	0.24	0.49	0.00	0.11	0.63	0.63				0.32	0.00	0.32
Sat Flow, veh/h	1781	3647	0	1781	4505	614				1781	0	1570
Grp Volume(v), veh/h	393	1023	0	7	500	257				74	0	202
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1702	1715				1781	0	1570
Q Serve(g_s), s	23.3	22.2	0.0	0.4	8.3	8.6				3.2	0.0	10.9
Cycle Q Clear(g_c), s	23.3	22.2	0.0	0.4	8.3	8.6				3.2	0.0	10.9
Prop In Lane	1.00		0.00	1.00		0.36				1.00		1.00
Lane Grp Cap(c), veh/h	424	1747	0	101	1072	540				562	0	496
V/C Ratio(X)	0.93	0.59	0.00	0.07	0.47	0.48				0.13	0.00	0.41
Avail Cap(c_a), veh/h	538	1747	0	109	1072	540				562	0	496
HCM Platoon Ratio	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	0.00	0.96	0.96	0.96				1.00	0.00	1.00
Uniform Delay (d), s/veh	40.2	19.6	0.0	45.4	15.2	15.3				26.4	0.0	29.0
Incr Delay (d2), s/veh	2.3	0.1	0.0	0.1	1.4	2.9				0.5	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	8.7	0.0	0.2	2.8	3.1				1.4	0.0	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	19.7	0.0	45.5	16.6	18.2				26.9	0.0	31.5
LnGrp LOS	D	B	A	D	B	B				C	A	C
Approach Vol, veh/h		1416			764						276	
Approach Delay, s/veh		26.1			17.4						30.3	
Approach LOS		C			B						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	30.1	38.9
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I2), s	12.4	24.2		12.9	25.3	10.6
Green Ext Time (p_c), s	0.0	9.9		0.6	0.4	5.2

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	757	85	142	602	68	99	65	175	74	10	23
Future Volume (veh/h)	149	757	85	142	602	68	99	65	175	74	10	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.92	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	823	92	154	654	74	108	71	190	80	11	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	2065	229	183	2051	229	376	89	239	112	32	72
Arrive On Green	0.21	0.89	0.89	0.10	0.44	0.44	0.21	0.21	0.21	0.06	0.06	0.06
Sat Flow, veh/h	1781	4623	513	1781	4631	517	1781	423	1132	1781	502	1142
Grp Volume(v), veh/h	162	604	311	154	479	249	108	0	261	80	0	36
Grp Sat Flow(s),veh/h/ln	1781	1702	1732	1781	1702	1744	1781	0	1556	1781	0	1644
Q Serve(g_s), s	9.5	3.2	3.2	9.2	9.8	10.0	5.5	0.0	17.2	4.8	0.0	2.3
Cycle Q Clear(g_c), s	9.5	3.2	3.2	9.2	9.8	10.0	5.5	0.0	17.2	4.8	0.0	2.3
Prop In Lane	1.00		0.30	1.00		0.30	1.00		0.73	1.00		0.69
Lane Grp Cap(c), veh/h	189	1520	774	183	1507	772	376	0	329	112	0	103
V/C Ratio(X)	0.86	0.40	0.40	0.84	0.32	0.32	0.29	0.00	0.79	0.71	0.00	0.35
Avail Cap(c_a), veh/h	307	1520	774	191	1507	772	414	0	362	282	0	260
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)	0.85	0.85	0.85	1.00	1.00	1.00	0.73	0.00	0.73	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.7	3.4	3.4	47.6	19.5	19.6	35.8	0.0	40.4	49.7	0.0	48.5
Incr Delay (d2), s/veh	5.8	0.7	1.3	25.1	0.6	1.1	0.1	0.0	7.0	3.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.0	1.1	5.3	3.9	4.2	2.4	0.0	7.2	2.2	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	4.0	4.7	72.7	20.1	20.7	35.9	0.0	47.4	52.8	0.0	49.2
LnGrp LOS	D	A	A	E	C	C	D	A	D	D	A	D
Approach Vol, veh/h		1077			882			369			116	
Approach Delay, s/veh		10.8			29.4			44.0			51.7	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.9	52.7		27.7	15.5	53.1		11.7
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	11.5	12.0		19.2	11.2	5.2		6.8
Green Ext Time (p_c), s	0.1	6.7		0.7	0.0	11.9		0.1

Intersection Summary	
HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	307	628	70	88	827	374	116	31	73	211	34	172
Future Volume (veh/h)	307	628	70	88	827	374	116	31	73	211	34	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.86	1.00		0.91	1.00		0.92	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	334	683	76	96	899	407	126	34	79	229	37	187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	1260	138	122	973	411	409	110	527	289	43	218
Arrive On Green	0.06	0.27	0.27	0.07	0.29	0.29	0.29	0.29	0.29	0.16	0.16	0.16
Sat Flow, veh/h	1781	4585	501	1781	3404	1438	1417	382	1452	1781	266	1345
Grp Volume(v), veh/h	334	504	255	96	899	407	160	0	79	229	0	224
Grp Sat Flow(s),veh/h/ln	1781	1702	1682	1781	1702	1438	1800	0	1452	1781	0	1611
Q Serve(g_s), s	5.3	11.7	12.0	4.9	23.7	26.1	6.4	0.0	3.4	11.5	0.0	12.5
Cycle Q Clear(g_c), s	5.3	11.7	12.0	4.9	23.7	26.1	6.4	0.0	3.4	11.5	0.0	12.5
Prop In Lane	1.00		0.30	1.00		1.00	0.79		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	102	935	462	122	973	411	519	0	527	289	0	261
V/C Ratio(X)	3.28	0.54	0.55	0.79	0.92	0.99	0.31	0.00	0.15	0.79	0.00	0.86
Avail Cap(c_a), veh/h	102	935	462	146	973	411	699	0	672	348	0	315
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.7	28.6	28.7	42.5	32.1	33.0	25.7	0.0	20.3	37.3	0.0	37.8
Incr Delay (d2), s/veh	1050.2	2.2	4.7	17.2	15.4	41.9	0.1	0.0	0.0	8.1	0.0	15.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.0	4.9	5.3	2.7	11.4	13.5	2.7	0.0	1.1	5.6	0.0	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1093.9	30.8	33.4	59.7	47.5	74.8	25.9	0.0	20.3	45.4	0.0	53.4
LnGrp LOS	F	C	C	E	D	E	C	A	C	D	A	D
Approach Vol, veh/h		1093			1402			239			453	
Approach Delay, s/veh		356.3			56.3			24.0			49.4	
Approach LOS		F			E			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.7	30.4		19.9	9.7	31.4		31.6
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	6.9	14.0		14.5	7.3	28.1		8.4
Green Ext Time (p_c), s	0.0	4.1		0.5	0.0	0.0		0.7

Intersection Summary	
HCM 6th Ctrl Delay	155.8
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	873	70	136	1334	0	105
Future Vol, veh/h	873	70	136	1334	0	105
Conflicting Peds, #/hr	0	25	0	0	0	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	949	76	148	1450	0	114

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1050	0	-	542
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	370	-	0	415
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	361	-	-	404
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	17.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	404	-	-	361	-
HCM Lane V/C Ratio	0.283	-	-	0.409	-
HCM Control Delay (s)	17.4	-	-	21.7	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	1.1	-	-	1.9	-



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	930	64	220	1356	137	161
Future Volume (veh/h)	930	64	220	1356	137	161
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1011	70	239	1474	149	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2844	197	272	3978	232	206
Arrive On Green	0.59	0.59	0.15	0.78	0.13	0.13
Sat Flow, veh/h	5025	336	1781	5274	1781	1585
Grp Volume(v), veh/h	708	373	239	1474	149	175
Grp Sat Flow(s),veh/h/ln	1702	1789	1781	1702	1781	1585
Q Serve(g_s), s	11.8	11.8	14.2	9.7	8.6	11.7
Cycle Q Clear(g_c), s	11.8	11.8	14.2	9.7	8.6	11.7
Prop In Lane		0.19	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1993	1047	272	3978	232	206
V/C Ratio(X)	0.36	0.36	0.88	0.37	0.64	0.85
Avail Cap(c_a), veh/h	1993	1047	785	3978	397	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	0.99	0.99
Uniform Delay (d), s/veh	11.7	11.7	44.8	3.7	44.6	45.9
Incr Delay (d2), s/veh	0.5	0.9	0.3	0.0	1.1	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	4.7	6.2	2.4	3.8	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.2	12.7	45.1	3.7	45.7	49.6
LnGrp LOS	B	B	D	A	D	D
Approach Vol, veh/h	1081			1713	324	
Approach Delay, s/veh	12.4			9.5	47.8	
Approach LOS	B			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	20.9	68.1				89.0	19.0
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	47.6	22.1				74.1	24.1
Max Q Clear Time (g_c+I1), s	16.2	13.8				11.7	13.7
Green Ext Time (p_c), s	0.3	5.9				23.7	0.4

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	485	122	154	506	71	162	183	162	45	151	64
Future Volume (veh/h)	71	485	122	154	506	71	162	183	162	45	151	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	527	133	167	550	77	176	199	176	49	164	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	603	2000	874	210	876	122	239	251	307	218	229	190
Arrive On Green	0.68	1.00	1.00	0.12	0.56	0.56	0.13	0.13	0.13	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1553	3456	3108	433	1781	1870	1564	1781	1870	1546
Grp Volume(v), veh/h	77	527	133	167	313	314	176	199	176	49	164	70
Grp Sat Flow(s),veh/h/ln	1781	1777	1553	1728	1777	1764	1781	1870	1564	1781	1870	1546
Q Serve(g_s), s	2.4	0.0	0.0	7.5	19.0	19.2	15.2	16.5	16.3	4.0	13.5	6.7
Cycle Q Clear(g_c), s	2.4	0.0	0.0	7.5	19.0	19.2	15.2	16.5	16.3	4.0	13.5	6.7
Prop In Lane	1.00		1.00	1.00		0.25	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	603	2000	874	210	501	497	239	251	307	218	229	190
V/C Ratio(X)	0.13	0.26	0.15	0.79	0.63	0.63	0.74	0.79	0.57	0.22	0.72	0.37
Avail Cap(c_a), veh/h	603	2000	874	467	501	497	391	410	439	391	410	339
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.22	0.22	0.22	0.66	0.66	0.66	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	17.5	0.0	0.0	69.3	29.2	29.3	66.5	67.1	58.4	63.3	67.5	64.5
Incr Delay (d2), s/veh	0.0	0.1	0.1	1.7	3.9	4.0	1.7	2.1	0.6	0.2	1.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	3.2	7.1	7.2	7.1	8.1	6.6	1.8	6.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.1	0.1	71.0	33.1	33.2	68.2	69.2	59.0	63.5	68.7	64.9
LnGrp LOS	B	A	A	E	C	C	E	E	E	E	E	E
Approach Vol, veh/h		737			794			551			283	
Approach Delay, s/veh		1.9			41.1			65.6			66.9	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.1	94.9		24.5	59.1	50.0		26.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	9.5	2.0		15.5	4.4	21.2		18.5
Green Ext Time (p_c), s	0.2	6.8		0.7	0.1	6.6		1.2

Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	855	9	16	773	329	10	8	7	167	11	79
Future Volume (veh/h)	62	855	9	16	773	329	10	8	7	167	11	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	0.96		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	929	10	17	840	358	11	9	8	182	12	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	280	1955	21	376	1245	528	198	159	118	314	26	117
Arrive On Green	0.05	0.72	0.72	0.02	0.52	0.52	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3600	39	1781	2394	1015	513	605	447	907	97	445
Grp Volume(v), veh/h	67	459	480	17	622	576	28	0	0	280	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1632	1564	0	0	1450	0	0
Q Serve(g_s), s	1.4	8.7	8.7	0.4	20.7	20.9	0.0	0.0	0.0	13.1	0.0	0.0
Cycle Q Clear(g_c), s	1.4	8.7	8.7	0.4	20.7	20.9	0.9	0.0	0.0	14.0	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.62	0.39		0.29	0.65		0.31
Lane Grp Cap(c), veh/h	280	965	1011	376	924	849	475	0	0	457	0	0
V/C Ratio(X)	0.24	0.48	0.48	0.05	0.67	0.68	0.06	0.00	0.00	0.61	0.00	0.00
Avail Cap(c_a), veh/h	402	965	1011	540	924	849	475	0	0	457	0	0
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	0.96	0.96	0.40	0.40	0.40	1.00	0.00	0.00	0.58	0.00	0.00
Uniform Delay (d), s/veh	11.1	6.3	6.3	9.0	14.2	14.2	22.0	0.0	0.0	26.8	0.0	0.0
Incr Delay (d2), s/veh	0.2	1.6	1.5	0.0	1.6	1.8	0.0	0.0	0.0	3.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.8	2.9	0.1	7.8	7.3	0.4	0.0	0.0	5.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	7.9	7.8	9.0	15.8	16.0	22.0	0.0	0.0	30.3	0.0	0.0
LnGrp LOS	B	A	A	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		1006			1215			28			280	
Approach Delay, s/veh		8.1			15.8			22.0			30.3	
Approach LOS		A			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	48.3		26.0	7.5	46.5		26.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I2), s	2.4	10.7		16.0	3.4	22.9		2.9
Green Ext Time (p_c), s	0.0	7.2		0.5	0.0	7.2		0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	21	24	356	221	37
Future Vol, veh/h	17	21	24	356	221	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	23	26	387	240	40
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.6	12.4	10
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	45%	0%
Vol Thru, %	0%	100%	0%	86%
Vol Right, %	0%	0%	55%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	356	38	258
LT Vol	24	0	17	0
Through Vol	0	356	0	221
RT Vol	0	0	21	37
Lane Flow Rate	26	387	41	280
Geometry Grp	7	7	2	5
Degree of Util (X)	0.039	0.522	0.06	0.351
Departure Headway (Hd)	5.359	4.857	5.246	4.503
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	672	747	681	799
Service Time	3.059	2.557	3.289	2.525
HCM Lane V/C Ratio	0.039	0.518	0.06	0.35
HCM Control Delay	8.3	12.7	8.6	10
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.1	3.1	0.2	1.6

LANE SUMMARY

Site: 1 [OY WP 2030 Phase 1 PM_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	65	0.0	65	0.0	1380	0.047	100	2.8	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	65	0.0	65	0.0		0.047		2.8	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	498	0.0	498	0.0	1291	0.386	100	6.2	LOS A	2.5	62.7	Full	1600	0.0	0.0
Approach	498	0.0	498	0.0		0.386		6.2	LOS A	2.5	62.7				
West: Hancock Street															
Lane 1[d]	384	0.0	384	0.0	1040	0.369	100	7.2	LOS A	2.1	51.5	Full	1600	0.0	0.0
Approach	384	0.0	384	0.0		0.369		7.2	LOS A	2.1	51.5				
All Vehicles	947	0.0	947	0.0		0.386		6.4	LOS A	2.5	62.7				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	65	65	0.0	1380	0.047	100	NA	NA
Approach	65	65	0.0		0.047			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	277	221	498	0.0	1291	0.386	100	NA	NA
Approach	277	221	498	0.0		0.386			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	384	384	0.0	1040	0.369	100	NA	NA
Approach	384	384	0.0		0.369			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	947	0.0	0.386

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	16.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	375	0	0	0	0	0	0	1	162	45	172
Future Vol, veh/h	65	375	0	0	0	0	0	0	1	162	45	172
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	71	408	0	0	0	0	0	0	1	176	49	187
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	17.5	8.3	14.5
HCM LOS	C	A	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	15%	43%
Vol Thru, %	0%	85%	12%
Vol Right, %	100%	0%	45%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1	440	379
LT Vol	0	65	162
Through Vol	0	375	45
RT Vol	1	0	172
Lane Flow Rate	1	478	412
Geometry Grp	1	1	1
Degree of Util (X)	0.002	0.663	0.569
Departure Headway (Hd)	5.265	4.991	4.973
Convergence, Y/N	Yes	Yes	Yes
Cap	684	717	717
Service Time	3.265	3.079	3.055
HCM Lane V/C Ratio	0.001	0.667	0.575
HCM Control Delay	8.3	17.5	14.5
HCM Lane LOS	A	C	B
HCM 95th-tile Q	0	5	3.6

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	510	0	0	50	0
Future Vol, veh/h	23	510	0	0	50	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	554	0	0	54	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	10.7	8.8
HCM LOS	B	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	12%	0%	100%
Vol Thru, %	88%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	193	340	50
LT Vol	23	0	50
Through Vol	170	340	0
RT Vol	0	0	0
Lane Flow Rate	210	370	54
Geometry Grp	7	7	2
Degree of Util (X)	0.273	0.475	0.081
Departure Headway (Hd)	4.689	4.629	5.336
Convergence, Y/N	Yes	Yes	Yes
Cap	759	772	676
Service Time	2.454	2.394	3.336
HCM Lane V/C Ratio	0.277	0.479	0.08
HCM Control Delay	9.2	11.6	8.8
HCM Lane LOS	A	B	A
HCM 95th-tile Q	1.1	2.6	0.3

Intersection	
Intersection Delay, s/veh	17.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	277	394	27	62	14	0	0	87	10
Future Vol, veh/h	0	0	0	277	394	27	62	14	0	0	87	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	301	428	29	67	15	0	0	95	11
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	19.2	9.9	9.8
HCM LOS	C	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	82%	58%	0%	0%
Vol Thru, %	18%	42%	88%	90%
Vol Right, %	0%	0%	12%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	76	474	224	97
LT Vol	62	277	0	0
Through Vol	14	197	197	87
RT Vol	0	0	27	10
Lane Flow Rate	83	515	243	105
Geometry Grp	2	7	7	2
Degree of Util (X)	0.135	0.765	0.336	0.165
Departure Headway (Hd)	5.88	5.347	4.969	5.62
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	607	675	721	636
Service Time	3.944	3.101	2.723	3.679
HCM Lane V/C Ratio	0.137	0.763	0.337	0.165
HCM Control Delay	9.9	23.5	10.2	9.8
HCM Lane LOS	A	C	B	A
HCM 95th-tile Q	0.5	7.2	1.5	0.6

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	22	559	38	19	6	0	0	24	113
Future Vol, veh/h	0	0	0	22	559	38	19	6	0	0	24	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	24	608	41	21	7	0	0	26	123
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	11.9	9	9.1
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	76%	7%	0%	0%
Vol Thru, %	24%	93%	88%	18%
Vol Right, %	0%	0%	12%	82%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	302	318	137
LT Vol	19	22	0	0
Through Vol	6	280	280	24
RT Vol	0	0	38	113
Lane Flow Rate	27	328	345	149
Geometry Grp	2	7	7	2
Degree of Util (X)	0.043	0.455	0.468	0.2
Departure Headway (Hd)	5.658	5.003	4.883	4.837
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	632	718	735	742
Service Time	3.702	2.742	2.621	2.866
HCM Lane V/C Ratio	0.043	0.457	0.469	0.201
HCM Control Delay	9	11.9	11.9	9.1
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.1	2.4	2.5	0.7

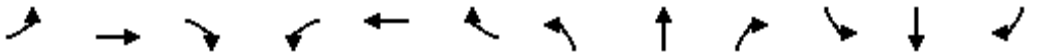
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	8	0	0	30	0	2092	10	0	2664	121
Future Vol, veh/h	0	0	8	0	0	30	0	2092	10	0	2664	121
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	5	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	9	0	0	33	0	2274	11	0	2896	132

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1521	-	-	1148	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	92	0	0	167	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	91	-	-	166	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	48.7	31.9	0	0
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	91	166	-	-
HCM Lane V/C Ratio	-	-	0.096	0.196	-	-
HCM Control Delay (s)	-	-	48.7	31.9	-	-
HCM Lane LOS	-	-	E	D	-	-
HCM 95th %tile Q(veh)	-	-	0.3	0.7	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	68	191	70	122	2017	9	0	2324	327
Future Volume (veh/h)	0	0	0	68	191	70	122	2017	9	0	2324	327
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				74	208	76	133	2192	10	0	2526	355
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				89	258	98	151	4290	20	0	3612	1093
Arrive On Green				0.13	0.13	0.13	0.17	1.00	1.00	0.00	0.71	0.71
Sat Flow, veh/h				711	2062	783	1781	5246	24	0	5274	1545
Grp Volume(v), veh/h				191	0	167	133	1422	780	0	2526	355
Grp Sat Flow(s),veh/h/ln				1835	0	1721	1781	1702	1866	0	1702	1545
Q Serve(g_s), s				17.5	0.0	16.2	12.5	0.0	0.0	0.0	49.3	15.0
Cycle Q Clear(g_c), s				17.5	0.0	16.2	12.5	0.0	0.0	0.0	49.3	15.0
Prop In Lane				0.39		0.45	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				230	0	216	151	2783	1526	0	3612	1093
V/C Ratio(X)				0.83	0.00	0.77	0.88	0.51	0.51	0.00	0.70	0.32
Avail Cap(c_a), veh/h				374	0	351	275	2783	1526	0	3612	1093
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.72	0.00	1.00	1.00
Uniform Delay (d), s/veh				73.4	0.0	72.9	70.6	0.0	0.0	0.0	14.6	9.6
Incr Delay (d2), s/veh				3.6	0.0	2.2	4.7	0.5	0.9	0.0	1.1	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.5	0.0	7.3	5.5	0.2	0.4	0.0	18.1	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				77.0	0.0	75.1	75.3	0.5	0.9	0.0	15.7	10.3
LnGrp LOS				E	A	E	E	A	A	A	B	B
Approach Vol, veh/h					358			2335			2881	
Approach Delay, s/veh					76.1			4.9			15.1	
Approach LOS					E			A			B	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	145.5	26.5	19.0	126.6
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	19.5	14.5	51.3
Green Ext Time (p_c), s	7.8	0.7	0.0	11.9

Intersection Summary	
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



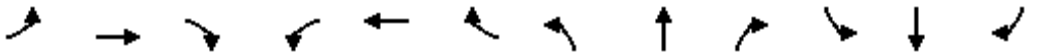
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	168	112	0	0	0	0	1840	32	53	2330	0
Future Volume (veh/h)	309	168	112	0	0	0	0	1840	32	53	2330	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	336	183	122				0	2000	35	58	2533	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	354	207	138				0	3501	61	73	4787	0
Arrive On Green	0.20	0.20	0.20				0.00	1.00	1.00	0.08	1.00	0.00
Sat Flow, veh/h	1781	1038	692				0	5336	90	1781	6696	0
Grp Volume(v), veh/h	336	0	305				0	1317	718	58	2533	0
Grp Sat Flow(s),veh/h/ln	1781	0	1731				0	1702	1854	1781	1609	0
Q Serve(g_s), s	32.0	0.0	29.5				0.0	0.0	0.0	5.5	0.0	0.0
Cycle Q Clear(g_c), s	32.0	0.0	29.5				0.0	0.0	0.0	5.5	0.0	0.0
Prop In Lane	1.00		0.40				0.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	354	0	344				0	2306	1256	73	4787	0
V/C Ratio(X)	0.95	0.00	0.89				0.00	0.57	0.57	0.80	0.53	0.00
Avail Cap(c_a), veh/h	364	0	353				0	2306	1256	162	4787	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.54	0.54	0.64	0.64	0.00
Uniform Delay (d), s/veh	68.0	0.0	67.0				0.0	0.0	0.0	78.3	0.0	0.0
Incr Delay (d2), s/veh	33.0	0.0	21.4				0.0	0.6	1.0	4.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.9	0.0	15.1				0.0	0.2	0.4	2.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.0	0.0	88.4				0.0	0.6	1.0	82.9	0.3	0.0
LnGrp LOS	F	A	F				A	A	A	F	A	A
Approach Vol, veh/h		641						2035			2591	
Approach Delay, s/veh		95.0						0.7			2.1	
Approach LOS		F						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	11.4	121.4	39.1	132.9
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	15.6	107.1	35.1	127.1
Max Q Clear Time (g_c+I1), s	7.5	2.0	34.0	2.0
Green Ext Time (p_c), s	0.0	6.1	0.2	11.9

Intersection Summary	
HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	399	430	276	219	244	7	452	1482	456	0	1462	936
Future Volume (vph)	399	430	276	219	244	7	452	1482	456	0	1462	936
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.96			1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3351	1557	1610	3334		3662	4886			5085	1504
Flt Permitted	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3351	1557	1610	3334		3662	4886			5085	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	434	467	300	238	265	8	491	1611	496	0	1589	1017
RTOR Reduction (vph)	0	0	213	0	1	0	0	28	0	0	0	303
Lane Group Flow (vph)	291	610	87	167	343	0	491	2079	0	0	1589	715
Confl. Peds. (#/hr)			1			44			3			21
Confl. Bikes (#/hr)			3			7						
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	36.1	36.1	36.1	22.0	22.0		28.8	96.2			62.0	62.0
Effective Green, g (s)	36.1	36.1	36.1	22.0	22.0		28.8	96.2			62.0	62.0
Actuated g/C Ratio	0.21	0.21	0.21	0.13	0.13		0.17	0.56			0.36	0.36
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	337	703	326	205	426		613	2732			1832	542
v/s Ratio Prot	0.18	c0.18		c0.10	0.10		0.13	c0.43			0.31	
v/s Ratio Perm			0.06									c0.47
v/c Ratio	0.86	0.87	0.27	0.81	0.81		0.80	0.76			0.87	1.32
Uniform Delay, d1	65.6	65.6	56.9	73.0	72.9		68.8	29.1			51.2	55.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.14	0.41			0.72	0.61
Incremental Delay, d2	19.2	10.7	0.2	20.4	10.0		4.6	1.3			5.0	154.1
Delay (s)	84.8	76.3	57.1	93.4	83.0		82.9	13.4			41.7	187.8
Level of Service	F	E	E	F	F		F	B			D	F
Approach Delay (s)		73.6			86.4			26.5			98.7	
Approach LOS		E			F			C			F	

Intersection Summary			
HCM 2000 Control Delay	66.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	497	263	126	568	329	328	1749	90	316	1405	234
Future Volume (veh/h)	228	497	263	126	568	329	328	1749	90	316	1405	234
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.94	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	248	540	286	137	617	358	357	1901	98	343	1527	254
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	620	262	156	646	272	398	2079	107	692	2230	370
Arrive On Green	0.08	0.17	0.17	0.09	0.18	0.18	0.08	0.28	0.28	0.20	0.51	0.51
Sat Flow, veh/h	3456	3554	1503	1781	3554	1498	3456	4961	255	3456	4397	729
Grp Volume(v), veh/h	248	540	286	137	617	358	357	1303	696	343	1181	600
Grp Sat Flow(s),veh/h/ln	1728	1777	1503	1781	1777	1498	1728	1702	1812	1728	1702	1722
Q Serve(g_s), s	12.2	25.4	23.8	13.1	29.6	21.2	17.6	63.7	64.0	15.2	45.0	45.3
Cycle Q Clear(g_c), s	12.2	25.4	23.8	13.1	29.6	21.2	17.6	63.7	64.0	15.2	45.0	45.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.42
Lane Grp Cap(c), veh/h	288	620	262	156	646	272	398	1427	759	692	1726	873
V/C Ratio(X)	0.86	0.87	1.09	0.88	0.96	1.32	0.90	0.91	0.92	0.50	0.68	0.69
Avail Cap(c_a), veh/h	434	684	289	193	646	272	675	1427	759	692	1726	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.9	69.1	44.9	77.6	69.7	32.5	78.3	58.8	58.9	61.1	32.0	32.1
Incr Delay (d2), s/veh	6.7	9.3	78.7	26.3	24.7	165.8	3.4	7.8	13.6	0.2	0.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	12.4	14.7	7.1	15.7	20.3	8.2	29.7	33.0	6.7	18.5	19.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.6	78.4	123.6	103.8	94.4	198.3	81.8	66.6	72.6	61.3	32.9	34.0
LnGrp LOS	F	E	F	F	F	F	F	E	E	E	C	C
Approach Vol, veh/h		1074			1112			2356			2124	
Approach Delay, s/veh		91.9			129.0			70.7			37.8	
Approach LOS		F			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	77.0	20.0	34.9	24.2	92.9	18.7	36.1
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	17.2	66.0	15.1	27.4	19.6	47.3	14.2	31.6
Green Ext Time (p_c), s	0.2	3.1	0.0	1.0	0.2	4.7	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	73.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	10	6	99	17	110	8	2002	33	101	1542	36
Future Volume (veh/h)	44	10	6	99	17	110	8	2002	33	101	1542	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	11	7	108	18	120	9	2176	36	110	1676	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	35	18	142	22	127	18	3476	57	129	3767	88
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.01	0.67	0.67	0.07	0.73	0.73
Sat Flow, veh/h	715	206	109	667	129	758	1781	5172	85	1781	5130	119
Grp Volume(v), veh/h	66	0	0	246	0	0	9	1431	781	110	1112	603
Grp Sat Flow(s),veh/h/ln	1031	0	0	1553	0	0	1781	1702	1853	1781	1702	1845
Q Serve(g_s), s	0.0	0.0	0.0	17.2	0.0	0.0	0.9	40.9	41.1	10.5	22.2	22.2
Cycle Q Clear(g_c), s	9.6	0.0	0.0	26.9	0.0	0.0	0.9	40.9	41.1	10.5	22.2	22.2
Prop In Lane	0.73		0.11	0.44		0.49	1.00		0.05	1.00		0.06
Lane Grp Cap(c), veh/h	210	0	0	291	0	0	18	2288	1245	129	2500	1355
V/C Ratio(X)	0.31	0.00	0.00	0.84	0.00	0.00	0.50	0.63	0.63	0.85	0.44	0.44
Avail Cap(c_a), veh/h	219	0	0	302	0	0	162	2288	1245	369	2500	1355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.56	0.56	0.56	0.61	0.61	0.61
Uniform Delay (d), s/veh	63.2	0.0	0.0	70.4	0.0	0.0	84.7	16.0	16.0	78.9	9.0	9.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	17.7	0.0	0.0	4.3	0.7	1.4	3.7	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	12.3	0.0	0.0	0.4	15.5	17.1	4.9	7.8	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	0.0	0.0	88.1	0.0	0.0	89.0	16.7	17.3	82.6	9.4	9.7
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		66			246			2221			1825	
Approach Delay, s/veh		63.6			88.1			17.2			13.9	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.9	121.3		33.8	6.1	132.0		33.8
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	12.5	43.1		11.6	2.9	24.2		28.9
Green Ext Time (p_c), s	0.0	7.0		0.1	0.0	4.6		0.1

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	256	15	537	328	175	22	1685	729	140	1274	300
Future Volume (veh/h)	218	256	15	537	328	175	22	1685	729	140	1274	300
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	237	278	16	584	357	190	24	1832	792	152	1385	326
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	255	300	17	615	380	315	35	2465	752	190	1841	803
Arrive On Green	0.14	0.17	0.17	0.18	0.20	0.20	0.02	0.48	0.48	0.11	1.00	1.00
Sat Flow, veh/h	1781	1750	101	3456	1870	1548	1781	5106	1558	3456	3554	1551
Grp Volume(v), veh/h	237	0	294	584	357	190	24	1832	792	152	1385	326
Grp Sat Flow(s),veh/h/ln	1781	0	1850	1728	1870	1548	1781	1702	1558	1728	1777	1551
Q Serve(g_s), s	22.6	0.0	26.9	28.8	32.3	16.5	2.3	49.8	83.0	7.4	0.0	0.0
Cycle Q Clear(g_c), s	22.6	0.0	26.9	28.8	32.3	16.5	2.3	49.8	83.0	7.4	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	0	317	615	380	315	35	2465	752	190	1841	803
V/C Ratio(X)	0.93	0.00	0.93	0.95	0.94	0.60	0.68	0.74	1.05	0.80	0.75	0.41
Avail Cap(c_a), veh/h	265	0	442	615	501	415	120	2465	752	434	1841	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	72.8	0.0	70.2	69.9	67.5	46.4	83.8	35.9	44.5	75.6	0.0	0.0
Incr Delay (d2), s/veh	35.2	0.0	17.8	24.3	19.9	0.7	8.2	2.1	47.7	2.6	2.6	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	0.0	14.4	14.7	17.4	6.5	1.1	20.8	41.0	3.2	0.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.1	0.0	88.0	94.2	87.4	47.1	91.9	37.9	92.2	78.3	2.6	1.4
LnGrp LOS	F	A	F	F	F	D	F	D	F	E	A	A
Approach Vol, veh/h		531			1131			2648			1863	
Approach Delay, s/veh		96.9			84.1			54.7			8.5	
Approach LOS		F			F			D			A	

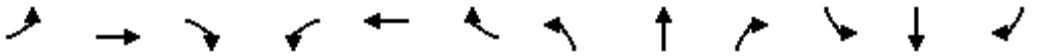
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	88.7	35.0	34.4	7.8	94.8	29.5	39.9
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	9.4	85.0	30.8	28.9	4.3	2.0	24.6	34.3
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	4.2	0.0	0.6

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

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	189	4	129	0	136	0	710	290	64	313	0
Future Volume (vph)	78	189	4	129	0	136	0	710	290	64	313	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.95		0.94		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	1.00		1.00		0.85		0.96		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1857		1770		1512		3177		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.14	1.00	
Satd. Flow (perm)	1770	1857		1770		1512		3177		253	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	85	205	4	140	0	148	0	772	315	70	340	0
RTOR Reduction (vph)	0	1	0	0	0	128	0	38	0	0	0	0
Lane Group Flow (vph)	85	208	0	140	0	20	0	1049	0	70	340	0
Confl. Peds. (#/hr)			3			15			91			10
Confl. Bikes (#/hr)									11			8
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	13.8	13.8		12.2		12.2		42.2		51.3	51.3	
Effective Green, g (s)	13.8	13.8		12.2		12.2		42.2		51.3	51.3	
Actuated g/C Ratio	0.15	0.15		0.13		0.13		0.46		0.56	0.56	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	266	280		236		201		1465		219	1984	
v/s Ratio Prot	0.05	c0.11		c0.08				c0.33		c0.02	0.10	
v/s Ratio Perm						0.01				0.16		
v/c Ratio	0.32	0.74		0.59		0.10		0.72		0.32	0.17	
Uniform Delay, d1	34.7	37.2		37.3		34.8		19.8		12.4	9.8	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.3	9.0		2.7		0.1		3.0		0.3	0.2	
Delay (s)	34.9	46.1		40.0		34.9		22.9		12.7	10.0	
Level of Service	C	D		D		C		C		B	A	
Approach Delay (s)		42.9			37.4			22.9			10.4	
Approach LOS		D			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	25.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	23.1
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

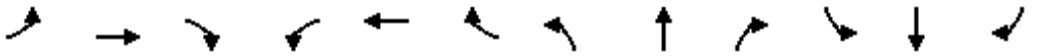
Intersection	
Int Delay, s/veh	1.2

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	174	728	393	117	0	0
Future Vol, veh/h	174	728	393	117	0	0
Conflicting Peds, #/hr	0	0	0	23	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	189	791	427	127	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	577	0	-	0	1288	300
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	774	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	993	-	-	-	156	696
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	415	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	971	-	-	-	120	681
Mov Cap-2 Maneuver	-	-	-	-	248	-
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	406	-

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

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	971	-	-	-	-
HCM Lane V/C Ratio	0.195	-	-	-	-
HCM Control Delay (s)	9.6	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	589	103	331	318	76	150	142	460	75	306	90
Future Volume (veh/h)	81	589	103	331	318	76	150	142	460	75	306	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.87	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	640	112	360	346	83	163	154	500	82	333	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	1340	577	464	622	457	203	930	1074	147	676	286
Arrive On Green	0.06	0.26	0.26	0.13	0.33	0.33	0.11	0.26	0.26	0.04	0.19	0.19
Sat Flow, veh/h	1781	5106	1510	3456	1870	1374	1781	3554	2673	3456	3554	1502
Grp Volume(v), veh/h	88	640	112	360	346	83	163	154	500	82	333	98
Grp Sat Flow(s),veh/h/ln	1781	1702	1510	1728	1870	1374	1781	1777	1336	1728	1777	1502
Q Serve(g_s), s	3.8	8.3	3.9	7.9	11.9	3.4	7.0	2.6	10.9	1.8	6.5	4.4
Cycle Q Clear(g_c), s	3.8	8.3	3.9	7.9	11.9	3.4	7.0	2.6	10.9	1.8	6.5	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	1340	577	464	622	457	203	930	1074	147	676	286
V/C Ratio(X)	0.77	0.48	0.19	0.78	0.56	0.18	0.80	0.17	0.47	0.56	0.49	0.34
Avail Cap(c_a), veh/h	683	2611	953	1325	956	702	683	1817	1741	1325	1817	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	24.3	16.4	32.7	21.4	18.6	33.8	22.3	17.6	36.7	28.3	27.4
Incr Delay (d2), s/veh	4.0	0.3	0.2	1.1	0.4	0.1	2.8	0.1	0.3	1.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.2	1.2	3.2	4.9	1.0	3.0	1.0	3.0	0.7	2.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	24.6	16.6	33.8	21.8	18.7	36.6	22.4	17.9	38.0	28.5	27.7
LnGrp LOS	D	C	B	C	C	B	D	C	B	D	C	C
Approach Vol, veh/h		840			789			817			513	
Approach Delay, s/veh		25.2			26.9			22.5			29.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	26.4	14.3	21.6	10.4	31.9	8.7	27.2
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	9.9	10.3	9.0	8.5	5.8	13.9	3.8	12.9
Green Ext Time (p_c), s	0.6	6.4	0.2	1.4	0.1	1.6	0.1	3.1

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

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	25.3

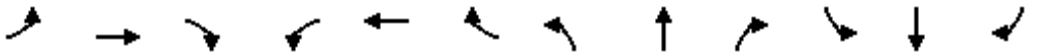
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	503	271	600	731	15
Future Vol, veh/h	0	503	271	600	731	15
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
Veh in Median Storage, #	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	0	547	295	652	795	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	410	815	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	~ 505	480	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	~ 503	478	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	94	7.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	478	-	503	-	-
HCM Lane V/C Ratio	0.616	-	1.087	-	-
HCM Control Delay (s)	23.9	-	94	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	4.1	-	17.3	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	7	73	41	21	63	228	962	14	24	1162	98
Future Volume (veh/h)	56	7	73	41	21	63	228	962	14	24	1162	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	8	79	45	23	68	248	1046	15	26	1263	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	503	406	58	498	422	258	1781	775	33	1240	105
Arrive On Green	0.04	0.27	0.27	0.03	0.27	0.27	0.15	0.50	0.50	0.02	0.37	0.37
Sat Flow, veh/h	1781	1870	1511	1781	1870	1585	1781	3554	1547	1781	3309	280
Grp Volume(v), veh/h	61	8	79	45	23	68	248	1046	15	26	676	694
Grp Sat Flow(s),veh/h/ln	1781	1870	1511	1781	1870	1585	1781	1777	1547	1781	1777	1812
Q Serve(g_s), s	4.4	0.4	5.3	3.3	1.2	4.3	18.1	27.3	0.6	1.9	49.1	49.1
Cycle Q Clear(g_c), s	4.4	0.4	5.3	3.3	1.2	4.3	18.1	27.3	0.6	1.9	49.1	49.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	76	503	406	58	498	422	258	1781	775	33	666	679
V/C Ratio(X)	0.80	0.02	0.19	0.78	0.05	0.16	0.96	0.59	0.02	0.78	1.02	1.02
Avail Cap(c_a), veh/h	76	503	406	121	498	422	258	1781	775	83	666	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.1	35.2	36.9	62.9	35.7	36.8	55.6	23.1	16.5	64.0	41.0	41.0
Incr Delay (d2), s/veh	45.7	0.1	1.1	8.0	0.2	0.8	44.5	0.3	0.0	13.6	38.9	40.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.2	2.0	1.6	0.6	1.7	11.0	10.6	0.2	1.0	27.6	28.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.8	35.2	38.0	70.9	35.9	37.6	100.2	23.4	16.5	77.6	79.8	80.9
LnGrp LOS	F	D	D	E	D	D	F	C	B	E	F	F
Approach Vol, veh/h		148			136			1309			1396	
Approach Delay, s/veh		66.6			48.3			37.9			80.3	
Approach LOS		E			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	43.9	23.4	54.0	10.0	43.6	6.8	70.6
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	8.9	29.6	19.0	49.1	5.6	* 35	6.1	62.0
Max Q Clear Time (g_c+I1), s	5.3	7.3	20.1	51.1	6.4	6.3	3.9	29.3
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	0.8	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	59.6
HCM 6th LOS	E

Notes

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

User approved ignoring U-Turning movement.

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

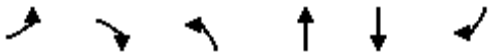
Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	989	1019	9	0	285
Future Vol, veh/h	0	989	1019	9	0	285
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	1075	1108	10	0	310

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	557
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	474
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	473
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	25.9
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	473
HCM Lane V/C Ratio	-	-	0.655
HCM Control Delay (s)	-	-	25.9
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	4.6



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	863	109	0	1315	1140	1029
Future Volume (vph)	863	109	0	1315	1140	1029
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.96		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1517		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1517		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	938	118	0	1429	1239	1118
RTOR Reduction (vph)	0	70	0	0	0	0
Lane Group Flow (vph)	938	48	0	1429	1239	1118
Confl. Peds. (#/hr)		31				2
Confl. Bikes (#/hr)		1				1
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	35.8	35.8		52.8	52.8	114.6
Effective Green, g (s)	35.8	35.8		52.8	52.8	103.8
Actuated g/C Ratio	0.31	0.31		0.46	0.46	0.91
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1072	473		1630	1630	1433
v/s Ratio Prot	c0.27			c0.40	0.35	c0.71
v/s Ratio Perm		0.03				
v/c Ratio	0.88	0.10		0.88	0.76	0.78
Uniform Delay, d1	37.3	28.0		28.0	25.6	1.7
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.1	0.1		5.6	2.1	2.7
Delay (s)	45.4	28.0		33.6	27.8	4.5
Level of Service	D	C		C	C	A
Approach Delay (s)	43.4			33.6	16.7	
Approach LOS	D			C	B	

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	114.6	Sum of lost time (s)	19.0
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	1255	463	143	1403
Future Volume (veh/h)	0	1	1255	463	143	1403
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1364	503	155	1525
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	5	2358	1031	255	2864
Arrive On Green	0.00	0.00	0.66	0.66	0.07	0.81
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	1364	503	155	1525
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	13.5	10.3	2.8	9.4
Cycle Q Clear(g_c), s	0.0	0.0	13.5	10.3	2.8	9.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	5	2358	1031	255	2864
V/C Ratio(X)	0.00	0.20	0.58	0.49	0.61	0.53
Avail Cap(c_a), veh/h	1109	1974	3319	1451	1614	3319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	32.0	5.9	5.3	28.9	2.1
Incr Delay (d2), s/veh	0.0	7.3	0.3	0.5	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.6	2.5	1.1	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	39.3	6.2	5.9	29.7	2.5
LnGrp LOS	A	D	A	A	C	A
Approach Vol, veh/h	1		1867			1680
Approach Delay, s/veh	39.3		6.1			5.0
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.1	48.8			58.0	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	4.8	15.5			11.4	2.0
Green Ext Time (p_c), s	0.3	27.2			34.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	98	188	80	47	133	72	1046	146	180	1264	181
Future Volume (veh/h)	164	98	188	80	47	133	72	1046	146	180	1264	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	107	204	87	51	145	78	1137	159	196	1374	197
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	298	243	112	281	230	132	1638	814	229	1961	978
Arrive On Green	0.07	0.16	0.16	0.06	0.15	0.15	0.04	0.46	0.46	0.13	0.55	0.55
Sat Flow, veh/h	3456	1870	1526	1781	1870	1535	3456	3554	1550	1781	3554	1565
Grp Volume(v), veh/h	178	107	204	87	51	145	78	1137	159	196	1374	197
Grp Sat Flow(s),veh/h/ln	1728	1870	1526	1781	1870	1535	1728	1777	1550	1781	1777	1565
Q Serve(g_s), s	5.3	5.3	13.5	5.0	2.5	9.2	2.3	26.4	5.7	11.2	29.4	5.6
Cycle Q Clear(g_c), s	5.3	5.3	13.5	5.0	2.5	9.2	2.3	26.4	5.7	11.2	29.4	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	298	243	112	281	230	132	1638	814	229	1961	978
V/C Ratio(X)	0.71	0.36	0.84	0.78	0.18	0.63	0.59	0.69	0.20	0.85	0.70	0.20
Avail Cap(c_a), veh/h	995	538	439	513	538	442	995	2387	1141	513	2387	1166
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	39.0	42.5	48.1	38.7	41.6	49.3	22.3	13.2	44.4	17.1	8.4
Incr Delay (d2), s/veh	1.4	0.7	7.5	4.4	0.1	1.1	1.6	0.9	0.2	3.5	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.5	5.4	2.3	1.1	3.4	1.0	10.8	1.9	5.1	11.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.7	39.8	50.0	52.5	38.8	42.6	50.9	23.1	13.4	48.0	18.0	8.6
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	B	A
Approach Vol, veh/h		489			283			1374			1767	
Approach Delay, s/veh		47.3			45.0			23.6			20.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	53.3	10.9	22.1	8.4	62.8	11.9	21.1
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	13.2	28.4	7.0	15.5	4.3	31.4	7.3	11.2
Green Ext Time (p_c), s	0.2	19.6	0.1	1.1	0.1	22.9	0.3	0.3

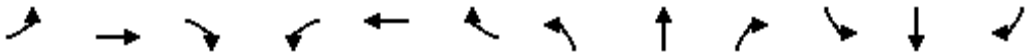
Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1053	289	281	610	0	0	0	0	217	0	0
Future Volume (vph)	0	1053	289	281	610	0	0	0	0	217	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						4.0	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.98	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1553	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1553	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1145	314	305	663	0	0	0	0	236	0	0
RTOR Reduction (vph)	0	0	176	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1145	138	305	663	0	0	0	0	0	236	0
Confl. Peds. (#/hr)			4									
Confl. Bikes (#/hr)			3			2						
Turn Type		NA	Perm	Prot	NA					Prot	NA	
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		48.0	48.0	17.3	70.0						18.4	
Effective Green, g (s)		44.0	44.0	17.3	66.0						18.4	
Actuated g/C Ratio		0.44	0.44	0.17	0.66						0.18	
Clearance Time (s)				4.7								
Vehicle Extension (s)				2.0								
Lane Grp Cap (vph)		1557	683	593	2335						325	
v/s Ratio Prot		c0.32		c0.09	0.19						0.13	
v/s Ratio Perm			0.09									
v/c Ratio		0.74	0.20	0.51	0.28						0.73	
Uniform Delay, d1		23.2	17.2	37.5	7.1						38.4	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		1.8	0.1	0.3	0.1						6.7	
Delay (s)		25.0	17.4	37.9	7.2						45.1	
Level of Service		C	B	D	A						D	
Approach Delay (s)		23.4			16.8			0.0			45.1	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	590	102	0	58	18	113
Future Vol, veh/h	590	102	0	58	18	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	641	111	0	63	20	123

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	752	0	760	697
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	63	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	858	-	374	441
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	960	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	858	-	374	441
Mov Cap-2 Maneuver	-	-	-	-	374	-
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	960	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	374	441	-	-	858	-
HCM Lane V/C Ratio	0.052	0.279	-	-	-	-
HCM Control Delay (s)	15.2	16.3	-	-	0	-
HCM Lane LOS	C	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	1.1	-	-	0	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	416	132	48	17	56	68
Future Vol, veh/h	416	132	48	17	56	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	452	143	52	18	61	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	595	0	646	524
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	981	-	436	553
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	903	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	981	-	412	553
Mov Cap-2 Maneuver	-	-	-	-	412	-
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	854	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.6	13.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	412	553	-	-	981	-
HCM Lane V/C Ratio	0.148	0.134	-	-	0.053	-
HCM Control Delay (s)	15.2	12.5	-	-	8.9	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	0.5	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	437	44	78	93	0	4
Future Vol, veh/h	437	44	78	93	0	4
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	475	48	85	101	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	523	0	770	499
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	271	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1043	-	369	572
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	775	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1043	-	337	572
Mov Cap-2 Maneuver	-	-	-	-	337	-
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	708	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	572	-	-	1043	-
HCM Lane V/C Ratio	0.008	-	-	0.081	-
HCM Control Delay (s)	11.3	-	-	8.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	410	177	0	58	0	6
Future Vol, veh/h	410	177	0	58	0	6
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	446	192	0	63	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	638	0	605	542
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	63	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	946	-	461	540
Stage 1	-	-	-	-	583	-
Stage 2	-	-	-	-	960	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	946	-	461	540
Mov Cap-2 Maneuver	-	-	-	-	461	-
Stage 1	-	-	-	-	583	-
Stage 2	-	-	-	-	960	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	540	-	-	946	-
HCM Lane V/C Ratio	0.012	-	-	-	-
HCM Control Delay (s)	11.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1006	803	296	0	0
Future Vol, veh/h	0	1006	803	296	0	0
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	0	1093	873	322	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	598
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	382
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	382
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	921	1290	56	0	13
Future Vol, veh/h	0	921	1290	56	0	13
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	0	1001	1402	61	0	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	732
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	312
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	312
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	312
HCM Lane V/C Ratio	-	-	-	0.045
HCM Control Delay (s)	-	-	-	17.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	692	0	0	76	0	0
Future Vol, veh/h	692	0	0	76	0	0
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	752	0	0	83	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	835	752
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	83	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	338	410
Stage 1	-	-	0	-	466	-
Stage 2	-	-	0	-	940	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	338	410
Mov Cap-2 Maneuver	-	-	-	-	338	-
Stage 1	-	-	-	-	466	-
Stage 2	-	-	-	-	940	-

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

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

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	446	25	73	48	17	42
Future Vol, veh/h	446	25	73	48	17	42
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	485	27	79	52	18	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	512	0	709	499
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	210	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1053	-	401	572
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	825	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1053	-	370	572
Mov Cap-2 Maneuver	-	-	-	-	370	-
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	761	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.2	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	494	-	-	1053	-
HCM Lane V/C Ratio	0.13	-	-	0.075	-
HCM Control Delay (s)	13.4	-	-	8.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1052	1206	478	0	0	2106
Future Volume (vph)	1052	1206	478	0	0	2106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1143	1311	520	0	0	2289
RTOR Reduction (vph)	0	171	0	0	0	0
Lane Group Flow (vph)	1143	1140	520	0	0	2289
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)		3		1		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.2	54.8	25.6			45.2
Effective Green, g (s)	35.2	54.8	25.6			45.2
Actuated g/C Ratio	0.37	0.57	0.27			0.47
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1266	1600	1364			3036
v/s Ratio Prot	c0.33	0.41	0.10			c0.36
v/s Ratio Perm						
v/c Ratio	0.90	0.71	0.38			0.75
Uniform Delay, d1	28.5	14.6	28.4			20.5
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	9.0	1.3	0.1			1.0
Delay (s)	37.5	15.9	28.5			21.5
Level of Service	D	B	C			C
Approach Delay (s)	25.9		28.5			21.5
Approach LOS	C		C			C

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	95.4	Sum of lost time (s)	22.5
Intersection Capacity Utilization	73.0%	ICU Level of Service	D
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)	289	362	229	25	273	449	236	442	22	926	453	221
Future Volume (veh/h)	289	362	229	25	273	449	236	442	22	926	453	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	314	393	249	27	297	0	246	496	0	1007	492	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	442	723	250	499		402	844		980	515	
Arrive On Green	0.24	0.24	0.24	0.14	0.14	0.00	0.07	0.07	0.00	0.28	0.28	0.00
Sat Flow, veh/h	1781	1870	1546	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	314	393	249	27	297	0	246	496	0	1007	492	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1546	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	26.1	32.5	16.5	2.1	12.5	0.0	21.4	20.5	0.0	44.0	41.4	0.0
Cycle Q Clear(g_c), s	26.1	32.5	16.5	2.1	12.5	0.0	21.4	20.5	0.0	44.0	41.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	442	723	250	499		402	844		980	515	
V/C Ratio(X)	0.75	0.89	0.34	0.11	0.60		0.61	0.59		1.03	0.96	
Avail Cap(c_a), veh/h	435	457	735	357	713		402	844		980	515	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.00	0.92	0.92	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.6	59.1	27.6	60.0	64.5	0.0	67.3	66.8	0.0	58.0	57.0	0.0
Incr Delay (d2), s/veh	9.0	20.5	0.8	0.7	4.0	0.0	6.3	2.8	0.0	35.9	28.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	17.7	9.2	1.0	6.0	0.0	11.1	10.7	0.0	24.7	23.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	79.6	28.4	60.7	68.5	0.0	73.5	69.6	0.0	93.9	85.7	0.0
LnGrp LOS	E	E	C	E	E		E	E		F	F	
Approach Vol, veh/h		956			324			742			1499	
Approach Delay, s/veh		61.7			67.9			70.9			91.2	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	42.7	48.9	27.4	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	34.5	46.0	14.5	23.4
Green Ext Time (p_c), s	3.1	0.0	3.9	2.9

Intersection Summary	
HCM 6th Ctrl Delay	76.8
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	1032	3	0	578	67	0	0	0	72	1	171
Future Volume (veh/h)	275	1032	3	0	578	67	0	0	0	72	1	171
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	299	1122	3	0	628	73				78	1	186
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	331	1787	5	101	1699	195				556	7	494
Arrive On Green	0.19	0.49	0.49	0.00	0.73	0.73				0.32	0.32	0.32
Sat Flow, veh/h	1781	3635	10	1781	4633	532				1760	23	1565
Grp Volume(v), veh/h	299	548	577	0	459	242				79	0	186
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1702	1761				1782	0	1565
Q Serve(g_s), s	17.7	24.5	24.5	0.0	5.3	5.4				3.4	0.0	10.0
Cycle Q Clear(g_c), s	17.7	24.5	24.5	0.0	5.3	5.4				3.4	0.0	10.0
Prop In Lane	1.00		0.01	1.00		0.30				0.99		1.00
Lane Grp Cap(c), veh/h	331	874	919	101	1249	646				563	0	494
V/C Ratio(X)	0.90	0.63	0.63	0.00	0.37	0.37				0.14	0.00	0.38
Avail Cap(c_a), veh/h	538	874	919	109	1249	646				563	0	494
HCM Platoon Ratio	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	0.00	0.89	0.89				1.00	0.00	1.00
Uniform Delay (d), s/veh	43.0	20.2	20.2	0.0	9.8	9.8				26.5	0.0	28.7
Incr Delay (d2), s/veh	0.8	0.3	0.3	0.0	0.7	1.5				0.5	0.0	2.2
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	7.7	9.7	10.2	0.0	1.8	2.0				1.5	0.0	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	20.5	20.5	0.0	10.6	11.3				27.0	0.0	30.9
LnGrp LOS	D	C	C	A	B	B				C	A	C
Approach Vol, veh/h		1424			701						265	
Approach Delay, s/veh		25.4			10.8						29.7	
Approach LOS		C			B						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	24.5	44.5
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I1), s	10.0	26.5		12.0	19.7	7.4
Green Ext Time (p_c), s	0.0	9.9		0.6	0.4	5.1

Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	731	106	101	595	10	104	135	126	100	12	23
Future Volume (veh/h)	314	731	106	101	595	10	104	135	126	100	12	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.88	1.00		0.77	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	341	795	115	110	647	11	113	147	137	109	13	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	1937	277	137	1760	30	411	177	165	141	45	86
Arrive On Green	0.34	0.87	0.87	0.08	0.34	0.34	0.23	0.23	0.23	0.08	0.08	0.08
Sat Flow, veh/h	1781	4436	634	1781	5158	87	1781	768	716	1781	566	1089
Grp Volume(v), veh/h	341	608	302	110	426	232	113	0	284	109	0	38
Grp Sat Flow(s),veh/h/ln	1781	1702	1666	1781	1702	1841	1781	0	1483	1781	0	1655
Q Serve(g_s), s	18.6	3.8	3.9	6.6	10.2	10.2	5.6	0.0	19.7	6.5	0.0	2.3
Cycle Q Clear(g_c), s	18.6	3.8	3.9	6.6	10.2	10.2	5.6	0.0	19.7	6.5	0.0	2.3
Prop In Lane	1.00		0.38	1.00		0.05	1.00		0.48	1.00		0.66
Lane Grp Cap(c), veh/h	307	1487	728	137	1161	628	411	0	342	141	0	131
V/C Ratio(X)	1.11	0.41	0.42	0.81	0.37	0.37	0.27	0.00	0.83	0.77	0.00	0.29
Avail Cap(c_a), veh/h	307	1487	728	191	1161	628	414	0	345	282	0	262
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)	0.83	0.83	0.83	1.00	1.00	1.00	0.76	0.00	0.76	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.4	4.1	4.1	49.1	26.8	26.8	34.1	0.0	39.5	48.8	0.0	46.9
Incr Delay (d2), s/veh	80.5	0.7	1.5	10.6	0.9	1.7	0.1	0.0	11.5	3.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.1	1.1	1.3	3.3	4.2	4.7	2.4	0.0	8.2	3.0	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	115.9	4.8	5.5	59.7	27.7	28.5	34.2	0.0	51.0	52.2	0.0	47.3
LnGrp LOS	F	A	A	E	C	C	C	A	D	D	A	D
Approach Vol, veh/h		1251			768			397			147	
Approach Delay, s/veh		35.2			32.5			46.2			50.9	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.0	41.7		29.8	12.7	52.1		13.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	18.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	20.6	12.2		21.7	8.6	5.9		8.5
Green Ext Time (p_c), s	0.0	6.0		0.5	0.0	11.8		0.2

Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	567	81	78	755	431	104	43	75	90	35	177
Future Volume (veh/h)	350	567	81	78	755	431	104	43	75	90	35	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.58	1.00		0.84	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	380	616	88	85	821	468	113	47	82	98	38	192
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1132	158	108	893	242	427	178	544	287	43	218
Arrive On Green	0.05	0.25	0.25	0.06	0.26	0.26	0.33	0.33	0.33	0.16	0.16	0.16
Sat Flow, veh/h	1781	4458	623	1781	3404	923	1276	531	1335	1781	267	1349
Grp Volume(v), veh/h	380	467	237	85	821	468	160	0	82	98	0	230
Grp Sat Flow(s),veh/h/ln	1781	1702	1678	1781	1702	923	1807	0	1335	1781	0	1616
Q Serve(g_s), s	5.3	12.0	12.4	4.8	23.7	26.5	6.5	0.0	4.0	4.9	0.0	14.1
Cycle Q Clear(g_c), s	5.3	12.0	12.4	4.8	23.7	26.5	6.5	0.0	4.0	4.9	0.0	14.1
Prop In Lane	1.00		0.37	1.00		1.00	0.71		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	93	864	426	108	893	242	605	0	544	287	0	261
V/C Ratio(X)	4.07	0.54	0.56	0.79	0.92	1.93	0.26	0.00	0.15	0.34	0.00	0.88
Avail Cap(c_a), veh/h	93	864	426	134	893	242	644	0	572	319	0	289
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.9	32.6	32.8	46.8	36.2	37.3	24.5	0.0	19.7	37.6	0.0	41.4
Incr Delay (d2), s/veh	1405.6	2.4	5.2	17.0	16.0	434.9	0.1	0.0	0.0	0.3	0.0	22.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	38.8	5.1	5.5	2.6	11.5	35.0	2.8	0.0	1.2	2.2	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1453.4	35.0	37.9	63.8	52.3	472.1	24.6	0.0	19.7	37.9	0.0	64.0
LnGrp LOS	F	D	D	E	D	F	C	A	B	D	A	E
Approach Vol, veh/h		1084			1374			242			328	
Approach Delay, s/veh		532.9			196.0			22.9			56.2	
Approach LOS		F			F			C			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.5	30.6		21.2	9.7	31.4		38.8
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	6.8	14.4		16.1	7.3	28.5		8.5
Green Ext Time (p_c), s	0.0	3.7		0.2	0.0	0.0		0.8

Intersection Summary	
HCM 6th Ctrl Delay	287.6
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	696	64	144	1220	0	133
Future Vol, veh/h	696	64	144	1220	0	133
Conflicting Peds, #/hr	0	23	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	757	70	157	1326	0	145

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	850	0	-	440
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	462	-	0	483
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	452	-	-	471
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	471	-	-	452	-
HCM Lane V/C Ratio	0.307	-	-	0.346	-
HCM Control Delay (s)	16	-	-	17.1	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	1.3	-	-	1.5	-



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	793	56	196	1278	134	155
Future Volume (veh/h)	793	56	196	1278	134	155
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	862	61	213	1389	146	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2938	207	246	4000	224	199
Arrive On Green	0.60	0.60	0.14	0.78	0.13	0.13
Sat Flow, veh/h	5027	343	1781	5274	1781	1585
Grp Volume(v), veh/h	603	320	213	1389	146	168
Grp Sat Flow(s),veh/h/ln	1702	1797	1781	1702	1781	1585
Q Serve(g_s), s	9.2	9.3	12.6	8.7	8.4	11.2
Cycle Q Clear(g_c), s	9.2	9.3	12.6	8.7	8.4	11.2
Prop In Lane		0.19	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2058	1087	246	4000	224	199
V/C Ratio(X)	0.29	0.29	0.87	0.35	0.65	0.84
Avail Cap(c_a), veh/h	2058	1087	785	4000	397	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.36	0.36	0.99	0.99
Uniform Delay (d), s/veh	10.3	10.3	45.6	3.5	45.0	46.2
Incr Delay (d2), s/veh	0.4	0.7	1.3	0.1	1.2	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.6	5.6	2.2	3.8	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.6	11.0	46.9	3.6	46.1	49.8
LnGrp LOS	B	B	D	A	D	D
Approach Vol, veh/h	923			1602	314	
Approach Delay, s/veh	10.7			9.3	48.1	
Approach LOS	B			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	19.3	70.2				89.5	18.5
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	47.6	22.1				74.1	24.1
Max Q Clear Time (g_c+I1), s	14.6	11.3				10.7	13.2
Green Ext Time (p_c), s	0.3	6.5				21.6	0.4

Intersection Summary	
HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	460	132	130	387	183	136	135	121	58	90	67
Future Volume (veh/h)	82	460	132	130	387	183	136	135	121	58	90	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.94	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	500	143	141	421	199	148	148	132	63	98	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	600	2020	893	184	659	308	247	260	292	214	225	180
Arrive On Green	0.67	1.00	1.00	0.11	0.56	0.56	0.14	0.14	0.14	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1571	3456	2336	1091	1781	1870	1494	1781	1870	1498
Grp Volume(v), veh/h	89	500	143	141	319	301	148	148	132	63	98	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1571	1728	1777	1651	1781	1870	1494	1781	1870	1498
Q Serve(g_s), s	2.9	0.0	0.0	6.4	19.6	20.0	12.5	11.8	12.5	5.2	7.8	7.2
Cycle Q Clear(g_c), s	2.9	0.0	0.0	6.4	19.6	20.0	12.5	11.8	12.5	5.2	7.8	7.2
Prop In Lane	1.00		1.00	1.00		0.66	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	600	2020	893	184	501	465	247	260	292	214	225	180
V/C Ratio(X)	0.15	0.25	0.16	0.77	0.64	0.65	0.60	0.57	0.45	0.29	0.44	0.41
Avail Cap(c_a), veh/h	600	2020	893	467	501	465	391	410	412	391	410	329
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.26	0.26	0.26	0.67	0.67	0.67	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	17.8	0.0	0.0	70.5	29.3	29.4	64.7	64.4	57.3	64.2	65.4	65.1
Incr Delay (d2), s/veh	0.0	0.1	0.1	1.7	4.1	4.6	0.9	0.7	0.4	0.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	2.8	7.3	7.0	5.8	5.7	4.8	2.4	3.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.1	0.1	72.2	33.4	34.0	65.6	65.2	57.7	64.4	65.8	65.6
LnGrp LOS	B	A	A	E	C	C	E	E	E	E	E	E
Approach Vol, veh/h		732			761			428			234	
Approach Delay, s/veh		2.2			40.9			63.0			65.3	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.9	95.8		24.1	58.8	50.0		27.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	8.4	2.0		9.8	4.9	22.0		14.5
Green Ext Time (p_c), s	0.2	6.5		0.5	0.1	6.5		0.9

Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	709	11	9	741	406	5	0	5	150	8	52
Future Volume (veh/h)	42	709	11	9	741	406	5	0	5	150	8	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.96		0.98	0.99		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	771	12	10	805	441	5	0	5	163	9	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	1964	31	400	1161	631	244	21	197	335	28	95
Arrive On Green	0.03	0.55	0.55	0.01	0.53	0.53	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3579	56	1781	2205	1198	668	80	749	979	105	359
Grp Volume(v), veh/h	46	383	400	10	647	599	10	0	0	229	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1858	1781	1777	1626	1498	0	0	1443	0	0
Q Serve(g_s), s	0.9	9.9	9.9	0.2	21.7	22.1	0.0	0.0	0.0	10.2	0.0	0.0
Cycle Q Clear(g_c), s	0.9	9.9	9.9	0.2	21.7	22.1	0.3	0.0	0.0	11.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.74	0.50		0.50	0.71		0.25
Lane Grp Cap(c), veh/h	259	975	1020	400	936	856	462	0	0	458	0	0
V/C Ratio(X)	0.18	0.39	0.39	0.02	0.69	0.70	0.02	0.00	0.00	0.50	0.00	0.00
Avail Cap(c_a), veh/h	393	975	1020	574	936	856	462	0	0	458	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.47	0.47	0.47	1.00	0.00	0.00	0.61	0.00	0.00
Uniform Delay (d), s/veh	11.4	10.4	10.4	9.1	14.1	14.2	21.8	0.0	0.0	25.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.2	1.1	0.0	2.0	2.3	0.0	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.8	3.9	0.1	8.3	7.8	0.1	0.0	0.0	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	11.5	11.5	9.1	16.1	16.4	21.8	0.0	0.0	28.0	0.0	0.0
LnGrp LOS	B	B	B	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		829			1256			10			229	
Approach Delay, s/veh		11.5			16.2			21.8			28.0	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.2	48.8		26.0	7.0	47.0		26.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.2	11.9		13.0	2.9	24.1		2.3
Green Ext Time (p_c), s	0.0	5.6		0.5	0.0	7.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	30	16	302	168	32
Future Vol, veh/h	8	30	16	302	168	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	33	17	328	183	35
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.1	10.9	9
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	21%	0%
Vol Thru, %	0%	100%	0%	84%
Vol Right, %	0%	0%	79%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	302	38	200
LT Vol	16	0	8	0
Through Vol	0	302	0	168
RT Vol	0	0	30	32
Lane Flow Rate	17	328	41	217
Geometry Grp	7	7	2	5
Degree of Util (X)	0.025	0.43	0.055	0.266
Departure Headway (Hd)	5.218	4.716	4.779	4.413
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	680	755	752	817
Service Time	2.999	2.497	2.794	2.422
HCM Lane V/C Ratio	0.025	0.434	0.055	0.266
HCM Control Delay	8.1	11.1	8.1	9
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.1	2.2	0.2	1.1

LANE SUMMARY

Site: 1 [OY WP 2030 Phase 1 Pre-Event 14,500_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	36	0.0	36	0.0	1380	0.026	100	2.7	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	36	0.0	36	0.0		0.026		2.7	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	603	0.0	603	0.0	1330	0.453	100	6.6	LOS A	3.4	84.0	Full	1600	0.0	0.0
Approach	603	0.0	603	0.0		0.453		6.6	LOS A	3.4	84.0				
West: Hancock Street															
Lane 1[d]	341	0.0	341	0.0	899	0.379	100	8.3	LOS A	2.0	49.5	Full	1600	0.0	0.0
Approach	341	0.0	341	0.0		0.379		8.3	LOS A	2.0	49.5				
All Vehicles	980	0.0	980	0.0		0.453		7.0	LOS A	3.4	84.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	36	36	0.0	1380	0.026	100	NA	NA
Approach	36	36	0.0		0.026			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	420	183	603	0.0	1330	0.453	100	NA	NA
Approach	420	183	603	0.0		0.453			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	341	341	0.0		899	0.379	100	NA	NA
Approach	341	341	0.0			0.379			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	980	0.0	0.453

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	17.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	301	0	0	0	0	0	0	1	177	87	204
Future Vol, veh/h	75	301	0	0	0	0	0	0	1	177	87	204
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	82	327	0	0	0	0	0	0	1	192	95	222
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	16.1	8.3	18.5
HCM LOS	C	A	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	20%	38%
Vol Thru, %	0%	80%	19%
Vol Right, %	100%	0%	44%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1	376	468
LT Vol	0	75	177
Through Vol	0	301	87
RT Vol	1	0	204
Lane Flow Rate	1	409	509
Geometry Grp	1	1	1
Degree of Util (X)	0.002	0.603	0.698
Departure Headway (Hd)	5.23	5.312	4.938
Convergence, Y/N	Yes	Yes	Yes
Cap	683	678	738
Service Time	3.273	3.341	2.938
HCM Lane V/C Ratio	0.001	0.603	0.69
HCM Control Delay	8.3	16.1	18.5
HCM Lane LOS	A	C	C
HCM 95th-tile Q	0	4.1	5.7

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	377	0	0	54	0
Future Vol, veh/h	35	377	0	0	54	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	410	0	0	59	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.5	8.6
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	22%	0%	100%
Vol Thru, %	78%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	161	251	54
LT Vol	35	0	54
Through Vol	126	251	0
RT Vol	0	0	0
Lane Flow Rate	175	273	59
Geometry Grp	7	7	2
Degree of Util (X)	0.23	0.352	0.083
Departure Headway (Hd)	4.746	4.637	5.108
Convergence, Y/N	Yes	Yes	Yes
Cap	751	770	706
Service Time	2.507	2.398	3.108
HCM Lane V/C Ratio	0.233	0.355	0.084
HCM Control Delay	8.9	9.9	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	1.6	0.3

Intersection	
Intersection Delay, s/veh	50.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	427	477	21	63	18	0	0	39	10
Future Vol, veh/h	0	0	0	427	477	21	63	18	0	0	39	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	464	518	23	68	20	0	0	42	11
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	55.7	10.3	9.6
HCM LOS	F	B	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	78%	64%	0%	0%
Vol Thru, %	22%	36%	92%	80%
Vol Right, %	0%	0%	8%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	81	666	260	49
LT Vol	63	427	0	0
Through Vol	18	239	239	39
RT Vol	0	0	21	10
Lane Flow Rate	88	723	282	53
Geometry Grp	2	7	7	2
Degree of Util (X)	0.148	1.059	0.383	0.087
Departure Headway (Hd)	6.225	5.271	4.892	6.021
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	579	687	733	599
Service Time	4.225	3.009	2.63	4.021
HCM Lane V/C Ratio	0.152	1.052	0.385	0.088
HCM Control Delay	10.3	73.3	10.7	9.6
HCM Lane LOS	B	F	B	A
HCM 95th-tile Q	0.5	19.1	1.8	0.3

Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	31	735	17	30	3	0	0	28	157
Future Vol, veh/h	0	0	0	31	735	17	30	3	0	0	28	157
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	34	799	18	33	3	0	0	30	171
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	15.7	9.5	10.2
HCM LOS	C	A	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	91%	8%	0%	0%
Vol Thru, %	9%	92%	96%	15%
Vol Right, %	0%	0%	4%	85%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	399	385	185
LT Vol	30	31	0	0
Through Vol	3	368	368	28
RT Vol	0	0	17	157
Lane Flow Rate	36	433	418	201
Geometry Grp	2	7	7	2
Degree of Util (X)	0.06	0.623	0.593	0.285
Departure Headway (Hd)	6.046	5.182	5.111	5.097
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	589	693	702	704
Service Time	4.115	2.939	2.868	3.14
HCM Lane V/C Ratio	0.061	0.625	0.595	0.286
HCM Control Delay	9.5	16.2	15.1	10.2
HCM Lane LOS	A	C	C	B
HCM 95th-tile Q	0.2	4.4	3.9	1.2

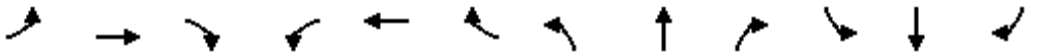
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	0	0	25	0	1903	12	0	2346	180
Future Vol, veh/h	0	0	11	0	0	25	0	1903	12	0	2346	180
Conflicting Peds, #/hr	0	0	0	0	0	2	0	0	4	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	27	0	2068	13	0	2550	196

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1377	-	-	1047	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	115	0	0	195	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	115	-	-	194	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.9	26.6	0	0
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	115	194	-	-
HCM Lane V/C Ratio	-	-	0.104	0.14	-	-
HCM Control Delay (s)	-	-	39.9	26.6	-	-
HCM Lane LOS	-	-	E	D	-	-
HCM 95th %tile Q(veh)	-	-	0.3	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	122	261	48	110	1866	14	0	1882	445
Future Volume (veh/h)	0	0	0	122	261	48	110	1866	14	0	1882	445
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				133	284	52	120	2028	15	0	2046	484
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				164	369	70	138	4055	30	0	3434	1057
Arrive On Green				0.17	0.17	0.17	0.15	1.00	1.00	0.00	0.67	0.67
Sat Flow, veh/h				978	2204	418	1781	5229	39	0	5274	1572
Grp Volume(v), veh/h				248	0	221	120	1320	723	0	2046	484
Grp Sat Flow(s),veh/h/ln				1821	0	1779	1781	1702	1863	0	1702	1572
Q Serve(g_s), s				22.5	0.0	20.4	11.3	0.0	0.0	0.0	37.7	25.1
Cycle Q Clear(g_c), s				22.5	0.0	20.4	11.3	0.0	0.0	0.0	37.7	25.1
Prop In Lane				0.54		0.23	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				305	0	298	138	2640	1445	0	3434	1057
V/C Ratio(X)				0.81	0.00	0.74	0.87	0.50	0.50	0.00	0.60	0.46
Avail Cap(c_a), veh/h				372	0	363	275	2640	1445	0	3434	1057
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.77	0.77	0.77	0.00	1.00	1.00
Uniform Delay (d), s/veh				69.0	0.0	68.1	71.8	0.0	0.0	0.0	15.4	13.3
Incr Delay (d2), s/veh				8.9	0.0	4.7	5.0	0.5	1.0	0.0	0.8	1.4
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				11.3	0.0	9.7	5.0	0.2	0.4	0.0	14.2	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				77.8	0.0	72.8	76.8	0.5	1.0	0.0	16.2	14.8
LnGrp LOS				E	A	E	E	A	A	A	B	B
Approach Vol, veh/h					469			2163			2530	
Approach Delay, s/veh					75.5			4.9			15.9	
Approach LOS					E			A			B	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	138.3	33.7	17.7	120.6
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	24.5	13.3	39.7
Green Ext Time (p_c), s	6.8	0.8	0.0	7.9

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



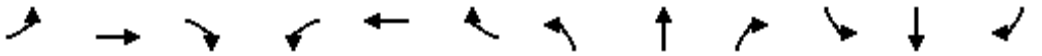
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	134	84	0	0	0	0	1715	23	57	1923	0
Future Volume (veh/h)	276	134	84	0	0	0	0	1715	23	57	1923	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	300	146	91				0	1864	25	62	2090	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	344	203	126				0	3536	47	77	4826	0
Arrive On Green	0.19	0.19	0.19				0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	1781	1051	655				0	5361	70	1781	6696	0
Grp Volume(v), veh/h	300	0	237				0	1222	667	62	2090	0
Grp Sat Flow(s),veh/h/ln	1781	0	1707				0	1702	1858	1781	1609	0
Q Serve(g_s), s	28.1	0.0	22.4				0.0	0.0	0.0	5.9	0.0	0.0
Cycle Q Clear(g_c), s	28.1	0.0	22.4				0.0	0.0	0.0	5.9	0.0	0.0
Prop In Lane	1.00		0.38				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	344	0	329				0	2318	1265	77	4826	0
V/C Ratio(X)	0.87	0.00	0.72				0.00	0.53	0.53	0.80	0.43	0.00
Avail Cap(c_a), veh/h	364	0	348				0	2318	1265	162	4826	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.73	0.73	0.77	0.77	0.00
Uniform Delay (d), s/veh	67.4	0.0	65.1				0.0	0.0	0.0	77.8	0.0	0.0
Incr Delay (d2), s/veh	18.5	0.0	5.5				0.0	0.6	1.2	5.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.6	0.0	10.3				0.0	0.2	0.4	2.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.8	0.0	70.6				0.0	0.6	1.2	83.2	0.2	0.0
LnGrp LOS	F	A	E				A	A	A	F	A	A
Approach Vol, veh/h		537						1889			2152	
Approach Delay, s/veh		79.1						0.8			2.6	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	11.9	122.0	38.1	133.9
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	15.6	107.1	35.1	127.1
Max Q Clear Time (g_c+I1), s	7.9	2.0	30.1	2.0
Green Ext Time (p_c), s	0.0	5.3	0.4	7.8

Intersection Summary	
HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	392	340	246	210	199	9	450	1352	275	0	1189	798
Future Volume (vph)	392	340	246	210	199	9	450	1352	275	0	1189	798
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	0.99			1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3338	1483	1610	3328		3662	4931			5085	1489
Flt Permitted	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3338	1483	1610	3328		3662	4931			5085	1489
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	426	370	267	228	216	10	489	1470	299	0	1292	867
RTOR Reduction (vph)	0	0	216	0	2	0	0	14	0	0	0	326
Lane Group Flow (vph)	260	536	51	148	304	0	489	1755	0	0	1292	541
Confl. Peds. (#/hr)			35			4			10			26
Confl. Bikes (#/hr)			2						5			1
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	32.9	32.9	32.9	19.9	19.9		30.0	101.5			66.1	66.1
Effective Green, g (s)	32.9	32.9	32.9	19.9	19.9		30.0	101.5			66.1	66.1
Actuated g/C Ratio	0.19	0.19	0.19	0.12	0.12		0.17	0.59			0.38	0.38
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	307	638	283	186	385		638	2909			1954	572
v/s Ratio Prot	c0.16	0.16		c0.09	0.09		c0.13	0.36			0.25	
v/s Ratio Perm			0.03									c0.36
v/c Ratio	0.85	0.84	0.18	0.80	0.79		0.77	0.60			0.66	0.95
Uniform Delay, d1	67.1	67.0	58.3	74.1	74.0		67.7	22.4			43.7	51.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.10	0.44			0.64	0.67
Incremental Delay, d2	18.3	9.3	0.1	19.3	9.9		3.7	0.7			1.6	25.0
Delay (s)	85.4	76.4	58.4	93.4	83.9		78.1	10.6			29.8	59.1
Level of Service	F	E	E	F	F		E	B			C	E
Approach Delay (s)		74.0			87.0			25.2			41.5	
Approach LOS		E			F			C			D	

Intersection Summary			
HCM 2000 Control Delay	44.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
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)	199	420	254	86	574	333	307	1505	98	256	1080	294
Future Volume (veh/h)	199	420	254	86	574	333	307	1505	98	256	1080	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	457	276	93	624	362	334	1636	107	278	1174	320
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	608	253	134	622	264	377	2050	134	747	2097	572
Arrive On Green	0.07	0.17	0.17	0.08	0.17	0.17	0.04	0.14	0.14	0.22	0.53	0.53
Sat Flow, veh/h	3456	3554	1481	1781	3554	1509	3456	4891	320	3456	3963	1080
Grp Volume(v), veh/h	216	457	276	93	624	362	334	1138	605	278	1008	486
Grp Sat Flow(s),veh/h/ln	1728	1777	1481	1781	1777	1509	1728	1702	1807	1728	1702	1639
Q Serve(g_s), s	10.6	21.0	23.6	8.8	30.1	20.0	16.6	55.7	55.8	11.8	34.1	34.1
Cycle Q Clear(g_c), s	10.6	21.0	23.6	8.8	30.1	20.0	16.6	55.7	55.8	11.8	34.1	34.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.66
Lane Grp Cap(c), veh/h	256	608	253	134	622	264	377	1427	757	747	1801	868
V/C Ratio(X)	0.84	0.75	1.09	0.70	1.00	1.37	0.89	0.80	0.80	0.37	0.56	0.56
Avail Cap(c_a), veh/h	434	684	285	193	622	264	675	1427	757	747	1801	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	78.7	67.8	46.0	77.6	70.9	31.2	81.8	67.0	67.1	57.5	27.1	27.1
Incr Delay (d2), s/veh	2.7	3.2	79.1	2.4	36.9	189.1	2.4	4.0	7.2	0.1	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	9.9	14.3	4.1	16.9	21.2	7.9	26.4	28.8	5.2	13.8	13.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.4	71.0	125.1	80.0	107.9	220.3	84.2	71.0	74.3	57.6	27.3	27.6
LnGrp LOS	F	E	F	F	F	F	F	E	E	E	C	C
Approach Vol, veh/h		949			1079			2077			1772	
Approach Delay, s/veh		89.1			143.2			74.1			32.1	
Approach LOS		F			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	77.0	17.8	34.3	23.2	96.7	17.1	35.0
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	13.8	57.8	10.8	25.6	18.6	36.1	12.6	32.1
Green Ext Time (p_c), s	0.2	4.1	0.0	1.0	0.2	4.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	76.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	8	9	92	10	77	7	1718	16	98	1281	33
Future Volume (veh/h)	41	8	9	92	10	77	7	1718	16	98	1281	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	9	10	100	11	84	8	1867	17	107	1392	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	29	26	138	14	91	16	3670	33	126	3914	101
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.70	0.70	0.07	0.76	0.76
Sat Flow, veh/h	786	212	185	769	101	658	1781	5218	48	1781	5117	132
Grp Volume(v), veh/h	64	0	0	195	0	0	8	1218	666	107	926	502
Grp Sat Flow(s),veh/h/ln	1182	0	0	1528	0	0	1781	1702	1862	1781	1702	1845
Q Serve(g_s), s	0.0	0.0	0.0	13.3	0.0	0.0	0.8	28.4	28.4	10.2	15.1	15.1
Cycle Q Clear(g_c), s	8.3	0.0	0.0	21.6	0.0	0.0	0.8	28.4	28.4	10.2	15.1	15.1
Prop In Lane	0.70		0.16	0.51		0.43	1.00		0.03	1.00		0.07
Lane Grp Cap(c), veh/h	200	0	0	243	0	0	16	2394	1309	126	2604	1412
V/C Ratio(X)	0.32	0.00	0.00	0.80	0.00	0.00	0.49	0.51	0.51	0.85	0.36	0.36
Avail Cap(c_a), veh/h	250	0	0	298	0	0	162	2394	1309	369	2604	1412
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.79	0.79	0.79	0.74	0.74	0.74
Uniform Delay (d), s/veh	67.2	0.0	0.0	72.9	0.0	0.0	84.8	11.8	11.8	79.0	6.5	6.5
Incr Delay (d2), s/veh	0.3	0.0	0.0	9.8	0.0	0.0	6.4	0.6	1.1	4.4	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	9.3	0.0	0.0	0.4	10.5	11.7	4.8	5.1	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	0.0	0.0	82.7	0.0	0.0	91.2	12.4	12.9	83.4	6.8	7.0
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		64			195			1892			1535	
Approach Delay, s/veh		67.5			82.7			12.9			12.2	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.6	126.7		28.7	6.0	137.3		28.7
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	12.2	30.4		10.3	2.8	17.1		23.6
Green Ext Time (p_c), s	0.0	5.3		0.1	0.0	3.5		0.2

Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	150	7	499	303	243	18	1334	516	79	1029	262
Future Volume (veh/h)	177	150	7	499	303	243	18	1334	516	79	1029	262
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	163	8	542	329	264	20	1450	561	86	1118	285
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	252	12	578	353	299	32	2766	858	123	1988	885
Arrive On Green	0.12	0.14	0.14	0.17	0.19	0.19	0.02	0.54	0.54	0.07	1.00	1.00
Sat Flow, veh/h	1781	1767	87	3456	1870	1583	1781	5106	1584	3456	3554	1582
Grp Volume(v), veh/h	192	0	171	542	329	264	20	1450	561	86	1118	285
Grp Sat Flow(s),veh/h/ln	1781	0	1854	1728	1870	1583	1781	1702	1584	1728	1777	1582
Q Serve(g_s), s	18.3	0.0	15.0	26.6	29.8	24.9	1.9	31.3	43.2	4.2	0.0	0.0
Cycle Q Clear(g_c), s	18.3	0.0	15.0	26.6	29.8	24.9	1.9	31.3	43.2	4.2	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	0	265	578	353	299	32	2766	858	123	1988	885
V/C Ratio(X)	0.91	0.00	0.65	0.94	0.93	0.88	0.63	0.52	0.65	0.70	0.56	0.32
Avail Cap(c_a), veh/h	265	0	443	615	501	424	120	2766	858	434	1988	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	74.9	0.0	69.6	70.7	68.7	53.7	83.9	25.2	28.0	79.0	0.0	0.0
Incr Delay (d2), s/veh	26.0	0.0	1.0	20.9	16.6	11.5	7.3	0.7	3.9	2.5	1.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	7.2	13.4	15.8	10.8	0.9	12.7	17.0	1.9	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.9	0.0	70.6	91.7	85.3	65.2	91.2	26.0	31.8	81.5	1.1	0.9
LnGrp LOS	F	A	E	F	F	E	F	C	C	F	A	A
Approach Vol, veh/h		363			1135			2031			1489	
Approach Delay, s/veh		86.6			83.7			28.2			5.7	
Approach LOS		F			F			C			A	

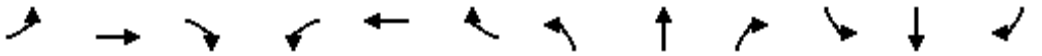
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	98.9	33.2	29.4	7.5	101.9	25.3	37.4
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	5.2	45.2	28.6	17.0	3.9	2.0	20.3	31.8
Green Ext Time (p_c), s	0.0	4.0	0.1	0.3	0.0	3.0	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	133	8	41	0	78	0	445	254	49	363	0
Future Volume (vph)	36	133	8	41	0	78	0	445	254	49	363	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.94		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1843		1770		1552		3149		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.30	1.00	
Satd. Flow (perm)	1770	1843		1770		1552		3149		550	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	145	9	45	0	85	0	484	276	53	395	0
RTOR Reduction (vph)	0	3	0	0	0	80	0	55	0	0	0	0
Lane Group Flow (vph)	39	151	0	45	0	5	0	705	0	53	395	0
Confl. Peds. (#/hr)			21						70			11
Confl. Bikes (#/hr)			1			2						
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	11.0	11.0		5.2		5.2		52.5		61.1	61.1	
Effective Green, g (s)	11.0	11.0		5.2		5.2		52.5		61.1	61.1	
Actuated g/C Ratio	0.12	0.12		0.06		0.06		0.57		0.67	0.67	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	212	221		100		88		1806		423	2363	
v/s Ratio Prot	0.02	c0.08		c0.03				c0.22		0.01	c0.11	
v/s Ratio Perm						0.00				0.08		
v/c Ratio	0.18	0.68		0.45		0.05		0.39		0.13	0.17	
Uniform Delay, d1	36.2	38.6		41.8		40.8		10.7		5.9	5.7	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.2	6.8		1.2		0.1		0.6		0.0	0.2	
Delay (s)	36.4	45.4		42.9		40.9		11.3		5.9	5.8	
Level of Service	D	D		D		D		B		A	A	
Approach Delay (s)		43.6			41.6			11.3			5.8	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	23.1
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

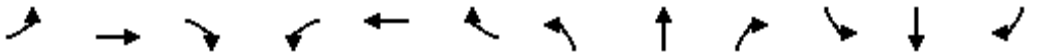
Intersection	
Int Delay, s/veh	0.9

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	114	436	427	282	0	0
Future Vol, veh/h	114	436	427	282	0	0
Conflicting Peds, #/hr	0	0	0	12	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	124	474	464	307	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	783	0	-	0	1115	398
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	485	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	831	-	-	-	202	601
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	585	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	822	-	-	-	168	594
Mov Cap-2 Maneuver	-	-	-	-	294	-
Stage 1	-	-	-	-	414	-
Stage 2	-	-	-	-	579	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	822	-	-	-	-
HCM Lane V/C Ratio	0.151	-	-	-	-
HCM Control Delay (s)	10.2	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	329	90	292	418	60	322	128	216	52	170	114
Future Volume (veh/h)	53	329	90	292	418	60	322	128	216	52	170	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	358	98	317	454	65	350	139	235	57	185	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1509	761	398	689	566	384	1137	1181	111	484	205
Arrive On Green	0.04	0.30	0.30	0.12	0.37	0.37	0.22	0.32	0.32	0.03	0.14	0.14
Sat Flow, veh/h	1781	5106	1418	3456	1870	1537	1781	3554	2687	3456	3554	1504
Grp Volume(v), veh/h	58	358	98	317	454	65	350	139	235	57	185	124
Grp Sat Flow(s),veh/h/ln	1781	1702	1418	1728	1870	1537	1781	1777	1343	1728	1777	1504
Q Serve(g_s), s	3.2	5.2	3.6	8.8	20.0	2.7	18.9	2.7	5.3	1.6	4.7	7.7
Cycle Q Clear(g_c), s	3.2	5.2	3.6	8.8	20.0	2.7	18.9	2.7	5.3	1.6	4.7	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	1509	761	398	689	566	384	1137	1181	111	484	205
V/C Ratio(X)	0.77	0.24	0.13	0.80	0.66	0.11	0.91	0.12	0.20	0.51	0.38	0.61
Avail Cap(c_a), veh/h	542	2072	917	1052	759	623	542	1442	1411	1052	1442	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	26.3	12.6	42.5	26.0	20.5	37.7	23.7	17.2	47.0	38.8	40.1
Incr Delay (d2), s/veh	6.1	0.1	0.1	1.4	1.4	0.0	12.7	0.0	0.1	1.4	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.1	1.1	3.8	8.8	0.9	9.2	1.1	1.5	0.7	2.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	26.4	12.7	43.9	27.4	20.6	50.4	23.8	17.3	48.3	39.0	41.2
LnGrp LOS	D	C	B	D	C	C	D	C	B	D	D	D
Approach Vol, veh/h		514			836			724			366	
Approach Delay, s/veh		26.8			33.1			34.6			41.2	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	35.0	26.7	20.1	9.6	42.2	8.6	38.2
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	10.8	7.2	20.9	9.7	5.2	22.0	3.6	7.3
Green Ext Time (p_c), s	0.5	3.6	0.4	0.9	0.1	1.9	0.1	1.8

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

Notes

User approved ignoring U-Turning movement.

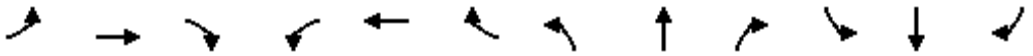
Intersection	
Int Delay, s/veh	17.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	523	220	603	549	14
Future Vol, veh/h	0	523	220	603	549	14
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	568	239	655	597	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	308	614	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	587	598	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	586	597	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	56.6	4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	597	-	586	-	-
HCM Lane V/C Ratio	0.401	-	0.97	-	-
HCM Control Delay (s)	15	-	56.6	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	1.9	-	13.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	3	32	15	1	14	304	963	10	20	951	146
Future Volume (veh/h)	52	3	32	15	1	14	304	963	10	20	951	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	3	35	16	1	15	330	1047	11	22	1034	159
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	541	453	24	504	423	337	1782	793	30	1012	155
Arrive On Green	0.04	0.29	0.29	0.01	0.27	0.27	0.19	0.50	0.50	0.02	0.33	0.33
Sat Flow, veh/h	1781	1870	1565	1781	1870	1571	1781	3554	1582	1781	3074	472
Grp Volume(v), veh/h	57	3	35	16	1	15	330	1047	11	22	597	596
Grp Sat Flow(s),veh/h/ln	1781	1870	1565	1781	1870	1571	1781	1777	1582	1781	1777	1769
Q Serve(g_s), s	4.2	0.1	2.1	1.2	0.1	0.9	24.1	27.3	0.5	1.6	43.1	43.1
Cycle Q Clear(g_c), s	4.2	0.1	2.1	1.2	0.1	0.9	24.1	27.3	0.5	1.6	43.1	43.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	73	541	453	24	504	423	337	1782	793	30	585	582
V/C Ratio(X)	0.78	0.01	0.08	0.67	0.00	0.04	0.98	0.59	0.01	0.73	1.02	1.02
Avail Cap(c_a), veh/h	73	541	453	73	504	423	337	1782	793	79	585	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.2	33.1	33.8	64.3	35.0	35.3	52.8	23.1	16.4	64.1	43.9	43.9
Incr Delay (d2), s/veh	42.1	0.0	0.3	11.2	0.0	0.2	42.9	0.3	0.0	12.1	42.6	43.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	0.8	0.6	0.0	0.4	14.3	10.6	0.2	0.8	25.1	25.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.3	33.1	34.2	75.5	35.0	35.4	95.7	23.4	16.4	76.2	86.5	87.4
LnGrp LOS	F	C	C	E	C	D	F	C	B	E	F	F
Approach Vol, veh/h		95			32			1388			1215	
Approach Delay, s/veh		76.2			55.5			40.5			86.8	
Approach LOS		E			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	46.6	29.2	48.0	9.8	44.0	6.6	70.6
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	5.4	33.3	24.8	43.1	5.4	* 35	5.8	62.1
Max Q Clear Time (g_c+I1), s	3.2	4.1	26.1	45.1	6.2	2.9	3.6	29.3
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.1	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	62.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

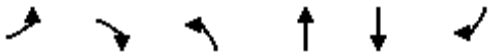
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	907	1002	6	0	278
Future Vol, veh/h	0	907	1002	6	0	278
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	986	1089	7	0	302

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	545
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	482
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	482
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	24.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	482
HCM Lane V/C Ratio	-	-	0.627
HCM Control Delay (s)	-	-	24.2
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	4.2



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	786	120	0	901	1126	1011
Future Volume (vph)	786	120	0	901	1126	1011
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1563		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1563		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	854	130	0	979	1224	1099
RTOR Reduction (vph)	0	57	0	0	0	0
Lane Group Flow (vph)	854	73	0	979	1224	1099
Confl. Peds. (#/hr)		1				5
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	40.5	40.5		51.8	51.8	128.2
Effective Green, g (s)	40.5	40.5		51.8	51.8	117.4
Actuated g/C Ratio	0.32	0.32		0.40	0.40	0.92
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1084	493		1429	1429	1449
v/s Ratio Prot	0.25			0.28	c0.35	c0.69
v/s Ratio Perm		0.05				
v/c Ratio	0.79	0.15		0.69	0.86	0.76
Uniform Delay, d1	39.9	31.5		31.5	34.8	1.5
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.7	0.1		1.4	5.3	2.2
Delay (s)	43.7	31.6		32.8	40.1	3.7
Level of Service	D	C		C	D	A
Approach Delay (s)	42.1			32.8	22.9	
Approach LOS	D			C	C	

Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	128.2	Sum of lost time (s)	19.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	792	171	117	1502
Future Volume (veh/h)	0	1	792	171	117	1502
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	861	186	127	1633
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	5	2343	1025	220	2826
Arrive On Green	0.00	0.00	0.66	0.66	0.06	0.80
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	861	186	127	1633
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	6.6	2.8	2.2	10.6
Cycle Q Clear(g_c), s	0.0	0.0	6.6	2.8	2.2	10.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	5	2343	1025	220	2826
V/C Ratio(X)	0.00	0.19	0.37	0.18	0.58	0.58
Avail Cap(c_a), veh/h	1171	2084	3504	1532	1704	3504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	30.4	4.7	4.0	27.7	2.4
Incr Delay (d2), s/veh	0.0	6.5	0.1	0.1	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.7	0.6	0.9	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	36.8	4.8	4.1	28.6	2.8
LnGrp LOS	A	D	A	A	C	A
Approach Vol, veh/h	1		1047			1760
Approach Delay, s/veh	36.8		4.7			4.7
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.3	46.3			54.6	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	4.2	8.6			12.6	2.0
Green Ext Time (p_c), s	0.2	13.0			35.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	57	130	67	35	81	49	686	57	160	1431	179
Future Volume (veh/h)	163	57	130	67	35	81	49	686	57	160	1431	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	62	141	73	38	88	53	746	62	174	1555	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	230	190	95	193	161	107	1805	871	208	2111	1045
Arrive On Green	0.07	0.12	0.12	0.05	0.10	0.10	0.03	0.51	0.51	0.12	0.59	0.59
Sat Flow, veh/h	3456	1870	1546	1781	1870	1563	3456	3554	1549	1781	3554	1565
Grp Volume(v), veh/h	177	62	141	73	38	88	53	746	62	174	1555	195
Grp Sat Flow(s),veh/h/ln	1728	1870	1546	1781	1870	1563	1728	1777	1549	1781	1777	1565
Q Serve(g_s), s	4.9	3.0	8.7	4.0	1.8	5.3	1.5	12.9	1.8	9.4	31.1	4.7
Cycle Q Clear(g_c), s	4.9	3.0	8.7	4.0	1.8	5.3	1.5	12.9	1.8	9.4	31.1	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	230	190	95	193	161	107	1805	871	208	2111	1045
V/C Ratio(X)	0.70	0.27	0.74	0.77	0.20	0.55	0.49	0.41	0.07	0.83	0.74	0.19
Avail Cap(c_a), veh/h	1052	569	471	542	569	476	1052	2524	1184	542	2524	1227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	39.2	41.7	46.1	40.5	42.0	47.0	15.1	9.9	42.6	14.4	6.2
Incr Delay (d2), s/veh	1.3	0.6	5.6	4.9	0.2	1.1	1.3	0.2	0.1	3.3	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	1.4	3.5	1.8	0.8	2.0	0.7	5.1	0.6	4.3	11.7	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	39.8	47.3	51.0	40.6	43.1	48.3	15.3	9.9	45.9	15.6	6.4
LnGrp LOS	D	D	D	D	D	D	D	B	A	D	B	A
Approach Vol, veh/h		380			199			861			1924	
Approach Delay, s/veh		45.5			45.5			17.0			17.4	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	55.4	9.6	17.6	7.5	63.9	11.6	15.7
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	11.4	14.9	6.0	10.7	3.5	33.1	6.9	7.3
Green Ext Time (p_c), s	0.2	11.3	0.1	0.7	0.1	25.4	0.3	0.2

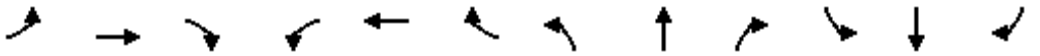
Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	758	171	295	530	0	0	0	0	200	0	0
Future Volume (vph)	0	758	171	295	530	0	0	0	0	200	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						4.0	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.99	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1562	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1562	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	824	186	321	576	0	0	0	0	217	0	0
RTOR Reduction (vph)	0	0	110	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	824	76	321	576	0	0	0	0	0	217	0
Confl. Peds. (#/hr)			1			8						
Turn Type		NA	Perm	Prot	NA					Prot	NA	
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		40.7	40.7	13.2	58.6						32.3	
Effective Green, g (s)		40.7	40.7	13.2	58.6						32.3	
Actuated g/C Ratio		0.41	0.41	0.13	0.59						0.32	
Clearance Time (s)				4.7								
Vehicle Extension (s)				2.0								
Lane Grp Cap (vph)		1440	635	453	2073						571	
v/s Ratio Prot		c0.23		c0.09	0.16						0.12	
v/s Ratio Perm			0.05									
v/c Ratio		0.57	0.12	0.71	0.28						0.38	
Uniform Delay, d1		22.9	18.5	41.6	10.2						26.1	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		0.6	0.1	4.1	0.1						0.2	
Delay (s)		23.5	18.6	45.7	10.3						26.3	
Level of Service		C	B	D	B						C	
Approach Delay (s)		22.6			23.0			0.0			26.3	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	542	142	0	5	25	152
Future Vol, veh/h	542	142	0	5	25	152
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	589	154	0	5	27	165

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	743	0	671	666
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	864	-	422	459
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	864	-	422	459
Mov Cap-2 Maneuver	-	-	-	-	422	-
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	1018	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	422	459	-	-	864	-
HCM Lane V/C Ratio	0.064	0.36	-	-	-	-
HCM Control Delay (s)	14.1	17.2	-	-	0	-
HCM Lane LOS	B	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	1.6	-	-	0	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	378	30	71	0	45	90
Future Vol, veh/h	378	30	71	0	45	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	411	33	77	0	49	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	444	0	582	428
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	154	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1116	-	475	627
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1116	-	442	627
Mov Cap-2 Maneuver	-	-	-	-	442	-
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	814	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.5	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	442	627	-	-	1116	-
HCM Lane V/C Ratio	0.111	0.156	-	-	0.069	-
HCM Control Delay (s)	14.2	11.8	-	-	8.5	0
HCM Lane LOS	B	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	0.6	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	379	87	136	69	0	0
Future Vol, veh/h	379	87	136	69	0	0
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	412	95	148	75	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	507	0	831	460
Stage 1	-	-	-	-	460	-
Stage 2	-	-	-	-	371	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1058	-	340	601
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	698	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1058	-	290	601
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	596	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1058	-
HCM Lane V/C Ratio	-	-	-	0.14	-
HCM Control Delay (s)	0	-	-	9	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0.5	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	464	201	0	5	0	5
Future Vol, veh/h	464	201	0	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	504	218	0	5	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	722	0	618	613
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	880	-	453	492
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	880	-	453	492
Mov Cap-2 Maneuver	-	-	-	-	453	-
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	1018	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	492	-	-	880	-
HCM Lane V/C Ratio	0.011	-	-	-	-
HCM Control Delay (s)	12.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	975	655	377	0	0
Future Vol, veh/h	0	975	655	377	0	0
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	0	1060	712	410	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	561
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	403
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	403
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	732	1261	0	0	0
Future Vol, veh/h	0	732	1261	0	0	0
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	0	796	1371	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	686
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	334
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	334
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	705	42	0	20	18	0
Future Vol, veh/h	705	42	0	20	18	0
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	766	46	0	22	20	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	811	789
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	22	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	349	391
Stage 1	-	-	0	-	448	-
Stage 2	-	-	0	-	1001	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	349	391
Mov Cap-2 Maneuver	-	-	-	-	349	-
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	1001	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	349	-	-	-
HCM Lane V/C Ratio	0.056	-	-	-
HCM Control Delay (s)	15.9	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

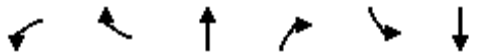
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	482	0	0	60	0	0
Future Vol, veh/h	482	0	0	60	0	0
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	524	0	0	65	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	524	0	589	524
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	65	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1043	-	471	553
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	958	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1043	-	471	553
Mov Cap-2 Maneuver	-	-	-	-	471	-
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	958	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1043	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1101	1388	504	0	0	2162
Future Volume (vph)	1101	1388	504	0	0	2162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1197	1509	548	0	0	2350
RTOR Reduction (vph)	0	151	0	0	0	0
Lane Group Flow (vph)	1197	1358	548	0	0	2350
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)		3		1		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.2	57.8	25.0			47.6
Effective Green, g (s)	35.2	57.8	25.0			47.6
Actuated g/C Ratio	0.36	0.59	0.26			0.49
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1235	1647	1299			3118
v/s Ratio Prot	c0.35	0.49	0.11			c0.37
v/s Ratio Perm						
v/c Ratio	0.97	0.82	0.42			0.75
Uniform Delay, d1	30.8	16.0	30.4			20.3
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	18.3	3.3	0.1			0.9
Delay (s)	49.1	19.3	30.5			21.3
Level of Service	D	B	C			C
Approach Delay (s)	32.5		30.5			21.3
Approach LOS	C		C			C

Intersection Summary			
HCM 2000 Control Delay	27.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	97.8	Sum of lost time (s)	22.5
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
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)	289	376	229	25	278	484	236	442	22	1031	453	221
Future Volume (veh/h)	289	376	229	25	278	484	236	442	22	1031	453	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	314	409	249	27	302	0	246	496	0	1121	492	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	448	728	252	503		402	844		965	507	
Arrive On Green	0.24	0.24	0.24	0.14	0.14	0.00	0.07	0.07	0.00	0.27	0.27	0.00
Sat Flow, veh/h	1781	1870	1546	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	314	409	249	27	302	0	246	496	0	1121	492	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1546	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	26.0	34.1	16.4	2.1	12.8	0.0	21.4	20.5	0.0	43.3	41.6	0.0
Cycle Q Clear(g_c), s	26.0	34.1	16.4	2.1	12.8	0.0	21.4	20.5	0.0	43.3	41.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	427	448	728	252	503		402	844		965	507	
V/C Ratio(X)	0.74	0.91	0.34	0.11	0.60		0.61	0.59		1.16	0.97	
Avail Cap(c_a), veh/h	435	457	735	357	713		402	844		965	507	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.00	0.91	0.91	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.2	59.2	27.3	59.9	64.4	0.0	67.3	66.8	0.0	58.3	57.7	0.0
Incr Delay (d2), s/veh	8.5	23.9	0.8	0.6	3.7	0.0	6.2	2.7	0.0	84.4	32.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	18.9	9.2	1.0	6.0	0.0	11.0	10.7	0.0	30.8	24.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	83.1	28.0	60.5	68.2	0.0	73.5	69.6	0.0	142.7	90.2	0.0
LnGrp LOS	E	F	C	E	E		E	E		F	F	
Approach Vol, veh/h		972			329			742			1613	
Approach Delay, s/veh		63.0			67.5			70.9			126.7	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	43.2	48.2	27.5	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	36.1	45.3	14.8	23.4
Green Ext Time (p_c), s	2.1	0.0	3.9	2.9

Intersection Summary	
HCM 6th Ctrl Delay	93.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	354	1072	3	0	583	177	0	0	0	72	1	206
Future Volume (veh/h)	354	1072	3	0	583	177	0	0	0	72	1	206
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	385	1165	3	0	634	192				78	1	224
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	416	1788	5	101	1240	367				556	7	494
Arrive On Green	0.23	0.49	0.49	0.00	0.64	0.64				0.32	0.32	0.32
Sat Flow, veh/h	1781	3636	9	1781	3883	1151				1760	23	1565
Grp Volume(v), veh/h	385	569	599	0	554	272				79	0	224
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1702	1630				1782	0	1565
Q Serve(g_s), s	22.8	25.9	25.9	0.0	9.4	9.8				3.4	0.0	12.3
Cycle Q Clear(g_c), s	22.8	25.9	25.9	0.0	9.4	9.8				3.4	0.0	12.3
Prop In Lane	1.00		0.01	1.00		0.71				0.99		1.00
Lane Grp Cap(c), veh/h	416	874	919	101	1087	520				563	0	494
V/C Ratio(X)	0.93	0.65	0.65	0.00	0.51	0.52				0.14	0.00	0.45
Avail Cap(c_a), veh/h	538	874	919	109	1087	520				563	0	494
HCM Platoon Ratio	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	0.00	0.81	0.81				1.00	0.00	1.00
Uniform Delay (d), s/veh	40.5	20.5	20.5	0.0	15.0	15.1				26.5	0.0	29.5
Incr Delay (d2), s/veh	2.2	0.3	0.3	0.0	1.4	3.0				0.5	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	10.3	10.8	0.0	3.0	3.2				1.5	0.0	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	20.9	20.9	0.0	16.4	18.1				27.0	0.0	32.5
LnGrp LOS	D	C	C	A	B	B				C	A	C
Approach Vol, veh/h		1553			826						303	
Approach Delay, s/veh		26.3			16.9						31.1	
Approach LOS		C			B						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	29.6	39.4
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I1), s	10.0	27.9		14.3	24.8	11.8
Green Ext Time (p_c), s	0.0	10.2		0.6	0.4	5.6

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)	327	757	106	101	665	30	144	140	126	137	17	28
Future Volume (veh/h)	327	757	106	101	665	30	144	140	126	137	17	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.87	1.00		0.77	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	355	823	115	110	723	33	157	152	137	149	18	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	1842	255	137	1581	72	411	181	163	182	64	106
Arrive On Green	0.23	0.55	0.55	0.08	0.32	0.32	0.23	0.23	0.23	0.10	0.10	0.10
Sat Flow, veh/h	1781	4455	616	1781	4970	225	1781	783	706	1781	625	1041
Grp Volume(v), veh/h	355	627	311	110	494	262	157	0	289	149	0	48
Grp Sat Flow(s),veh/h/ln	1781	1702	1666	1781	1702	1792	1781	0	1489	1781	0	1665
Q Serve(g_s), s	18.6	11.8	12.1	6.6	12.5	12.6	8.0	0.0	20.0	8.9	0.0	2.9
Cycle Q Clear(g_c), s	18.6	11.8	12.1	6.6	12.5	12.6	8.0	0.0	20.0	8.9	0.0	2.9
Prop In Lane	1.00		0.37	1.00		0.13	1.00		0.47	1.00		0.63
Lane Grp Cap(c), veh/h	307	1408	689	137	1083	570	411	0	344	182	0	170
V/C Ratio(X)	1.16	0.45	0.45	0.81	0.46	0.46	0.38	0.00	0.84	0.82	0.00	0.28
Avail Cap(c_a), veh/h	307	1408	689	191	1083	570	414	0	346	282	0	264
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)	0.81	0.81	0.81	1.00	1.00	1.00	0.76	0.00	0.76	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.6	16.9	17.0	49.1	29.4	29.4	35.0	0.0	39.6	47.5	0.0	44.8
Incr Delay (d2), s/veh	96.4	0.8	1.7	10.6	1.4	2.7	0.2	0.0	12.5	5.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	4.2	4.4	3.3	5.2	5.8	3.5	0.0	8.4	4.2	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	138.0	17.7	18.7	59.7	30.8	32.1	35.2	0.0	52.1	53.1	0.0	45.2
LnGrp LOS	F	B	B	E	C	C	D	A	D	D	A	D
Approach Vol, veh/h		1293			866			446			197	
Approach Delay, s/veh		51.0			34.8			46.1			51.2	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.0	39.2		29.8	12.7	49.6		15.9
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	18.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	20.6	14.6		22.0	8.6	14.1		10.9
Green Ext Time (p_c), s	0.0	6.2		0.5	0.0	10.3		0.2

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	376	604	81	78	844	431	104	43	75	90	35	177
Future Volume (veh/h)	376	604	81	78	844	431	104	43	75	90	35	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.58	1.00		0.84	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	409	657	88	85	917	468	113	47	82	98	38	192
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1142	150	108	893	242	427	178	544	287	43	218
Arrive On Green	0.05	0.25	0.25	0.06	0.26	0.26	0.33	0.33	0.33	0.16	0.16	0.16
Sat Flow, veh/h	1781	4500	592	1781	3404	923	1276	531	1335	1781	267	1349
Grp Volume(v), veh/h	409	494	251	85	917	468	160	0	82	98	0	230
Grp Sat Flow(s),veh/h/ln	1781	1702	1688	1781	1702	923	1807	0	1335	1781	0	1616
Q Serve(g_s), s	5.3	12.8	13.2	4.8	26.5	26.5	6.5	0.0	4.0	4.9	0.0	14.1
Cycle Q Clear(g_c), s	5.3	12.8	13.2	4.8	26.5	26.5	6.5	0.0	4.0	4.9	0.0	14.1
Prop In Lane	1.00		0.35	1.00		1.00	0.71		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	93	864	428	108	893	242	605	0	544	287	0	261
V/C Ratio(X)	4.38	0.57	0.59	0.79	1.03	1.93	0.26	0.00	0.15	0.34	0.00	0.88
Avail Cap(c_a), veh/h	93	864	428	134	893	242	644	0	572	319	0	289
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.9	32.9	33.0	46.8	37.3	37.3	24.5	0.0	19.7	37.6	0.0	41.4
Incr Delay (d2), s/veh	1544.7	2.7	5.8	17.0	37.3	434.9	0.1	0.0	0.0	0.3	0.0	22.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	42.4	5.5	5.9	2.6	15.3	35.0	2.8	0.0	1.2	2.2	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1592.6	35.6	38.8	63.8	74.6	472.1	24.6	0.0	19.7	37.9	0.0	64.0
LnGrp LOS	F	D	D	E	F	F	C	A	B	D	A	E
Approach Vol, veh/h		1154			1470			242			328	
Approach Delay, s/veh		588.1			200.5			22.9			56.2	
Approach LOS		F			F			C			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.5	30.6		21.2	9.7	31.4		38.8
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	6.8	15.2		16.1	7.3	28.5		8.5
Green Ext Time (p_c), s	0.0	3.7		0.2	0.0	0.0		0.8

Intersection Summary		
HCM 6th Ctrl Delay	312.3	
HCM 6th LOS	F	

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	733	42	144	1309	0	133
Future Vol, veh/h	733	42	144	1309	0	133
Conflicting Peds, #/hr	0	23	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	797	46	157	1423	0	145

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	866	0	-	448
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	454	-	0	477
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	444	-	-	465
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	465	-	-	444	-
HCM Lane V/C Ratio	0.311	-	-	0.353	-
HCM Control Delay (s)	16.2	-	-	17.5	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	1.3	-	-	1.6	-



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	830	56	196	1366	134	155
Future Volume (veh/h)	830	56	196	1366	134	155
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	902	61	213	1485	146	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2948	199	246	4000	224	199
Arrive On Green	0.60	0.60	0.14	0.78	0.13	0.13
Sat Flow, veh/h	5044	329	1781	5274	1781	1585
Grp Volume(v), veh/h	629	334	213	1485	146	168
Grp Sat Flow(s),veh/h/ln	1702	1800	1781	1702	1781	1585
Q Serve(g_s), s	9.7	9.7	12.6	9.6	8.4	11.2
Cycle Q Clear(g_c), s	9.7	9.7	12.6	9.6	8.4	11.2
Prop In Lane		0.18	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2058	1088	246	4000	224	199
V/C Ratio(X)	0.31	0.31	0.87	0.37	0.65	0.84
Avail Cap(c_a), veh/h	2058	1088	785	4000	397	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.26	0.26	0.99	0.99
Uniform Delay (d), s/veh	10.4	10.4	45.6	3.6	45.0	46.2
Incr Delay (d2), s/veh	0.4	0.7	1.0	0.1	1.2	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.8	5.6	2.4	3.8	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.7	11.1	46.5	3.6	46.1	49.8
LnGrp LOS	B	B	D	A	D	D
Approach Vol, veh/h	963			1698	314	
Approach Delay, s/veh	10.9			9.0	48.1	
Approach LOS	B			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	19.3	70.2				89.5	18.5
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	47.6	22.1				74.1	24.1
Max Q Clear Time (g_c+I1), s	14.6	11.7				11.6	13.2
Green Ext Time (p_c), s	0.3	6.5				24.0	0.4

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	460	132	130	387	228	136	135	121	63	90	67
Future Volume (veh/h)	82	460	132	130	387	228	136	135	121	63	90	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.94	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	500	143	141	421	248	148	148	132	68	98	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	599	2020	893	184	605	352	247	260	292	214	225	180
Arrive On Green	0.67	1.00	1.00	0.11	0.56	0.56	0.14	0.14	0.14	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1571	3456	2145	1250	1781	1870	1494	1781	1870	1498
Grp Volume(v), veh/h	89	500	143	141	348	321	148	148	132	68	98	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1571	1728	1777	1619	1781	1870	1494	1781	1870	1498
Q Serve(g_s), s	2.9	0.0	0.0	6.4	22.5	23.0	12.5	11.8	12.5	5.6	7.8	7.2
Cycle Q Clear(g_c), s	2.9	0.0	0.0	6.4	22.5	23.0	12.5	11.8	12.5	5.6	7.8	7.2
Prop In Lane	1.00		1.00	1.00		0.77	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	599	2020	893	184	501	456	247	260	292	214	225	180
V/C Ratio(X)	0.15	0.25	0.16	0.77	0.69	0.70	0.60	0.57	0.45	0.32	0.44	0.41
Avail Cap(c_a), veh/h	599	2020	893	467	501	456	391	410	412	391	410	329
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.12	0.12	0.12	0.64	0.64	0.64	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	17.8	0.0	0.0	70.5	30.0	30.1	64.7	64.4	57.3	64.4	65.3	65.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.6	5.0	5.8	0.9	0.7	0.4	0.3	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	2.8	8.5	8.0	5.8	5.7	4.8	2.6	3.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.0	0.0	72.1	35.0	35.8	65.6	65.2	57.7	64.6	65.8	65.6
LnGrp LOS	B	A	A	E	D	D	E	E	E	E	E	E
Approach Vol, veh/h		732			810			428			239	
Approach Delay, s/veh		2.2			41.8			63.0			65.4	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.9	95.8		24.1	58.7	50.0		27.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	8.4	2.0		9.8	4.9	25.0		14.5
Green Ext Time (p_c), s	0.2	6.5		0.5	0.1	6.7		0.9

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	714	11	9	786	406	5	0	5	150	8	52
Future Volume (veh/h)	42	714	11	9	786	406	5	0	5	150	8	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.96		0.98	0.99		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	776	12	10	854	441	5	0	5	163	9	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1965	30	398	1190	608	244	21	197	335	28	95
Arrive On Green	0.03	0.55	0.55	0.01	0.53	0.53	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3580	55	1781	2258	1154	668	80	749	979	105	359
Grp Volume(v), veh/h	46	385	403	10	670	625	10	0	0	229	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1858	1781	1777	1635	1498	0	0	1443	0	0
Q Serve(g_s), s	0.9	10.0	10.0	0.2	22.9	23.4	0.0	0.0	0.0	10.2	0.0	0.0
Cycle Q Clear(g_c), s	0.9	10.0	10.0	0.2	22.9	23.4	0.3	0.0	0.0	11.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.71	0.50		0.50	0.71		0.25
Lane Grp Cap(c), veh/h	247	975	1020	398	936	861	462	0	0	458	0	0
V/C Ratio(X)	0.19	0.39	0.40	0.03	0.72	0.73	0.02	0.00	0.00	0.50	0.00	0.00
Avail Cap(c_a), veh/h	381	975	1020	572	936	861	462	0	0	458	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.51	0.51	0.51	1.00	0.00	0.00	0.61	0.00	0.00
Uniform Delay (d), s/veh	11.8	10.4	10.4	9.1	14.4	14.5	21.8	0.0	0.0	25.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.2	1.1	0.0	2.4	2.8	0.0	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.8	4.0	0.1	8.8	8.4	0.1	0.0	0.0	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	11.6	11.5	9.1	16.8	17.3	21.8	0.0	0.0	28.0	0.0	0.0
LnGrp LOS	B	B	B	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		834			1305			10			229	
Approach Delay, s/veh		11.6			17.0			21.8			28.0	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.2	48.8		26.0	7.0	47.0		26.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.2	12.0		13.0	2.9	25.4		2.3
Green Ext Time (p_c), s	0.0	5.7		0.5	0.0	6.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	30	16	301	203	32
Future Vol, veh/h	8	30	16	301	203	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	33	17	327	221	35
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.2	11	9.5
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	21%	0%
Vol Thru, %	0%	100%	0%	86%
Vol Right, %	0%	0%	79%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	301	38	235
LT Vol	16	0	8	0
Through Vol	0	301	0	203
RT Vol	0	0	30	32
Lane Flow Rate	17	327	41	255
Geometry Grp	7	7	2	5
Degree of Util (X)	0.025	0.43	0.056	0.314
Departure Headway (Hd)	5.237	4.736	4.856	4.428
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	676	749	739	815
Service Time	3.029	2.527	2.873	2.439
HCM Lane V/C Ratio	0.025	0.437	0.055	0.313
HCM Control Delay	8.2	11.1	8.2	9.5
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.1	2.2	0.2	1.3

LANE SUMMARY

Site: 1 [OY WP 2030 Phase 1 Pre-Event 20,000_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	71	0.0	71	0.0	1380	0.051	100	2.9	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	71	0.0	71	0.0		0.051		2.9	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	667	0.0	667	0.0	1284	0.520	100	8.0	LOS A	4.2	104.4	Full	1600	0.0	0.0
Approach	667	0.0	667	0.0		0.520		8.0	LOS A	4.2	104.4				
West: Hancock Street															
Lane 1[d]	340	0.0	340	0.0	851	0.400	100	8.9	LOS A	2.2	54.6	Full	1600	0.0	0.0
Approach	340	0.0	340	0.0		0.400		8.9	LOS A	2.2	54.6				
All Vehicles	1078	0.0	1078	0.0		0.520		7.9	LOS A	4.2	104.4				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	71	71	0.0	1380	0.051	100	NA	NA
Approach	71	71	0.0		0.051			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	474	193	667	0.0	1284	0.520	100	NA	NA
Approach	474	193	667	0.0		0.520			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	340	340	0.0	851	0.400	100	NA	NA
Approach	340	340	0.0		0.400			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1078	0.0	0.520

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	19.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	338	0	0	0	0	0	0	1	177	87	204
Future Vol, veh/h	75	338	0	0	0	0	0	0	1	177	87	204
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	82	367	0	0	0	0	0	0	1	192	95	222
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	18.4	8.4	19.7
HCM LOS	C	A	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	18%	38%
Vol Thru, %	0%	82%	19%
Vol Right, %	100%	0%	44%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1	413	468
LT Vol	0	75	177
Through Vol	0	338	87
RT Vol	1	0	204
Lane Flow Rate	1	449	509
Geometry Grp	1	1	1
Degree of Util (X)	0.002	0.666	0.715
Departure Headway (Hd)	5.383	5.337	5.062
Convergence, Y/N	Yes	Yes	Yes
Cap	663	678	717
Service Time	3.434	3.371	3.062
HCM Lane V/C Ratio	0.002	0.662	0.71
HCM Control Delay	8.4	18.4	19.7
HCM Lane LOS	A	C	C
HCM 95th-tile Q	0	5.1	6.1

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	414	0	0	54	0
Future Vol, veh/h	35	414	0	0	54	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	450	0	0	59	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.8	8.7
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	20%	0%	100%
Vol Thru, %	80%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	173	276	54
LT Vol	35	0	54
Through Vol	138	276	0
RT Vol	0	0	0
Lane Flow Rate	188	300	59
Geometry Grp	7	7	2
Degree of Util (X)	0.247	0.386	0.084
Departure Headway (Hd)	4.738	4.637	5.179
Convergence, Y/N	Yes	Yes	Yes
Cap	752	771	696
Service Time	2.501	2.4	3.179
HCM Lane V/C Ratio	0.25	0.389	0.085
HCM Control Delay	9.1	10.3	8.7
HCM Lane LOS	A	B	A
HCM 95th-tile Q	1	1.8	0.3

Intersection	
Intersection Delay, s/veh	59.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	427	541	21	63	18	0	0	39	10
Future Vol, veh/h	0	0	0	427	541	21	63	18	0	0	39	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	464	588	23	68	20	0	0	42	11
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	66.2	10.4	9.6
HCM LOS	F	B	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	78%	61%	0%	0%
Vol Thru, %	22%	39%	93%	80%
Vol Right, %	0%	0%	7%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	81	698	292	49
LT Vol	63	427	0	0
Through Vol	18	271	271	39
RT Vol	0	0	21	10
Lane Flow Rate	88	758	317	53
Geometry Grp	2	7	7	2
Degree of Util (X)	0.148	1.108	0.432	0.087
Departure Headway (Hd)	6.274	5.262	4.904	6.071
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	575	690	735	594
Service Time	4.274	2.994	2.636	4.071
HCM Lane V/C Ratio	0.153	1.099	0.431	0.089
HCM Control Delay	10.4	89.1	11.3	9.6
HCM Lane LOS	B	F	B	A
HCM 95th-tile Q	0.5	22	2.2	0.3

Intersection	
Intersection Delay, s/veh	15.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	31	795	17	30	3	0	0	28	161
Future Vol, veh/h	0	0	0	31	795	17	30	3	0	0	28	161
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	34	864	18	33	3	0	0	30	175
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	17.4	9.6	10.4
HCM LOS	C	A	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	91%	7%	0%	0%
Vol Thru, %	9%	93%	96%	15%
Vol Right, %	0%	0%	4%	85%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	429	415	189
LT Vol	30	31	0	0
Through Vol	3	398	398	28
RT Vol	0	0	17	161
Lane Flow Rate	36	466	451	205
Geometry Grp	2	7	7	2
Degree of Util (X)	0.061	0.673	0.642	0.295
Departure Headway (Hd)	6.131	5.198	5.133	5.167
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	581	694	698	694
Service Time	4.203	2.957	2.892	3.211
HCM Lane V/C Ratio	0.062	0.671	0.646	0.295
HCM Control Delay	9.6	18.1	16.7	10.4
HCM Lane LOS	A	C	C	B
HCM 95th-tile Q	0.2	5.2	4.7	1.2

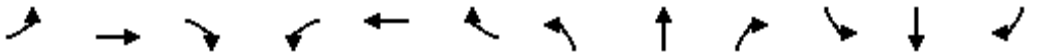
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	0	0	25	0	1954	12	0	2451	184
Future Vol, veh/h	0	0	11	0	0	25	0	1954	12	0	2451	184
Conflicting Peds, #/hr	0	0	0	0	0	2	0	0	4	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	27	0	2124	13	0	2664	200

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1436	-	-	1075	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	105	0	0	187	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	105	-	-	186	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	43.6	27.6	0	0
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	105	186	-	-
HCM Lane V/C Ratio	-	-	0.114	0.146	-	-
HCM Control Delay (s)	-	-	43.6	27.6	-	-
HCM Lane LOS	-	-	E	D	-	-
HCM 95th %tile Q(veh)	-	-	0.4	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	122	269	48	114	1917	14	0	1940	491
Future Volume (veh/h)	0	0	0	122	269	48	114	1917	14	0	1940	491
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				133	292	52	124	2084	15	0	2109	534
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				163	377	69	142	4048	29	0	3415	1051
Arrive On Green				0.17	0.17	0.17	0.16	1.00	1.00	0.00	0.67	0.67
Sat Flow, veh/h				962	2229	411	1781	5230	38	0	5274	1572
Grp Volume(v), veh/h				252	0	225	124	1356	743	0	2109	534
Grp Sat Flow(s),veh/h/ln				1822	0	1780	1781	1702	1863	0	1702	1572
Q Serve(g_s), s				22.9	0.0	20.7	11.7	0.0	0.0	0.0	40.1	29.3
Cycle Q Clear(g_c), s				22.9	0.0	20.7	11.7	0.0	0.0	0.0	40.1	29.3
Prop In Lane				0.53		0.23	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				308	0	301	142	2635	1442	0	3415	1051
V/C Ratio(X)				0.82	0.00	0.75	0.87	0.51	0.52	0.00	0.62	0.51
Avail Cap(c_a), veh/h				372	0	363	275	2635	1442	0	3415	1051
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.74	0.74	0.74	0.00	1.00	1.00
Uniform Delay (d), s/veh				68.9	0.0	68.0	71.5	0.0	0.0	0.0	16.1	14.3
Incr Delay (d2), s/veh				9.5	0.0	5.1	4.8	0.5	1.0	0.0	0.8	1.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.6	0.0	9.9	5.1	0.2	0.4	0.0	15.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				78.4	0.0	73.1	76.3	0.5	1.0	0.0	16.9	16.0
LnGrp LOS				E	A	E	E	A	A	A	B	B
Approach Vol, veh/h					477			2223			2643	
Approach Delay, s/veh					75.9			4.9			16.7	
Approach LOS					E			A			B	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	138.0	34.0	18.1	119.9
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	24.9	13.7	42.1
Green Ext Time (p_c), s	7.1	0.8	0.0	8.4

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



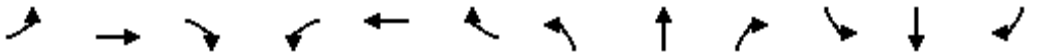
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	303	143	84	0	0	0	0	1743	23	57	1981	0
Future Volume (veh/h)	303	143	84	0	0	0	0	1743	23	57	1981	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	329	155	91				0	1895	25	62	2153	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	356	216	127				0	3501	46	77	4781	0
Arrive On Green	0.20	0.20	0.20				0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	1781	1080	634				0	5362	68	1781	6696	0
Grp Volume(v), veh/h	329	0	246				0	1242	678	62	2153	0
Grp Sat Flow(s),veh/h/ln	1781	0	1714				0	1702	1858	1781	1609	0
Q Serve(g_s), s	31.2	0.0	23.1				0.0	0.0	0.0	5.9	0.0	0.0
Cycle Q Clear(g_c), s	31.2	0.0	23.1				0.0	0.0	0.0	5.9	0.0	0.0
Prop In Lane	1.00		0.37				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	356	0	343				0	2295	1252	77	4781	0
V/C Ratio(X)	0.92	0.00	0.72				0.00	0.54	0.54	0.80	0.45	0.00
Avail Cap(c_a), veh/h	364	0	350				0	2295	1252	162	4781	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.72	0.72	0.75	0.75	0.00
Uniform Delay (d), s/veh	67.5	0.0	64.3				0.0	0.0	0.0	77.8	0.0	0.0
Incr Delay (d2), s/veh	27.9	0.0	5.8				0.0	0.7	1.2	5.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.0	0.0	10.7				0.0	0.2	0.4	2.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.4	0.0	70.1				0.0	0.7	1.2	83.1	0.2	0.0
LnGrp LOS	F	A	E				A	A	A	F	A	A
Approach Vol, veh/h		575						1920			2215	
Approach Delay, s/veh		84.6						0.9			2.6	
Approach LOS		F						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.9	120.8		39.3		132.7
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9
Max Green Setting (Gmax), s	15.6	107.1		35.1		127.1
Max Q Clear Time (g_c+I1), s	7.9	2.0		33.2		2.0
Green Ext Time (p_c), s	0.0	5.5		0.2		8.3

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	416	345	255	210	205	9	475	1356	275	0	1189	856
Future Volume (vph)	416	345	255	210	205	9	475	1356	275	0	1189	856
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	0.99			1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3336	1483	1610	3330		3662	4931			5085	1489
Flt Permitted	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3336	1483	1610	3330		3662	4931			5085	1489
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	452	375	277	228	223	10	516	1474	299	0	1292	930
RTOR Reduction (vph)	0	0	220	0	2	0	0	15	0	0	0	333
Lane Group Flow (vph)	271	556	57	150	309	0	516	1758	0	0	1292	597
Confl. Peds. (#/hr)			35			4			10			26
Confl. Bikes (#/hr)			2						5			1
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	34.2	34.2	34.2	20.2	20.2		31.8	99.9			62.7	62.7
Effective Green, g (s)	34.2	34.2	34.2	20.2	20.2		31.8	99.9			62.7	62.7
Actuated g/C Ratio	0.20	0.20	0.20	0.12	0.12		0.18	0.58			0.36	0.36
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	320	663	294	189	391		677	2863			1853	542
v/s Ratio Prot	c0.17	0.17		c0.09	0.09		c0.14	0.36			0.25	
v/s Ratio Perm			0.04									c0.40
v/c Ratio	0.85	0.84	0.19	0.79	0.79		0.76	0.61			0.70	1.10
Uniform Delay, d1	66.4	66.2	57.4	73.9	73.8		66.5	23.5			46.6	54.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.13	0.44			0.65	0.72
Incremental Delay, d2	17.6	8.7	0.1	18.9	9.8		3.3	0.7			2.0	67.7
Delay (s)	84.0	75.0	57.5	92.7	83.6		78.7	11.1			32.3	107.0
Level of Service	F	E	E	F	F		E	B			C	F
Approach Delay (s)		72.8			86.6			26.3			63.6	
Approach LOS		E			F			C			E	

Intersection Summary			
HCM 2000 Control Delay	53.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	91.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	420	259	86	614	352	312	1515	98	265	1080	294
Future Volume (veh/h)	199	420	259	86	614	352	312	1515	98	265	1080	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	457	282	93	667	383	339	1647	107	288	1174	320
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	607	253	134	622	264	382	2051	133	747	2091	570
Arrive On Green	0.07	0.17	0.17	0.08	0.17	0.17	0.04	0.14	0.14	0.22	0.53	0.53
Sat Flow, veh/h	3456	3554	1480	1781	3554	1509	3456	4893	318	3456	3963	1080
Grp Volume(v), veh/h	216	457	282	93	667	383	339	1145	609	288	1008	486
Grp Sat Flow(s),veh/h/ln	1728	1777	1480	1781	1777	1509	1728	1702	1807	1728	1702	1639
Q Serve(g_s), s	10.6	21.0	23.6	8.8	30.1	20.0	16.8	56.1	56.2	12.3	34.2	34.2
Cycle Q Clear(g_c), s	10.6	21.0	23.6	8.8	30.1	20.0	16.8	56.1	56.2	12.3	34.2	34.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.66
Lane Grp Cap(c), veh/h	256	607	253	134	622	264	382	1427	757	747	1796	865
V/C Ratio(X)	0.84	0.75	1.11	0.69	1.07	1.45	0.89	0.80	0.80	0.39	0.56	0.56
Avail Cap(c_a), veh/h	434	684	285	193	622	264	675	1427	757	747	1796	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	78.7	67.8	45.8	77.6	70.9	31.2	81.8	67.2	67.2	57.6	27.3	27.3
Incr Delay (d2), s/veh	2.7	3.2	88.5	2.4	57.1	222.6	2.5	4.0	7.4	0.1	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	9.9	15.0	4.1	18.6	23.7	8.0	26.6	29.0	5.4	13.8	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.4	71.0	134.3	80.0	128.1	253.9	84.3	71.2	74.6	57.8	27.5	27.8
LnGrp LOS	F	E	F	E	F	F	F	E	E	E	C	C
Approach Vol, veh/h		955			1143			2093			1782	
Approach Delay, s/veh		92.1			166.3			74.3			32.5	
Approach LOS		F			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	77.0	17.8	34.3	23.4	96.5	17.1	35.0
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	14.3	58.2	10.8	25.6	18.8	36.2	12.6	32.1
Green Ext Time (p_c), s	0.2	4.1	0.0	1.0	0.2	4.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	82.3
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	8	9	92	10	77	7	1732	16	98	1286	33
Future Volume (veh/h)	41	8	9	92	10	77	7	1732	16	98	1286	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	9	10	100	11	84	8	1883	17	107	1398	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	29	26	138	14	91	16	3671	33	126	3915	101
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.70	0.70	0.07	0.76	0.76
Sat Flow, veh/h	786	212	185	769	101	658	1781	5219	47	1781	5118	132
Grp Volume(v), veh/h	64	0	0	195	0	0	8	1228	672	107	930	504
Grp Sat Flow(s),veh/h/ln	1182	0	0	1528	0	0	1781	1702	1862	1781	1702	1846
Q Serve(g_s), s	0.0	0.0	0.0	13.3	0.0	0.0	0.8	28.8	28.8	10.2	15.2	15.2
Cycle Q Clear(g_c), s	8.3	0.0	0.0	21.6	0.0	0.0	0.8	28.8	28.8	10.2	15.2	15.2
Prop In Lane	0.70		0.16	0.51		0.43	1.00		0.03	1.00		0.07
Lane Grp Cap(c), veh/h	200	0	0	243	0	0	16	2394	1309	126	2604	1412
V/C Ratio(X)	0.32	0.00	0.00	0.80	0.00	0.00	0.49	0.51	0.51	0.85	0.36	0.36
Avail Cap(c_a), veh/h	250	0	0	298	0	0	162	2394	1309	369	2604	1412
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.79	0.79	0.79	0.71	0.71	0.71
Uniform Delay (d), s/veh	67.2	0.0	0.0	72.9	0.0	0.0	84.8	11.8	11.8	79.0	6.5	6.5
Incr Delay (d2), s/veh	0.3	0.0	0.0	9.8	0.0	0.0	6.4	0.6	1.1	4.3	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	9.3	0.0	0.0	0.4	10.6	11.8	4.8	5.1	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	0.0	0.0	82.7	0.0	0.0	91.2	12.5	13.0	83.3	6.8	7.0
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		64			195			1908			1541	
Approach Delay, s/veh		67.5			82.7			13.0			12.2	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.6	126.7		28.7	6.0	137.3		28.7
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	12.2	30.8		10.3	2.8	17.2		23.6
Green Ext Time (p_c), s	0.0	5.4		0.1	0.0	3.5		0.2

Intersection Summary		
HCM 6th Ctrl Delay		17.3
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	150	7	499	303	243	18	1348	516	79	1034	262
Future Volume (veh/h)	177	150	7	499	303	243	18	1348	516	79	1034	262
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	163	8	542	329	264	20	1465	561	86	1124	285
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	252	12	578	353	299	32	2766	858	123	1988	885
Arrive On Green	0.12	0.14	0.14	0.17	0.19	0.19	0.02	0.54	0.54	0.07	1.00	1.00
Sat Flow, veh/h	1781	1767	87	3456	1870	1583	1781	5106	1584	3456	3554	1582
Grp Volume(v), veh/h	192	0	171	542	329	264	20	1465	561	86	1124	285
Grp Sat Flow(s),veh/h/ln	1781	0	1854	1728	1870	1583	1781	1702	1584	1728	1777	1582
Q Serve(g_s), s	18.3	0.0	15.0	26.6	29.8	24.9	1.9	31.7	43.2	4.2	0.0	0.0
Cycle Q Clear(g_c), s	18.3	0.0	15.0	26.6	29.8	24.9	1.9	31.7	43.2	4.2	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	0	265	578	353	299	32	2766	858	123	1988	885
V/C Ratio(X)	0.91	0.00	0.65	0.94	0.93	0.88	0.63	0.53	0.65	0.70	0.57	0.32
Avail Cap(c_a), veh/h	265	0	443	615	501	424	120	2766	858	434	1988	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	74.9	0.0	69.6	70.7	68.7	53.7	83.9	25.3	28.0	79.0	0.0	0.0
Incr Delay (d2), s/veh	26.0	0.0	1.0	20.9	16.6	11.5	7.3	0.7	3.9	2.5	1.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	7.2	13.4	15.8	10.8	0.9	12.9	17.0	1.9	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.9	0.0	70.6	91.7	85.3	65.2	91.2	26.1	31.8	81.5	1.1	0.9
LnGrp LOS	F	A	E	F	F	E	F	C	C	F	A	A
Approach Vol, veh/h		363			1135			2046			1495	
Approach Delay, s/veh		86.6			83.7			28.3			5.7	
Approach LOS		F			F			C			A	

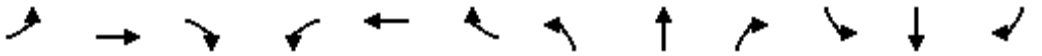
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	98.9	33.2	29.4	7.5	101.9	25.3	37.4
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	5.2	45.2	28.6	17.0	3.9	2.0	20.3	31.8
Green Ext Time (p_c), s	0.0	4.1	0.1	0.3	0.0	3.1	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	142	8	41	0	78	0	450	254	49	369	0
Future Volume (vph)	36	142	8	41	0	78	0	450	254	49	369	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.94		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1844		1770		1552		3151		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.29	1.00	
Satd. Flow (perm)	1770	1844		1770		1552		3151		544	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	154	9	45	0	85	0	489	276	53	401	0
RTOR Reduction (vph)	0	3	0	0	0	80	0	54	0	0	0	0
Lane Group Flow (vph)	39	160	0	45	0	5	0	711	0	53	401	0
Confl. Peds. (#/hr)			21						70			11
Confl. Bikes (#/hr)			1			2						
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	11.5	11.5		5.2		5.2		52.0		60.6	60.6	
Effective Green, g (s)	11.5	11.5		5.2		5.2		52.0		60.6	60.6	
Actuated g/C Ratio	0.13	0.13		0.06		0.06		0.57		0.66	0.66	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	222	231		100		88		1790		416	2343	
v/s Ratio Prot	0.02	c0.09		c0.03				c0.23		0.01	c0.11	
v/s Ratio Perm						0.00				0.08		
v/c Ratio	0.18	0.69		0.45		0.05		0.40		0.13	0.17	
Uniform Delay, d1	35.8	38.3		41.8		40.8		11.0		6.1	5.9	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.1	7.1		1.2		0.1		0.7		0.1	0.2	
Delay (s)	35.9	45.4		42.9		40.9		11.7		6.1	6.0	
Level of Service	D	D		D		D		B		A	A	
Approach Delay (s)		43.6			41.6			11.7			6.1	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	23.1
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.9

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	114	441	433	290	0	0
Future Vol, veh/h	114	441	433	290	0	0
Conflicting Peds, #/hr	0	0	0	12	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	124	479	471	315	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	798	0	-	0	1129	405
Stage 1	-	-	-	-	641	-
Stage 2	-	-	-	-	488	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	820	-	-	-	198	595
Stage 1	-	-	-	-	487	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	811	-	-	-	164	588
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	577	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	811	-	-	-	-
HCM Lane V/C Ratio	0.153	-	-	-	-
HCM Control Delay (s)	10.2	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	334	90	292	432	60	322	128	216	52	170	114
Future Volume (veh/h)	53	334	90	292	432	60	322	128	216	52	170	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	363	98	317	470	65	350	139	235	57	185	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1510	761	398	690	567	384	1137	1180	111	484	205
Arrive On Green	0.04	0.30	0.30	0.12	0.37	0.37	0.22	0.32	0.32	0.03	0.14	0.14
Sat Flow, veh/h	1781	5106	1419	3456	1870	1537	1781	3554	2687	3456	3554	1504
Grp Volume(v), veh/h	58	363	98	317	470	65	350	139	235	57	185	124
Grp Sat Flow(s),veh/h/ln	1781	1702	1419	1728	1870	1537	1781	1777	1343	1728	1777	1504
Q Serve(g_s), s	3.2	5.3	3.6	8.8	20.9	2.8	18.9	2.7	5.3	1.6	4.7	7.7
Cycle Q Clear(g_c), s	3.2	5.3	3.6	8.8	20.9	2.8	18.9	2.7	5.3	1.6	4.7	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	1510	761	398	690	567	384	1137	1180	111	484	205
V/C Ratio(X)	0.77	0.24	0.13	0.80	0.68	0.11	0.91	0.12	0.20	0.51	0.38	0.61
Avail Cap(c_a), veh/h	542	2070	917	1051	758	623	542	1441	1410	1051	1441	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	26.3	12.6	42.5	26.3	20.5	37.8	23.7	17.3	47.0	38.8	40.1
Incr Delay (d2), s/veh	6.1	0.1	0.1	1.4	1.8	0.0	12.7	0.0	0.1	1.4	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.2	1.1	3.8	9.3	0.9	9.2	1.1	1.5	0.7	2.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	26.4	12.7	43.9	28.1	20.6	50.5	23.8	17.3	48.4	39.0	41.2
LnGrp LOS	D	C	B	D	C	C	D	C	B	D	D	D
Approach Vol, veh/h		519			852			724			366	
Approach Delay, s/veh		26.8			33.4			34.6			41.2	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	35.1	26.7	20.1	9.6	42.3	8.6	38.3
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	10.8	7.3	20.9	9.7	5.2	22.9	3.6	7.3
Green Ext Time (p_c), s	0.5	3.7	0.4	0.9	0.1	2.0	0.1	1.8

Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

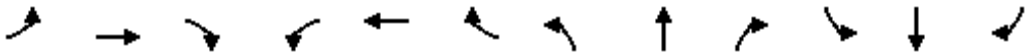
Intersection	
Int Delay, s/veh	18.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	532	220	603	549	14
Future Vol, veh/h	0	532	220	603	549	14
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	578	239	655	597	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	308	614	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	587	598	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	586	597	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	60.5	4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	597	-	586	-	-
HCM Lane V/C Ratio	0.401	-	0.987	-	-
HCM Control Delay (s)	15	-	60.5	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	1.9	-	14.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	3	32	15	1	14	304	963	10	20	960	146
Future Volume (veh/h)	52	3	32	15	1	14	304	963	10	20	960	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	3	35	16	1	15	330	1047	11	22	1043	159
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	541	453	24	504	423	337	1782	793	30	1013	154
Arrive On Green	0.04	0.29	0.29	0.01	0.27	0.27	0.19	0.50	0.50	0.02	0.33	0.33
Sat Flow, veh/h	1781	1870	1565	1781	1870	1571	1781	3554	1582	1781	3079	469
Grp Volume(v), veh/h	57	3	35	16	1	15	330	1047	11	22	601	601
Grp Sat Flow(s),veh/h/ln	1781	1870	1565	1781	1870	1571	1781	1777	1582	1781	1777	1770
Q Serve(g_s), s	4.2	0.1	2.1	1.2	0.1	0.9	24.1	27.3	0.5	1.6	43.1	43.1
Cycle Q Clear(g_c), s	4.2	0.1	2.1	1.2	0.1	0.9	24.1	27.3	0.5	1.6	43.1	43.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	73	541	453	24	504	423	337	1782	793	30	585	583
V/C Ratio(X)	0.78	0.01	0.08	0.67	0.00	0.04	0.98	0.59	0.01	0.73	1.03	1.03
Avail Cap(c_a), veh/h	73	541	453	73	504	423	337	1782	793	79	585	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.2	33.1	33.8	64.3	35.0	35.3	52.8	23.1	16.4	64.1	43.9	43.9
Incr Delay (d2), s/veh	42.1	0.0	0.3	11.2	0.0	0.2	42.9	0.3	0.0	12.1	44.6	45.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	0.8	0.6	0.0	0.4	14.3	10.6	0.2	0.8	25.4	25.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.3	33.1	34.2	75.5	35.0	35.4	95.7	23.4	16.4	76.2	88.6	89.5
LnGrp LOS	F	C	C	E	C	D	F	C	B	E	F	F
Approach Vol, veh/h		95			32			1388			1224	
Approach Delay, s/veh		76.2			55.5			40.5			88.8	
Approach LOS		E			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	46.6	29.2	48.0	9.8	44.0	6.6	70.6
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	5.4	33.3	24.8	43.1	5.4	* 35	5.8	62.1
Max Q Clear Time (g_c+I1), s	3.2	4.1	26.1	45.1	6.2	2.9	3.6	29.3
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.1	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	63.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

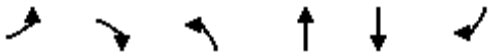
Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	916	1061	6	0	278
Future Vol, veh/h	0	916	1061	6	0	278
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	996	1153	7	0	302

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	577
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	460
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	460
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	26.6
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	460
HCM Lane V/C Ratio	-	-	0.657
HCM Control Delay (s)	-	-	26.6
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	4.6



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	795	120	0	901	1126	1070
Future Volume (vph)	795	120	0	901	1126	1070
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1563		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1563		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	864	130	0	979	1224	1163
RTOR Reduction (vph)	0	58	0	0	0	0
Lane Group Flow (vph)	864	72	0	979	1224	1163
Confl. Peds. (#/hr)		1				5
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	40.7	40.7		52.5	52.5	132.8
Effective Green, g (s)	40.7	40.7		52.5	52.5	122.0
Actuated g/C Ratio	0.31	0.31		0.40	0.40	0.92
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1052	479		1399	1399	1454
v/s Ratio Prot	0.25			0.28	c0.35	c0.73
v/s Ratio Perm		0.05				
v/c Ratio	0.82	0.15		0.70	0.87	0.80
Uniform Delay, d1	42.7	33.5		33.6	37.1	1.7
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	5.1	0.1		1.5	6.4	3.1
Delay (s)	47.8	33.6		35.1	43.5	4.7
Level of Service	D	C		D	D	A
Approach Delay (s)	46.0			35.1	24.6	
Approach LOS	D			D	C	

Intersection Summary			
HCM 2000 Control Delay	31.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	132.8	Sum of lost time (s)	19.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	792	171	117	1621
Future Volume (veh/h)	0	1	792	171	117	1621
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	861	186	127	1762
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	5	2393	1047	217	2861
Arrive On Green	0.00	0.00	0.67	0.67	0.06	0.81
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	861	186	127	1762
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	6.7	2.8	2.3	12.3
Cycle Q Clear(g_c), s	0.0	0.0	6.7	2.8	2.3	12.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	5	2393	1047	217	2861
V/C Ratio(X)	0.00	0.20	0.36	0.18	0.58	0.62
Avail Cap(c_a), veh/h	1114	1983	3334	1458	1621	3334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	31.9	4.5	3.9	29.2	2.4
Incr Delay (d2), s/veh	0.0	7.2	0.1	0.1	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.7	0.6	0.9	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	39.1	4.6	4.0	30.1	3.0
LnGrp LOS	A	D	A	A	C	A
Approach Vol, veh/h	1		1047			1889
Approach Delay, s/veh	39.1		4.5			4.8
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.4	49.3			57.7	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	4.3	8.7			14.3	2.0
Green Ext Time (p_c), s	0.2	13.0			37.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	57	130	67	35	81	49	686	57	160	1550	179
Future Volume (veh/h)	163	57	130	67	35	81	49	686	57	160	1550	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	62	141	73	38	88	53	746	62	174	1685	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	227	188	95	192	161	104	1849	890	207	2155	1063
Arrive On Green	0.07	0.12	0.12	0.05	0.10	0.10	0.03	0.52	0.52	0.12	0.61	0.61
Sat Flow, veh/h	3456	1870	1546	1781	1870	1563	3456	3554	1549	1781	3554	1565
Grp Volume(v), veh/h	177	62	141	73	38	88	53	746	62	174	1685	195
Grp Sat Flow(s),veh/h/ln	1728	1870	1546	1781	1870	1563	1728	1777	1549	1781	1777	1565
Q Serve(g_s), s	5.2	3.1	9.2	4.2	1.9	5.6	1.6	13.2	1.8	9.9	36.8	4.8
Cycle Q Clear(g_c), s	5.2	3.1	9.2	4.2	1.9	5.6	1.6	13.2	1.8	9.9	36.8	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	227	188	95	192	161	104	1849	890	207	2155	1063
V/C Ratio(X)	0.71	0.27	0.75	0.77	0.20	0.55	0.51	0.40	0.07	0.84	0.78	0.18
Avail Cap(c_a), veh/h	999	541	447	515	541	452	999	2397	1129	515	2397	1169
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	41.4	44.1	48.5	42.6	44.3	49.6	15.1	9.8	44.9	15.3	6.1
Incr Delay (d2), s/veh	1.4	0.6	5.9	4.9	0.2	1.1	1.4	0.2	0.1	3.5	1.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.5	3.7	1.9	0.9	2.1	0.7	5.2	0.6	4.6	14.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	42.1	50.0	53.5	42.8	45.4	51.0	15.3	9.9	48.4	17.1	6.3
LnGrp LOS	D	D	D	D	D	D	D	B	A	D	B	A
Approach Vol, veh/h		380			199			861			2054	
Approach Delay, s/veh		48.0			47.9			17.1			18.7	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	59.3	9.9	18.1	7.5	68.2	11.9	16.2
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	11.2	15.2	6.2	11.2	3.6	38.8	7.2	7.6
Green Ext Time (p_c), s	0.2	11.3	0.1	0.7	0.1	24.1	0.3	0.2

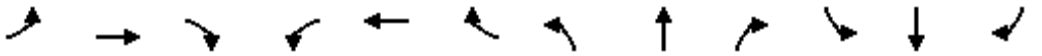
Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	758	171	295	596	0	0	0	0	200	0	0
Future Volume (vph)	0	758	171	295	596	0	0	0	0	200	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						4.0	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.99	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1562	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1562	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	824	186	321	648	0	0	0	0	217	0	0
RTOR Reduction (vph)	0	0	114	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	824	72	321	648	0	0	0	0	0	217	0
Confl. Peds. (#/hr)			1			8						
Turn Type		NA	Perm	Prot	NA					Prot	NA	
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		38.7	38.7	13.2	56.6						34.3	
Effective Green, g (s)		38.7	38.7	13.2	56.6						34.3	
Actuated g/C Ratio		0.39	0.39	0.13	0.57						0.34	
Clearance Time (s)				4.7								
Vehicle Extension (s)				2.0								
Lane Grp Cap (vph)		1369	604	453	2003						607	
v/s Ratio Prot		c0.23		c0.09	0.18						0.12	
v/s Ratio Perm			0.05									
v/c Ratio		0.60	0.12	0.71	0.32						0.36	
Uniform Delay, d1		24.5	19.7	41.6	11.5						24.6	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		0.8	0.1	4.1	0.1						0.1	
Delay (s)		25.2	19.8	45.7	11.6						24.7	
Level of Service		C	B	D	B						C	
Approach Delay (s)		24.2			22.9			0.0			24.7	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	541	196	0	31	34	189
Future Vol, veh/h	541	196	0	31	34	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	588	213	0	34	37	205

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	801	0	729	695
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	34	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	822	-	390	442
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	988	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	822	-	390	442
Mov Cap-2 Maneuver	-	-	-	-	390	-
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	988	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	390	442	-	-	822	-
HCM Lane V/C Ratio	0.095	0.465	-	-	-	-
HCM Control Delay (s)	15.2	20	-	-	0	-
HCM Lane LOS	C	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	2.4	-	-	0	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	415	30	71	0	71	90
Future Vol, veh/h	415	30	71	0	71	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	451	33	77	0	77	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	484	0	622	468
Stage 1	-	-	-	-	468	-
Stage 2	-	-	-	-	154	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1079	-	450	595
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1079	-	418	595
Mov Cap-2 Maneuver	-	-	-	-	418	-
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	812	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.6	13.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	418	595	-	-	1079	-
HCM Lane V/C Ratio	0.185	0.164	-	-	0.072	-
HCM Control Delay (s)	15.6	12.2	-	-	8.6	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	0.6	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	416	87	136	69	0	0
Future Vol, veh/h	416	87	136	69	0	0
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	452	95	148	75	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	547	0	871	500
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	371	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1022	-	322	571
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	698	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1022	-	273	571
Mov Cap-2 Maneuver	-	-	-	-	273	-
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	593	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1022	-
HCM Lane V/C Ratio	-	-	-	0.145	-
HCM Control Delay (s)	0	-	-	9.1	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0.5	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	501	201	0	31	0	5
Future Vol, veh/h	501	201	0	31	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	545	218	0	34	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	763	0	688	654
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	34	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	850	-	412	467
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	988	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	850	-	412	467
Mov Cap-2 Maneuver	-	-	-	-	412	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	988	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	467	-	-	850	-
HCM Lane V/C Ratio	0.012	-	-	-	-
HCM Control Delay (s)	12.8	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1038	745	376	0	0
Future Vol, veh/h	0	1038	745	376	0	0
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	0	1128	810	409	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	610
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	375
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	375
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	769	1350	0	0	0
Future Vol, veh/h	0	769	1350	0	0	0
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	0	836	1467	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	734
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	311
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	311
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	758	42	0	55	18	0
Future Vol, veh/h	758	42	0	55	18	0
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	824	46	0	60	20	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	907	847
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	306	362
Stage 1	-	-	0	-	420	-
Stage 2	-	-	0	-	963	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	306	362
Mov Cap-2 Maneuver	-	-	-	-	306	-
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	963	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	306	-	-	-
HCM Lane V/C Ratio	0.064	-	-	-
HCM Control Delay (s)	17.6	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	519	0	0	60	0	0
Future Vol, veh/h	519	0	0	60	0	0
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	564	0	0	65	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	564	0	629	564
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	65	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1008	-	446	525
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	958	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1008	-	446	525
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	958	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1008	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	589	1773	658	0	0	1739
Future Volume (vph)	589	1773	658	0	0	1739
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	640	1927	715	0	0	1890
RTOR Reduction (vph)	0	21	0	0	0	0
Lane Group Flow (vph)	640	1906	715	0	0	1890
Confl. Bikes (#/hr)				12		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.0	82.5	21.6			69.1
Effective Green, g (s)	35.0	82.5	18.6			69.1
Actuated g/C Ratio	0.29	0.69	0.16			0.58
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1008	1930	794			3717
v/s Ratio Prot	0.19	c0.68	c0.14			0.29
v/s Ratio Perm						
v/c Ratio	0.63	0.99	0.90			0.51
Uniform Delay, d1	36.5	17.8	49.3			14.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.0	17.4	13.0			0.0
Delay (s)	37.5	35.2	62.4			14.9
Level of Service	D	D	E			B
Approach Delay (s)	35.7		62.4			14.9
Approach LOS	D		E			B

Intersection Summary			
HCM 2000 Control Delay	31.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	119.1	Sum of lost time (s)	25.5
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	382	339	341	33	372	792	280	492	21	546	430	206
Future Volume (veh/h)	382	339	341	33	372	792	280	492	21	546	430	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	392	401	371	36	404	0	280	569	0	593	467	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	447	469	689	346	690		338	709		788	414	
Arrive On Green	0.25	0.25	0.25	0.19	0.19	0.00	0.19	0.19	0.00	0.22	0.22	0.00
Sat Flow, veh/h	1781	1870	1548	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	392	401	371	36	404	0	280	569	0	593	467	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1548	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	28.7	27.8	24.0	2.3	14.1	0.0	20.6	19.8	0.0	21.2	30.1	0.0
Cycle Q Clear(g_c), s	28.7	27.8	24.0	2.3	14.1	0.0	20.6	19.8	0.0	21.2	30.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	447	469	689	346	690		338	709		788	414	
V/C Ratio(X)	0.88	0.85	0.54	0.10	0.59		0.83	0.80		0.75	1.13	
Avail Cap(c_a), veh/h	460	483	700	656	1309		394	828		788	414	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	48.9	48.6	28.0	45.1	49.8	0.0	53.0	52.7	0.0	49.5	53.0	0.0
Incr Delay (d2), s/veh	18.8	15.7	1.9	0.5	3.0	0.0	11.7	4.7	0.0	3.8	84.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	14.8	12.5	1.1	6.5	0.0	10.3	9.8	0.0	9.9	23.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.8	64.2	29.9	45.6	52.9	0.0	64.7	57.4	0.0	53.3	137.0	0.0
LnGrp LOS	E	E	C	D	D		E	E		D	F	
Approach Vol, veh/h		1164			440			849			1060	
Approach Delay, s/veh		54.5			52.3			59.8			90.2	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	39.0	35.0	31.3	30.7
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	35.1	30.1	50.1	30.1
Max Q Clear Time (g_c+I1), s	30.7	32.1	16.1	22.6
Green Ext Time (p_c), s	3.3	0.0	7.3	2.5

Intersection Summary	
HCM 6th Ctrl Delay	66.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	661	16	27	1052	2	0	0	0	61	1	285
Future Volume (veh/h)	232	661	16	27	1052	2	0	0	0	61	1	285
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	252	718	17	29	1143	2				66	1	310
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	302	1847	44	44	1981	3				433	7	387
Arrive On Green	0.17	0.52	0.52	0.02	0.38	0.38				0.25	0.25	0.25
Sat Flow, veh/h	1781	3545	84	1781	5263	9				1756	27	1570
Grp Volume(v), veh/h	252	360	375	29	739	406				67	0	310
Grp Sat Flow(s),veh/h/ln	1781	1777	1852	1781	1702	1868				1783	0	1570
Q Serve(g_s), s	9.4	8.3	8.3	1.1	11.8	11.8				2.0	0.0	12.7
Cycle Q Clear(g_c), s	9.4	8.3	8.3	1.1	11.8	11.8				2.0	0.0	12.7
Prop In Lane	1.00		0.05	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	302	926	965	44	1281	703				439	0	387
V/C Ratio(X)	0.83	0.39	0.39	0.66	0.58	0.58				0.15	0.00	0.80
Avail Cap(c_a), veh/h	797	1562	1628	797	2993	1643				1046	0	921
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	1.00	1.00	1.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	27.5	9.8	9.8	33.0	17.0	17.0				20.2	0.0	24.2
Incr Delay (d2), s/veh	2.3	0.3	0.3	6.0	0.5	0.9				0.1	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	2.8	2.9	0.5	4.2	4.7				0.8	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	10.2	10.1	39.1	17.5	17.9				20.2	0.0	25.7
LnGrp LOS	C	B	B	D	B	B				C	A	C
Approach Vol, veh/h		987			1174						377	
Approach Delay, s/veh		15.2			18.2						24.7	
Approach LOS		B			B						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	6.1	40.5		21.7	16.0	30.6
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1
Max Q Clear Time (g_c+I1), s	3.1	10.3		14.7	11.4	13.8
Green Ext Time (p_c), s	0.0	6.3		0.8	0.3	11.9

Intersection Summary	
HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	618	113	184	884	101	136	72	152	46	30	108
Future Volume (veh/h)	169	618	113	184	884	101	136	72	152	46	30	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.93	0.97		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	184	672	123	200	961	110	148	78	165	50	33	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	225	1676	302	242	1841	210	369	151	319	277	107	379
Arrive On Green	0.13	0.39	0.39	0.14	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	4310	776	1781	4620	527	1235	509	1076	1102	360	1276
Grp Volume(v), veh/h	184	528	267	200	707	364	148	0	243	50	0	150
Grp Sat Flow(s),veh/h/ln	1781	1702	1682	1781	1702	1743	1235	0	1584	1102	0	1636
Q Serve(g_s), s	8.0	9.0	9.2	8.7	12.6	12.7	8.4	0.0	10.2	3.1	0.0	5.7
Cycle Q Clear(g_c), s	8.0	9.0	9.2	8.7	12.6	12.7	14.1	0.0	10.2	13.3	0.0	5.7
Prop In Lane	1.00		0.46	1.00		0.30	1.00		0.68	1.00		0.78
Lane Grp Cap(c), veh/h	225	1324	654	242	1357	694	369	0	470	277	0	486
V/C Ratio(X)	0.82	0.40	0.41	0.82	0.52	0.52	0.40	0.00	0.52	0.18	0.00	0.31
Avail Cap(c_a), veh/h	795	2565	1268	1354	2565	1313	624	0	797	1056	0	1643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.9	17.6	17.7	33.5	18.2	18.2	27.1	0.0	23.3	28.8	0.0	21.7
Incr Delay (d2), s/veh	2.8	0.4	0.8	2.7	0.6	1.2	0.3	0.0	0.3	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.3	3.4	3.8	4.7	4.9	2.4	0.0	3.7	0.8	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	18.0	18.5	36.2	18.8	19.4	27.4	0.0	23.6	28.9	0.0	21.8
LnGrp LOS	D	B	B	D	B	B	C	A	C	C	A	C
Approach Vol, veh/h		979			1271			391			200	
Approach Delay, s/veh		21.7			21.7			25.0			23.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.5	36.7		28.6	15.3	35.9		28.6
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	35.6	60.1		40.1	60.6	60.1		80.1
Max Q Clear Time (g_c+I1), s	10.0	14.7		16.1	10.7	11.2		15.3
Green Ext Time (p_c), s	0.2	17.1		1.3	0.3	11.8		0.8

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	552	112	183	615	436	134	50	118	375	72	483
Future Volume (veh/h)	123	552	112	183	615	436	134	50	118	375	72	483
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.93	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	600	122	199	668	474	146	54	128	408	78	525
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	1050	208	221	1066	460	255	94	490	375	44	296
Arrive On Green	0.06	0.25	0.25	0.12	0.31	0.31	0.19	0.19	0.19	0.21	0.21	0.21
Sat Flow, veh/h	1781	4219	837	1781	3404	1469	1317	487	1517	1781	209	1408
Grp Volume(v), veh/h	134	481	241	199	668	474	200	0	128	408	0	603
Grp Sat Flow(s),veh/h/ln	1781	1702	1652	1781	1702	1469	1804	0	1517	1781	0	1617
Q Serve(g_s), s	5.1	10.6	11.0	9.4	14.4	26.8	8.6	0.0	5.4	18.0	0.0	18.0
Cycle Q Clear(g_c), s	5.1	10.6	11.0	9.4	14.4	26.8	8.6	0.0	5.4	18.0	0.0	18.0
Prop In Lane	1.00		0.51	1.00		1.00	0.73		1.00	1.00		0.87
Lane Grp Cap(c), veh/h	106	847	411	221	1066	460	350	0	490	375	0	340
V/C Ratio(X)	1.26	0.57	0.59	0.90	0.63	1.03	0.57	0.00	0.26	1.09	0.00	1.77
Avail Cap(c_a), veh/h	106	847	411	221	1066	460	759	0	834	375	0	340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.2	28.1	28.3	37.0	25.1	29.4	31.3	0.0	21.8	33.8	0.0	33.8
Incr Delay (d2), s/veh	173.7	1.0	2.4	34.6	0.9	50.1	0.5	0.0	0.1	72.6	0.0	359.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	4.3	4.4	6.1	5.6	15.2	3.7	0.0	1.9	15.1	0.0	40.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	213.9	29.2	30.7	71.6	26.0	79.5	31.8	0.0	21.9	106.4	0.0	393.6
LnGrp LOS	F	C	C	E	C	F	C	A	C	F	A	F
Approach Vol, veh/h		856			1341			328			1011	
Approach Delay, s/veh		58.5			51.7			27.9			277.7	
Approach LOS		E			D			C			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	26.2		22.9	9.5	31.7		21.5
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	21.3		18.0	5.1	26.8		36.0
Max Q Clear Time (g_c+I1), s	11.4	13.0		20.0	7.1	28.8		10.6
Green Ext Time (p_c), s	0.0	3.4		0.0	0.0	0.0		1.0

Intersection Summary	
HCM 6th Ctrl Delay	115.7
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	12.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1144	41	270	1282	0	204
Future Vol, veh/h	1144	41	270	1282	0	204
Conflicting Peds, #/hr	0	14	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	1243	45	293	1393	0	222

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1302	0	-	658
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	~ 279	-	0	349
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	~ 275	-	-	344
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	19.8	32.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	344	-	-	~ 275	-
HCM Lane V/C Ratio	0.645	-	-	1.067	-
HCM Control Delay (s)	32.6	-	-	113.9	-
HCM Lane LOS	D	-	-	F	-
HCM 95th %tile Q(veh)	4.3	-	-	11.7	-

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



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1256	114	259	1371	108	197
Future Volume (veh/h)	1256	114	259	1371	108	197
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.99	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1365	124	282	1490	117	214
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2388	217	321	3734	284	253
Arrive On Green	0.50	0.50	0.18	0.73	0.16	0.16
Sat Flow, veh/h	4925	432	1781	5274	1781	1585
Grp Volume(v), veh/h	977	512	282	1490	117	214
Grp Sat Flow(s),veh/h/ln	1702	1785	1781	1702	1781	1585
Q Serve(g_s), s	18.0	18.0	13.8	9.9	5.3	11.8
Cycle Q Clear(g_c), s	18.0	18.0	13.8	9.9	5.3	11.8
Prop In Lane		0.24	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1709	896	321	3734	284	253
V/C Ratio(X)	0.57	0.57	0.88	0.40	0.41	0.85
Avail Cap(c_a), veh/h	2281	1196	608	3734	797	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	15.6	35.8	4.6	33.9	36.6
Incr Delay (d2), s/veh	0.6	1.2	3.1	0.1	0.4	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	7.0	6.1	2.5	2.3	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.2	16.8	38.9	4.7	34.3	39.7
LnGrp LOS	B	B	D	A	C	D
Approach Vol, veh/h	1489			1772	331	
Approach Delay, s/veh	16.4			10.1	37.8	
Approach LOS	B			B	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	20.6	49.9				70.5	19.2
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	30.6	60.1				60.1	40.1
Max Q Clear Time (g_c+I1), s	15.8	20.0				11.9	13.8
Green Ext Time (p_c), s	0.3	25.1				22.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	536	108	185	459	83	158	230	179	79	196	106
Future Volume (veh/h)	162	536	108	185	459	83	158	230	179	79	196	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	176	583	117	201	499	90	172	250	195	86	213	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	1060	463	289	780	140	378	396	455	321	337	279
Arrive On Green	0.12	0.30	0.30	0.08	0.26	0.26	0.21	0.21	0.21	0.18	0.18	0.18
Sat Flow, veh/h	1781	3554	1552	3456	2985	535	1781	1870	1523	1781	1870	1548
Grp Volume(v), veh/h	176	583	117	201	296	293	172	250	195	86	213	115
Grp Sat Flow(s),veh/h/ln	1781	1777	1552	1728	1777	1743	1781	1870	1523	1781	1870	1548
Q Serve(g_s), s	8.2	11.6	4.8	4.8	12.5	12.6	7.1	10.3	8.8	3.5	8.9	5.6
Cycle Q Clear(g_c), s	8.2	11.6	4.8	4.8	12.5	12.6	7.1	10.3	8.8	3.5	8.9	5.6
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	1060	463	289	464	455	378	396	455	321	337	279
V/C Ratio(X)	0.82	0.55	0.25	0.70	0.64	0.64	0.46	0.63	0.43	0.27	0.63	0.41
Avail Cap(c_a), veh/h	623	2525	1103	1209	1263	1239	845	887	854	845	887	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	24.9	22.5	37.7	27.7	27.7	29.1	30.3	24.1	29.9	32.1	30.7
Incr Delay (d2), s/veh	2.9	0.6	0.4	1.1	2.5	2.6	0.3	0.6	0.2	0.2	0.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	4.8	1.8	2.0	5.5	5.4	3.0	4.6	3.1	1.5	4.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	25.5	22.9	38.8	30.2	30.4	29.4	30.9	24.3	30.0	32.8	31.1
LnGrp LOS	D	C	C	D	C	C	C	C	C	C	C	C
Approach Vol, veh/h		876			790			617			414	
Approach Delay, s/veh		27.9			32.4			28.4			31.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.5	30.1		20.1	14.6	27.0		22.8
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	29.6	60.1		40.1	29.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	10.8	13.6		10.9	10.2	14.6		12.3
Green Ext Time (p_c), s	0.3	7.5		1.1	0.2	7.3		1.5

Intersection Summary	
HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	797	16	35	796	420	12	35	14	262	11	96
Future Volume (veh/h)	71	797	16	35	796	420	12	35	14	262	11	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	866	17	38	865	457	13	38	15	285	12	104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	1800	35	348	1102	574	123	338	121	383	13	114
Arrive On Green	0.04	0.51	0.51	0.03	0.49	0.49	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	3563	70	1781	2230	1162	242	1102	395	1021	43	372
Grp Volume(v), veh/h	77	432	451	38	687	635	66	0	0	401	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1856	1781	1777	1615	1740	0	0	1436	0	0
Q Serve(g_s), s	1.9	14.1	14.1	0.9	28.2	29.1	0.0	0.0	0.0	21.3	0.0	0.0
Cycle Q Clear(g_c), s	1.9	14.1	14.1	0.9	28.2	29.1	2.3	0.0	0.0	23.7	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.72	0.20		0.23	0.71		0.26
Lane Grp Cap(c), veh/h	219	898	938	348	878	798	583	0	0	510	0	0
V/C Ratio(X)	0.35	0.48	0.48	0.11	0.78	0.80	0.11	0.00	0.00	0.79	0.00	0.00
Avail Cap(c_a), veh/h	766	1206	1259	915	1206	1096	823	0	0	715	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.0	14.3	14.3	11.4	18.5	18.7	22.1	0.0	0.0	29.2	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.4	0.4	0.1	2.4	3.0	0.0	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.4	5.6	0.3	11.3	10.7	1.0	0.0	0.0	8.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	14.8	14.7	11.4	20.9	21.7	22.1	0.0	0.0	31.6	0.0	0.0
LnGrp LOS	B	B	B	B	C	C	C	A	A	C	A	A
Approach Vol, veh/h		960			1360			66			401	
Approach Delay, s/veh		14.9			21.0			22.1			31.6	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.8	49.6		32.1	7.8	48.7		32.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	2.9	16.1		25.7	3.9	31.1		4.3
Green Ext Time (p_c), s	0.0	7.5		1.5	0.1	12.7		0.2

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	20	12	231	298	30
Future Vol, veh/h	16	20	12	231	298	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	22	13	251	324	33
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.4	10	10.7
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	44%	0%
Vol Thru, %	0%	100%	0%	91%
Vol Right, %	0%	0%	56%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	231	36	328
LT Vol	12	0	16	0
Through Vol	0	231	0	298
RT Vol	0	0	20	30
Lane Flow Rate	13	251	39	357
Geometry Grp	7	7	2	5
Degree of Util (X)	0.02	0.341	0.055	0.433
Departure Headway (Hd)	5.396	4.894	5.074	4.372
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	667	738	706	827
Service Time	3.096	2.594	3.108	2.387
HCM Lane V/C Ratio	0.019	0.34	0.055	0.432
HCM Control Delay	8.2	10.1	8.4	10.7
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	0.1	1.5	0.2	2.2

LANE SUMMARY

Site: 1 [OY WP 2030 Phase 1 Weekend_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	147	0.0	147	0.0	1380	0.107	100	3.1	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	147	0.0	147	0.0		0.107		3.1	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	331	0.0	331	0.0	1188	0.279	100	5.5	LOS A	1.5	37.6	Full	1600	0.0	0.0
Approach	331	0.0	331	0.0		0.279		5.5	LOS A	1.5	37.6				
West: Hancock Street															
Lane 1[d]	250	0.0	250	0.0	1172	0.213	100	4.9	LOS A	1.1	26.7	Full	1600	0.0	0.0
Approach	250	0.0	250	0.0		0.213		4.9	LOS A	1.1	26.7				
All Vehicles	728	0.0	728	0.0		0.279		4.8	LOS A	1.5	37.6				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	147	147	0.0	1380	0.107	100	NA	NA
Approach	147	147	0.0		0.107			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	160	171	331	0.0	1188	0.279	100	NA	NA
Approach	160	171	331	0.0		0.279			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	250	250	0.0	1172	0.213	100	NA	NA
Approach	250	250	0.0		0.213			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	728	0.0	0.279

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	18
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	499	0	0	0	0	0	0	3	86	1	71
Future Vol, veh/h	73	499	0	0	0	0	0	0	3	86	1	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	79	542	0	0	0	0	0	0	3	93	1	77
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20.3	8.1	10
HCM LOS	C	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	13%	54%
Vol Thru, %	0%	87%	1%
Vol Right, %	100%	0%	45%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	3	572	158
LT Vol	0	73	86
Through Vol	0	499	1
RT Vol	3	0	71
Lane Flow Rate	3	622	172
Geometry Grp	1	1	1
Degree of Util (X)	0.005	0.763	0.249
Departure Headway (Hd)	5.042	4.42	5.228
Convergence, Y/N	Yes	Yes	Yes
Cap	704	814	684
Service Time	3.117	2.455	3.282
HCM Lane V/C Ratio	0.004	0.764	0.251
HCM Control Delay	8.1	20.3	10
HCM Lane LOS	A	C	A
HCM 95th-tile Q	0	7.4	1

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	588	0	0	52	0
Future Vol, veh/h	9	588	0	0	52	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	639	0	0	57	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	11.7	9
HCM LOS	B	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	4%	0%	100%
Vol Thru, %	96%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	205	392	52
LT Vol	9	0	52
Through Vol	196	392	0
RT Vol	0	0	0
Lane Flow Rate	223	426	57
Geometry Grp	7	7	2
Degree of Util (X)	0.288	0.548	0.086
Departure Headway (Hd)	4.655	4.633	5.452
Convergence, Y/N	Yes	Yes	Yes
Cap	764	771	661
Service Time	2.426	2.404	3.452
HCM Lane V/C Ratio	0.292	0.553	0.086
HCM Control Delay	9.3	13	9
HCM Lane LOS	A	B	A
HCM 95th-tile Q	1.2	3.4	0.3

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	95	316	27	48	16	0	0	45	4
Future Vol, veh/h	0	0	0	95	316	27	48	16	0	0	45	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	103	343	29	52	17	0	0	49	4
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	10.2	8.8	8.5
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	75%	38%	0%	0%
Vol Thru, %	25%	62%	85%	92%
Vol Right, %	0%	0%	15%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	253	185	49
LT Vol	48	95	0	0
Through Vol	16	158	158	45
RT Vol	0	0	27	4
Lane Flow Rate	70	275	201	53
Geometry Grp	2	7	7	2
Degree of Util (X)	0.101	0.385	0.265	0.074
Departure Headway (Hd)	5.208	5.038	4.747	5.035
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	689	715	758	712
Service Time	3.233	2.761	2.47	3.061
HCM Lane V/C Ratio	0.102	0.385	0.265	0.074
HCM Control Delay	8.8	10.9	9.2	8.5
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.3	1.8	1.1	0.2

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	23	334	25	6	6	0	0	50	88
Future Vol, veh/h	0	0	0	23	334	25	6	6	0	0	50	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	25	363	27	7	7	0	0	54	96
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.5	8.3	8.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	50%	12%	0%	0%
Vol Thru, %	50%	88%	87%	36%
Vol Right, %	0%	0%	13%	64%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	190	192	138
LT Vol	6	23	0	0
Through Vol	6	167	167	50
RT Vol	0	0	25	88
Lane Flow Rate	13	207	209	150
Geometry Grp	2	7	7	2
Degree of Util (X)	0.019	0.287	0.281	0.187
Departure Headway (Hd)	5.149	4.997	4.845	4.496
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	695	723	747	800
Service Time	3.181	2.697	2.545	2.518
HCM Lane V/C Ratio	0.019	0.286	0.28	0.188
HCM Control Delay	8.3	9.7	9.4	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.2	1.2	0.7

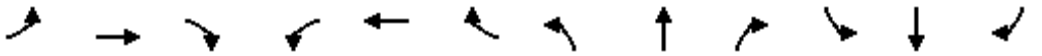
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	9	0	0	45	0	2463	10	0	2569	9
Future Vol, veh/h	0	0	9	0	0	45	0	2463	10	0	2569	9
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	5	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	10	0	0	49	0	2677	11	0	2792	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1404	-	-	1349	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	117	0	0	121	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	117	-	-	120	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	38.6	54.3	0	0
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	117	120	-	-
HCM Lane V/C Ratio	-	-	0.084	0.408	-	-
HCM Control Delay (s)	-	-	38.6	54.3	-	-
HCM Lane LOS	-	-	E	F	-	-
HCM 95th %tile Q(veh)	-	-	0.3	1.7	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	37	64	130	112	2362	8	0	2381	236
Future Volume (veh/h)	0	0	0	37	64	130	112	2362	8	0	2381	236
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				40	70	141	122	2567	9	0	2588	257
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				94	164	216	452	4148	15	0	2557	791
Arrive On Green				0.14	0.14	0.14	0.51	1.00	1.00	0.00	0.50	0.50
Sat Flow, veh/h				668	1169	1538	1781	5253	18	0	5274	1580
Grp Volume(v), veh/h				110	0	141	122	1663	913	0	2588	257
Grp Sat Flow(s),veh/h/ln				1837	0	1538	1781	1702	1867	0	1702	1580
Q Serve(g_s), s				7.7	0.0	12.2	5.5	0.0	0.0	0.0	70.1	13.6
Cycle Q Clear(g_c), s				7.7	0.0	12.2	5.5	0.0	0.0	0.0	70.1	13.6
Prop In Lane				0.36		1.00	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				258	0	216	452	2688	1474	0	2557	791
V/C Ratio(X)				0.43	0.00	0.65	0.27	0.62	0.62	0.00	1.01	0.32
Avail Cap(c_a), veh/h				461	0	386	452	2688	1474	0	2557	791
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.38	0.38	0.38	0.00	1.00	1.00
Uniform Delay (d), s/veh				55.0	0.0	57.0	27.0	0.0	0.0	0.0	35.0	20.8
Incr Delay (d2), s/veh				0.4	0.0	1.2	0.0	0.4	0.8	0.0	20.9	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.0	4.8	2.2	0.2	0.3	0.0	32.4	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				55.4	0.0	58.2	27.1	0.4	0.8	0.0	55.8	21.9
LnGrp LOS				E	A	E	C	A	A	A	F	C
Approach Vol, veh/h					251			2698			2845	
Approach Delay, s/veh					57.0			1.7			52.8	
Approach LOS					E			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	115.5	24.5	40.5	75.0
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	95.1	35.1	20.6	* 70
Max Q Clear Time (g_c+I1), s	2.0	14.2	7.5	72.1
Green Ext Time (p_c), s	10.9	0.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



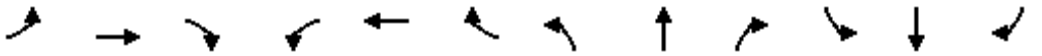
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	403	150	157	0	0	0	0	2064	44	136	2274	0
Future Volume (veh/h)	403	150	157	0	0	0	0	2064	44	136	2274	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	438	163	171				0	2243	48	148	2472	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	464	214	224				0	2793	60	169	4307	0
Arrive On Green	0.26	0.26	0.26				0.00	1.00	1.00	0.19	1.00	0.00
Sat Flow, veh/h	1781	820	860				0	5312	110	1781	6696	0
Grp Volume(v), veh/h	438	0	334				0	1483	808	148	2472	0
Grp Sat Flow(s),veh/h/ln	1781	0	1680				0	1702	1849	1781	1609	0
Q Serve(g_s), s	33.8	0.0	25.7				0.0	0.0	0.0	11.3	0.0	0.0
Cycle Q Clear(g_c), s	33.8	0.0	25.7				0.0	0.0	0.0	11.3	0.0	0.0
Prop In Lane	1.00		0.51				0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	464	0	438				0	1849	1004	169	4307	0
V/C Ratio(X)	0.94	0.00	0.76				0.00	0.80	0.80	0.87	0.57	0.00
Avail Cap(c_a), veh/h	472	0	445				0	1849	1004	364	4307	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.46	0.46	0.33	0.33	0.00
Uniform Delay (d), s/veh	50.8	0.0	47.8				0.0	0.0	0.0	55.9	0.0	0.0
Incr Delay (d2), s/veh	27.2	0.0	6.7				0.0	1.8	3.3	1.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.5	0.0	11.6				0.0	0.5	0.9	4.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.0	0.0	54.5				0.0	1.8	3.3	57.8	0.2	0.0
LnGrp LOS	E	A	D				A	A	A	E	A	A
Approach Vol, veh/h		772						2291			2620	
Approach Delay, s/veh		67.8						2.3			3.4	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	17.7	80.9	41.4	98.6
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	28.6	60.1	37.1	93.1
Max Q Clear Time (g_c+I1), s	13.3	2.0	35.8	2.0
Green Ext Time (p_c), s	0.0	7.6	0.2	11.2

Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	548	448	388	204	339	21	508	1458	335	0	1575	838
Future Volume (vph)	548	448	388	204	339	21	508	1458	335	0	1575	838
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3335	1496	1610	3349		3662	4927			5085	1508
Flt Permitted	0.95	0.98	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3335	1496	1610	3349		3662	4927			5085	1508
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	596	487	422	222	368	23	552	1585	364	0	1712	911
RTOR Reduction (vph)	0	0	208	0	3	0	0	26	0	0	0	335
Lane Group Flow (vph)	352	731	214	200	410	0	552	1923	0	0	1712	576
Confl. Peds. (#/hr)			38			5			4			24
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	33.9	33.9	33.9	20.7	20.7		18.2	67.7			44.1	44.1
Effective Green, g (s)	33.9	33.9	33.9	20.7	20.7		18.2	67.7			44.1	44.1
Actuated g/C Ratio	0.24	0.24	0.24	0.15	0.15		0.13	0.48			0.32	0.32
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	389	807	362	238	495		476	2382			1601	475
v/s Ratio Prot	0.22	c0.22		c0.12	0.12		c0.15	0.39			0.34	
v/s Ratio Perm			0.14									c0.38
v/c Ratio	0.90	0.91	0.59	0.84	0.83		1.16	0.81			1.07	1.21
Uniform Delay, d1	51.5	51.5	46.9	58.0	57.9		60.9	30.6			48.0	48.0
Progression Factor	1.00	1.00	1.00	0.65	0.65		1.25	0.23			0.50	1.28
Incremental Delay, d2	23.4	13.4	1.7	21.1	10.0		82.8	1.4			41.8	110.9
Delay (s)	74.8	64.9	48.7	58.6	47.5		158.9	8.6			65.6	172.4
Level of Service	E	E	D	E	D		F	A			E	F
Approach Delay (s)		62.7			51.1			41.7			102.7	
Approach LOS		E			D			D			F	

Intersection Summary			
HCM 2000 Control Delay	68.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	101.7%	ICU Level of Service	G
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)	295	522	306	143	600	426	426	1617	130	516	1482	298
Future Volume (veh/h)	295	522	306	143	600	426	426	1617	130	516	1482	298
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.97	1.00		0.98
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	321	567	333	155	652	463	463	1758	141	561	1611	324
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	407	713	306	178	637	274	512	1720	138	689	1753	350
Arrive On Green	0.12	0.20	0.20	0.10	0.18	0.18	0.10	0.24	0.24	0.20	0.41	0.41
Sat Flow, veh/h	3456	3554	1523	1781	3554	1529	3456	4808	384	3456	4250	848
Grp Volume(v), veh/h	321	567	333	155	652	463	463	1243	656	561	1288	647
Grp Sat Flow(s),veh/h/ln	1728	1777	1523	1781	1777	1529	1728	1702	1788	1728	1702	1694
Q Serve(g_s), s	12.6	21.2	28.1	12.0	25.1	25.1	18.6	50.1	50.1	21.7	50.1	50.9
Cycle Q Clear(g_c), s	12.6	21.2	28.1	12.0	25.1	25.1	18.6	50.1	50.1	21.7	50.1	50.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.50
Lane Grp Cap(c), veh/h	407	713	306	178	637	274	512	1218	640	689	1404	699
V/C Ratio(X)	0.79	0.79	1.09	0.87	1.02	1.69	0.90	1.02	1.02	0.81	0.92	0.93
Avail Cap(c_a), veh/h	533	713	306	237	637	274	632	1218	640	689	1404	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	0.58	0.58	0.58	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	53.2	55.9	62.1	57.5	57.5	62.1	53.2	53.2	53.6	38.9	39.1
Incr Delay (d2), s/veh	3.5	4.8	73.1	18.7	41.7	325.2	8.2	25.0	33.6	7.0	9.6	18.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	10.0	16.9	6.3	14.9	34.4	8.9	26.1	28.9	10.0	22.1	23.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	58.0	129.1	80.8	99.2	382.7	70.2	78.2	86.8	60.6	48.5	57.3
LnGrp LOS	E	E	F	F	F	F	E	F	F	E	D	E
Approach Vol, veh/h		1221			1270			2362			2496	
Approach Delay, s/veh		78.9			200.3			79.0			53.5	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.6	55.0	18.4	33.0	25.2	63.4	21.4	30.0
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 50	18.6	28.1	25.6	48.3	21.6	* 25
Max Q Clear Time (g_c+I1), s	23.7	52.1	14.0	30.1	20.6	52.9	14.6	27.1
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.2	0.0	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	91.3
HCM 6th LOS	F

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	5	4	101	10	107	22	1958	33	202	1765	47
Future Volume (veh/h)	37	5	4	101	10	107	22	1958	33	202	1765	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	5	4	110	11	116	24	2128	36	220	1918	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	23	15	157	17	130	39	3033	51	243	3585	95
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.02	0.59	0.59	0.14	0.70	0.70
Sat Flow, veh/h	828	136	86	701	99	767	1781	5170	87	1781	5110	136
Grp Volume(v), veh/h	49	0	0	237	0	0	24	1400	764	220	1277	692
Grp Sat Flow(s),veh/h/ln	1049	0	0	1567	0	0	1781	1702	1853	1781	1702	1842
Q Serve(g_s), s	0.0	0.0	0.0	14.9	0.0	0.0	1.9	40.4	40.6	17.0	25.1	25.2
Cycle Q Clear(g_c), s	5.7	0.0	0.0	20.6	0.0	0.0	1.9	40.4	40.6	17.0	25.1	25.2
Prop In Lane	0.82		0.08	0.46		0.49	1.00		0.05	1.00		0.07
Lane Grp Cap(c), veh/h	225	0	0	304	0	0	39	1997	1087	243	2388	1292
V/C Ratio(X)	0.22	0.00	0.00	0.78	0.00	0.00	0.62	0.70	0.70	0.91	0.53	0.54
Avail Cap(c_a), veh/h	313	0	0	404	0	0	211	1997	1087	377	2388	1292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.52	0.52	0.52	0.30	0.30	0.30
Uniform Delay (d), s/veh	50.5	0.0	0.0	56.4	0.0	0.0	67.9	20.3	20.3	59.6	10.0	10.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	4.8	0.0	0.0	3.1	1.1	2.0	4.5	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	8.7	0.0	0.0	0.9	15.5	17.2	7.9	8.5	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	0.0	0.0	61.3	0.0	0.0	71.0	21.4	22.3	64.1	10.2	10.5
LnGrp LOS	D	A	A	E	A	A	E	C	C	E	B	B
Approach Vol, veh/h		49			237			2188			2189	
Approach Delay, s/veh		50.6			61.3			22.3			15.7	
Approach LOS		D			E			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.5	87.8		28.7	7.4	103.9		28.7
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	19.6	* 63		33.1	16.6	75.3		33.1
Max Q Clear Time (g_c+I1), s	11.0	42.6		7.7	3.9	27.2		22.6
Green Ext Time (p_c), s	0.1	6.0		0.1	0.0	5.7		0.4

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



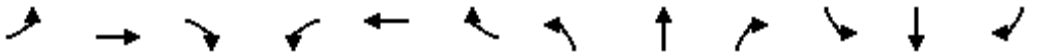
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	152	19	371	198	228	20	1551	442	239	1318	289
Future Volume (veh/h)	255	152	19	371	198	228	20	1551	442	239	1318	289
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	277	165	21	403	215	248	22	1686	480	260	1433	314
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	342	44	452	318	262	37	2341	724	212	1775	774
Arrive On Green	0.17	0.21	0.21	0.13	0.17	0.17	0.02	0.46	0.46	0.12	1.00	1.00
Sat Flow, veh/h	1781	1622	206	3456	1870	1543	1781	5106	1580	3456	3554	1551
Grp Volume(v), veh/h	277	0	186	403	215	248	22	1686	480	260	1433	314
Grp Sat Flow(s),veh/h/ln	1781	0	1829	1728	1870	1543	1781	1702	1580	1728	1777	1551
Q Serve(g_s), s	21.4	0.0	12.5	16.1	15.1	18.8	1.7	37.4	33.1	8.6	0.4	0.0
Cycle Q Clear(g_c), s	21.4	0.0	12.5	16.1	15.1	18.8	1.7	37.4	33.1	8.6	0.4	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	0	385	452	318	262	37	2341	724	212	1775	774
V/C Ratio(X)	0.92	0.00	0.48	0.89	0.68	0.95	0.60	0.72	0.66	1.22	0.81	0.41
Avail Cap(c_a), veh/h	415	0	445	805	456	376	211	2341	724	212	1775	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	57.4	0.0	48.5	59.9	54.5	41.1	68.0	30.6	29.5	61.4	0.0	0.0
Incr Delay (d2), s/veh	18.6	0.0	0.3	2.5	0.9	23.2	5.8	1.9	4.7	130.2	3.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	0.0	5.8	7.1	7.1	8.8	0.8	15.3	13.2	7.3	0.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.9	0.0	48.9	62.4	55.5	64.4	73.8	32.6	34.2	191.6	3.4	1.3
LnGrp LOS	E	A	D	E	E	E	E	C	C	F	A	A
Approach Vol, veh/h		463			866			2188			2007	
Approach Delay, s/veh		65.1			61.2			33.4			27.4	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	69.9	22.7	34.4	7.3	75.6	28.4	28.7
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	8.6	* 46	32.6	34.1	16.6	37.3	32.6	* 34
Max Q Clear Time (g_c+I1), s	10.6	39.4	18.1	14.5	3.7	2.4	23.4	20.8
Green Ext Time (p_c), s	0.0	3.1	0.2	0.3	0.0	4.4	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	195	11	212	0	120	0	547	280	43	320	0
Future Volume (vph)	62	195	11	212	0	120	0	547	280	43	320	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.92		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1844		1770		1553		3087		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.23	1.00	
Satd. Flow (perm)	1770	1844		1770		1553		3087		420	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	212	12	230	0	130	0	595	304	47	348	0
RTOR Reduction (vph)	0	2	0	0	0	74	0	33	0	0	0	0
Lane Group Flow (vph)	67	222	0	230	0	56	0	866	0	47	348	0
Confl. Peds. (#/hr)			19			3			69			16
Confl. Bikes (#/hr)						1			9			11
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	20.4	20.4		21.7		21.7		74.7		83.7	83.7	
Effective Green, g (s)	20.4	20.4		21.7		21.7		74.7		83.7	83.7	
Actuated g/C Ratio	0.15	0.15		0.15		0.15		0.53		0.60	0.60	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	257	268		274		240		1647		295	2115	
v/s Ratio Prot	0.04	c0.12		c0.13				c0.28		0.01	c0.10	
v/s Ratio Perm						0.04				0.09		
v/c Ratio	0.26	0.83		0.84		0.24		0.53		0.16	0.16	
Uniform Delay, d1	53.1	58.1		57.5		51.9		21.2		13.6	12.6	
Progression Factor	0.77	0.79		1.00		1.00		0.75		1.00	1.00	
Incremental Delay, d2	0.2	14.6		18.9		0.2		0.8		0.1	0.2	
Delay (s)	41.0	60.5		76.4		52.1		16.6		13.7	12.7	
Level of Service	D	E		E		D		B		B	B	
Approach Delay (s)		56.0			67.6			16.6			12.8	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	31.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

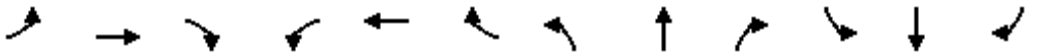
Intersection	
Int Delay, s/veh	1.3

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	166	577	327	47	0	0
Future Vol, veh/h	166	577	327	47	0	0
Conflicting Peds, #/hr	0	0	0	11	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	180	627	355	51	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	417	0	-	0	1066	214
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	674	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1138	-	-	-	217	791
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	468	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1126	-	-	-	179	783
Mov Cap-2 Maneuver	-	-	-	-	309	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	463	-

Approach	NB	SB	SE
HCM Control Delay, s	2	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1126	-	-	-	-
HCM Lane V/C Ratio	0.16	-	-	-	-
HCM Control Delay (s)	8.8	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	333	98	149	242	60	104	95	145	63	92	91
Future Volume (veh/h)	49	333	98	149	242	60	104	95	145	63	92	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.97	1.00		0.95	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	362	107	162	263	65	113	103	158	68	100	99
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	1853	649	254	745	610	146	729	751	141	583	243
Arrive On Green	0.04	0.36	0.36	0.07	0.40	0.40	0.08	0.21	0.21	0.04	0.16	0.16
Sat Flow, veh/h	1781	5106	1431	3456	1870	1530	1781	3554	2661	3456	3554	1484
Grp Volume(v), veh/h	53	362	107	162	263	65	113	103	158	68	100	99
Grp Sat Flow(s),veh/h/ln	1781	1702	1431	1728	1870	1530	1781	1777	1331	1728	1777	1484
Q Serve(g_s), s	2.2	3.6	3.3	3.4	7.3	2.0	4.6	1.7	3.4	1.4	1.8	4.4
Cycle Q Clear(g_c), s	2.2	3.6	3.3	3.4	7.3	2.0	4.6	1.7	3.4	1.4	1.8	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	68	1853	649	254	745	610	146	729	751	141	583	243
V/C Ratio(X)	0.78	0.20	0.16	0.64	0.35	0.11	0.77	0.14	0.21	0.48	0.17	0.41
Avail Cap(c_a), veh/h	725	2771	907	1407	1015	830	725	1929	1649	1407	1929	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	16.1	12.3	33.2	15.5	13.9	33.2	24.0	20.4	34.6	26.5	27.6
Incr Delay (d2), s/veh	7.2	0.1	0.1	1.0	0.2	0.0	3.3	0.1	0.1	1.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.3	0.9	1.4	2.9	0.6	2.0	0.7	1.0	0.6	0.7	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	16.2	12.4	34.2	15.7	14.0	36.4	24.1	20.5	35.5	26.6	28.0
LnGrp LOS	D	B	B	C	B	B	D	C	C	D	C	C
Approach Vol, veh/h		522			490			374			267	
Approach Delay, s/veh		18.0			21.6			26.3			29.4	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	32.7	11.4	18.8	8.2	35.3	8.4	21.8
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	5.4	5.6	6.6	6.4	4.2	9.3	3.4	5.4
Green Ext Time (p_c), s	0.3	3.7	0.1	0.5	0.1	1.2	0.1	1.2

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

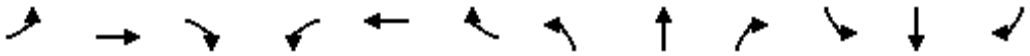
Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	420	270	322	287	12
Future Vol, veh/h	0	420	270	322	287	12
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	457	293	350	312	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	166	328	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	722	815	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	720	813	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.3	5.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	813	-	720	-	-
HCM Lane V/C Ratio	0.361	-	0.634	-	-
HCM Control Delay (s)	11.9	-	18.3	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	1.7	-	4.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	3	18	2	2	3	188	559	3	7	715	82
Future Volume (veh/h)	18	3	18	2	2	3	188	559	3	7	715	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	3	20	2	2	3	204	608	3	8	777	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	315	267	4	315	266	252	1547	670	15	967	111
Arrive On Green	0.02	0.17	0.17	0.00	0.17	0.17	0.14	0.44	0.44	0.01	0.30	0.30
Sat Flow, veh/h	1781	1870	1585	1781	1870	1582	1781	3554	1539	1781	3200	366
Grp Volume(v), veh/h	20	3	20	2	2	3	204	608	3	8	431	435
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1582	1781	1777	1539	1781	1777	1789
Q Serve(g_s), s	0.7	0.1	0.6	0.1	0.1	0.1	6.7	7.1	0.1	0.3	13.6	13.6
Cycle Q Clear(g_c), s	0.7	0.1	0.6	0.1	0.1	0.1	6.7	7.1	0.1	0.3	13.6	13.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	34	315	267	4	315	266	252	1547	670	15	537	541
V/C Ratio(X)	0.60	0.01	0.07	0.51	0.01	0.01	0.81	0.39	0.00	0.54	0.80	0.80
Avail Cap(c_a), veh/h	120	1036	878	117	1095	926	429	2344	1015	117	861	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	21.0	21.2	30.2	21.0	21.0	25.2	11.7	9.7	30.0	19.5	19.5
Incr Delay (d2), s/veh	21.7	0.0	0.1	33.9	0.0	0.0	2.4	0.1	0.0	10.9	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.2	0.1	0.0	0.0	2.6	2.0	0.0	0.2	4.8	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	21.0	21.4	64.2	21.0	21.1	27.6	11.7	9.7	40.8	20.6	20.6
LnGrp LOS	D	C	C	E	C	C	C	B	A	D	C	C
Approach Vol, veh/h		43			7			815			874	
Approach Delay, s/veh		35.2			33.4			15.7			20.8	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	18.9	13.0	23.2	5.5	18.9	4.9	31.3
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	4.0	33.6	14.6	29.4	4.1	* 36	4.0	40.0
Max Q Clear Time (g_c+I1), s	2.1	2.6	8.7	15.6	2.7	2.1	2.3	9.1
Green Ext Time (p_c), s	0.0	0.1	0.1	2.7	0.0	0.0	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

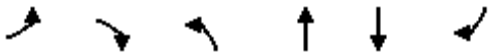
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	849	913	11	0	153
Future Vol, veh/h	0	849	913	11	0	153
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	923	992	12	0	166

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	499
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	517
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	516
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	516
HCM Lane V/C Ratio	-	-	0.322
HCM Control Delay (s)	-	-	15.3
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.4



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	745	105	0	812	879	925
Future Volume (vph)	745	105	0	812	879	925
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	810	114	0	883	955	1005
RTOR Reduction (vph)	0	56	0	0	0	0
Lane Group Flow (vph)	810	58	0	883	955	1005
Confl. Peds. (#/hr)						7
Confl. Bikes (#/hr)						2
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	36.9	36.9		37.3	37.3	103.7
Effective Green, g (s)	36.9	36.9		37.3	37.3	98.3
Actuated g/C Ratio	0.32	0.32		0.33	0.33	0.86
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1114	513		1160	1160	1368
v/s Ratio Prot	0.24			0.25	c0.27	c0.63
v/s Ratio Perm		0.04				
v/c Ratio	0.73	0.11		0.76	0.82	0.73
Uniform Delay, d1	33.9	26.9		34.2	35.2	2.9
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.2	0.1		3.0	4.8	2.0
Delay (s)	36.2	27.0		37.2	40.0	4.8
Level of Service	D	C		D	D	A
Approach Delay (s)	35.1			37.2	22.0	
Approach LOS	D			D	C	

Intersection Summary			
HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	113.7	Sum of lost time (s)	19.0
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	901	207	105	1372
Future Volume (veh/h)	0	1	901	207	105	1372
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	979	225	114	1491
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	6	2259	985	206	2754
Arrive On Green	0.00	0.00	0.64	0.64	0.06	0.77
Sat Flow, veh/h	1781	3170	3647	1547	3456	3647
Grp Volume(v), veh/h	0	1	979	225	114	1491
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1547	1728	1777
Q Serve(g_s), s	0.0	0.0	7.7	3.4	1.8	9.0
Cycle Q Clear(g_c), s	0.0	0.0	7.7	3.4	1.8	9.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	6	2259	985	206	2754
V/C Ratio(X)	0.00	0.17	0.43	0.23	0.55	0.54
Avail Cap(c_a), veh/h	1287	2291	3852	1679	1873	3852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	27.6	5.1	4.3	25.3	2.4
Incr Delay (d2), s/veh	0.0	5.3	0.2	0.2	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.6	0.6	0.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	32.9	5.3	4.4	26.2	2.8
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1204			1605
Approach Delay, s/veh	32.9		5.1			4.5
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.7	41.4			49.1	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	3.8	9.7			11.0	2.0
Green Ext Time (p_c), s	0.2	14.7			31.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	263	58	154	34	37	79	78	806	24	88	1299	248
Future Volume (veh/h)	263	58	154	34	37	79	78	806	24	88	1299	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.92	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	286	63	167	37	40	86	85	876	26	96	1412	270
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	370	298	237	47	147	114	144	1914	895	123	2012	1067
Arrive On Green	0.11	0.16	0.16	0.03	0.08	0.08	0.04	0.54	0.54	0.07	0.57	0.57
Sat Flow, veh/h	3456	1870	1487	1781	1870	1454	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	286	63	167	37	40	86	85	876	26	96	1412	270
Grp Sat Flow(s),veh/h/ln	1728	1870	1487	1781	1870	1454	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.6	2.8	10.1	2.0	1.9	5.5	2.3	14.3	0.7	5.0	27.1	6.4
Cycle Q Clear(g_c), s	7.6	2.8	10.1	2.0	1.9	5.5	2.3	14.3	0.7	5.0	27.1	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	370	298	237	47	147	114	144	1914	895	123	2012	1067
V/C Ratio(X)	0.77	0.21	0.71	0.79	0.27	0.75	0.59	0.46	0.03	0.78	0.70	0.25
Avail Cap(c_a), veh/h	1094	592	471	564	592	460	1094	2624	1212	564	2624	1340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	34.7	37.7	45.9	41.1	42.8	44.6	13.4	9.1	43.4	14.8	6.1
Incr Delay (d2), s/veh	1.3	0.4	3.8	10.5	0.4	3.7	1.4	0.3	0.0	4.0	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.3	3.7	1.0	0.9	2.0	1.0	5.2	0.2	2.3	10.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	35.0	41.6	56.4	41.5	46.5	46.1	13.7	9.1	47.4	15.6	6.3
LnGrp LOS	D	D	D	E	D	D	D	B	A	D	B	A
Approach Vol, veh/h		516			163			987			1778	
Approach Delay, s/veh		41.3			47.5			16.4			15.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	56.4	6.9	20.6	8.3	59.0	14.5	12.9
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	7.0	16.3	4.0	12.1	4.3	29.1	9.6	7.5
Green Ext Time (p_c), s	0.1	12.5	0.0	0.8	0.1	24.6	0.5	0.2

Intersection Summary	
HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	922	261	270	616	0	0	0	0	200	0	0
Future Volume (vph)	0	922	261	270	616	0	0	0	0	200	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						4.0	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.99	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1561	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1561	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1002	284	293	670	0	0	0	0	217	0	0
RTOR Reduction (vph)	0	0	135	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1002	149	293	670	0	0	0	0	0	217	0
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			5			2						
Turn Type		NA	Perm	Prot	NA					Prot	NA	
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		47.1	47.1	12.3	64.1						14.3	
Effective Green, g (s)		47.1	47.1	12.3	64.1						14.3	
Actuated g/C Ratio		0.52	0.52	0.14	0.71						0.16	
Clearance Time (s)				4.7								
Vehicle Extension (s)				2.0								
Lane Grp Cap (vph)		1852	816	469	2520						281	
v/s Ratio Prot		c0.28		c0.09	0.19						0.12	
v/s Ratio Perm			0.10									
v/c Ratio		0.54	0.18	0.62	0.27						0.77	
Uniform Delay, d1		14.3	11.3	36.7	4.6						36.3	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		0.3	0.1	1.9	0.1						11.3	
Delay (s)		14.6	11.4	38.5	4.7						47.6	
Level of Service		B	B	D	A						D	
Approach Delay (s)		13.9			15.0			0.0			47.6	
Approach LOS		B			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	17.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	447	0	0	124	0	0
Future Vol, veh/h	447	0	0	124	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	486	0	0	135	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	486	0	621	486
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	135	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1077	-	451	581
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	891	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1077	-	451	581
Mov Cap-2 Maneuver	-	-	-	-	451	-
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	891	-

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

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	1077	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	336	101	5	0	67	62
Future Vol, veh/h	336	101	5	0	67	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	365	110	5	0	73	67

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	475	0	430	420
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	10	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1087	-	582	633
Stage 1	-	-	-	-	663	-
Stage 2	-	-	-	-	1013	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1087	-	579	633
Mov Cap-2 Maneuver	-	-	-	-	579	-
Stage 1	-	-	-	-	663	-
Stage 2	-	-	-	-	1008	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.3	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	579	633	-	-	1087	-
HCM Lane V/C Ratio	0.126	0.106	-	-	0.005	-
HCM Control Delay (s)	12.1	11.4	-	-	8.3	0
HCM Lane LOS	B	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	458	0	14	43	0	12
Future Vol, veh/h	458	0	14	43	0	12
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	498	0	15	47	0	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	498	0	575	498
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	77	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1066	-	480	572
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	946	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1066	-	473	572
Mov Cap-2 Maneuver	-	-	-	-	473	-
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	933	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	572	-	-	1066	-
HCM Lane V/C Ratio	0.023	-	-	0.014	-
HCM Control Delay (s)	11.4	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	398	0	0	124	0	29
Future Vol, veh/h	398	0	0	124	0	29
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	433	0	0	135	0	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	433	0	568	433
Stage 1	-	-	-	-	433	-
Stage 2	-	-	-	-	135	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1127	-	484	623
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	891	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1127	-	484	623
Mov Cap-2 Maneuver	-	-	-	-	484	-
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	891	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	623	-	-	1127	-
HCM Lane V/C Ratio	0.051	-	-	-	-
HCM Control Delay (s)	11.1	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	745	1213	0	0	0
Future Vol, veh/h	0	745	1213	0	0	0
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	0	810	1318	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	659
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	348
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	348
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1096	1206	65	0	34
Future Vol, veh/h	0	1096	1206	65	0	34
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	0	1191	1311	71	0	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	691
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	332
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	332
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	332
HCM Lane V/C Ratio	-	-	-	0.111
HCM Control Delay (s)	-	-	-	17.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.4

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	447	12	0	97	49	0
Future Vol, veh/h	447	12	0	97	49	0
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	486	13	0	105	53	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	598	493
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	105	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	465	576
Stage 1	-	-	0	-	614	-
Stage 2	-	-	0	-	919	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	465	576
Mov Cap-2 Maneuver	-	-	-	-	465	-
Stage 1	-	-	-	-	614	-
Stage 2	-	-	-	-	919	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	465	-	-	-
HCM Lane V/C Ratio	0.115	-	-	-
HCM Control Delay (s)	13.7	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	413	0	51	2	0	64
Future Vol, veh/h	413	0	51	2	0	64
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	449	0	55	2	0	70

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	449	0	561	449
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	112	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1111	-	489	610
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	913	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1111	-	465	610
Mov Cap-2 Maneuver	-	-	-	-	465	-
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	867	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.1	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	610	-	-	1111	-
HCM Lane V/C Ratio	0.114	-	-	0.05	-
HCM Control Delay (s)	11.7	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Appendix R

Opening Year (2030) Plus Project Phase 1 (14,500-spectator) Conditions 95th Percentile Queue Worksheets

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	1244	1271	781	753	143	158	177	208	264	280	241
Average Queue (ft)	864	920	200	197	73	82	88	79	158	188	120
95th Queue (ft)	1354	1364	420	391	127	139	147	168	234	258	225
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	T	T	R	L	LT	T	R	L
Maximum Queue (ft)	435	1442	1395	14	107	108	11	151	227	246	100	170
Average Queue (ft)	380	808	405	1	23	25	0	31	88	127	16	59
95th Queue (ft)	559	1477	1277	9	68	73	8	100	179	212	75	132
Link Distance (ft)		1940	1940		629	629	629		1525	1525		189
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	360			150				230			25	
Storage Blk Time (%)	2	70						0	0	69	0	
Queuing Penalty (veh)	8	114						0	0	11	0	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	B57
Directions Served	LT	T	R	T
Maximum Queue (ft)	224	229	140	16
Average Queue (ft)	111	102	19	1
95th Queue (ft)	187	184	106	12
Link Distance (ft)	189	189		368
Upstream Blk Time (%)	1	1	0	
Queuing Penalty (veh)	3	3	0	
Storage Bay Dist (ft)			100	
Storage Blk Time (%)		8	0	
Queuing Penalty (veh)		12	0	

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	116	109	139	21	84	130	225	69	101
Average Queue (ft)	40	24	43	3	23	39	97	30	52
95th Queue (ft)	82	72	106	15	58	93	183	62	81
Link Distance (ft)		629	629		962	962	962	863	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	0				0				
Queuing Penalty (veh)	0				0				

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	78	84	134	199	149	88	124	187	115	109	59	101
Average Queue (ft)	32	38	45	81	64	25	52	79	49	43	19	45
95th Queue (ft)	68	71	97	150	121	63	102	153	95	84	49	84
Link Distance (ft)		962	962	962		285	285	285		702		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)					0				1	0		
Queuing Penalty (veh)					0				1	0		

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	120	82	120	174	152	154	117	160	105	95	161	151
Average Queue (ft)	43	29	46	80	61	38	34	63	44	27	72	63
95th Queue (ft)	88	71	98	142	115	93	84	131	89	66	125	120
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)					0	0						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)					0	0			12	1	0	0
Queuing Penalty (veh)					0	0			5	0	0	0

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	WB	WB	WB
Directions Served	T	TR	L	T	T
Maximum Queue (ft)	6	14	93	17	6
Average Queue (ft)	0	1	33	1	0
95th Queue (ft)	4	9	75	9	4
Link Distance (ft)	194	194		370	370
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			125		
Storage Blk Time (%)			0		
Queuing Penalty (veh)			0		

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	116	141	176	192	452	699	327	38	80
Average Queue (ft)	44	57	81	73	88	52	55	12	30
95th Queue (ft)	88	110	143	136	263	310	105	35	58
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)					0	0			
Queuing Penalty (veh)					0	0			
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				1	2				0
Queuing Penalty (veh)				1	4				0

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	113	187	182	96	94	47	158	178	139	169	60	80
Average Queue (ft)	50	85	90	26	39	5	71	84	34	83	25	22
95th Queue (ft)	97	151	155	72	80	25	133	153	86	142	47	58
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			1				0		0	9		0
Queuing Penalty (veh)			1				0		1	5		0

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	122	62
Average Queue (ft)	54	24
95th Queue (ft)	103	55
Link Distance (ft)	702	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	1	
Queuing Penalty (veh)	1	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	89	180	204	72	204	232	27	102
Average Queue (ft)	16	74	92	11	96	130	6	34
95th Queue (ft)	61	150	168	42	178	212	21	73
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		4			5			
Queuing Penalty (veh)		1			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	57	54	80	83
Average Queue (ft)	26	17	41	53
95th Queue (ft)	51	47	65	77
Link Distance (ft)	241		863	917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	1	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	56	65	65	96
Average Queue (ft)	26	26	22	48
95th Queue (ft)	54	59	55	81
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	89	33	46
Average Queue (ft)	52	3	29
95th Queue (ft)	76	19	39
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	80	56	53
Average Queue (ft)	36	33	24
95th Queue (ft)	58	46	49
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	57	71	31	58
Average Queue (ft)	34	37	27	28
95th Queue (ft)	49	57	43	51
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	76	79	31	74
Average Queue (ft)	42	45	9	37
95th Queue (ft)	65	71	31	63
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	25	30	68	80	99	939	976	1045
Average Queue (ft)	4	9	5	5	5	251	271	306
95th Queue (ft)	17	21	33	40	45	980	1020	1045
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	134	154	123	199	208	195	396	412	426	205
Average Queue (ft)	43	45	23	58	71	75	290	297	339	74
95th Queue (ft)	89	107	69	146	162	161	479	489	503	216
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)							29	28	31	
Queuing Penalty (veh)							211	204	232	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			0	3					37	
Queuing Penalty (veh)			0	2					35	

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	466	311	307	325	329	175	348	340	336	206
Average Queue (ft)	216	136	94	111	120	134	181	125	89	37
95th Queue (ft)	408	277	242	261	272	208	385	324	254	140
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	1			0	0		13	2	1	
Queuing Penalty (veh)	2			0	0		69	9	7	
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						46	6			
Queuing Penalty (veh)						234	8			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	303	304	254	200	182	181	174	285	295	343	339	363
Average Queue (ft)	128	151	118	95	139	159	120	162	157	147	131	138
95th Queue (ft)	241	263	224	169	212	199	197	307	324	379	300	302
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)					51	67	44	1	5	8	1	1
Queuing Penalty (veh)					74	96	63	0	0	52	5	7
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)								12	14	6		
Queuing Penalty (veh)								59	68	13		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	402	416	422	229
Average Queue (ft)	226	243	251	16
95th Queue (ft)	416	429	440	138
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	6	8	9	1
Queuing Penalty (veh)	34	40	49	3
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	136	168	202	182	180	228	233	244	221	196	297	404
Average Queue (ft)	56	78	75	86	73	119	131	144	94	102	126	185
95th Queue (ft)	112	132	147	149	140	198	206	217	175	175	228	345
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	0	6	5	0	0	1	0	5	1		0	1
Queuing Penalty (veh)	0	6	8	0	0	1	0	11	3		0	3

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	405	440	170	263	340	363	342
Average Queue (ft)	213	242	64	132	264	278	271
95th Queue (ft)	365	394	134	276	389	397	394
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)				0	14	18	19
Queuing Penalty (veh)				0	92	116	120
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	14		
Queuing Penalty (veh)				1	32		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	203	224	59	202	186	190	216	263	278	235
Average Queue (ft)	106	109	17	64	53	64	100	45	57	37
95th Queue (ft)	178	196	46	146	134	149	175	157	184	137
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				0				0		
Queuing Penalty (veh)				0				0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	433	462	282	320	896	112	121	447	442	398	273	155
Average Queue (ft)	252	218	205	250	381	40	10	273	264	231	117	71
95th Queue (ft)	390	377	297	358	832	83	54	411	403	369	215	129
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			5	10	18			44		0		
Queuing Penalty (veh)			16	29	105			5		0		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	545	914	912	487
Average Queue (ft)	181	475	489	130
95th Queue (ft)	496	852	866	425
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		1	1	
Storage Bay Dist (ft)	470			
Storage Blk Time (%)		21		
Queuing Penalty (veh)		35		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	103	262	723	145	192	222	101	201	121
Average Queue (ft)	32	126	312	87	63	96	24	60	24
95th Queue (ft)	85	254	932	176	154	189	70	145	74
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		5	4		2	5		0	
Queuing Penalty (veh)		5	13		5	10		0	
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			51	4			0	5	
Queuing Penalty (veh)			72	7			0	2	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	SB
Directions Served	L	T
Maximum Queue (ft)	72	3
Average Queue (ft)	24	0
95th Queue (ft)	59	2
Link Distance (ft)		640
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	120	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	84	59	94	112	58	112	98	105	42	132	49	57
Average Queue (ft)	19	5	29	52	17	82	50	69	7	47	12	21
95th Queue (ft)	57	29	69	97	45	111	104	124	24	103	37	52
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)	0		0	2						0		
Queuing Penalty (veh)	0		0	1						0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	63	59	26	66	59	33	25
Average Queue (ft)	11	11	3	19	22	5	2
95th Queue (ft)	38	40	18	48	52	20	12
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						0	
Queuing Penalty (veh)						0	

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	NB	B87	SB	SB	SB
Directions Served	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	91	196	86	67	68	22	24	11
Average Queue (ft)	28	89	23	5	8	2	3	2
95th Queue (ft)	69	198	181	67	85	13	16	15
Link Distance (ft)	1384		357	357	706	1876	1876	1876
Upstream Blk Time (%)			3					
Queuing Penalty (veh)			7					
Storage Bay Dist (ft)		200						
Storage Blk Time (%)		5						
Queuing Penalty (veh)		6						

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	40	36	31	52	21	30	349	534	435	64	198	261
Average Queue (ft)	10	7	5	14	2	3	237	194	109	9	72	160
95th Queue (ft)	35	28	24	40	14	17	357	426	274	42	152	246
Link Distance (ft)		692		222	222	222		1615	1615			706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			300	200	
Storage Blk Time (%)							12	0	0		2	3
Queuing Penalty (veh)							38	0	0		5	3

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB
Directions Served	TR
Maximum Queue (ft)	277
Average Queue (ft)	182
95th Queue (ft)	268
Link Distance (ft)	706
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	170	172	27	6	120
Average Queue (ft)	47	30	1	0	60
95th Queue (ft)	139	122	14	5	101
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	T	T
Maximum Queue (ft)	194	184	132	1495	1499	360	465	440	424
Average Queue (ft)	161	133	13	1012	1013	355	432	403	364
95th Queue (ft)	223	193	86	1659	1660	372	460	497	559
Link Distance (ft)	112	112	112	3122	3122		360	393	393
Upstream Blk Time (%)	32	25	0			2	24	38	13
Queuing Penalty (veh)	65	51	1			0	0	0	0
Storage Bay Dist (ft)						400			
Storage Blk Time (%)						2	24		
Queuing Penalty (veh)						16	165		

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	4	3	161	119	58	58	58	87	112
Average Queue (ft)	0	0	0	66	40	26	11	37	10	18
95th Queue (ft)	6	4	2	129	96	56	40	58	47	64
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	30	60	37	29	54	45	56	57	26	196	222	98
Average Queue (ft)	3	20	8	3	20	11	11	16	1	94	104	11
95th Queue (ft)	15	46	25	17	44	32	36	40	14	163	180	50
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											8	
Queuing Penalty (veh)											3	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	112	260	284	67
Average Queue (ft)	38	81	90	25
95th Queue (ft)	82	168	181	53
Link Distance (ft)		511	511	511
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	126	134	62	157	194	237	114	138
Average Queue (ft)	90	102	14	112	169	128	35	122
95th Queue (ft)	132	137	44	189	218	292	87	150
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	7	11	0					69
Queuing Penalty (veh)	25	39	0					165
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				2	38	0		
Queuing Penalty (veh)				4	69	0		

Intersection: 33: Kemper St & Kurtz St

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	15	12	86	58
Average Queue (ft)	1	0	40	28
95th Queue (ft)	8	6	66	50
Link Distance (ft)	143	300		949
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	6
95th Queue (ft)	26
Link Distance (ft)	283
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 36: E2 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	34
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	365
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	SB
Directions Served	R
Maximum Queue (ft)	53
Average Queue (ft)	20
95th Queue (ft)	47
Link Distance (ft)	355
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 39: A3 Dwy & Kurtz St

Movement	WB
Directions Served	T
Maximum Queue (ft)	10
Average Queue (ft)	1
95th Queue (ft)	11
Link Distance (ft)	139
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	19	67
Average Queue (ft)	1	33
95th Queue (ft)	12	55
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	29	54	124	201	160	57
Average Queue (ft)	2	3	47	95	41	6
95th Queue (ft)	22	34	144	225	140	31
Link Distance (ft)	96	96		146	146	294
Upstream Blk Time (%)	0	0	1	16	3	
Queuing Penalty (veh)	0	1	0	36	7	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			10	32		
Queuing Penalty (veh)			15	46		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	188	167	116	285	274	291
Average Queue (ft)	22	16	8	50	56	54
95th Queue (ft)	134	111	72	192	201	203
Link Distance (ft)	263	263	263	311	311	311
Upstream Blk Time (%)	2	0	0	0	0	0
Queuing Penalty (veh)	11	0	0	1	0	1
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB
Directions Served	T	T	T
Maximum Queue (ft)	157	190	11
Average Queue (ft)	41	62	1
95th Queue (ft)	125	150	9
Link Distance (ft)	511	511	100
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	167	178
Average Queue (ft)	57	18
95th Queue (ft)	140	90
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB
Directions Served	T	T		T	TR	R
Maximum Queue (ft)	150	191	59	28	69	148
Average Queue (ft)	5	8	2	1	5	5
95th Queue (ft)	58	77	34	15	36	89
Link Distance (ft)	189	189	189	756	756	756
Upstream Blk Time (%)	0	0	0			
Queuing Penalty (veh)	0	1	0			
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	406	417
Average Queue (ft)	355	322
95th Queue (ft)	482	529
Link Distance (ft)	360	360
Upstream Blk Time (%)	7	3
Queuing Penalty (veh)	51	26
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 3312

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2542	2552	2550	2545	128	138	162	1752	1742	1741	1746
Average Queue (ft)	2056	2077	1991	1752	41	55	73	677	704	716	669
95th Queue (ft)	3055	3058	3163	3083	107	125	146	1808	1797	1783	1752
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)	46	49	45	24				22	22	21	18
Queuing Penalty (veh)	0	0	0	0				0	0	0	0
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1984	1986	79	217	224	219	399	413	99	282	279
Average Queue (ft)	272	1950	1945	6	81	81	66	126	153	17	257	256
95th Queue (ft)	574	1984	2020	41	166	172	181	320	353	72	274	283
Link Distance (ft)		1940	1940		629	629		1525	1525		189	189
Upstream Blk Time (%)		96	93								86	77
Queuing Penalty (veh)		0	0								473	426
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	3	95			3		0	5	57	0		
Queuing Penalty (veh)	15	149			1		0	7	19	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B57	B57	B57
Directions Served	T	R	T	T	T
Maximum Queue (ft)	280	175	464	469	465
Average Queue (ft)	196	113	381	376	296
95th Queue (ft)	362	248	574	576	590
Link Distance (ft)	189		368	368	368
Upstream Blk Time (%)	36	2	68	60	31
Queuing Penalty (veh)	199	0	372	332	172
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	39	13			
Queuing Penalty (veh)	132	33			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	235	666	666	17	128	178	283	632	217
Average Queue (ft)	153	437	378	2	24	35	99	204	53
95th Queue (ft)	308	847	792	10	73	112	229	661	146
Link Distance (ft)		629	629		962	962	962	863	
Upstream Blk Time (%)		41	23					7	
Queuing Penalty (veh)		255	143					17	
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	10	60			0			21	
Queuing Penalty (veh)	48	216			0			39	

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	515	987	978	925	239	276	219	228	175	724	224	571
Average Queue (ft)	277	788	427	185	149	132	67	82	89	643	156	184
95th Queue (ft)	656	1281	1086	628	286	377	174	194	216	926	265	568
Link Distance (ft)		962	962	962		285	285	285		702		1252
Upstream Blk Time (%)		59	5	0		26	0			58		
Queuing Penalty (veh)		198	17	0		70	0			191		
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)		79			34	0			2	91	58	0
Queuing Penalty (veh)		119			69	0			5	90	19	0

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	313	408	256	291	167	271	315	338	195	118	223	342
Average Queue (ft)	310	388	101	144	46	118	203	267	100	44	127	140
95th Queue (ft)	315	398	239	294	124	246	375	441	273	103	212	357
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	81	94		6	0	1	19	74	8			
Queuing Penalty (veh)	0	314		20	0	4	84	321	0			
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	81	94			0	2			21	11	13	4
Queuing Penalty (veh)	169	288			1	2			16	16	26	8

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	T	T	TR	L	T	T	T
Maximum Queue (ft)	54	69	93	150	396	428	414
Average Queue (ft)	4	32	34	34	217	383	382
95th Queue (ft)	34	167	170	100	487	461	438
Link Distance (ft)	194	194	194		370	370	370
Upstream Blk Time (%)		11	11		19	48	70
Queuing Penalty (veh)		32	35		94	242	350
Storage Bay Dist (ft)				125			
Storage Blk Time (%)				0	0		
Queuing Penalty (veh)				1	0		

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	214	244	287	200	1131	1138	1173	938	175
Average Queue (ft)	53	71	89	150	855	867	864	738	75
95th Queue (ft)	154	186	222	270	1417	1414	1420	1206	210
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)					21	25	27	49	
Queuing Penalty (veh)					112	136	144	195	
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				40	28			91	4
Queuing Penalty (veh)				178	61			146	6

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	216	287	281	78	168	265	392	418	165	435	117	730
Average Queue (ft)	99	102	73	14	78	64	181	196	80	379	28	433
95th Queue (ft)	283	380	245	51	161	225	409	422	202	525	80	961
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)										67		45
Queuing Penalty (veh)										0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	10		1			0	10		6	86		
Queuing Penalty (veh)	24		1			0	17		15	69		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	728	135	209	119
Average Queue (ft)	404	30	87	29
95th Queue (ft)	963	82	173	78
Link Distance (ft)	701		702	
Upstream Blk Time (%)	42			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		1	13	
Queuing Penalty (veh)		2	14	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	120	770	754	147	788	857	126	343
Average Queue (ft)	58	269	272	10	386	492	45	135
95th Queue (ft)	157	977	973	64	967	1013	163	305
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)					13	16	6	
Queuing Penalty (veh)					70	91	0	
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	27	2			21			
Queuing Penalty (veh)	117	1			3			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	94	50	295	276
Average Queue (ft)	37	11	79	93
95th Queue (ft)	121	40	257	372
Link Distance (ft)	241		863	917
Upstream Blk Time (%)	4			3
Queuing Penalty (veh)	0			8
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	11	
Queuing Penalty (veh)		0	3	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	145	379	246	71
Average Queue (ft)	52	126	68	18
95th Queue (ft)	131	319	180	56
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)		4	0	2
Queuing Penalty (veh)		0	0	1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	162	17	194
Average Queue (ft)	88	1	80
95th Queue (ft)	207	10	216
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	13		10
Queuing Penalty (veh)	56		36
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	305	295	109
Average Queue (ft)	114	117	39
95th Queue (ft)	363	374	117
Link Distance (ft)	461	461	321
Upstream Blk Time (%)	10	15	0
Queuing Penalty (veh)	27	39	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	228	180	50	242
Average Queue (ft)	67	53	26	71
95th Queue (ft)	181	159	47	265
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)	1	2		4
Queuing Penalty (veh)	5	5		0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	186	178	31	76
Average Queue (ft)	58	58	14	34
95th Queue (ft)	133	131	38	61
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)	1	1		
Queuing Penalty (veh)	2	4		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	141	48	17	29	44	3984	3986	3981
Average Queue (ft)	68	14	0	1	1	2125	2283	2349
95th Queue (ft)	211	37	5	10	11	4515	4411	4366
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)	4					19	22	23
Queuing Penalty (veh)	2					0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	415	418	174	318	302	244	392	406	431	205
Average Queue (ft)	252	233	107	114	82	44	175	202	328	96
95th Queue (ft)	425	440	209	315	262	158	452	447	567	256
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	0	2		6	0	0	10	11	45	
Queuing Penalty (veh)	0	3		41	3	0	92	100	394	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			42	2					47	0
Queuing Penalty (veh)			280	2					152	3

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	517	539	194	208	237	141	289	269	222	357
Average Queue (ft)	253	360	46	57	49	44	107	97	78	242
95th Queue (ft)	514	620	139	155	154	133	278	268	239	444
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	2	24					6	6	6	31
Queuing Penalty (veh)	7	67					33	35	32	182
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						4	15			
Queuing Penalty (veh)						25	8			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	406	438	497	348	176	189	184	294	308	406	337	345
Average Queue (ft)	145	184	193	133	100	152	143	232	252	262	106	120
95th Queue (ft)	312	348	397	301	196	195	205	325	352	499	275	281
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)					20	61	59	0	29	38	1	1
Queuing Penalty (veh)					32	95	92	0	0	296	8	9
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			5	3				22	43	5		
Queuing Penalty (veh)			13	5				107	211	25		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	398	413	404	423
Average Queue (ft)	227	228	221	211
95th Queue (ft)	453	461	457	529
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	14	17	17	31
Queuing Penalty (veh)	85	101	102	190
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	174	563	598	314	309	2547	2558	255	260	355	1266
Average Queue (ft)	90	112	213	206	93	131	1067	1144	212	156	231	754
95th Queue (ft)	149	216	503	486	243	275	2703	2773	342	307	442	1538
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)			1	1			22	23				30
Queuing Penalty (veh)			4	4			138	145				209
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	32	22	31	11	0	1	44	58	44	15	18	33
Queuing Penalty (veh)	77	55	70	29	1	2	55	190	124	86	102	106

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1257	1242	233	263	340	344	341
Average Queue (ft)	708	573	101	148	213	212	227
95th Queue (ft)	1438	1242	213	294	389	393	405
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	16	1	0	4	14	15	29
Queuing Penalty (veh)	113	6	0	0	92	98	185
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	4	14		
Queuing Penalty (veh)			0	18	45		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	236	1028	75	1006	1000	1158	171	268	313	236
Average Queue (ft)	79	394	8	416	385	368	58	87	99	61
95th Queue (ft)	244	1004	45	1286	1261	1225	136	234	259	177
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)		5		18	15	12				
Queuing Penalty (veh)		0		121	98	81				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				32				0		
Queuing Penalty (veh)				3				0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	933	855	282	320	2319	2194	174	1531	1528	1714	512	128
Average Queue (ft)	315	286	236	306	1522	866	26	577	560	575	245	57
95th Queue (ft)	879	728	336	382	2632	2373	101	1592	1593	1660	526	117
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)	5	4			8	2		7	7	7		
Queuing Penalty (veh)	0	0			0	0		0	0	0		
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			18	35	45			50		15	2	
Queuing Penalty (veh)			60	115	243			11		106	12	

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	131	224	235	90
Average Queue (ft)	57	83	85	22
95th Queue (ft)	119	182	194	64
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	139	252	592	145	232	247	101	230	130
Average Queue (ft)	44	116	258	67	123	153	28	99	55
95th Queue (ft)	107	228	916	150	231	263	75	276	180
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		1	9		13	17		13	0
Queuing Penalty (veh)		1	26		57	75		26	0
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			37	3			0	17	
Queuing Penalty (veh)			50	4			0	11	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73
Directions Served	L	T	T	T	TR	T
Maximum Queue (ft)	127	134	111	315	279	69
Average Queue (ft)	65	85	53	136	123	34
95th Queue (ft)	148	204	91	466	421	195
Link Distance (ft)		271	271	640	640	242
Upstream Blk Time (%)		11		10	0	10
Queuing Penalty (veh)		52		29	0	55
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	12	0				
Queuing Penalty (veh)	44	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	115	141	206	226	173	117	116	110	69	201	269	215
Average Queue (ft)	33	52	84	105	35	85	75	87	12	105	68	50
95th Queue (ft)	86	121	158	189	102	133	134	128	42	193	326	244
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)			0	0								
Queuing Penalty (veh)			0	0								
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)	0	1	3	15		0	0			12	0	
Queuing Penalty (veh)	0	1	9	16		0	0			8	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	163	175	75	156	439	416	116
Average Queue (ft)	58	61	11	38	197	166	16
95th Queue (ft)	129	136	41	97	811	776	68
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)					5		
Queuing Penalty (veh)					0		
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)					10	15	0
Queuing Penalty (veh)					7	13	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	B87	B87	B87	SB	SB	SB
Directions Served	R	L	T	T	T	T	T	T	TR
Maximum Queue (ft)	114	225	146	128	80	83	22	43	10
Average Queue (ft)	45	106	40	47	24	8	2	4	2
95th Queue (ft)	96	226	239	308	175	97	11	23	9
Link Distance (ft)	1384		357	706	706	706	1876	1876	1876
Upstream Blk Time (%)			8						
Queuing Penalty (veh)			29						
Storage Bay Dist (ft)		200							
Storage Blk Time (%)		10							
Queuing Penalty (veh)		19							

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	137	38	98	81	88	133	352	900	849	274	615	630
Average Queue (ft)	60	5	34	31	29	47	236	342	310	34	335	349
95th Queue (ft)	123	27	73	69	114	100	374	961	934	153	579	582
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)					5			6	6		1	1
Queuing Penalty (veh)					0			0	0		7	8
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)							22	1	0		31	
Queuing Penalty (veh)							103	2	0		7	

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87	B87	B87
Directions Served	T	T	
Maximum Queue (ft)	69	75	74
Average Queue (ft)	2	2	0
95th Queue (ft)	33	40	0
Link Distance (ft)	357	357	357
Upstream Blk Time (%)	0	0	0
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	777	767	90	184	608
Average Queue (ft)	350	345	19	55	274
95th Queue (ft)	833	849	78	205	634
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)			0	20	16
Queuing Penalty (veh)			1	101	54
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	200	189	140	3181	3174	359	443	349	410	418
Average Queue (ft)	168	158	9	2723	2720	264	316	95	101	144
95th Queue (ft)	246	246	70	3822	3815	465	555	385	363	461
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	61	54	1	64	63	0	7	19	6	18
Queuing Penalty (veh)	202	179	2	0	0	0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						0	7			
Queuing Penalty (veh)						2	39			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	8	8	9	238	222	168	67	77	198	214
Average Queue (ft)	0	0	0	109	113	53	20	42	49	66
95th Queue (ft)	4	4	5	181	190	100	53	64	143	165
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					1					
Queuing Penalty (veh)					4					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	112	128	119	128	112	63	102	92	328	610	645	175
Average Queue (ft)	15	55	31	39	39	18	28	29	41	296	333	119
95th Queue (ft)	61	103	79	87	86	49	72	66	231	628	655	236
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					1					12	48	0
Queuing Penalty (veh)					1					8	71	1

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	490	517	502
Average Queue (ft)	118	264	267	67
95th Queue (ft)	270	456	455	322
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		0	1	1
Queuing Penalty (veh)		2	4	3
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		17		
Queuing Penalty (veh)		31		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	131	144	110	156	194	237	161	151
Average Queue (ft)	92	105	47	90	150	89	42	128
95th Queue (ft)	143	153	97	177	209	228	113	153
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	12	16	1					72
Queuing Penalty (veh)	54	71	2					156
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	21	1		
Queuing Penalty (veh)				2	65	2		

Intersection: 33: Kemper St & Kurtz St

Movement	EB	NB	NB
Directions Served	TR	L	R
Maximum Queue (ft)	59	33	102
Average Queue (ft)	9	7	34
95th Queue (ft)	67	29	81
Link Distance (ft)	139		1252
Upstream Blk Time (%)	6		
Queuing Penalty (veh)	42		
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			1
Queuing Penalty (veh)			0

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	83	57	43	94
Average Queue (ft)	17	15	19	24
95th Queue (ft)	88	45	44	67
Link Distance (ft)	143	300		949
Upstream Blk Time (%)	9			
Queuing Penalty (veh)	38			
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				1
Queuing Penalty (veh)				1

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	78	65	42
Average Queue (ft)	24	17	8
95th Queue (ft)	124	48	40
Link Distance (ft)	182	259	283
Upstream Blk Time (%)	12		
Queuing Penalty (veh)	57		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 36: E2 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	189	38
Average Queue (ft)	40	6
95th Queue (ft)	249	25
Link Distance (ft)	464	365
Upstream Blk Time (%)	7	
Queuing Penalty (veh)	48	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	EB	WB	WB	WB
Directions Served	T	T	T	T	T	TR
Maximum Queue (ft)	329	165	92	149	136	83
Average Queue (ft)	295	21	14	52	28	3
95th Queue (ft)	338	144	107	219	160	33
Link Distance (ft)	285	285	285	313	313	313
Upstream Blk Time (%)	79	4	3	3	0	
Queuing Penalty (veh)	265	12	11	10	0	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	T	T	T	T	T	TR	R
Maximum Queue (ft)	39	47	47	215	248	282	281
Average Queue (ft)	1	22	25	26	132	222	144
95th Queue (ft)	29	127	144	130	290	373	314
Link Distance (ft)	234	234	234	194	194	194	355
Upstream Blk Time (%)		0	10	1	10	77	2
Queuing Penalty (veh)		0	29	2	42	342	0
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	WB
Directions Served	TR	T
Maximum Queue (ft)	57	10
Average Queue (ft)	7	1
95th Queue (ft)	50	9
Link Distance (ft)	101	139
Upstream Blk Time (%)	6	
Queuing Penalty (veh)	38	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: X Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	124	57	135
Average Queue (ft)	34	15	44
95th Queue (ft)	190	45	138
Link Distance (ft)	300	182	297
Upstream Blk Time (%)	10		4
Queuing Penalty (veh)	48		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	28
Average Queue (ft)	2
95th Queue (ft)	25
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	67	106	108	192	135	123
Average Queue (ft)	10	16	18	63	54	33
95th Queue (ft)	57	85	89	185	158	135
Link Distance (ft)	96	96		146	146	294
Upstream Blk Time (%)	4	6	0	18	17	2
Queuing Penalty (veh)	15	24	0	40	38	2
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			1	25		
Queuing Penalty (veh)			2	39		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	376	274	235	300	276	170
Average Queue (ft)	128	31	18	53	56	73
95th Queue (ft)	374	160	116	233	242	284
Link Distance (ft)	263	263	263	311	311	311
Upstream Blk Time (%)	28	0	0	2	1	12
Queuing Penalty (veh)	211	1	1	12	3	77
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	248	288	46	35	33
Average Queue (ft)	98	127	2	2	2
95th Queue (ft)	223	252	22	24	26
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			0	0	
Queuing Penalty (veh)			0	0	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	248	207
Average Queue (ft)	88	93
95th Queue (ft)	207	175
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB	SB
Directions Served	T	T		T	T	TR	R
Maximum Queue (ft)	112	172	94	779	799	794	810
Average Queue (ft)	4	9	3	448	449	446	424
95th Queue (ft)	49	86	50	999	1008	1021	1009
Link Distance (ft)	189	189	189	756	756	756	756
Upstream Blk Time (%)	0	0	0	33	29	30	24
Queuing Penalty (veh)	0	2	0	255	224	229	183
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	411	418
Average Queue (ft)	367	349
95th Queue (ft)	476	503
Link Distance (ft)	360	360
Upstream Blk Time (%)	11	4
Queuing Penalty (veh)	121	46
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 17301

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2542	2554	2553	2541	108	134	148	1762	1752	1756	1765
Average Queue (ft)	2117	2134	1866	1559	27	41	61	1002	1012	1012	978
95th Queue (ft)	3026	3029	3388	3226	78	95	123	2202	2185	2160	2158
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)	52	55	50	32				42	42	36	34
Queuing Penalty (veh)	0	0	0	0				0	0	0	0
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1972	1997	42	200	201	220	300	310	91	278	283
Average Queue (ft)	255	1949	1948	5	64	69	40	101	125	10	256	249
95th Queue (ft)	562	1966	2001	23	159	164	137	230	261	55	272	325
Link Distance (ft)		1940	1940		629	629		1525	1525		189	189
Upstream Blk Time (%)		98	95								92	82
Queuing Penalty (veh)		0	0								493	438
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	0	95			3		0	1	54	0		
Queuing Penalty (veh)	0	138			1		0	2	12	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B57	B57	B57
Directions Served	T	R	T	T	T
Maximum Queue (ft)	269	175	453	474	452
Average Queue (ft)	150	41	413	407	261
95th Queue (ft)	325	160	536	545	572
Link Distance (ft)	189		368	368	368
Upstream Blk Time (%)	19	0	83	75	32
Queuing Penalty (veh)	104	0	446	403	172
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	34	1			
Queuing Penalty (veh)	75	2			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	TR	LT	R
Maximum Queue (ft)	235	672	680	61	91	220	492	247
Average Queue (ft)	129	518	452	21	23	85	171	69
95th Queue (ft)	302	874	866	51	67	178	479	197
Link Distance (ft)		629	629	962	962	962	863	
Upstream Blk Time (%)		48	29				0	
Queuing Penalty (veh)		312	193				0	
Storage Bay Dist (ft)	160							210
Storage Blk Time (%)	5	75					20	1
Queuing Penalty (veh)	28	208					34	1

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	515	990	978	783	194	150	162	183	175	727	224	691
Average Queue (ft)	375	870	273	92	93	45	63	82	100	580	167	257
95th Queue (ft)	694	1297	865	369	168	112	141	174	223	939	269	685
Link Distance (ft)		962	962	962		285	285	285		702		1252
Upstream Blk Time (%)		68	2	0						49		
Queuing Penalty (veh)		253	7	0						195		
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)	9	82			2	0			8	86	61	0
Queuing Penalty (veh)	23	258			4	0			21	89	22	0

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	313	415	207	263	138	241	308	341	205	103	174	223
Average Queue (ft)	310	388	67	101	40	96	215	310	77	36	59	88
95th Queue (ft)	315	400	148	203	98	201	359	325	153	77	122	170
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	74	94	0	0	0	0	20	94				
Queuing Penalty (veh)	0	307	0	1	0	1	83	393				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	74	94				0			23	1	0	3
Queuing Penalty (veh)	140	331				0			18	2	1	2

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	T	T	TR	L	T	T	T	R
Maximum Queue (ft)	6	10	27	174	405	429	419	43
Average Queue (ft)	0	0	1	26	181	390	389	3
95th Queue (ft)	6	5	11	93	460	433	409	32
Link Distance (ft)	194	194	194		370	370	370	468
Upstream Blk Time (%)					4	49	74	
Queuing Penalty (veh)					21	229	349	
Storage Bay Dist (ft)				125				
Storage Blk Time (%)					1			
Queuing Penalty (veh)					1			

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	154	191	216	200	1135	1151	1185	941	175
Average Queue (ft)	39	62	78	157	894	934	948	813	71
95th Queue (ft)	114	151	180	247	1417	1418	1465	1194	205
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)					14	18	49	58	
Queuing Penalty (veh)					68	87	236	262	
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				37	14			94	4
Queuing Penalty (veh)				156	29			146	5

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	179	148	157	46	176	239	534	583	165	437	116	571
Average Queue (ft)	70	32	39	11	59	32	188	283	88	298	29	233
95th Queue (ft)	176	99	118	37	137	147	488	618	200	522	75	715
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)										44		13
Queuing Penalty (veh)										0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)			0				6		7	73		
Queuing Penalty (veh)			1				7		14	50		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	556	79	133	89
Average Queue (ft)	198	29	53	23
95th Queue (ft)	670	69	114	61
Link Distance (ft)	701		702	
Upstream Blk Time (%)	11			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		0	4	
Queuing Penalty (veh)		0	4	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	130	236	262	138	952	960	22	246
Average Queue (ft)	38	62	67	7	632	666	3	94
95th Queue (ft)	112	188	172	55	1264	1260	15	222
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)					29	36		
Queuing Penalty (veh)					171	212		
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	14	1			12			
Queuing Penalty (veh)	52	0			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	54	31	142	103
Average Queue (ft)	23	6	50	52
95th Queue (ft)	49	25	105	80
Link Distance (ft)	241		863	917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)			3	
Queuing Penalty (veh)			1	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	82	356	150	46
Average Queue (ft)	37	155	56	9
95th Queue (ft)	70	280	108	33
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	127	16	137
Average Queue (ft)	65	1	54
95th Queue (ft)	150	7	137
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	5		2
Queuing Penalty (veh)	17		8
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	269	223	78
Average Queue (ft)	80	84	32
95th Queue (ft)	275	272	77
Link Distance (ft)	461	461	321
Upstream Blk Time (%)	6	5	
Queuing Penalty (veh)	13	12	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	173	126	47	45
Average Queue (ft)	66	48	25	25
95th Queue (ft)	139	94	48	50
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	147	133	35	78
Average Queue (ft)	65	54	16	38
95th Queue (ft)	118	101	42	69
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	122	31	77	78	94	3984	3993	3993
Average Queue (ft)	54	9	3	3	3	2122	2321	2382
95th Queue (ft)	133	24	47	48	51	4615	4486	4429
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)			0	0	0	21	24	25
Queuing Penalty (veh)			1	1	1	0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	547	544	173	298	262	241	347	348	414	205
Average Queue (ft)	499	476	99	81	67	45	112	132	312	126
95th Queue (ft)	610	629	188	252	223	163	303	333	568	278
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	49	38		2	0	0	2	4	39	
Queuing Penalty (veh)	98	76		13	2	0	18	33	305	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			33	2					44	2
Queuing Penalty (veh)			209	2					195	10

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	534	545	224	237	252	173	244	195	177	334
Average Queue (ft)	311	420	43	53	51	59	75	64	60	206
95th Queue (ft)	563	606	146	167	167	136	239	229	224	455
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	5	24					4	6	7	30
Queuing Penalty (veh)	10	51					22	30	36	149
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						9	10			
Queuing Penalty (veh)						44	6			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	418	433	500	308	172	185	176	297	311	392	317	297
Average Queue (ft)	147	177	181	119	73	127	107	229	241	245	76	84
95th Queue (ft)	379	408	469	268	153	210	194	367	381	506	216	212
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)					10	42	31	2	23	38	0	1
Queuing Penalty (veh)					16	64	47	0	0	261	2	3
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			7	5				36	47	7		
Queuing Penalty (veh)			16	9				162	213	32		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	383	383	386	426
Average Queue (ft)	185	186	195	248
95th Queue (ft)	376	383	392	570
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	4	11	12	41
Queuing Penalty (veh)	22	55	62	206
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	174	535	470	222	304	2615	2622	255	288	355	1260
Average Queue (ft)	79	116	224	190	67	94	1483	1536	169	191	266	796
95th Queue (ft)	146	205	570	493	176	260	3276	3312	345	351	453	1574
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)							31	40				37
Queuing Penalty (veh)							191	249				224
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	27	27	21	6		0	50	67	23	28	38	22
Queuing Penalty (veh)	57	56	42	14		0	43	224	66	140	189	68

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1255	1241	204	262	336	329	350
Average Queue (ft)	712	522	81	109	147	169	252
95th Queue (ft)	1418	1164	184	221	290	311	413
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	15	1	0	1	3	4	42
Queuing Penalty (veh)	88	4	0	0	14	22	224
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	1	3		
Queuing Penalty (veh)			0	3	7		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	191	655	123	1369	1373	1379	140	199	218	176
Average Queue (ft)	77	265	10	534	502	477	60	43	51	32
95th Queue (ft)	178	576	63	1499	1477	1422	130	137	153	109
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)				20	16	13				
Queuing Penalty (veh)				114	90	76				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				42						
Queuing Penalty (veh)				3						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	778	532	282	320	2005	1878	174	1864	1866	1888	565	86
Average Queue (ft)	267	146	230	305	1330	751	30	563	545	542	150	27
95th Queue (ft)	686	368	330	371	2486	2156	113	1685	1673	1730	419	67
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)					12	4		6	6	7		
Queuing Penalty (veh)					0	0		0	0	0		
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			19	31	45		0	48		17		
Queuing Penalty (veh)			58	94	224		0	8		87		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	89	171	172	63
Average Queue (ft)	40	53	60	13
95th Queue (ft)	80	128	140	41
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	130	258	101	101	164	208	77	176	101
Average Queue (ft)	26	77	31	31	62	92	19	39	16
95th Queue (ft)	87	201	83	73	158	190	55	124	64
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		1			5	4		0	0
Queuing Penalty (veh)		1			15	12		1	0
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			4	4				2	
Queuing Penalty (veh)			3	2				1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73
Directions Served	L	T	T	T	TR	T
Maximum Queue (ft)	177	184	174	654	694	267
Average Queue (ft)	75	66	51	216	437	102
95th Queue (ft)	164	181	116	597	850	339
Link Distance (ft)		271	271	640	640	242
Upstream Blk Time (%)		6	0	2	29	23
Queuing Penalty (veh)		16	0	10	123	190
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	17	0				
Queuing Penalty (veh)	37	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	70	72	105	139	118	119	104	112	50	224	799	562
Average Queue (ft)	17	14	47	66	26	79	73	90	6	174	294	92
95th Queue (ft)	51	50	93	118	73	136	134	131	23	291	986	605
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)		0	0	4		0		0		44		
Queuing Penalty (veh)		0	0	3		0		0		28		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	74	71	32	88	281	312	140
Average Queue (ft)	13	13	5	24	79	87	44
95th Queue (ft)	46	51	21	62	220	306	117
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)					1	8	19
Queuing Penalty (veh)					0	9	16

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	490	178	215	240	194
Average Queue (ft)	90	45	30	33	29
95th Queue (ft)	440	127	272	283	270
Link Distance (ft)	1384		1876	1876	1876
Upstream Blk Time (%)	1				
Queuing Penalty (veh)	6				
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	108	25	65	51	22	68	354	1630	1628	228	752	750
Average Queue (ft)	49	2	17	13	1	15	292	732	671	22	414	432
95th Queue (ft)	97	12	49	38	11	47	413	1721	1693	113	764	769
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)								26	17		16	18
Queuing Penalty (veh)								0	0		82	93
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)							49	0	0		33	
Queuing Penalty (veh)							236	1	0		7	

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87	B87	B87
Directions Served	T	T	
Maximum Queue (ft)	214	214	145
Average Queue (ft)	47	49	23
95th Queue (ft)	232	238	166
Link Distance (ft)	357	357	357
Upstream Blk Time (%)	5	5	4
Queuing Penalty (veh)	17	19	15
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	1114	1131	119	226	703
Average Queue (ft)	709	723	27	86	377
95th Queue (ft)	1325	1359	100	258	816
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)			0	34	33
Queuing Penalty (veh)			2	168	145
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	220	196	130	2053	2033	360	454	450	434	425
Average Queue (ft)	186	178	12	1319	1317	257	313	178	287	251
95th Queue (ft)	198	202	84	2210	2187	498	601	516	556	568
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	84	78	1			1	15	33	28	33
Queuing Penalty (veh)	254	237	2			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						1	15			
Queuing Penalty (veh)						8	86			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	11	6	133	126	67	62	74	146	152
Average Queue (ft)	0	0	0	65	53	25	10	40	21	29
95th Queue (ft)	3	5	4	116	105	55	39	61	87	97
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	100	135	67	80	92	66	58	64	40	204	240	175
Average Queue (ft)	15	56	15	23	30	14	12	19	2	107	131	32
95th Queue (ft)	60	109	45	58	70	43	37	48	18	184	215	111
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0						14	
Queuing Penalty (veh)					0						8	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	531	562	819
Average Queue (ft)	164	333	347	188
95th Queue (ft)	355	561	584	684
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		2	6	5
Queuing Penalty (veh)		9	34	29
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		28		
Queuing Penalty (veh)		46		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	120	139	100	157	194	244	162	150
Average Queue (ft)	90	104	38	95	152	101	54	103
95th Queue (ft)	133	141	83	178	210	230	121	160
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	11	18	0					44
Queuing Penalty (veh)	34	55	1					88
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	25	1		
Queuing Penalty (veh)				3	68	3		

Intersection: 33: Kemper St & Kurtz St

Movement	EB	NB	NB
Directions Served	TR	L	R
Maximum Queue (ft)	32	42	343
Average Queue (ft)	2	7	49
95th Queue (ft)	32	29	311
Link Distance (ft)	139		1252
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	4		
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	33	49	43	59
Average Queue (ft)	5	15	16	25
95th Queue (ft)	48	43	42	53
Link Distance (ft)	143	300		949
Upstream Blk Time (%)	2			
Queuing Penalty (veh)	10			
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	36	67
Average Queue (ft)	9	21
95th Queue (ft)	75	51
Link Distance (ft)	182	259
Upstream Blk Time (%)	4	
Queuing Penalty (veh)	20	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: E2 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	94	30
Average Queue (ft)	11	5
95th Queue (ft)	119	22
Link Distance (ft)	464	365
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	5	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	EB	WB
Directions Served	T	T	T	TR
Maximum Queue (ft)	315	102	5	9
Average Queue (ft)	290	5	0	0
95th Queue (ft)	349	61	3	0
Link Distance (ft)	285	285	285	313
Upstream Blk Time (%)	74	0		
Queuing Penalty (veh)	237	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	WB
Directions Served	T	T	TR
Maximum Queue (ft)	201	267	290
Average Queue (ft)	19	140	259
95th Queue (ft)	111	294	276
Link Distance (ft)	194	194	194
Upstream Blk Time (%)	0	12	98
Queuing Penalty (veh)	1	50	400
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	20	34
Average Queue (ft)	1	10
95th Queue (ft)	21	29
Link Distance (ft)	101	321
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	3	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: X Dwy & Kurtz St

Movement	EB
Directions Served	TR
Maximum Queue (ft)	63
Average Queue (ft)	15
95th Queue (ft)	124
Link Distance (ft)	300
Upstream Blk Time (%)	3
Queuing Penalty (veh)	13
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	29	46	58	130	98	61
Average Queue (ft)	5	2	8	27	20	16
95th Queue (ft)	43	34	58	114	97	47
Link Distance (ft)	96	96		146	146	294
Upstream Blk Time (%)	3	1	0	3	2	
Queuing Penalty (veh)	9	2	0	6	4	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			0	8		
Queuing Penalty (veh)			0	13		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	295	210	143	222	267	289
Average Queue (ft)	129	33	9	13	58	125
95th Queue (ft)	375	164	78	96	243	370
Link Distance (ft)	263	263	263	311	311	311
Upstream Blk Time (%)	24	0	0	0	0	18
Queuing Penalty (veh)	166	1	0	0	1	98
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	195	238	73	94	202
Average Queue (ft)	64	92	8	14	31
95th Queue (ft)	165	202	44	64	169
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			0	1	3
Queuing Penalty (veh)			0	2	32
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	400	605
Average Queue (ft)	49	181
95th Queue (ft)	232	469
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB	SB
Directions Served	T	T		T	T	TR	R
Maximum Queue (ft)	75	100	6	788	796	806	811
Average Queue (ft)	2	4	0	579	580	577	563
95th Queue (ft)	35	51	5	1062	1074	1096	1093
Link Distance (ft)	189	189	189	756	756	756	756
Upstream Blk Time (%)	0	0		52	47	43	40
Queuing Penalty (veh)	0	1		409	369	337	314
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 53: Bend

Movement	SB
Directions Served	T
Maximum Queue (ft)	76
Average Queue (ft)	3
95th Queue (ft)	55
Link Distance (ft)	355
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	418	417
Average Queue (ft)	366	354
95th Queue (ft)	482	511
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	6
Queuing Penalty (veh)	104	47
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 17409

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2551	2548	2551	2550	118	143	171	1753	1753	1754	1759
Average Queue (ft)	2233	2242	2074	1803	27	42	65	1243	1248	1247	1210
95th Queue (ft)	3040	3039	3367	3356	81	101	129	2327	2318	2304	2301
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)	64	67	63	33				51	52	50	44
Queuing Penalty (veh)	0	0	0	0				0	0	0	0
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1988	1982	29	135	148	198	283	284	100	288	279
Average Queue (ft)	245	1949	1947	3	47	53	38	102	132	12	259	247
95th Queue (ft)	547	1992	2001	19	111	124	125	217	248	65	278	328
Link Distance (ft)		1940	1940		629	629		1525	1525		189	189
Upstream Blk Time (%)		97	92								93	78
Queuing Penalty (veh)		0	0								531	444
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	0	96			0		0	1	61	0		
Queuing Penalty (veh)	0	138			0		0	1	13	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B57	B57	B57
Directions Served	T	R	T	T	T
Maximum Queue (ft)	264	175	468	463	449
Average Queue (ft)	143	43	436	433	296
95th Queue (ft)	315	166	473	488	589
Link Distance (ft)	189		368	368	368
Upstream Blk Time (%)	15	0	89	81	36
Queuing Penalty (veh)	87	0	505	460	208
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	29	0			
Queuing Penalty (veh)	64	1			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	TR	LT	R
Maximum Queue (ft)	235	665	668	73	182	318	532	256
Average Queue (ft)	150	513	404	22	28	121	137	77
95th Queue (ft)	310	882	828	57	103	261	403	206
Link Distance (ft)		629	629	962	962	962	863	
Upstream Blk Time (%)		46	22					
Queuing Penalty (veh)		332	159					
Storage Bay Dist (ft)	160							210
Storage Blk Time (%)	5	76		0			16	0
Queuing Penalty (veh)	25	270		0			33	0

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	515	996	967	784	182	146	186	241	175	726	225	1245
Average Queue (ft)	395	871	297	112	89	43	68	95	99	663	198	674
95th Queue (ft)	698	1292	895	429	172	112	159	203	226	907	274	1387
Link Distance (ft)		962	962	962		285	285	285		702		1252
Upstream Blk Time (%)		67	1	0				0		63		10
Queuing Penalty (veh)		256	3	0				0		280		18
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)	13	80			2	0			7	92	86	1
Queuing Penalty (veh)	35	263			5	0			19	133	39	2

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	313	410	192	231	126	252	306	342	169	125	133	181
Average Queue (ft)	310	388	67	100	42	103	220	310	71	41	56	88
95th Queue (ft)	315	397	142	195	97	223	346	328	139	95	104	158
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	79	93			0	0	19	93				
Queuing Penalty (veh)	0	323			0	2	88	420				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	79	93			0	1			23	1	0	2
Queuing Penalty (veh)	158	351			0	1			17	1	0	2

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	T	T	TR	L	T	T	T
Maximum Queue (ft)	18	23	23	106	406	430	413
Average Queue (ft)	1	1	1	21	180	393	388
95th Queue (ft)	8	12	13	67	468	425	406
Link Distance (ft)	194	194	194		370	370	370
Upstream Blk Time (%)					6	51	74
Queuing Penalty (veh)					32	257	372
Storage Bay Dist (ft)				125			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				0	1		

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	152	174	249	200	1142	1146	1187	937	175
Average Queue (ft)	33	50	74	151	936	963	1000	788	69
95th Queue (ft)	103	134	185	243	1416	1398	1435	1205	204
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)					18	23	51	54	
Queuing Penalty (veh)					91	117	266	245	
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				32	16			93	4
Queuing Penalty (veh)				147	31			145	5

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	252	304	236	68	161	283	1104	1145	165	435	134	623
Average Queue (ft)	129	71	45	13	55	47	533	613	84	348	33	359
95th Queue (ft)	329	273	147	42	132	206	1501	1568	201	542	95	886
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)							4	4		61		34
Queuing Penalty (veh)							16	16		0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	12		1		0	0	8		9	84		
Queuing Penalty (veh)	27		1		0	0	11		18	57		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	572	92	131	78
Average Queue (ft)	316	30	42	22
95th Queue (ft)	860	76	98	57
Link Distance (ft)	701		702	
Upstream Blk Time (%)	26			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		0	2	
Queuing Penalty (veh)		0	2	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	87	265	290	174	919	912	23	339
Average Queue (ft)	24	58	76	12	627	659	4	117
95th Queue (ft)	75	237	259	74	1237	1230	16	286
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)					29	35		
Queuing Penalty (veh)					177	214		
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	7	5			20			
Queuing Penalty (veh)	25	2			2			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	54	31	93	104
Average Queue (ft)	24	6	44	52
95th Queue (ft)	49	27	78	86
Link Distance (ft)	241		863	917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)			2	
Queuing Penalty (veh)			0	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	354	577	531	53
Average Queue (ft)	84	237	107	15
95th Queue (ft)	319	503	380	43
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)	0	9	9	
Queuing Penalty (veh)	1	0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	129	10	140
Average Queue (ft)	73	2	71
95th Queue (ft)	176	14	197
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	9		9
Queuing Penalty (veh)	37		42
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	252	216	90
Average Queue (ft)	95	85	44
95th Queue (ft)	314	300	147
Link Distance (ft)	461	461	321
Upstream Blk Time (%)	10	10	
Queuing Penalty (veh)	24	25	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	192	172	50	132
Average Queue (ft)	100	80	24	46
95th Queue (ft)	294	260	46	173
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)	8	6		
Queuing Penalty (veh)	39	29		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	165	143	35	94
Average Queue (ft)	78	70	13	39
95th Queue (ft)	168	156	38	73
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)	5	5		
Queuing Penalty (veh)	23	23		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	142	35	8	20	40	3988	3983	3977
Average Queue (ft)	71	9	0	1	1	2767	2916	2941
95th Queue (ft)	186	23	6	13	19	5052	4859	4844
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						36	42	44
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	544	544	174	319	296	260	345	367	433	205
Average Queue (ft)	454	439	97	92	76	49	97	122	326	132
95th Queue (ft)	625	638	195	283	247	169	275	312	567	286
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	34	31		4	0	0	2	7	42	
Queuing Penalty (veh)	67	63		26	2	0	17	55	347	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			31	1					47	5
Queuing Penalty (veh)			194	1					230	34

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	546	542	197	222	202	164	260	212	209	357
Average Queue (ft)	338	432	45	47	52	64	62	59	69	226
95th Queue (ft)	620	609	141	148	160	142	199	212	249	474
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	6	18					0	3	9	34
Queuing Penalty (veh)	15	42					2	13	45	175
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						14	4			
Queuing Penalty (veh)						67	3			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	359	406	471	325	171	186	180	296	311	407	263	198
Average Queue (ft)	132	170	175	131	82	136	117	227	241	236	69	66
95th Queue (ft)	304	380	443	308	173	211	199	359	375	505	199	169
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)					15	44	35	2	25	39	0	
Queuing Penalty (veh)					23	68	55	0	0	272	0	
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			1	11				35	46	3		
Queuing Penalty (veh)			1	19				160	210	13		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	368	360	355	428
Average Queue (ft)	182	193	205	262
95th Queue (ft)	364	390	422	581
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	4	12	19	39
Queuing Penalty (veh)	24	60	99	202
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	136	174	610	581	262	324	2612	2632	255	317	355	1260
Average Queue (ft)	73	107	246	184	66	95	1512	1562	188	196	276	841
95th Queue (ft)	140	196	680	503	177	283	3314	3344	346	346	448	1630
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)			5	0			34	43				38
Queuing Penalty (veh)			22	0			225	278				233
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	17	22	25	7			54	68	35	15	34	29
Queuing Penalty (veh)	35	46	49	18			46	240	106	75	169	90

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1246	1242	223	228	325	325	339
Average Queue (ft)	702	579	99	119	153	170	236
95th Queue (ft)	1418	1267	206	224	298	310	400
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	6	1	0	0	7	8	42
Queuing Penalty (veh)	37	5	0	0	40	42	225
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	0	7		
Queuing Penalty (veh)			0	0	19		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	149	650	74	1373	1382	1379	160	188	198	182
Average Queue (ft)	64	266	6	617	586	537	52	41	49	29
95th Queue (ft)	131	614	44	1598	1584	1500	126	126	142	100
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)				20	13	10				
Queuing Penalty (veh)				115	76	59				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				46				0		
Queuing Penalty (veh)				3				0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	701	497	282	320	1813	1355	174	1358	1335	1264	437	89
Average Queue (ft)	280	148	240	306	1167	512	29	516	497	478	143	28
95th Queue (ft)	769	466	334	373	2103	1622	118	1518	1523	1560	404	68
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)	2	2			3	1		0	0	5		
Queuing Penalty (veh)	0	0			0	0		0	0	0		
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			22	37	39			49		15		
Queuing Penalty (veh)			68	114	196			9		77		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	94	175	185	77
Average Queue (ft)	36	49	58	16
95th Queue (ft)	77	126	142	53
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	74	248	111	102	170	218	124	258	153
Average Queue (ft)	16	85	34	29	58	90	22	76	35
95th Queue (ft)	53	225	90	75	142	193	78	239	140
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		1			1	4		7	3
Queuing Penalty (veh)		1			4	12		15	6
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			6	1			0	12	
Queuing Penalty (veh)			4	1			0	6	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73
Directions Served	L	T	T	T	TR	T
Maximum Queue (ft)	164	218	180	670	683	280
Average Queue (ft)	70	65	52	238	361	84
95th Queue (ft)	158	180	121	649	813	307
Link Distance (ft)		271	271	640	640	242
Upstream Blk Time (%)		3	0	3	21	17
Queuing Penalty (veh)		9	0	15	88	141
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	14	0				
Queuing Penalty (veh)	31	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	62	67	105	108	86	108	112	118	61	225	752	348
Average Queue (ft)	12	14	46	60	24	79	69	89	7	166	262	40
95th Queue (ft)	40	49	92	110	60	132	132	135	29	293	906	222
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)		0	0	2	0		0			37	0	
Queuing Penalty (veh)		0	0	2	0		0			24	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	69	82	40	83	170	168	109
Average Queue (ft)	13	14	5	25	64	50	34
95th Queue (ft)	47	52	23	64	157	157	97
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)					0	9	13
Queuing Penalty (veh)					0	10	10

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	B87	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	678	147	10	219	228	176
Average Queue (ft)	110	38	0	33	35	23
95th Queue (ft)	457	103	7	227	234	199
Link Distance (ft)	1384		706	1876	1876	1876
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		200				
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	121	29	67	46	11	59	355	1630	1632	274	716	714
Average Queue (ft)	49	2	17	11	2	12	306	806	742	45	409	423
95th Queue (ft)	101	14	49	34	11	43	415	1794	1767	186	771	772
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)								28	21		18	20
Queuing Penalty (veh)								0	0		94	106
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)							56	1	1	0	33	
Queuing Penalty (veh)							268	2	0	0	6	

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87	B87	B87
Directions Served	T	T	
Maximum Queue (ft)	250	256	238
Average Queue (ft)	62	63	37
95th Queue (ft)	276	283	222
Link Distance (ft)	357	357	357
Upstream Blk Time (%)	6	9	5
Queuing Penalty (veh)	22	32	18
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	1153	1178	113	223	703
Average Queue (ft)	743	749	30	94	361
95th Queue (ft)	1341	1355	102	269	818
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)			1	34	35
Queuing Penalty (veh)			4	178	155
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	215	193	134	2071	2049	359	454	440	424	425
Average Queue (ft)	184	174	13	1348	1345	258	310	194	225	230
95th Queue (ft)	219	218	84	2217	2197	485	582	534	522	554
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	80	76	1			1	12	35	19	33
Queuing Penalty (veh)	245	232	3			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						1	12			
Queuing Penalty (veh)						6	69			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	12	6	125	101	80	49	73	128	156
Average Queue (ft)	1	0	0	56	43	22	9	39	20	33
95th Queue (ft)	7	5	2	100	86	53	33	65	76	98
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	87	133	53	91	80	49	47	67	44	239	266	154
Average Queue (ft)	17	56	13	29	29	11	10	20	2	95	118	25
95th Queue (ft)	60	108	37	72	65	32	32	49	18	177	206	80
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)										0	13	
Queuing Penalty (veh)										0	7	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	541	568	835
Average Queue (ft)	206	421	438	413
95th Queue (ft)	392	621	655	1009
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		3	14	12
Queuing Penalty (veh)		19	79	70
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	43		
Queuing Penalty (veh)	1	70		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	124	141	98	157	194	257	193	142
Average Queue (ft)	91	103	38	97	154	128	74	103
95th Queue (ft)	129	138	76	179	214	258	157	157
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	11	18	0					40
Queuing Penalty (veh)	32	56	0					80
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	27	3		
Queuing Penalty (veh)				3	80	9		

Intersection: 33: Kemper St & Kurtz St

Movement	EB	NB	NB
Directions Served	TR	L	R
Maximum Queue (ft)	114	34	138
Average Queue (ft)	23	11	44
95th Queue (ft)	107	35	125
Link Distance (ft)	139		1252
Upstream Blk Time (%)	13		
Queuing Penalty (veh)	98		
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			5
Queuing Penalty (veh)			2

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	29	57	85	236
Average Queue (ft)	11	13	21	52
95th Queue (ft)	75	42	60	273
Link Distance (ft)	143	300		949
Upstream Blk Time (%)	7			1
Queuing Penalty (veh)	37			8
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				6
Queuing Penalty (veh)				4

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	36	56
Average Queue (ft)	17	16
95th Queue (ft)	104	45
Link Distance (ft)	182	259
Upstream Blk Time (%)	9	
Queuing Penalty (veh)	45	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: E2 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	94	38
Average Queue (ft)	31	7
95th Queue (ft)	215	34
Link Distance (ft)	464	365
Upstream Blk Time (%)	6	
Queuing Penalty (veh)	42	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	EB
Directions Served	T	T	T
Maximum Queue (ft)	314	175	118
Average Queue (ft)	297	8	4
95th Queue (ft)	309	87	62
Link Distance (ft)	285	285	285
Upstream Blk Time (%)	80	0	0
Queuing Penalty (veh)	271	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	WB
Directions Served	T	T	TR
Maximum Queue (ft)	186	254	290
Average Queue (ft)	22	124	258
95th Queue (ft)	111	288	274
Link Distance (ft)	194	194	194
Upstream Blk Time (%)	0	12	98
Queuing Penalty (veh)	0	50	428
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	92	31
Average Queue (ft)	16	11
95th Queue (ft)	78	30
Link Distance (ft)	101	321
Upstream Blk Time (%)	13	
Queuing Penalty (veh)	100	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: X Dwy & Kurtz St

Movement	EB
Directions Served	TR
Maximum Queue (ft)	62
Average Queue (ft)	26
95th Queue (ft)	164
Link Distance (ft)	300
Upstream Blk Time (%)	8
Queuing Penalty (veh)	39
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	11	94	162	130	63
Average Queue (ft)	1	8	41	21	12
95th Queue (ft)	13	54	151	91	41
Link Distance (ft)	96		146	146	294
Upstream Blk Time (%)		0	11	1	
Queuing Penalty (veh)		0	22	3	
Storage Bay Dist (ft)		75			
Storage Blk Time (%)		0	14		
Queuing Penalty (veh)		1	22		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	348	259	143	248	341	367
Average Queue (ft)	146	24	9	27	69	126
95th Queue (ft)	416	140	80	170	269	378
Link Distance (ft)	263	263	263	311	311	311
Upstream Blk Time (%)	30	0	0	2	1	19
Queuing Penalty (veh)	208	1	0	9	6	103
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	230	255	106	140	310
Average Queue (ft)	65	92	23	37	69
95th Queue (ft)	170	201	83	117	264
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			1	3	7
Queuing Penalty (veh)			2	10	76
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	561	930
Average Queue (ft)	86	294
95th Queue (ft)	496	800
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB	SB
Directions Served	T	T		T	T	TR	R
Maximum Queue (ft)	74	173	40	788	798	827	808
Average Queue (ft)	4	9	1	644	637	633	607
95th Queue (ft)	45	81	29	1060	1082	1107	1105
Link Distance (ft)	189	189	189	756	756	756	756
Upstream Blk Time (%)	0	0	0	59	52	47	40
Queuing Penalty (veh)	0	0	0	476	423	380	321
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 53: Bend

Movement	SB
Directions Served	T
Maximum Queue (ft)	76
Average Queue (ft)	0
95th Queue (ft)	0
Link Distance (ft)	355
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	406	418
Average Queue (ft)	375	363
95th Queue (ft)	435	484
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	6
Queuing Penalty (veh)	101	49
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 19191

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	700	734	796	496	168	157	181	611	627	667	610
Average Queue (ft)	187	290	287	279	78	83	89	204	251	276	223
95th Queue (ft)	617	697	555	441	153	162	169	735	764	782	732
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)								3	0	3	3
Queuing Penalty (veh)								0	0	0	0
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1983	1994	70	126	132	170	238	276	96	266	270
Average Queue (ft)	402	1926	1911	5	31	32	37	98	124	10	187	210
95th Queue (ft)	519	2105	2140	39	97	102	120	221	261	58	286	299
Link Distance (ft)		1940	1940		629	629		1525	1525		189	189
Upstream Blk Time (%)		86	80								22	32
Queuing Penalty (veh)		0	0								86	125
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	3	91			0		0	1	62			
Queuing Penalty (veh)	14	172			0		0	1	13			

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B57	B57	B57
Directions Served	T	R	T	T	T
Maximum Queue (ft)	273	175	314	329	313
Average Queue (ft)	192	72	69	81	73
95th Queue (ft)	298	210	306	321	310
Link Distance (ft)	189		368	368	368
Upstream Blk Time (%)	23	1	12	12	12
Queuing Penalty (veh)	88	0	45	46	46
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	39	1			
Queuing Penalty (veh)	80	3			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	166	240	265	34	195	296	367	102	130
Average Queue (ft)	71	106	112	7	41	74	143	38	59
95th Queue (ft)	145	404	415	25	133	224	339	107	114
Link Distance (ft)		629	629		962	962	962	863	
Upstream Blk Time (%)		10	9						
Queuing Penalty (veh)		42	40						
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	0	11			1			0	0
Queuing Penalty (veh)	1	25			0			0	0

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	240	345	406	438	159	146	173	216	111	258	119	318
Average Queue (ft)	72	188	196	234	51	42	73	106	40	151	53	128
95th Queue (ft)	169	674	692	702	127	108	161	220	98	530	161	427
Link Distance (ft)		962	962	962		285	285	285		702		
Upstream Blk Time (%)		11	11	11						14		
Queuing Penalty (veh)		27	26	26						66		
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)					1	0			1	17	14	2
Queuing Penalty (veh)					2	0			2	23	19	1

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	223	282	318	361	138	133	180	296	396	111	225	680
Average Queue (ft)	101	139	172	221	31	28	47	94	212	71	220	584
95th Queue (ft)	223	353	377	414	109	96	152	270	454	134	231	850
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)		18	20	27			0	4	24			15
Queuing Penalty (veh)		45	50	68			0	15	0			16
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)		18			0	0			25	42	67	34
Queuing Penalty (veh)		22			0	0			30	78	373	128

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	T	T	TR	L	T	T	T	R
Maximum Queue (ft)	240	256	285	193	344	276	234	482
Average Queue (ft)	107	126	194	157	226	92	16	344
95th Queue (ft)	288	294	376	250	491	348	145	665
Link Distance (ft)	194	194	194		370	370	370	468
Upstream Blk Time (%)	25	17	64		48	12	0	65
Queuing Penalty (veh)	90	62	235		236	59	1	0
Storage Bay Dist (ft)				125				
Storage Blk Time (%)				73	0			
Queuing Penalty (veh)				310	0			

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	438	433	447	178	916	904	913	811	164
Average Queue (ft)	310	325	388	43	525	478	345	389	54
95th Queue (ft)	534	516	536	143	1333	1326	1110	924	145
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)	36	37	77		34	34	21	13	
Queuing Penalty (veh)	162	167	349		186	187	116	66	
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				2	49			47	24
Queuing Penalty (veh)				10	126			91	27

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	315	1172	1204	201	108	51	183	200	164	400	308	569
Average Queue (ft)	119	393	399	27	37	8	43	54	75	196	101	140
95th Queue (ft)	309	1198	1210	102	102	39	141	153	179	393	338	590
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)		8	8							14	15	17
Queuing Penalty (veh)		31	33							0	0	0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	11	20	34				0		2	40		
Queuing Penalty (veh)	29	31	36				0		8	31		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	570	148	376	111
Average Queue (ft)	153	54	118	31
95th Queue (ft)	610	138	370	76
Link Distance (ft)	701		702	
Upstream Blk Time (%)	17		3	
Queuing Penalty (veh)	0		8	
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		15	5	
Queuing Penalty (veh)		45	9	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	151	1830	1814	93	230	289	190	486
Average Queue (ft)	24	880	877	9	57	133	66	222
95th Queue (ft)	93	2171	2170	48	194	408	212	686
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)		30	31				13	6
Queuing Penalty (veh)		116	120				0	22
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	61			4			
Queuing Penalty (veh)	0	43			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	158	54	346	331
Average Queue (ft)	43	8	83	88
95th Queue (ft)	142	35	259	261
Link Distance (ft)	241		863	917
Upstream Blk Time (%)	6		0	
Queuing Penalty (veh)	0		0	
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	15	
Queuing Penalty (veh)		0	2	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	944	643	642	98
Average Queue (ft)	326	259	172	47
95th Queue (ft)	956	692	602	81
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)	20	25	24	0
Queuing Penalty (veh)	48	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	272	32	306
Average Queue (ft)	236	4	155
95th Queue (ft)	337	20	336
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	67		25
Queuing Penalty (veh)	317		34
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	476	475	330
Average Queue (ft)	431	422	151
95th Queue (ft)	535	523	342
Link Distance (ft)	461	461	321
Upstream Blk Time (%)	53	38	22
Queuing Penalty (veh)	157	110	16
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	98	87	35	233
Average Queue (ft)	39	31	11	66
95th Queue (ft)	96	67	37	230
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	76	72	31	176
Average Queue (ft)	24	22	6	62
95th Queue (ft)	63	61	26	145
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	73	159	8	65	77	3970	3964	3962
Average Queue (ft)	51	35	0	3	11	2558	2595	2621
95th Queue (ft)	125	133	6	36	61	4933	4899	4864
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						44	43	43
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	191	243	96	176	186	205	406	399	415	205
Average Queue (ft)	76	68	24	46	51	54	333	246	359	43
95th Queue (ft)	212	267	76	149	163	173	533	490	541	170
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)		2		0	0	0	73	42	66	
Queuing Penalty (veh)		2		1	1	3	627	357	561	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			2	3					64	0
Queuing Penalty (veh)			13	4					150	0

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	552	549	252	263	264	174	340	291	278	306
Average Queue (ft)	351	508	78	93	124	116	273	107	110	144
95th Queue (ft)	749	637	256	281	306	231	458	336	349	403
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	38	73	0	0	0		69	20	20	33
Queuing Penalty (veh)	123	232	0	0	0		415	123	121	194
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						58	26			
Queuing Penalty (veh)						331	36			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	1110	1113	1105	300	177	183	177	293	308	398	217	242
Average Queue (ft)	962	970	970	206	106	166	166	276	300	387	58	70
95th Queue (ft)	1339	1328	1393	484	212	186	177	299	313	400	245	266
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)	44	26	51		57	95	95	0	79	94	8	8
Queuing Penalty (veh)	212	126	249		108	179	179	0	0	722	56	58
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			73	18				94	97	1		
Queuing Penalty (veh)			281	42				456	470	7		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	371	372	388	337
Average Queue (ft)	179	166	170	145
95th Queue (ft)	465	453	466	463
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	28	25	24	34
Queuing Penalty (veh)	170	151	150	201
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	134	172	996	989	242	259	2609	2610	253	209	303	1260
Average Queue (ft)	112	163	759	351	62	64	2170	2229	249	67	148	1208
95th Queue (ft)	140	181	1269	978	219	225	3366	3274	258	174	393	1413
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)			59	17			64	64				75
Queuing Penalty (veh)			312	89			337	341				525
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	83	39	10	7	0	1	43	49	97	0	0	94
Queuing Penalty (veh)	217	101	29	21	0	3	62	210	292	1	2	402

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1258	1255	235	239	343	339	338
Average Queue (ft)	1089	829	137	160	235	211	208
95th Queue (ft)	1513	1646	281	306	449	431	426
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	33	29	0	4	36	31	32
Queuing Penalty (veh)	231	205	0	0	281	239	246
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	4	36		
Queuing Penalty (veh)			2	21	189		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	554	1394	157	1366	1380	1381	209	248	290	262
Average Queue (ft)	232	896	12	1177	1126	955	67	43	48	24
95th Queue (ft)	639	1806	90	1839	1799	1808	182	145	172	119
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)	2	38		71	42	37				
Queuing Penalty (veh)	0	0		480	281	252				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				89				0		
Queuing Penalty (veh)				19				0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	1420	1418	251	259	2038	2064	147	2463	2465	2480	565	138
Average Queue (ft)	877	681	102	115	787	922	11	1736	1722	1713	143	48
95th Queue (ft)	1754	1729	234	259	2339	2333	71	3297	3302	3312	505	136
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)	40	39			22	12		56	56	56		
Queuing Penalty (veh)	0	0			0	0		0	0	0		
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			0	0	1			85		62		
Queuing Penalty (veh)			0	1	4			17		277		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	301	424	422	165
Average Queue (ft)	70	143	144	40
95th Queue (ft)	197	393	397	124
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)		1		
Queuing Penalty (veh)		2		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	137	244	1401	136	214	253	140	353	342
Average Queue (ft)	48	184	1181	22	111	143	26	281	230
95th Queue (ft)	118	336	1807	103	235	279	116	428	424
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		40	69		21	26		56	45
Queuing Penalty (veh)		65	194		85	107		92	72
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			96	1			1	79	
Queuing Penalty (veh)			115	1			1	34	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73
Directions Served	L	T	T	T	TR	T
Maximum Queue (ft)	183	228	48	608	488	231
Average Queue (ft)	88	92	3	276	199	85
95th Queue (ft)	216	304	51	785	643	299
Link Distance (ft)		271	271	640	640	242
Upstream Blk Time (%)		30		32	6	28
Queuing Penalty (veh)		106		69	12	122
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	43					
Queuing Penalty (veh)	121					

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	44	40	86	103	79	97	85	101	38	156	38	55
Average Queue (ft)	7	4	18	30	14	51	19	75	6	52	4	8
95th Queue (ft)	30	22	60	83	50	108	64	119	24	148	19	35
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)			0	1						13		
Queuing Penalty (veh)			0	1						6		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	46	59	32	82	400	522	56
Average Queue (ft)	5	6	6	27	57	130	19
95th Queue (ft)	23	30	22	59	311	592	55
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						23	24
Queuing Penalty (veh)						21	11

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	NB	B87	B87	B87	SB	SB	SB
Directions Served	R	L	T	T	T	T	T	T	T	TR
Maximum Queue (ft)	96	270	434	47	719	392	88	9	9	116
Average Queue (ft)	18	196	278	2	415	81	6	0	0	39
95th Queue (ft)	62	367	605	34	969	348	83	5	5	120
Link Distance (ft)	1384		357	357	706	706	706	1876	1876	1876
Upstream Blk Time (%)			64		50					
Queuing Penalty (veh)			122		95					
Storage Bay Dist (ft)		200								
Storage Blk Time (%)		67	16							
Queuing Penalty (veh)		72	44							

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	122	12	31	15	22	88	262	1630	1587	78	400	423
Average Queue (ft)	47	1	5	1	3	23	125	809	701	7	143	179
95th Queue (ft)	118	10	24	10	13	74	310	1968	1791	47	337	385
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)								37	5		1	1
Queuing Penalty (veh)								0	0		2	2
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)							11	42	32		2	
Queuing Penalty (veh)							29	77	1		0	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	293	296	106	222	690
Average Queue (ft)	95	94	32	138	397
95th Queue (ft)	304	306	88	306	868
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)			1	62	36
Queuing Penalty (veh)			6	286	98
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	199	188	96	1273	1267	359	442	435	382	408
Average Queue (ft)	113	96	5	866	872	139	167	275	149	246
95th Queue (ft)	247	223	51	1560	1559	397	474	593	435	559
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	32	28	0			0	4	61	16	59
Queuing Penalty (veh)	93	80	1			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						0	4			
Queuing Penalty (veh)						1	18			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	8	10	144	120	49	50	66	164	164
Average Queue (ft)	0	0	0	63	49	20	9	38	23	30
95th Queue (ft)	5	3	5	124	100	47	37	59	104	111
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					0				0	
Queuing Penalty (veh)					0				0	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	128	168	67	106	58	56	57	96	54	228	258	58
Average Queue (ft)	37	86	15	26	16	13	14	29	9	112	130	9
95th Queue (ft)	108	148	47	73	42	37	41	68	36	198	217	41
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											14	
Queuing Penalty (veh)											3	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	518	557	824
Average Queue (ft)	112	328	347	224
95th Queue (ft)	309	540	573	739
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		1	5	5
Queuing Penalty (veh)		7	24	24
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		31		
Queuing Penalty (veh)		27		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	131	143	96	155	193	223	144	148
Average Queue (ft)	83	96	40	84	142	90	52	107
95th Queue (ft)	134	146	77	167	198	199	110	156
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	6	10	0					54
Queuing Penalty (veh)	23	39	0					108
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	20	0		
Queuing Penalty (veh)				2	62	1		

Intersection: 33: Kemper St & Kurtz St

Movement	EB
Directions Served	TR
Maximum Queue (ft)	144
Average Queue (ft)	72
95th Queue (ft)	186
Link Distance (ft)	139
Upstream Blk Time (%)	45
Queuing Penalty (veh)	199
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	156	44	89	197
Average Queue (ft)	92	8	19	79
95th Queue (ft)	208	40	68	240
Link Distance (ft)	143	300		949
Upstream Blk Time (%)	56			
Queuing Penalty (veh)	237			
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				19
Queuing Penalty (veh)				12

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	192	23	160
Average Queue (ft)	146	2	53
95th Queue (ft)	264	16	163
Link Distance (ft)	182	259	283
Upstream Blk Time (%)	64		2
Queuing Penalty (veh)	304		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 36: E2 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	471	287
Average Queue (ft)	270	103
95th Queue (ft)	637	293
Link Distance (ft)	464	365
Upstream Blk Time (%)	47	5
Queuing Penalty (veh)	209	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	EB
Directions Served	T	T	T
Maximum Queue (ft)	117	121	147
Average Queue (ft)	49	53	64
95th Queue (ft)	222	229	259
Link Distance (ft)	285	285	285
Upstream Blk Time (%)	14	16	19
Queuing Penalty (veh)	39	44	51
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	EB	EB	EB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	231	276	283	58	54
Average Queue (ft)	90	138	162	3	22
95th Queue (ft)	276	322	358	27	49
Link Distance (ft)	234	234	234	194	355
Upstream Blk Time (%)	20	25	41		
Queuing Penalty (veh)	71	86	142		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	114	44
Average Queue (ft)	52	20
95th Queue (ft)	136	37
Link Distance (ft)	101	321
Upstream Blk Time (%)	44	
Queuing Penalty (veh)	178	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: X Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	289	39	310
Average Queue (ft)	189	6	169
95th Queue (ft)	399	27	362
Link Distance (ft)	300	182	297
Upstream Blk Time (%)	43		34
Queuing Penalty (veh)	169		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	65
Average Queue (ft)	14
95th Queue (ft)	107
Link Distance (ft)	258
Upstream Blk Time (%)	5
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	110	114	117	212	206	206
Average Queue (ft)	19	30	39	175	163	52
95th Queue (ft)	104	166	137	231	224	205
Link Distance (ft)	96	96		146	146	294
Upstream Blk Time (%)	9	8	0	84	78	7
Queuing Penalty (veh)	35	32	0	229	211	8
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			8	91		
Queuing Penalty (veh)			16	171		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	360	350	297	368	373	376
Average Queue (ft)	297	83	50	163	136	141
95th Queue (ft)	354	303	224	445	402	422
Link Distance (ft)	263	263	263	311	311	311
Upstream Blk Time (%)	88	12	7	28	23	23
Queuing Penalty (veh)	688	94	55	203	169	171
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	243	255	64	115	176
Average Queue (ft)	43	70	6	16	26
95th Queue (ft)	148	191	41	74	145
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			0	1	2
Queuing Penalty (veh)			1	4	15
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	123	150
Average Queue (ft)	22	8
95th Queue (ft)	76	66
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB	SB
Directions Served	T	T		T	T	TR	R
Maximum Queue (ft)	116	232	125	407	427	452	569
Average Queue (ft)	7	35	6	72	74	75	39
95th Queue (ft)	64	179	67	421	424	430	296
Link Distance (ft)	189	189	189	756	756	756	756
Upstream Blk Time (%)	0	1	0	7	7	7	1
Queuing Penalty (veh)	0	8	0	42	41	40	7
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	401	411
Average Queue (ft)	334	307
95th Queue (ft)	514	538
Link Distance (ft)	360	360
Upstream Blk Time (%)	8	4
Queuing Penalty (veh)	65	29
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

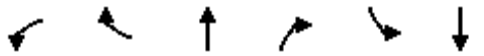
Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 25032

Appendix S

Opening Year (2030) Plus Project Phase 1 (20,000-spectator) Conditions Intersection LOS Worksheets



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1101	1388	504	0	0	2162
Future Volume (vph)	1101	1388	504	0	0	2162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1197	1509	548	0	0	2350
RTOR Reduction (vph)	0	151	0	0	0	0
Lane Group Flow (vph)	1197	1358	548	0	0	2350
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)		3		1		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.2	57.8	25.0			47.6
Effective Green, g (s)	35.2	57.8	25.0			47.6
Actuated g/C Ratio	0.36	0.59	0.26			0.49
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1235	1647	1299			3118
v/s Ratio Prot	c0.35	0.49	0.11			c0.37
v/s Ratio Perm						
v/c Ratio	0.97	0.82	0.42			0.75
Uniform Delay, d1	30.8	16.0	30.4			20.3
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	18.3	3.3	0.1			0.9
Delay (s)	49.1	19.3	30.5			21.3
Level of Service	D	B	C			C
Approach Delay (s)	32.5		30.5			21.3
Approach LOS	C		C			C

Intersection Summary			
HCM 2000 Control Delay	27.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	97.8	Sum of lost time (s)	22.5
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
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)	289	376	229	25	278	484	236	442	22	1031	453	221
Future Volume (veh/h)	289	376	229	25	278	484	236	442	22	1031	453	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	314	409	249	27	302	0	246	496	0	1121	492	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	448	728	252	503		402	844		965	507	
Arrive On Green	0.24	0.24	0.24	0.14	0.14	0.00	0.07	0.07	0.00	0.27	0.27	0.00
Sat Flow, veh/h	1781	1870	1546	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	314	409	249	27	302	0	246	496	0	1121	492	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1546	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	26.0	34.1	16.4	2.1	12.8	0.0	21.4	20.5	0.0	43.3	41.6	0.0
Cycle Q Clear(g_c), s	26.0	34.1	16.4	2.1	12.8	0.0	21.4	20.5	0.0	43.3	41.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	427	448	728	252	503		402	844		965	507	
V/C Ratio(X)	0.74	0.91	0.34	0.11	0.60		0.61	0.59		1.16	0.97	
Avail Cap(c_a), veh/h	435	457	735	357	713		402	844		965	507	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.00	0.91	0.91	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.2	59.2	27.3	59.9	64.4	0.0	67.3	66.8	0.0	58.3	57.7	0.0
Incr Delay (d2), s/veh	8.5	23.9	0.8	0.6	3.7	0.0	6.2	2.7	0.0	84.4	32.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	18.9	9.2	1.0	6.0	0.0	11.0	10.7	0.0	30.8	24.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	83.1	28.0	60.5	68.2	0.0	73.5	69.6	0.0	142.7	90.2	0.0
LnGrp LOS	E	F	C	E	E		E	E		F	F	
Approach Vol, veh/h		972			329			742			1613	
Approach Delay, s/veh		63.0			67.5			70.9			126.7	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	43.2	48.2	27.5	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	36.1	45.3	14.8	23.4
Green Ext Time (p_c), s	2.1	0.0	3.9	2.9

Intersection Summary	
HCM 6th Ctrl Delay	93.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	354	1072	3	0	583	177	0	0	0	72	1	206
Future Volume (veh/h)	354	1072	3	0	583	177	0	0	0	72	1	206
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	385	1165	3	0	634	192				78	1	224
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	416	1788	5	101	1240	367				556	7	494
Arrive On Green	0.23	0.49	0.49	0.00	0.64	0.64				0.32	0.32	0.32
Sat Flow, veh/h	1781	3636	9	1781	3883	1151				1760	23	1565
Grp Volume(v), veh/h	385	569	599	0	554	272				79	0	224
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1702	1630				1782	0	1565
Q Serve(g_s), s	22.8	25.9	25.9	0.0	9.4	9.8				3.4	0.0	12.3
Cycle Q Clear(g_c), s	22.8	25.9	25.9	0.0	9.4	9.8				3.4	0.0	12.3
Prop In Lane	1.00		0.01	1.00		0.71				0.99		1.00
Lane Grp Cap(c), veh/h	416	874	919	101	1087	520				563	0	494
V/C Ratio(X)	0.93	0.65	0.65	0.00	0.51	0.52				0.14	0.00	0.45
Avail Cap(c_a), veh/h	538	874	919	109	1087	520				563	0	494
HCM Platoon Ratio	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	0.00	0.81	0.81				1.00	0.00	1.00
Uniform Delay (d), s/veh	40.5	20.5	20.5	0.0	15.0	15.1				26.5	0.0	29.5
Incr Delay (d2), s/veh	2.2	0.3	0.3	0.0	1.4	3.0				0.5	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	10.3	10.8	0.0	3.0	3.2				1.5	0.0	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	20.9	20.9	0.0	16.4	18.1				27.0	0.0	32.5
LnGrp LOS	D	C	C	A	B	B				C	A	C
Approach Vol, veh/h		1553			826						303	
Approach Delay, s/veh		26.3			16.9						31.1	
Approach LOS		C			B						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	29.6	39.4
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I1), s	10.0	27.9		14.3	24.8	11.8
Green Ext Time (p_c), s	0.0	10.2		0.6	0.4	5.6

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)	327	757	106	101	665	30	144	140	126	137	17	28
Future Volume (veh/h)	327	757	106	101	665	30	144	140	126	137	17	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.87	1.00		0.77	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	355	823	115	110	723	33	157	152	137	149	18	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	1842	255	137	1581	72	411	181	163	182	64	106
Arrive On Green	0.23	0.55	0.55	0.08	0.32	0.32	0.23	0.23	0.23	0.10	0.10	0.10
Sat Flow, veh/h	1781	4455	616	1781	4970	225	1781	783	706	1781	625	1041
Grp Volume(v), veh/h	355	627	311	110	494	262	157	0	289	149	0	48
Grp Sat Flow(s),veh/h/ln	1781	1702	1666	1781	1702	1792	1781	0	1489	1781	0	1665
Q Serve(g_s), s	18.6	11.8	12.1	6.6	12.5	12.6	8.0	0.0	20.0	8.9	0.0	2.9
Cycle Q Clear(g_c), s	18.6	11.8	12.1	6.6	12.5	12.6	8.0	0.0	20.0	8.9	0.0	2.9
Prop In Lane	1.00		0.37	1.00		0.13	1.00		0.47	1.00		0.63
Lane Grp Cap(c), veh/h	307	1408	689	137	1083	570	411	0	344	182	0	170
V/C Ratio(X)	1.16	0.45	0.45	0.81	0.46	0.46	0.38	0.00	0.84	0.82	0.00	0.28
Avail Cap(c_a), veh/h	307	1408	689	191	1083	570	414	0	346	282	0	264
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)	0.81	0.81	0.81	1.00	1.00	1.00	0.76	0.00	0.76	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.6	16.9	17.0	49.1	29.4	29.4	35.0	0.0	39.6	47.5	0.0	44.8
Incr Delay (d2), s/veh	96.4	0.8	1.7	10.6	1.4	2.7	0.2	0.0	12.5	5.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	4.2	4.4	3.3	5.2	5.8	3.5	0.0	8.4	4.2	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	138.0	17.7	18.7	59.7	30.8	32.1	35.2	0.0	52.1	53.1	0.0	45.2
LnGrp LOS	F	B	B	E	C	C	D	A	D	D	A	D
Approach Vol, veh/h		1293			866			446			197	
Approach Delay, s/veh		51.0			34.8			46.1			51.2	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.0	39.2		29.8	12.7	49.6		15.9
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	18.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	20.6	14.6		22.0	8.6	14.1		10.9
Green Ext Time (p_c), s	0.0	6.2		0.5	0.0	10.3		0.2

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	376	604	81	78	844	431	104	43	75	90	35	177
Future Volume (veh/h)	376	604	81	78	844	431	104	43	75	90	35	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.58	1.00		0.84	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	409	657	88	85	917	468	113	47	82	98	38	192
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1142	150	108	893	242	427	178	544	287	43	218
Arrive On Green	0.05	0.25	0.25	0.06	0.26	0.26	0.33	0.33	0.33	0.16	0.16	0.16
Sat Flow, veh/h	1781	4500	592	1781	3404	923	1276	531	1335	1781	267	1349
Grp Volume(v), veh/h	409	494	251	85	917	468	160	0	82	98	0	230
Grp Sat Flow(s),veh/h/ln	1781	1702	1688	1781	1702	923	1807	0	1335	1781	0	1616
Q Serve(g_s), s	5.3	12.8	13.2	4.8	26.5	26.5	6.5	0.0	4.0	4.9	0.0	14.1
Cycle Q Clear(g_c), s	5.3	12.8	13.2	4.8	26.5	26.5	6.5	0.0	4.0	4.9	0.0	14.1
Prop In Lane	1.00		0.35	1.00		1.00	0.71		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	93	864	428	108	893	242	605	0	544	287	0	261
V/C Ratio(X)	4.38	0.57	0.59	0.79	1.03	1.93	0.26	0.00	0.15	0.34	0.00	0.88
Avail Cap(c_a), veh/h	93	864	428	134	893	242	644	0	572	319	0	289
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.9	32.9	33.0	46.8	37.3	37.3	24.5	0.0	19.7	37.6	0.0	41.4
Incr Delay (d2), s/veh	1544.7	2.7	5.8	17.0	37.3	434.9	0.1	0.0	0.0	0.3	0.0	22.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	42.4	5.5	5.9	2.6	15.3	35.0	2.8	0.0	1.2	2.2	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1592.6	35.6	38.8	63.8	74.6	472.1	24.6	0.0	19.7	37.9	0.0	64.0
LnGrp LOS	F	D	D	E	F	F	C	A	B	D	A	E
Approach Vol, veh/h		1154			1470			242			328	
Approach Delay, s/veh		588.1			200.5			22.9			56.2	
Approach LOS		F			F			C			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.5	30.6		21.2	9.7	31.4		38.8
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	6.8	15.2		16.1	7.3	28.5		8.5
Green Ext Time (p_c), s	0.0	3.7		0.2	0.0	0.0		0.8

Intersection Summary		
HCM 6th Ctrl Delay	312.3	
HCM 6th LOS	F	

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	733	42	144	1309	0	133
Future Vol, veh/h	733	42	144	1309	0	133
Conflicting Peds, #/hr	0	23	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	797	46	157	1423	0	145

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	866	0	-	448
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	454	-	0	477
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	444	-	-	465
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	465	-	-	444	-
HCM Lane V/C Ratio	0.311	-	-	0.353	-
HCM Control Delay (s)	16.2	-	-	17.5	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	1.3	-	-	1.6	-



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	830	56	196	1366	134	155
Future Volume (veh/h)	830	56	196	1366	134	155
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	902	61	213	1485	146	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2948	199	246	4000	224	199
Arrive On Green	0.60	0.60	0.14	0.78	0.13	0.13
Sat Flow, veh/h	5044	329	1781	5274	1781	1585
Grp Volume(v), veh/h	629	334	213	1485	146	168
Grp Sat Flow(s),veh/h/ln	1702	1800	1781	1702	1781	1585
Q Serve(g_s), s	9.7	9.7	12.6	9.6	8.4	11.2
Cycle Q Clear(g_c), s	9.7	9.7	12.6	9.6	8.4	11.2
Prop In Lane		0.18	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2058	1088	246	4000	224	199
V/C Ratio(X)	0.31	0.31	0.87	0.37	0.65	0.84
Avail Cap(c_a), veh/h	2058	1088	785	4000	397	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.26	0.26	0.99	0.99
Uniform Delay (d), s/veh	10.4	10.4	45.6	3.6	45.0	46.2
Incr Delay (d2), s/veh	0.4	0.7	1.0	0.1	1.2	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.8	5.6	2.4	3.8	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.7	11.1	46.5	3.6	46.1	49.8
LnGrp LOS	B	B	D	A	D	D
Approach Vol, veh/h	963			1698	314	
Approach Delay, s/veh	10.9			9.0	48.1	
Approach LOS	B			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	19.3	70.2				89.5	18.5
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	47.6	22.1				74.1	24.1
Max Q Clear Time (g_c+I1), s	14.6	11.7				11.6	13.2
Green Ext Time (p_c), s	0.3	6.5				24.0	0.4

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	460	132	130	387	228	136	135	121	63	90	67
Future Volume (veh/h)	82	460	132	130	387	228	136	135	121	63	90	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.94	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	500	143	141	421	248	148	148	132	68	98	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	599	2020	893	184	605	352	247	260	292	214	225	180
Arrive On Green	0.67	1.00	1.00	0.11	0.56	0.56	0.14	0.14	0.14	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1571	3456	2145	1250	1781	1870	1494	1781	1870	1498
Grp Volume(v), veh/h	89	500	143	141	348	321	148	148	132	68	98	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1571	1728	1777	1619	1781	1870	1494	1781	1870	1498
Q Serve(g_s), s	2.9	0.0	0.0	6.4	22.5	23.0	12.5	11.8	12.5	5.6	7.8	7.2
Cycle Q Clear(g_c), s	2.9	0.0	0.0	6.4	22.5	23.0	12.5	11.8	12.5	5.6	7.8	7.2
Prop In Lane	1.00		1.00	1.00		0.77	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	599	2020	893	184	501	456	247	260	292	214	225	180
V/C Ratio(X)	0.15	0.25	0.16	0.77	0.69	0.70	0.60	0.57	0.45	0.32	0.44	0.41
Avail Cap(c_a), veh/h	599	2020	893	467	501	456	391	410	412	391	410	329
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.12	0.12	0.12	0.64	0.64	0.64	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	17.8	0.0	0.0	70.5	30.0	30.1	64.7	64.4	57.3	64.4	65.3	65.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.6	5.0	5.8	0.9	0.7	0.4	0.3	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	2.8	8.5	8.0	5.8	5.7	4.8	2.6	3.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.0	0.0	72.1	35.0	35.8	65.6	65.2	57.7	64.6	65.8	65.6
LnGrp LOS	B	A	A	E	D	D	E	E	E	E	E	E
Approach Vol, veh/h		732			810			428			239	
Approach Delay, s/veh		2.2			41.8			63.0			65.4	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.9	95.8		24.1	58.7	50.0		27.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	8.4	2.0		9.8	4.9	25.0		14.5
Green Ext Time (p_c), s	0.2	6.5		0.5	0.1	6.7		0.9

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	714	11	9	786	406	5	0	5	150	8	52
Future Volume (veh/h)	42	714	11	9	786	406	5	0	5	150	8	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.96		0.98	0.99		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	776	12	10	854	441	5	0	5	163	9	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1965	30	398	1190	608	244	21	197	335	28	95
Arrive On Green	0.03	0.55	0.55	0.01	0.53	0.53	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3580	55	1781	2258	1154	668	80	749	979	105	359
Grp Volume(v), veh/h	46	385	403	10	670	625	10	0	0	229	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1858	1781	1777	1635	1498	0	0	1443	0	0
Q Serve(g_s), s	0.9	10.0	10.0	0.2	22.9	23.4	0.0	0.0	0.0	10.2	0.0	0.0
Cycle Q Clear(g_c), s	0.9	10.0	10.0	0.2	22.9	23.4	0.3	0.0	0.0	11.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.71	0.50		0.50	0.71		0.25
Lane Grp Cap(c), veh/h	247	975	1020	398	936	861	462	0	0	458	0	0
V/C Ratio(X)	0.19	0.39	0.40	0.03	0.72	0.73	0.02	0.00	0.00	0.50	0.00	0.00
Avail Cap(c_a), veh/h	381	975	1020	572	936	861	462	0	0	458	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.51	0.51	0.51	1.00	0.00	0.00	0.61	0.00	0.00
Uniform Delay (d), s/veh	11.8	10.4	10.4	9.1	14.4	14.5	21.8	0.0	0.0	25.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.2	1.1	0.0	2.4	2.8	0.0	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.8	4.0	0.1	8.8	8.4	0.1	0.0	0.0	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	11.6	11.5	9.1	16.8	17.3	21.8	0.0	0.0	28.0	0.0	0.0
LnGrp LOS	B	B	B	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		834			1305			10			229	
Approach Delay, s/veh		11.6			17.0			21.8			28.0	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.2	48.8		26.0	7.0	47.0		26.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.2	12.0		13.0	2.9	25.4		2.3
Green Ext Time (p_c), s	0.0	5.7		0.5	0.0	6.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	30	16	301	203	32
Future Vol, veh/h	8	30	16	301	203	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	33	17	327	221	35
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.2	11	9.5
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	21%	0%
Vol Thru, %	0%	100%	0%	86%
Vol Right, %	0%	0%	79%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	301	38	235
LT Vol	16	0	8	0
Through Vol	0	301	0	203
RT Vol	0	0	30	32
Lane Flow Rate	17	327	41	255
Geometry Grp	7	7	2	5
Degree of Util (X)	0.025	0.43	0.056	0.314
Departure Headway (Hd)	5.237	4.736	4.856	4.428
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	676	749	739	815
Service Time	3.029	2.527	2.873	2.439
HCM Lane V/C Ratio	0.025	0.437	0.055	0.313
HCM Control Delay	8.2	11.1	8.2	9.5
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.1	2.2	0.2	1.3

LANE SUMMARY

Site: 1 [OY WP 2030 Phase 1 Pre-Event 20,000_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	71	0.0	71	0.0	1380	0.051	100	2.9	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	71	0.0	71	0.0		0.051		2.9	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	667	0.0	667	0.0	1284	0.520	100	8.0	LOS A	4.2	104.4	Full	1600	0.0	0.0
Approach	667	0.0	667	0.0		0.520		8.0	LOS A	4.2	104.4				
West: Hancock Street															
Lane 1[d]	340	0.0	340	0.0	851	0.400	100	8.9	LOS A	2.2	54.6	Full	1600	0.0	0.0
Approach	340	0.0	340	0.0		0.400		8.9	LOS A	2.2	54.6				
All Vehicles	1078	0.0	1078	0.0		0.520		7.9	LOS A	4.2	104.4				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	71	71	0.0	1380	0.051	100	NA	NA
Approach	71	71	0.0		0.051			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	474	193	667	0.0	1284	0.520	100	NA	NA
Approach	474	193	667	0.0		0.520			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	340	340	0.0	851	0.400	100	NA	NA
Approach	340	340	0.0		0.400			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1078	0.0	0.520

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	19.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	338	0	0	0	0	0	0	1	177	87	204
Future Vol, veh/h	75	338	0	0	0	0	0	0	1	177	87	204
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	82	367	0	0	0	0	0	0	1	192	95	222
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	18.4	8.4	19.7
HCM LOS	C	A	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	18%	38%
Vol Thru, %	0%	82%	19%
Vol Right, %	100%	0%	44%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1	413	468
LT Vol	0	75	177
Through Vol	0	338	87
RT Vol	1	0	204
Lane Flow Rate	1	449	509
Geometry Grp	1	1	1
Degree of Util (X)	0.002	0.666	0.715
Departure Headway (Hd)	5.383	5.337	5.062
Convergence, Y/N	Yes	Yes	Yes
Cap	663	678	717
Service Time	3.434	3.371	3.062
HCM Lane V/C Ratio	0.002	0.662	0.71
HCM Control Delay	8.4	18.4	19.7
HCM Lane LOS	A	C	C
HCM 95th-tile Q	0	5.1	6.1

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	414	0	0	54	0
Future Vol, veh/h	35	414	0	0	54	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	450	0	0	59	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.8	8.7
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	20%	0%	100%
Vol Thru, %	80%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	173	276	54
LT Vol	35	0	54
Through Vol	138	276	0
RT Vol	0	0	0
Lane Flow Rate	188	300	59
Geometry Grp	7	7	2
Degree of Util (X)	0.247	0.386	0.084
Departure Headway (Hd)	4.738	4.637	5.179
Convergence, Y/N	Yes	Yes	Yes
Cap	752	771	696
Service Time	2.501	2.4	3.179
HCM Lane V/C Ratio	0.25	0.389	0.085
HCM Control Delay	9.1	10.3	8.7
HCM Lane LOS	A	B	A
HCM 95th-tile Q	1	1.8	0.3

Intersection	
Intersection Delay, s/veh	59.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	427	541	21	63	18	0	0	39	10
Future Vol, veh/h	0	0	0	427	541	21	63	18	0	0	39	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	464	588	23	68	20	0	0	42	11
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	66.2	10.4	9.6
HCM LOS	F	B	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	78%	61%	0%	0%
Vol Thru, %	22%	39%	93%	80%
Vol Right, %	0%	0%	7%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	81	698	292	49
LT Vol	63	427	0	0
Through Vol	18	271	271	39
RT Vol	0	0	21	10
Lane Flow Rate	88	758	317	53
Geometry Grp	2	7	7	2
Degree of Util (X)	0.148	1.108	0.432	0.087
Departure Headway (Hd)	6.274	5.262	4.904	6.071
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	575	690	735	594
Service Time	4.274	2.994	2.636	4.071
HCM Lane V/C Ratio	0.153	1.099	0.431	0.089
HCM Control Delay	10.4	89.1	11.3	9.6
HCM Lane LOS	B	F	B	A
HCM 95th-tile Q	0.5	22	2.2	0.3

Intersection	
Intersection Delay, s/veh	15.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	31	795	17	30	3	0	0	28	161
Future Vol, veh/h	0	0	0	31	795	17	30	3	0	0	28	161
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	34	864	18	33	3	0	0	30	175
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	17.4	9.6	10.4
HCM LOS	C	A	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	91%	7%	0%	0%
Vol Thru, %	9%	93%	96%	15%
Vol Right, %	0%	0%	4%	85%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	429	415	189
LT Vol	30	31	0	0
Through Vol	3	398	398	28
RT Vol	0	0	17	161
Lane Flow Rate	36	466	451	205
Geometry Grp	2	7	7	2
Degree of Util (X)	0.061	0.673	0.642	0.295
Departure Headway (Hd)	6.131	5.198	5.133	5.167
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	581	694	698	694
Service Time	4.203	2.957	2.892	3.211
HCM Lane V/C Ratio	0.062	0.671	0.646	0.295
HCM Control Delay	9.6	18.1	16.7	10.4
HCM Lane LOS	A	C	C	B
HCM 95th-tile Q	0.2	5.2	4.7	1.2

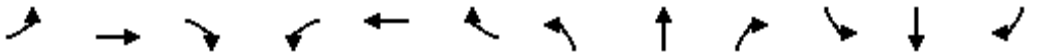
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	0	0	25	0	1954	12	0	2451	184
Future Vol, veh/h	0	0	11	0	0	25	0	1954	12	0	2451	184
Conflicting Peds, #/hr	0	0	0	0	0	2	0	0	4	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	0	0	27	0	2124	13	0	2664	200

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1436	-	-	1075	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	105	0	0	187	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	105	-	-	186	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	43.6	27.6	0	0
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	105	186	-	-
HCM Lane V/C Ratio	-	-	0.114	0.146	-	-
HCM Control Delay (s)	-	-	43.6	27.6	-	-
HCM Lane LOS	-	-	E	D	-	-
HCM 95th %tile Q(veh)	-	-	0.4	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	122	269	48	114	1917	14	0	1940	491
Future Volume (veh/h)	0	0	0	122	269	48	114	1917	14	0	1940	491
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				133	292	52	124	2084	15	0	2109	534
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				163	377	69	142	4048	29	0	3415	1051
Arrive On Green				0.17	0.17	0.17	0.16	1.00	1.00	0.00	0.67	0.67
Sat Flow, veh/h				962	2229	411	1781	5230	38	0	5274	1572
Grp Volume(v), veh/h				252	0	225	124	1356	743	0	2109	534
Grp Sat Flow(s),veh/h/ln				1822	0	1780	1781	1702	1863	0	1702	1572
Q Serve(g_s), s				22.9	0.0	20.7	11.7	0.0	0.0	0.0	40.1	29.3
Cycle Q Clear(g_c), s				22.9	0.0	20.7	11.7	0.0	0.0	0.0	40.1	29.3
Prop In Lane				0.53		0.23	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				308	0	301	142	2635	1442	0	3415	1051
V/C Ratio(X)				0.82	0.00	0.75	0.87	0.51	0.52	0.00	0.62	0.51
Avail Cap(c_a), veh/h				372	0	363	275	2635	1442	0	3415	1051
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.74	0.74	0.74	0.00	1.00	1.00
Uniform Delay (d), s/veh				68.9	0.0	68.0	71.5	0.0	0.0	0.0	16.1	14.3
Incr Delay (d2), s/veh				9.5	0.0	5.1	4.8	0.5	1.0	0.0	0.8	1.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.6	0.0	9.9	5.1	0.2	0.4	0.0	15.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				78.4	0.0	73.1	76.3	0.5	1.0	0.0	16.9	16.0
LnGrp LOS				E	A	E	E	A	A	A	B	B
Approach Vol, veh/h					477			2223			2643	
Approach Delay, s/veh					75.9			4.9			16.7	
Approach LOS					E			A			B	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	138.0	34.0	18.1	119.9
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	24.9	13.7	42.1
Green Ext Time (p_c), s	7.1	0.8	0.0	8.4

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



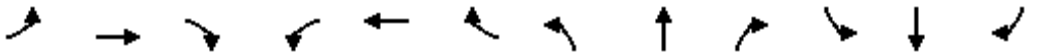
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	303	143	84	0	0	0	0	1743	23	57	1981	0
Future Volume (veh/h)	303	143	84	0	0	0	0	1743	23	57	1981	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	329	155	91				0	1895	25	62	2153	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	356	216	127				0	3501	46	77	4781	0
Arrive On Green	0.20	0.20	0.20				0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	1781	1080	634				0	5362	68	1781	6696	0
Grp Volume(v), veh/h	329	0	246				0	1242	678	62	2153	0
Grp Sat Flow(s),veh/h/ln	1781	0	1714				0	1702	1858	1781	1609	0
Q Serve(g_s), s	31.2	0.0	23.1				0.0	0.0	0.0	5.9	0.0	0.0
Cycle Q Clear(g_c), s	31.2	0.0	23.1				0.0	0.0	0.0	5.9	0.0	0.0
Prop In Lane	1.00		0.37				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	356	0	343				0	2295	1252	77	4781	0
V/C Ratio(X)	0.92	0.00	0.72				0.00	0.54	0.54	0.80	0.45	0.00
Avail Cap(c_a), veh/h	364	0	350				0	2295	1252	162	4781	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.72	0.72	0.75	0.75	0.00
Uniform Delay (d), s/veh	67.5	0.0	64.3				0.0	0.0	0.0	77.8	0.0	0.0
Incr Delay (d2), s/veh	27.9	0.0	5.8				0.0	0.7	1.2	5.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.0	0.0	10.7				0.0	0.2	0.4	2.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.4	0.0	70.1				0.0	0.7	1.2	83.1	0.2	0.0
LnGrp LOS	F	A	E				A	A	A	F	A	A
Approach Vol, veh/h		575						1920			2215	
Approach Delay, s/veh		84.6						0.9			2.6	
Approach LOS		F						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.9	120.8		39.3		132.7
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9
Max Green Setting (Gmax), s	15.6	107.1		35.1		127.1
Max Q Clear Time (g_c+I1), s	7.9	2.0		33.2		2.0
Green Ext Time (p_c), s	0.0	5.5		0.2		8.3

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	416	345	255	210	205	9	475	1356	275	0	1189	856
Future Volume (vph)	416	345	255	210	205	9	475	1356	275	0	1189	856
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	0.99			1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3336	1483	1610	3330		3662	4931			5085	1489
Flt Permitted	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3336	1483	1610	3330		3662	4931			5085	1489
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	452	375	277	228	223	10	516	1474	299	0	1292	930
RTOR Reduction (vph)	0	0	220	0	2	0	0	15	0	0	0	333
Lane Group Flow (vph)	271	556	57	150	309	0	516	1758	0	0	1292	597
Confl. Peds. (#/hr)			35			4			10			26
Confl. Bikes (#/hr)			2						5			1
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	34.2	34.2	34.2	20.2	20.2		31.8	99.9			62.7	62.7
Effective Green, g (s)	34.2	34.2	34.2	20.2	20.2		31.8	99.9			62.7	62.7
Actuated g/C Ratio	0.20	0.20	0.20	0.12	0.12		0.18	0.58			0.36	0.36
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	320	663	294	189	391		677	2863			1853	542
v/s Ratio Prot	c0.17	0.17		c0.09	0.09		c0.14	0.36			0.25	
v/s Ratio Perm			0.04									c0.40
v/c Ratio	0.85	0.84	0.19	0.79	0.79		0.76	0.61			0.70	1.10
Uniform Delay, d1	66.4	66.2	57.4	73.9	73.8		66.5	23.5			46.6	54.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.13	0.44			0.65	0.72
Incremental Delay, d2	17.6	8.7	0.1	18.9	9.8		3.3	0.7			2.0	67.7
Delay (s)	84.0	75.0	57.5	92.7	83.6		78.7	11.1			32.3	107.0
Level of Service	F	E	E	F	F		E	B			C	F
Approach Delay (s)		72.8			86.6			26.3			63.6	
Approach LOS		E			F			C			E	

Intersection Summary			
HCM 2000 Control Delay	53.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	91.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	420	259	86	614	352	312	1515	98	265	1080	294
Future Volume (veh/h)	199	420	259	86	614	352	312	1515	98	265	1080	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	457	282	93	667	383	339	1647	107	288	1174	320
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	607	253	134	622	264	382	2051	133	747	2091	570
Arrive On Green	0.07	0.17	0.17	0.08	0.17	0.17	0.04	0.14	0.14	0.22	0.53	0.53
Sat Flow, veh/h	3456	3554	1480	1781	3554	1509	3456	4893	318	3456	3963	1080
Grp Volume(v), veh/h	216	457	282	93	667	383	339	1145	609	288	1008	486
Grp Sat Flow(s),veh/h/ln	1728	1777	1480	1781	1777	1509	1728	1702	1807	1728	1702	1639
Q Serve(g_s), s	10.6	21.0	23.6	8.8	30.1	20.0	16.8	56.1	56.2	12.3	34.2	34.2
Cycle Q Clear(g_c), s	10.6	21.0	23.6	8.8	30.1	20.0	16.8	56.1	56.2	12.3	34.2	34.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.66
Lane Grp Cap(c), veh/h	256	607	253	134	622	264	382	1427	757	747	1796	865
V/C Ratio(X)	0.84	0.75	1.11	0.69	1.07	1.45	0.89	0.80	0.80	0.39	0.56	0.56
Avail Cap(c_a), veh/h	434	684	285	193	622	264	675	1427	757	747	1796	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	78.7	67.8	45.8	77.6	70.9	31.2	81.8	67.2	67.2	57.6	27.3	27.3
Incr Delay (d2), s/veh	2.7	3.2	88.5	2.4	57.1	222.6	2.5	4.0	7.4	0.1	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	9.9	15.0	4.1	18.6	23.7	8.0	26.6	29.0	5.4	13.8	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.4	71.0	134.3	80.0	128.1	253.9	84.3	71.2	74.6	57.8	27.5	27.8
LnGrp LOS	F	E	F	E	F	F	F	E	E	E	C	C
Approach Vol, veh/h		955			1143			2093			1782	
Approach Delay, s/veh		92.1			166.3			74.3			32.5	
Approach LOS		F			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	77.0	17.8	34.3	23.4	96.5	17.1	35.0
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	14.3	58.2	10.8	25.6	18.8	36.2	12.6	32.1
Green Ext Time (p_c), s	0.2	4.1	0.0	1.0	0.2	4.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	82.3
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	8	9	92	10	77	7	1732	16	98	1286	33
Future Volume (veh/h)	41	8	9	92	10	77	7	1732	16	98	1286	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	9	10	100	11	84	8	1883	17	107	1398	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	29	26	138	14	91	16	3671	33	126	3915	101
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.70	0.70	0.07	0.76	0.76
Sat Flow, veh/h	786	212	185	769	101	658	1781	5219	47	1781	5118	132
Grp Volume(v), veh/h	64	0	0	195	0	0	8	1228	672	107	930	504
Grp Sat Flow(s),veh/h/ln	1182	0	0	1528	0	0	1781	1702	1862	1781	1702	1846
Q Serve(g_s), s	0.0	0.0	0.0	13.3	0.0	0.0	0.8	28.8	28.8	10.2	15.2	15.2
Cycle Q Clear(g_c), s	8.3	0.0	0.0	21.6	0.0	0.0	0.8	28.8	28.8	10.2	15.2	15.2
Prop In Lane	0.70		0.16	0.51		0.43	1.00		0.03	1.00		0.07
Lane Grp Cap(c), veh/h	200	0	0	243	0	0	16	2394	1309	126	2604	1412
V/C Ratio(X)	0.32	0.00	0.00	0.80	0.00	0.00	0.49	0.51	0.51	0.85	0.36	0.36
Avail Cap(c_a), veh/h	250	0	0	298	0	0	162	2394	1309	369	2604	1412
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.79	0.79	0.79	0.71	0.71	0.71
Uniform Delay (d), s/veh	67.2	0.0	0.0	72.9	0.0	0.0	84.8	11.8	11.8	79.0	6.5	6.5
Incr Delay (d2), s/veh	0.3	0.0	0.0	9.8	0.0	0.0	6.4	0.6	1.1	4.3	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	9.3	0.0	0.0	0.4	10.6	11.8	4.8	5.1	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	0.0	0.0	82.7	0.0	0.0	91.2	12.5	13.0	83.3	6.8	7.0
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		64			195			1908			1541	
Approach Delay, s/veh		67.5			82.7			13.0			12.2	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.6	126.7		28.7	6.0	137.3		28.7
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	12.2	30.8		10.3	2.8	17.2		23.6
Green Ext Time (p_c), s	0.0	5.4		0.1	0.0	3.5		0.2

Intersection Summary		
HCM 6th Ctrl Delay		17.3
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	150	7	499	303	243	18	1348	516	79	1034	262
Future Volume (veh/h)	177	150	7	499	303	243	18	1348	516	79	1034	262
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	163	8	542	329	264	20	1465	561	86	1124	285
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	252	12	578	353	299	32	2766	858	123	1988	885
Arrive On Green	0.12	0.14	0.14	0.17	0.19	0.19	0.02	0.54	0.54	0.07	1.00	1.00
Sat Flow, veh/h	1781	1767	87	3456	1870	1583	1781	5106	1584	3456	3554	1582
Grp Volume(v), veh/h	192	0	171	542	329	264	20	1465	561	86	1124	285
Grp Sat Flow(s),veh/h/ln	1781	0	1854	1728	1870	1583	1781	1702	1584	1728	1777	1582
Q Serve(g_s), s	18.3	0.0	15.0	26.6	29.8	24.9	1.9	31.7	43.2	4.2	0.0	0.0
Cycle Q Clear(g_c), s	18.3	0.0	15.0	26.6	29.8	24.9	1.9	31.7	43.2	4.2	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	0	265	578	353	299	32	2766	858	123	1988	885
V/C Ratio(X)	0.91	0.00	0.65	0.94	0.93	0.88	0.63	0.53	0.65	0.70	0.57	0.32
Avail Cap(c_a), veh/h	265	0	443	615	501	424	120	2766	858	434	1988	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	74.9	0.0	69.6	70.7	68.7	53.7	83.9	25.3	28.0	79.0	0.0	0.0
Incr Delay (d2), s/veh	26.0	0.0	1.0	20.9	16.6	11.5	7.3	0.7	3.9	2.5	1.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	7.2	13.4	15.8	10.8	0.9	12.9	17.0	1.9	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.9	0.0	70.6	91.7	85.3	65.2	91.2	26.1	31.8	81.5	1.1	0.9
LnGrp LOS	F	A	E	F	F	E	F	C	C	F	A	A
Approach Vol, veh/h		363			1135			2046			1495	
Approach Delay, s/veh		86.6			83.7			28.3			5.7	
Approach LOS		F			F			C			A	

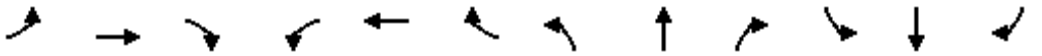
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	98.9	33.2	29.4	7.5	101.9	25.3	37.4
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	5.2	45.2	28.6	17.0	3.9	2.0	20.3	31.8
Green Ext Time (p_c), s	0.0	4.1	0.1	0.3	0.0	3.1	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	142	8	41	0	78	0	450	254	49	369	0
Future Volume (vph)	36	142	8	41	0	78	0	450	254	49	369	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.94		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1844		1770		1552		3151		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.29	1.00	
Satd. Flow (perm)	1770	1844		1770		1552		3151		544	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	154	9	45	0	85	0	489	276	53	401	0
RTOR Reduction (vph)	0	3	0	0	0	80	0	54	0	0	0	0
Lane Group Flow (vph)	39	160	0	45	0	5	0	711	0	53	401	0
Confl. Peds. (#/hr)			21						70			11
Confl. Bikes (#/hr)			1			2						
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	11.5	11.5		5.2		5.2		52.0		60.6	60.6	
Effective Green, g (s)	11.5	11.5		5.2		5.2		52.0		60.6	60.6	
Actuated g/C Ratio	0.13	0.13		0.06		0.06		0.57		0.66	0.66	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	222	231		100		88		1790		416	2343	
v/s Ratio Prot	0.02	c0.09		c0.03				c0.23		0.01	c0.11	
v/s Ratio Perm						0.00				0.08		
v/c Ratio	0.18	0.69		0.45		0.05		0.40		0.13	0.17	
Uniform Delay, d1	35.8	38.3		41.8		40.8		11.0		6.1	5.9	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.1	7.1		1.2		0.1		0.7		0.1	0.2	
Delay (s)	35.9	45.4		42.9		40.9		11.7		6.1	6.0	
Level of Service	D	D		D		D		B		A	A	
Approach Delay (s)		43.6			41.6			11.7			6.1	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	23.1
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.9

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	114	441	433	290	0	0
Future Vol, veh/h	114	441	433	290	0	0
Conflicting Peds, #/hr	0	0	0	12	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	124	479	471	315	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	798	0	-	0	1129	405
Stage 1	-	-	-	-	641	-
Stage 2	-	-	-	-	488	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	820	-	-	-	198	595
Stage 1	-	-	-	-	487	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	811	-	-	-	164	588
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	577	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	811	-	-	-	-
HCM Lane V/C Ratio	0.153	-	-	-	-
HCM Control Delay (s)	10.2	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	334	90	292	432	60	322	128	216	52	170	114
Future Volume (veh/h)	53	334	90	292	432	60	322	128	216	52	170	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	363	98	317	470	65	350	139	235	57	185	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	1510	761	398	690	567	384	1137	1180	111	484	205
Arrive On Green	0.04	0.30	0.30	0.12	0.37	0.37	0.22	0.32	0.32	0.03	0.14	0.14
Sat Flow, veh/h	1781	5106	1419	3456	1870	1537	1781	3554	2687	3456	3554	1504
Grp Volume(v), veh/h	58	363	98	317	470	65	350	139	235	57	185	124
Grp Sat Flow(s),veh/h/ln	1781	1702	1419	1728	1870	1537	1781	1777	1343	1728	1777	1504
Q Serve(g_s), s	3.2	5.3	3.6	8.8	20.9	2.8	18.9	2.7	5.3	1.6	4.7	7.7
Cycle Q Clear(g_c), s	3.2	5.3	3.6	8.8	20.9	2.8	18.9	2.7	5.3	1.6	4.7	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	1510	761	398	690	567	384	1137	1180	111	484	205
V/C Ratio(X)	0.77	0.24	0.13	0.80	0.68	0.11	0.91	0.12	0.20	0.51	0.38	0.61
Avail Cap(c_a), veh/h	542	2070	917	1051	758	623	542	1441	1410	1051	1441	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	26.3	12.6	42.5	26.3	20.5	37.8	23.7	17.3	47.0	38.8	40.1
Incr Delay (d2), s/veh	6.1	0.1	0.1	1.4	1.8	0.0	12.7	0.0	0.1	1.4	0.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.2	1.1	3.8	9.3	0.9	9.2	1.1	1.5	0.7	2.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	26.4	12.7	43.9	28.1	20.6	50.5	23.8	17.3	48.4	39.0	41.2
LnGrp LOS	D	C	B	D	C	C	D	C	B	D	D	D
Approach Vol, veh/h		519			852			724			366	
Approach Delay, s/veh		26.8			33.4			34.6			41.2	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	35.1	26.7	20.1	9.6	42.3	8.6	38.3
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	10.8	7.3	20.9	9.7	5.2	22.9	3.6	7.3
Green Ext Time (p_c), s	0.5	3.7	0.4	0.9	0.1	2.0	0.1	1.8

Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

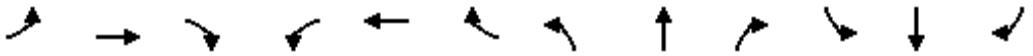
Intersection	
Int Delay, s/veh	18.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	532	220	603	549	14
Future Vol, veh/h	0	532	220	603	549	14
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	578	239	655	597	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	308	614	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	587	598	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	586	597	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	60.5	4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	597	-	586	-	-
HCM Lane V/C Ratio	0.401	-	0.987	-	-
HCM Control Delay (s)	15	-	60.5	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	1.9	-	14.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	3	32	15	1	14	304	963	10	20	960	146
Future Volume (veh/h)	52	3	32	15	1	14	304	963	10	20	960	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	3	35	16	1	15	330	1047	11	22	1043	159
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	541	453	24	504	423	337	1782	793	30	1013	154
Arrive On Green	0.04	0.29	0.29	0.01	0.27	0.27	0.19	0.50	0.50	0.02	0.33	0.33
Sat Flow, veh/h	1781	1870	1565	1781	1870	1571	1781	3554	1582	1781	3079	469
Grp Volume(v), veh/h	57	3	35	16	1	15	330	1047	11	22	601	601
Grp Sat Flow(s),veh/h/ln	1781	1870	1565	1781	1870	1571	1781	1777	1582	1781	1777	1770
Q Serve(g_s), s	4.2	0.1	2.1	1.2	0.1	0.9	24.1	27.3	0.5	1.6	43.1	43.1
Cycle Q Clear(g_c), s	4.2	0.1	2.1	1.2	0.1	0.9	24.1	27.3	0.5	1.6	43.1	43.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	73	541	453	24	504	423	337	1782	793	30	585	583
V/C Ratio(X)	0.78	0.01	0.08	0.67	0.00	0.04	0.98	0.59	0.01	0.73	1.03	1.03
Avail Cap(c_a), veh/h	73	541	453	73	504	423	337	1782	793	79	585	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.2	33.1	33.8	64.3	35.0	35.3	52.8	23.1	16.4	64.1	43.9	43.9
Incr Delay (d2), s/veh	42.1	0.0	0.3	11.2	0.0	0.2	42.9	0.3	0.0	12.1	44.6	45.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	0.8	0.6	0.0	0.4	14.3	10.6	0.2	0.8	25.4	25.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.3	33.1	34.2	75.5	35.0	35.4	95.7	23.4	16.4	76.2	88.6	89.5
LnGrp LOS	F	C	C	E	C	D	F	C	B	E	F	F
Approach Vol, veh/h		95			32			1388			1224	
Approach Delay, s/veh		76.2			55.5			40.5			88.8	
Approach LOS		E			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	46.6	29.2	48.0	9.8	44.0	6.6	70.6
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	5.4	33.3	24.8	43.1	5.4	* 35	5.8	62.1
Max Q Clear Time (g_c+I1), s	3.2	4.1	26.1	45.1	6.2	2.9	3.6	29.3
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.1	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	63.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

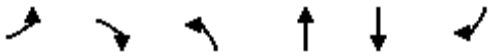
Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	916	1061	6	0	278
Future Vol, veh/h	0	916	1061	6	0	278
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	996	1153	7	0	302

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	577
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	460
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	460
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	26.6
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	460
HCM Lane V/C Ratio	-	-	0.657
HCM Control Delay (s)	-	-	26.6
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	4.6



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	795	120	0	901	1126	1070
Future Volume (vph)	795	120	0	901	1126	1070
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1563		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1563		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	864	130	0	979	1224	1163
RTOR Reduction (vph)	0	58	0	0	0	0
Lane Group Flow (vph)	864	72	0	979	1224	1163
Confl. Peds. (#/hr)		1				5
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	40.7	40.7		52.5	52.5	132.8
Effective Green, g (s)	40.7	40.7		52.5	52.5	122.0
Actuated g/C Ratio	0.31	0.31		0.40	0.40	0.92
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1052	479		1399	1399	1454
v/s Ratio Prot	0.25			0.28	c0.35	c0.73
v/s Ratio Perm		0.05				
v/c Ratio	0.82	0.15		0.70	0.87	0.80
Uniform Delay, d1	42.7	33.5		33.6	37.1	1.7
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	5.1	0.1		1.5	6.4	3.1
Delay (s)	47.8	33.6		35.1	43.5	4.7
Level of Service	D	C		D	D	A
Approach Delay (s)	46.0			35.1	24.6	
Approach LOS	D			D	C	

Intersection Summary			
HCM 2000 Control Delay	31.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	132.8	Sum of lost time (s)	19.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	792	171	117	1621
Future Volume (veh/h)	0	1	792	171	117	1621
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	861	186	127	1762
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	5	2393	1047	217	2861
Arrive On Green	0.00	0.00	0.67	0.67	0.06	0.81
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	861	186	127	1762
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	6.7	2.8	2.3	12.3
Cycle Q Clear(g_c), s	0.0	0.0	6.7	2.8	2.3	12.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	5	2393	1047	217	2861
V/C Ratio(X)	0.00	0.20	0.36	0.18	0.58	0.62
Avail Cap(c_a), veh/h	1114	1983	3334	1458	1621	3334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	31.9	4.5	3.9	29.2	2.4
Incr Delay (d2), s/veh	0.0	7.2	0.1	0.1	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.7	0.6	0.9	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	39.1	4.6	4.0	30.1	3.0
LnGrp LOS	A	D	A	A	C	A
Approach Vol, veh/h	1		1047			1889
Approach Delay, s/veh	39.1		4.5			4.8
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.4	49.3			57.7	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	4.3	8.7			14.3	2.0
Green Ext Time (p_c), s	0.2	13.0			37.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	57	130	67	35	81	49	686	57	160	1550	179
Future Volume (veh/h)	163	57	130	67	35	81	49	686	57	160	1550	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	62	141	73	38	88	53	746	62	174	1685	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	227	188	95	192	161	104	1849	890	207	2155	1063
Arrive On Green	0.07	0.12	0.12	0.05	0.10	0.10	0.03	0.52	0.52	0.12	0.61	0.61
Sat Flow, veh/h	3456	1870	1546	1781	1870	1563	3456	3554	1549	1781	3554	1565
Grp Volume(v), veh/h	177	62	141	73	38	88	53	746	62	174	1685	195
Grp Sat Flow(s),veh/h/ln	1728	1870	1546	1781	1870	1563	1728	1777	1549	1781	1777	1565
Q Serve(g_s), s	5.2	3.1	9.2	4.2	1.9	5.6	1.6	13.2	1.8	9.9	36.8	4.8
Cycle Q Clear(g_c), s	5.2	3.1	9.2	4.2	1.9	5.6	1.6	13.2	1.8	9.9	36.8	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	227	188	95	192	161	104	1849	890	207	2155	1063
V/C Ratio(X)	0.71	0.27	0.75	0.77	0.20	0.55	0.51	0.40	0.07	0.84	0.78	0.18
Avail Cap(c_a), veh/h	999	541	447	515	541	452	999	2397	1129	515	2397	1169
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	41.4	44.1	48.5	42.6	44.3	49.6	15.1	9.8	44.9	15.3	6.1
Incr Delay (d2), s/veh	1.4	0.6	5.9	4.9	0.2	1.1	1.4	0.2	0.1	3.5	1.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.5	3.7	1.9	0.9	2.1	0.7	5.2	0.6	4.6	14.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	42.1	50.0	53.5	42.8	45.4	51.0	15.3	9.9	48.4	17.1	6.3
LnGrp LOS	D	D	D	D	D	D	D	B	A	D	B	A
Approach Vol, veh/h		380			199			861			2054	
Approach Delay, s/veh		48.0			47.9			17.1			18.7	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	59.3	9.9	18.1	7.5	68.2	11.9	16.2
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	11.2	15.2	6.2	11.2	3.6	38.8	7.2	7.6
Green Ext Time (p_c), s	0.2	11.3	0.1	0.7	0.1	24.1	0.3	0.2

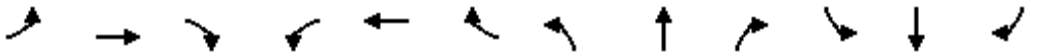
Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	758	171	295	596	0	0	0	0	200	0	0
Future Volume (vph)	0	758	171	295	596	0	0	0	0	200	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						4.0	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.99	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1562	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1562	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	824	186	321	648	0	0	0	0	217	0	0
RTOR Reduction (vph)	0	0	114	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	824	72	321	648	0	0	0	0	0	217	0
Confl. Peds. (#/hr)			1			8						
Turn Type		NA	Perm	Prot	NA					Prot	NA	
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		38.7	38.7	13.2	56.6						34.3	
Effective Green, g (s)		38.7	38.7	13.2	56.6						34.3	
Actuated g/C Ratio		0.39	0.39	0.13	0.57						0.34	
Clearance Time (s)				4.7								
Vehicle Extension (s)				2.0								
Lane Grp Cap (vph)		1369	604	453	2003						607	
v/s Ratio Prot		c0.23		c0.09	0.18						0.12	
v/s Ratio Perm			0.05									
v/c Ratio		0.60	0.12	0.71	0.32						0.36	
Uniform Delay, d1		24.5	19.7	41.6	11.5						24.6	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		0.8	0.1	4.1	0.1						0.1	
Delay (s)		25.2	19.8	45.7	11.6						24.7	
Level of Service		C	B	D	B						C	
Approach Delay (s)		24.2			22.9			0.0			24.7	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	541	196	0	31	34	189
Future Vol, veh/h	541	196	0	31	34	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	588	213	0	34	37	205

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	801	0	729	695
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	34	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	822	-	390	442
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	988	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	822	-	390	442
Mov Cap-2 Maneuver	-	-	-	-	390	-
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	988	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	390	442	-	-	822	-
HCM Lane V/C Ratio	0.095	0.465	-	-	-	-
HCM Control Delay (s)	15.2	20	-	-	0	-
HCM Lane LOS	C	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	2.4	-	-	0	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	415	30	71	0	71	90
Future Vol, veh/h	415	30	71	0	71	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	451	33	77	0	77	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	484	0	622	468
Stage 1	-	-	-	-	468	-
Stage 2	-	-	-	-	154	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1079	-	450	595
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1079	-	418	595
Mov Cap-2 Maneuver	-	-	-	-	418	-
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	812	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.6	13.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	418	595	-	-	1079	-
HCM Lane V/C Ratio	0.185	0.164	-	-	0.072	-
HCM Control Delay (s)	15.6	12.2	-	-	8.6	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	0.6	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	416	87	136	69	0	0
Future Vol, veh/h	416	87	136	69	0	0
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	452	95	148	75	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	547	0	871	500
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	371	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1022	-	322	571
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	698	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1022	-	273	571
Mov Cap-2 Maneuver	-	-	-	-	273	-
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	593	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1022	-
HCM Lane V/C Ratio	-	-	-	0.145	-
HCM Control Delay (s)	0	-	-	9.1	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0.5	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	501	201	0	31	0	5
Future Vol, veh/h	501	201	0	31	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	545	218	0	34	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	763	0	688	654
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	34	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	850	-	412	467
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	988	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	850	-	412	467
Mov Cap-2 Maneuver	-	-	-	-	412	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	988	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	467	-	-	850	-
HCM Lane V/C Ratio	0.012	-	-	-	-
HCM Control Delay (s)	12.8	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1038	745	376	0	0
Future Vol, veh/h	0	1038	745	376	0	0
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	0	1128	810	409	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	610
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	375
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	375
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	769	1350	0	0	0
Future Vol, veh/h	0	769	1350	0	0	0
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	0	836	1467	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	734
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	311
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	311
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	758	42	0	55	18	0
Future Vol, veh/h	758	42	0	55	18	0
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	824	46	0	60	20	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	907	847
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	306	362
Stage 1	-	-	0	-	420	-
Stage 2	-	-	0	-	963	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	306	362
Mov Cap-2 Maneuver	-	-	-	-	306	-
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	963	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	306	-	-	-
HCM Lane V/C Ratio	0.064	-	-	-
HCM Control Delay (s)	17.6	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	519	0	0	60	0	0
Future Vol, veh/h	519	0	0	60	0	0
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	564	0	0	65	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	564	0	629	564
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	65	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1008	-	446	525
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	958	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1008	-	446	525
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	958	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1008	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Appendix T

Opening Year (2030) Plus Project Phase 1 (20,000-spectator) Conditions 95th Percentile Queue Worksheets

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2551	2548	2551	2550	118	143	171	1753	1753	1754	1759
Average Queue (ft)	2233	2242	2074	1803	27	42	65	1243	1248	1247	1210
95th Queue (ft)	3040	3039	3367	3356	81	101	129	2327	2318	2304	2301
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)	64	67	63	33				51	52	50	44
Queuing Penalty (veh)	0	0	0	0				0	0	0	0
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1988	1982	29	135	148	198	283	284	100	288	279
Average Queue (ft)	245	1949	1947	3	47	53	38	102	132	12	259	247
95th Queue (ft)	547	1992	2001	19	111	124	125	217	248	65	278	328
Link Distance (ft)		1940	1940		629	629		1525	1525		189	189
Upstream Blk Time (%)		97	92								93	78
Queuing Penalty (veh)		0	0								531	444
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	0	96			0		0	1	61	0		
Queuing Penalty (veh)	0	138			0		0	1	13	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B57	B57	B57
Directions Served	T	R	T	T	T
Maximum Queue (ft)	264	175	468	463	449
Average Queue (ft)	143	43	436	433	296
95th Queue (ft)	315	166	473	488	589
Link Distance (ft)	189		368	368	368
Upstream Blk Time (%)	15	0	89	81	36
Queuing Penalty (veh)	87	0	505	460	208
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	29	0			
Queuing Penalty (veh)	64	1			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	TR	LT	R
Maximum Queue (ft)	235	665	668	73	182	318	532	256
Average Queue (ft)	150	513	404	22	28	121	137	77
95th Queue (ft)	310	882	828	57	103	261	403	206
Link Distance (ft)		629	629	962	962	962	863	
Upstream Blk Time (%)		46	22					
Queuing Penalty (veh)		332	159					
Storage Bay Dist (ft)	160							210
Storage Blk Time (%)	5	76		0			16	0
Queuing Penalty (veh)	25	270		0			33	0

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	515	996	967	784	182	146	186	241	175	726	225	1245
Average Queue (ft)	395	871	297	112	89	43	68	95	99	663	198	674
95th Queue (ft)	698	1292	895	429	172	112	159	203	226	907	274	1387
Link Distance (ft)		962	962	962		285	285	285		702		1252
Upstream Blk Time (%)		67	1	0				0		63		10
Queuing Penalty (veh)		256	3	0				0		280		18
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)	13	80			2	0			7	92	86	1
Queuing Penalty (veh)	35	263			5	0			19	133	39	2

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	313	410	192	231	126	252	306	342	169	125	133	181
Average Queue (ft)	310	388	67	100	42	103	220	310	71	41	56	88
95th Queue (ft)	315	397	142	195	97	223	346	328	139	95	104	158
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	79	93			0	0	19	93				
Queuing Penalty (veh)	0	323			0	2	88	420				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	79	93			0	1			23	1	0	2
Queuing Penalty (veh)	158	351			0	1			17	1	0	2

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	T	T	TR	L	T	T	T
Maximum Queue (ft)	18	23	23	106	406	430	413
Average Queue (ft)	1	1	1	21	180	393	388
95th Queue (ft)	8	12	13	67	468	425	406
Link Distance (ft)	194	194	194		370	370	370
Upstream Blk Time (%)					6	51	74
Queuing Penalty (veh)					32	257	372
Storage Bay Dist (ft)				125			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				0	1		

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	152	174	249	200	1142	1146	1187	937	175
Average Queue (ft)	33	50	74	151	936	963	1000	788	69
95th Queue (ft)	103	134	185	243	1416	1398	1435	1205	204
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)					18	23	51	54	
Queuing Penalty (veh)					91	117	266	245	
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				32	16			93	4
Queuing Penalty (veh)				147	31			145	5

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	252	304	236	68	161	283	1104	1145	165	435	134	623
Average Queue (ft)	129	71	45	13	55	47	533	613	84	348	33	359
95th Queue (ft)	329	273	147	42	132	206	1501	1568	201	542	95	886
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)							4	4		61		34
Queuing Penalty (veh)							16	16		0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	12		1		0	0	8		9	84		
Queuing Penalty (veh)	27		1		0	0	11		18	57		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	572	92	131	78
Average Queue (ft)	316	30	42	22
95th Queue (ft)	860	76	98	57
Link Distance (ft)	701		702	
Upstream Blk Time (%)	26			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		0	2	
Queuing Penalty (veh)		0	2	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	87	265	290	174	919	912	23	339
Average Queue (ft)	24	58	76	12	627	659	4	117
95th Queue (ft)	75	237	259	74	1237	1230	16	286
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)					29	35		
Queuing Penalty (veh)					177	214		
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	7	5			20			
Queuing Penalty (veh)	25	2			2			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	54	31	93	104
Average Queue (ft)	24	6	44	52
95th Queue (ft)	49	27	78	86
Link Distance (ft)	241		863	917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)			2	
Queuing Penalty (veh)			0	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	354	577	531	53
Average Queue (ft)	84	237	107	15
95th Queue (ft)	319	503	380	43
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)	0	9	9	
Queuing Penalty (veh)	1	0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	129	10	140
Average Queue (ft)	73	2	71
95th Queue (ft)	176	14	197
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	9		9
Queuing Penalty (veh)	37		42
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	252	216	90
Average Queue (ft)	95	85	44
95th Queue (ft)	314	300	147
Link Distance (ft)	461	461	321
Upstream Blk Time (%)	10	10	
Queuing Penalty (veh)	24	25	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	192	172	50	132
Average Queue (ft)	100	80	24	46
95th Queue (ft)	294	260	46	173
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)	8	6		
Queuing Penalty (veh)	39	29		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	165	143	35	94
Average Queue (ft)	78	70	13	39
95th Queue (ft)	168	156	38	73
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)	5	5		
Queuing Penalty (veh)	23	23		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	142	35	8	20	40	3988	3983	3977
Average Queue (ft)	71	9	0	1	1	2767	2916	2941
95th Queue (ft)	186	23	6	13	19	5052	4859	4844
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						36	42	44
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	544	544	174	319	296	260	345	367	433	205
Average Queue (ft)	454	439	97	92	76	49	97	122	326	132
95th Queue (ft)	625	638	195	283	247	169	275	312	567	286
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	34	31		4	0	0	2	7	42	
Queuing Penalty (veh)	67	63		26	2	0	17	55	347	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			31	1					47	5
Queuing Penalty (veh)			194	1					230	34

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	546	542	197	222	202	164	260	212	209	357
Average Queue (ft)	338	432	45	47	52	64	62	59	69	226
95th Queue (ft)	620	609	141	148	160	142	199	212	249	474
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	6	18					0	3	9	34
Queuing Penalty (veh)	15	42					2	13	45	175
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						14	4			
Queuing Penalty (veh)						67	3			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	359	406	471	325	171	186	180	296	311	407	263	198
Average Queue (ft)	132	170	175	131	82	136	117	227	241	236	69	66
95th Queue (ft)	304	380	443	308	173	211	199	359	375	505	199	169
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)					15	44	35	2	25	39	0	
Queuing Penalty (veh)					23	68	55	0	0	272	0	
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			1	11				35	46	3		
Queuing Penalty (veh)			1	19				160	210	13		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	368	360	355	428
Average Queue (ft)	182	193	205	262
95th Queue (ft)	364	390	422	581
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	4	12	19	39
Queuing Penalty (veh)	24	60	99	202
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	136	174	610	581	262	324	2612	2632	255	317	355	1260
Average Queue (ft)	73	107	246	184	66	95	1512	1562	188	196	276	841
95th Queue (ft)	140	196	680	503	177	283	3314	3344	346	346	448	1630
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)			5	0			34	43				38
Queuing Penalty (veh)			22	0			225	278				233
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	17	22	25	7			54	68	35	15	34	29
Queuing Penalty (veh)	35	46	49	18			46	240	106	75	169	90

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1246	1242	223	228	325	325	339
Average Queue (ft)	702	579	99	119	153	170	236
95th Queue (ft)	1418	1267	206	224	298	310	400
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	6	1	0	0	7	8	42
Queuing Penalty (veh)	37	5	0	0	40	42	225
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	0	7		
Queuing Penalty (veh)			0	0	19		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	149	650	74	1373	1382	1379	160	188	198	182
Average Queue (ft)	64	266	6	617	586	537	52	41	49	29
95th Queue (ft)	131	614	44	1598	1584	1500	126	126	142	100
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)				20	13	10				
Queuing Penalty (veh)				115	76	59				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				46				0		
Queuing Penalty (veh)				3				0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	701	497	282	320	1813	1355	174	1358	1335	1264	437	89
Average Queue (ft)	280	148	240	306	1167	512	29	516	497	478	143	28
95th Queue (ft)	769	466	334	373	2103	1622	118	1518	1523	1560	404	68
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)	2	2			3	1		0	0	5		
Queuing Penalty (veh)	0	0			0	0		0	0	0		
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			22	37	39			49		15		
Queuing Penalty (veh)			68	114	196			9		77		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	94	175	185	77
Average Queue (ft)	36	49	58	16
95th Queue (ft)	77	126	142	53
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	74	248	111	102	170	218	124	258	153
Average Queue (ft)	16	85	34	29	58	90	22	76	35
95th Queue (ft)	53	225	90	75	142	193	78	239	140
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		1			1	4		7	3
Queuing Penalty (veh)		1			4	12		15	6
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			6	1			0	12	
Queuing Penalty (veh)			4	1			0	6	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73
Directions Served	L	T	T	T	TR	T
Maximum Queue (ft)	164	218	180	670	683	280
Average Queue (ft)	70	65	52	238	361	84
95th Queue (ft)	158	180	121	649	813	307
Link Distance (ft)		271	271	640	640	242
Upstream Blk Time (%)		3	0	3	21	17
Queuing Penalty (veh)		9	0	15	88	141
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	14	0				
Queuing Penalty (veh)	31	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	62	67	105	108	86	108	112	118	61	225	752	348
Average Queue (ft)	12	14	46	60	24	79	69	89	7	166	262	40
95th Queue (ft)	40	49	92	110	60	132	132	135	29	293	906	222
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)		0	0	2	0		0			37	0	
Queuing Penalty (veh)		0	0	2	0		0			24	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	69	82	40	83	170	168	109
Average Queue (ft)	13	14	5	25	64	50	34
95th Queue (ft)	47	52	23	64	157	157	97
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)					0	9	13
Queuing Penalty (veh)					0	10	10

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	B87	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	678	147	10	219	228	176
Average Queue (ft)	110	38	0	33	35	23
95th Queue (ft)	457	103	7	227	234	199
Link Distance (ft)	1384		706	1876	1876	1876
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		200				
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	121	29	67	46	11	59	355	1630	1632	274	716	714
Average Queue (ft)	49	2	17	11	2	12	306	806	742	45	409	423
95th Queue (ft)	101	14	49	34	11	43	415	1794	1767	186	771	772
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)								28	21		18	20
Queuing Penalty (veh)								0	0		94	106
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)							56	1	1	0	33	
Queuing Penalty (veh)							268	2	0	0	6	

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87	B87	B87
Directions Served	T	T	
Maximum Queue (ft)	250	256	238
Average Queue (ft)	62	63	37
95th Queue (ft)	276	283	222
Link Distance (ft)	357	357	357
Upstream Blk Time (%)	6	9	5
Queuing Penalty (veh)	22	32	18
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	1153	1178	113	223	703
Average Queue (ft)	743	749	30	94	361
95th Queue (ft)	1341	1355	102	269	818
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)			1	34	35
Queuing Penalty (veh)			4	178	155
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	215	193	134	2071	2049	359	454	440	424	425
Average Queue (ft)	184	174	13	1348	1345	258	310	194	225	230
95th Queue (ft)	219	218	84	2217	2197	485	582	534	522	554
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	80	76	1			1	12	35	19	33
Queuing Penalty (veh)	245	232	3			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						1	12			
Queuing Penalty (veh)						6	69			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	12	6	125	101	80	49	73	128	156
Average Queue (ft)	1	0	0	56	43	22	9	39	20	33
95th Queue (ft)	7	5	2	100	86	53	33	65	76	98
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	87	133	53	91	80	49	47	67	44	239	266	154
Average Queue (ft)	17	56	13	29	29	11	10	20	2	95	118	25
95th Queue (ft)	60	108	37	72	65	32	32	49	18	177	206	80
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)										0	13	
Queuing Penalty (veh)										0	7	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	541	568	835
Average Queue (ft)	206	421	438	413
95th Queue (ft)	392	621	655	1009
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		3	14	12
Queuing Penalty (veh)		19	79	70
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	43		
Queuing Penalty (veh)	1	70		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	124	141	98	157	194	257	193	142
Average Queue (ft)	91	103	38	97	154	128	74	103
95th Queue (ft)	129	138	76	179	214	258	157	157
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	11	18	0					40
Queuing Penalty (veh)	32	56	0					80
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	27	3		
Queuing Penalty (veh)				3	80	9		

Intersection: 33: Kemper St & Kurtz St

Movement	EB	NB	NB
Directions Served	TR	L	R
Maximum Queue (ft)	114	34	138
Average Queue (ft)	23	11	44
95th Queue (ft)	107	35	125
Link Distance (ft)	139		1252
Upstream Blk Time (%)	13		
Queuing Penalty (veh)	98		
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			5
Queuing Penalty (veh)			2

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	29	57	85	236
Average Queue (ft)	11	13	21	52
95th Queue (ft)	75	42	60	273
Link Distance (ft)	143	300		949
Upstream Blk Time (%)	7			1
Queuing Penalty (veh)	37			8
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				6
Queuing Penalty (veh)				4

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	36	56
Average Queue (ft)	17	16
95th Queue (ft)	104	45
Link Distance (ft)	182	259
Upstream Blk Time (%)	9	
Queuing Penalty (veh)	45	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: E2 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	94	38
Average Queue (ft)	31	7
95th Queue (ft)	215	34
Link Distance (ft)	464	365
Upstream Blk Time (%)	6	
Queuing Penalty (veh)	42	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	EB
Directions Served	T	T	T
Maximum Queue (ft)	314	175	118
Average Queue (ft)	297	8	4
95th Queue (ft)	309	87	62
Link Distance (ft)	285	285	285
Upstream Blk Time (%)	80	0	0
Queuing Penalty (veh)	271	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	WB
Directions Served	T	T	TR
Maximum Queue (ft)	186	254	290
Average Queue (ft)	22	124	258
95th Queue (ft)	111	288	274
Link Distance (ft)	194	194	194
Upstream Blk Time (%)	0	12	98
Queuing Penalty (veh)	0	50	428
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	92	31
Average Queue (ft)	16	11
95th Queue (ft)	78	30
Link Distance (ft)	101	321
Upstream Blk Time (%)	13	
Queuing Penalty (veh)	100	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: X Dwy & Kurtz St

Movement	EB
Directions Served	TR
Maximum Queue (ft)	62
Average Queue (ft)	26
95th Queue (ft)	164
Link Distance (ft)	300
Upstream Blk Time (%)	8
Queuing Penalty (veh)	39
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	11	94	162	130	63
Average Queue (ft)	1	8	41	21	12
95th Queue (ft)	13	54	151	91	41
Link Distance (ft)	96		146	146	294
Upstream Blk Time (%)		0	11	1	
Queuing Penalty (veh)		0	22	3	
Storage Bay Dist (ft)		75			
Storage Blk Time (%)		0	14		
Queuing Penalty (veh)		1	22		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	348	259	143	248	341	367
Average Queue (ft)	146	24	9	27	69	126
95th Queue (ft)	416	140	80	170	269	378
Link Distance (ft)	263	263	263	311	311	311
Upstream Blk Time (%)	30	0	0	2	1	19
Queuing Penalty (veh)	208	1	0	9	6	103
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	230	255	106	140	310
Average Queue (ft)	65	92	23	37	69
95th Queue (ft)	170	201	83	117	264
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			1	3	7
Queuing Penalty (veh)			2	10	76
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	561	930
Average Queue (ft)	86	294
95th Queue (ft)	496	800
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB	SB
Directions Served	T	T		T	T	TR	R
Maximum Queue (ft)	74	173	40	788	798	827	808
Average Queue (ft)	4	9	1	644	637	633	607
95th Queue (ft)	45	81	29	1060	1082	1107	1105
Link Distance (ft)	189	189	189	756	756	756	756
Upstream Blk Time (%)	0	0	0	59	52	47	40
Queuing Penalty (veh)	0	0	0	476	423	380	321
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 53: Bend

Movement	SB
Directions Served	T
Maximum Queue (ft)	76
Average Queue (ft)	0
95th Queue (ft)	0
Link Distance (ft)	355
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	406	418
Average Queue (ft)	375	363
95th Queue (ft)	435	484
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	6
Queuing Penalty (veh)	101	49
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

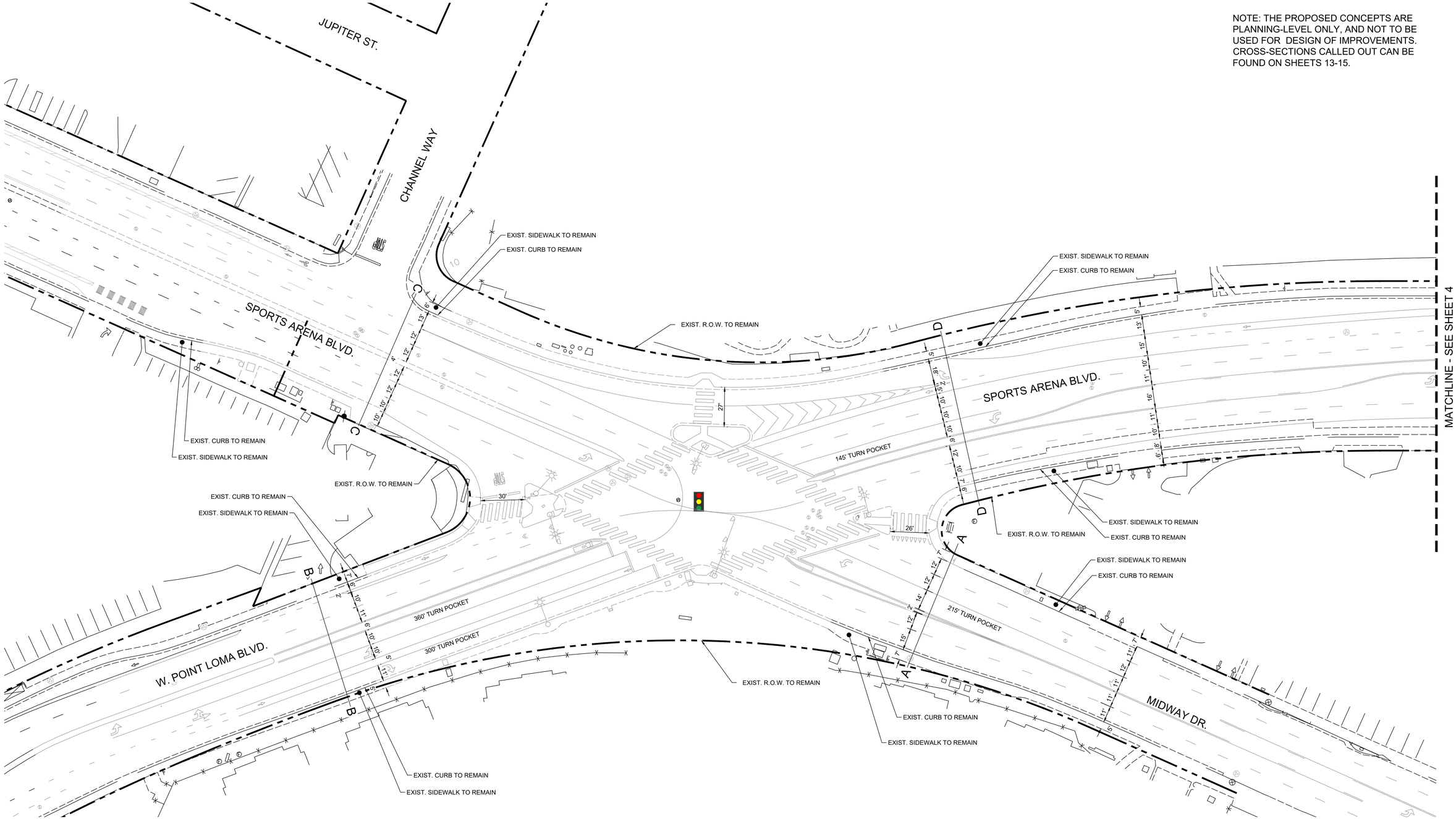
Network Summary

Network wide Queuing Penalty: 19191

Appendix U

Off-Site Intersection Improvements Feasibility Concepts

NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

June 7, 2024

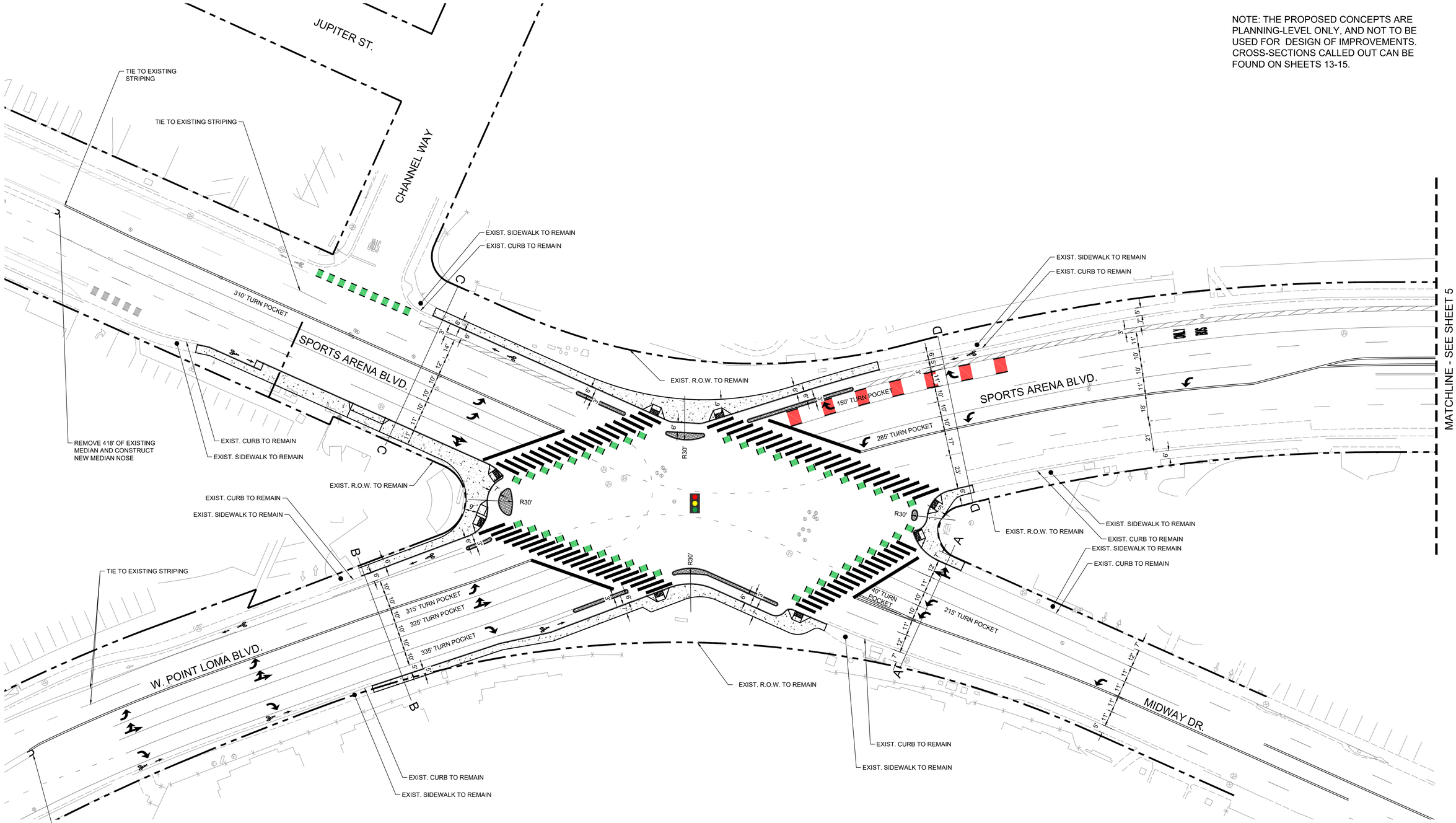
Kimley»Horn

INTERSECTION #2: SPORTS ARENA BLVD. AND MIDWAY DR./W. POINT LOMA BLVD. EXISTING CONDITIONS

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

SHEET
1 OF 17

NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



June 7, 2024

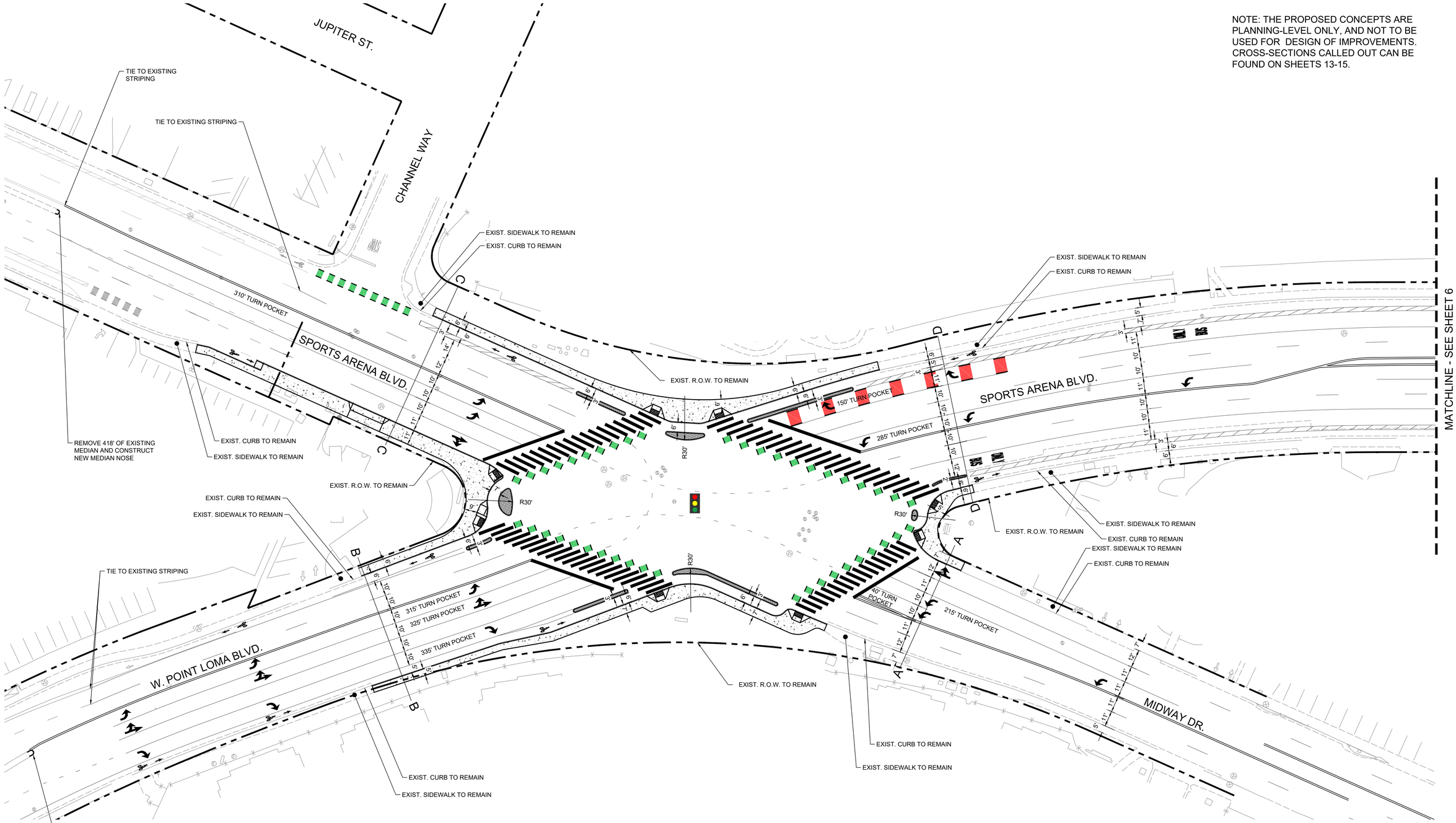
Kimley»Horn

INTERSECTION #2: SPORTS ARENA BLVD. AND MIDWAY DR./W. POINT LOMA BLVD.
PROPOSED CONDITIONS - INTERIM (IMPROVEMENTS TO BE IMPLEMENTED BY PROJECT)

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

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NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

June 7, 2024

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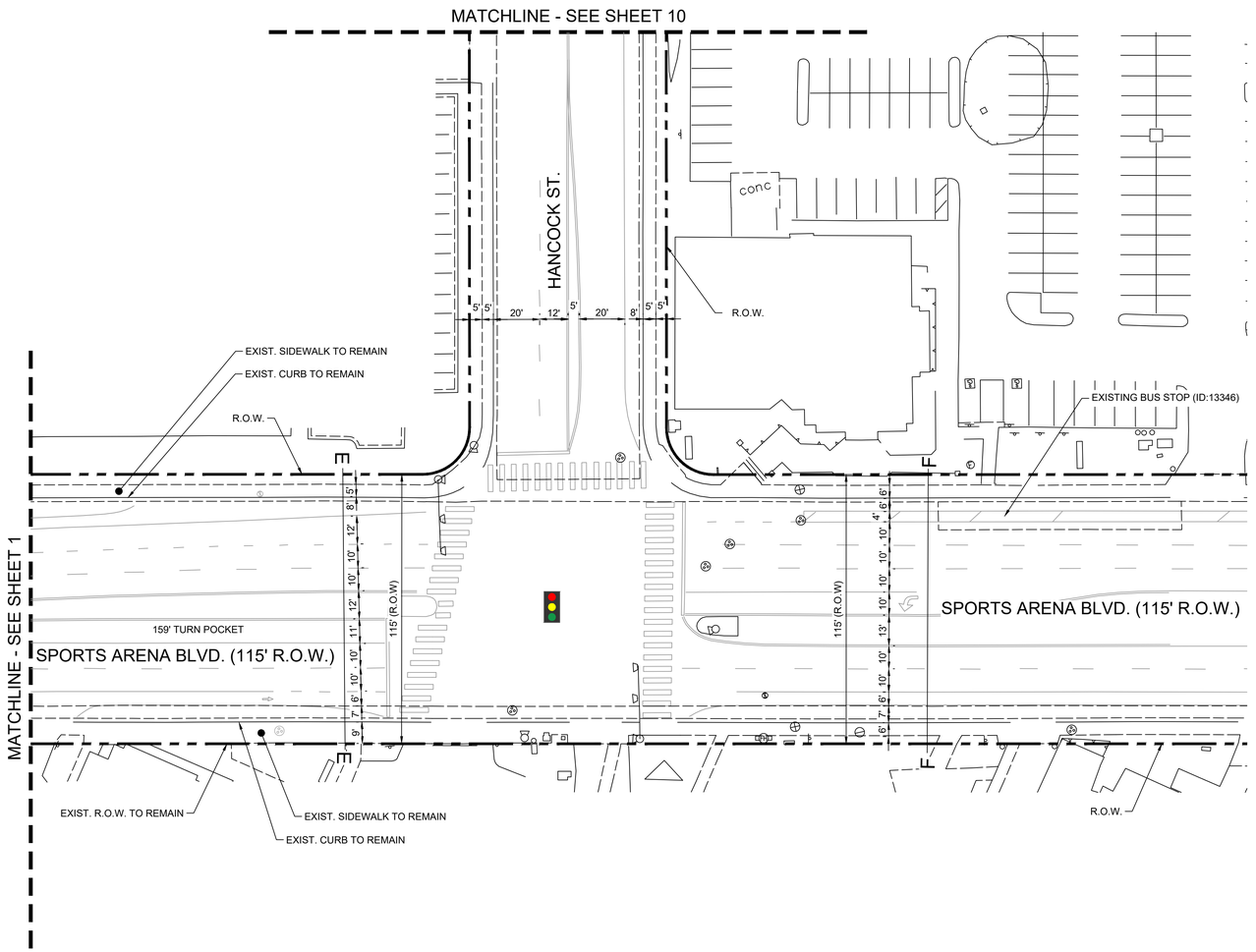
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PROPOSED CONDITIONS - ULTIMATE

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

SHEET
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NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



GRAPHIC SCALE IN FEET
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NORTH

June 7, 2024

Kimley»Horn

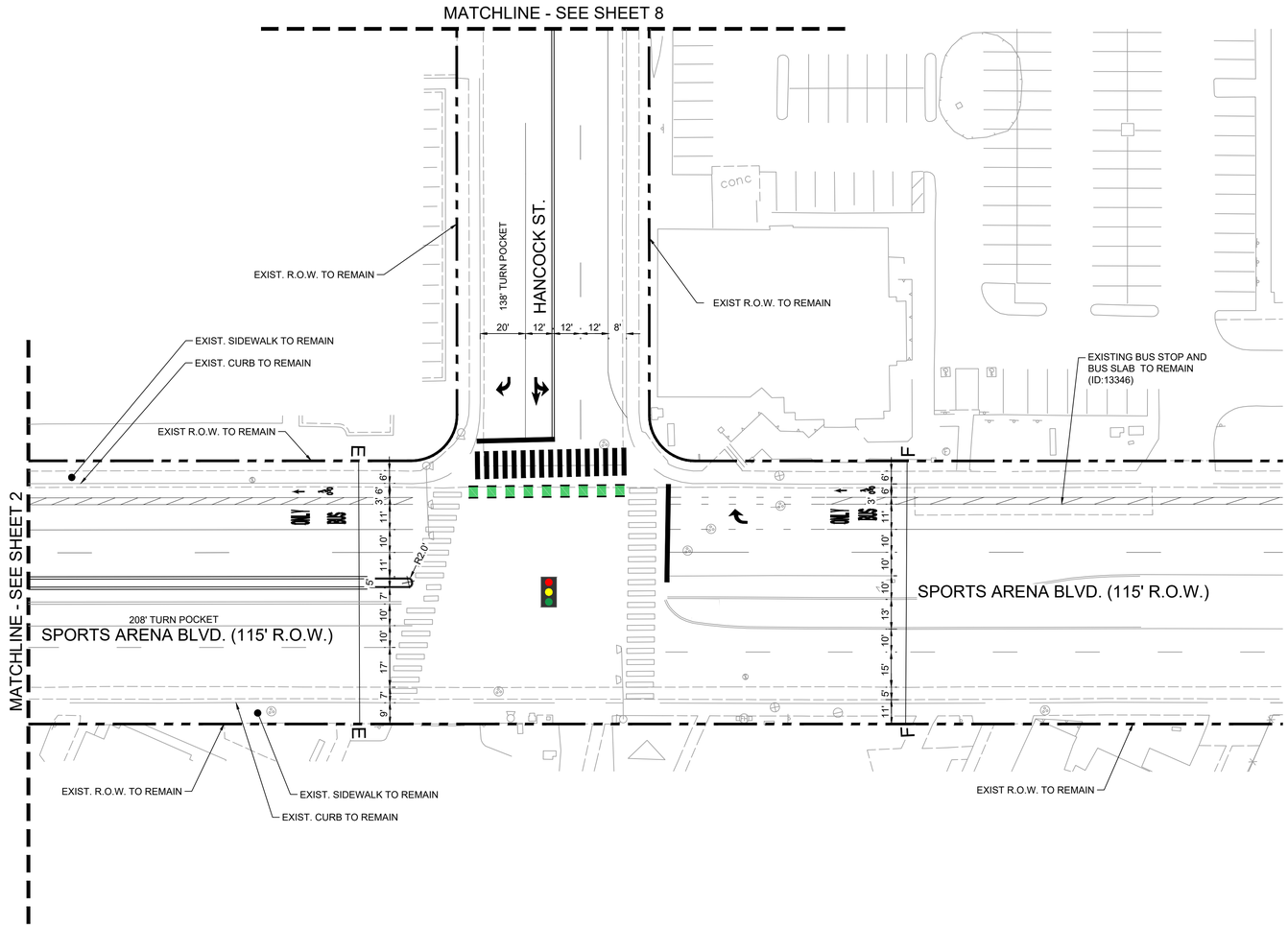
INTERSECTION #3: SPORTS ARENA BLVD. AND HANCOCK ST. EXISTING CONDITIONS

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

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NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

June 7, 2024

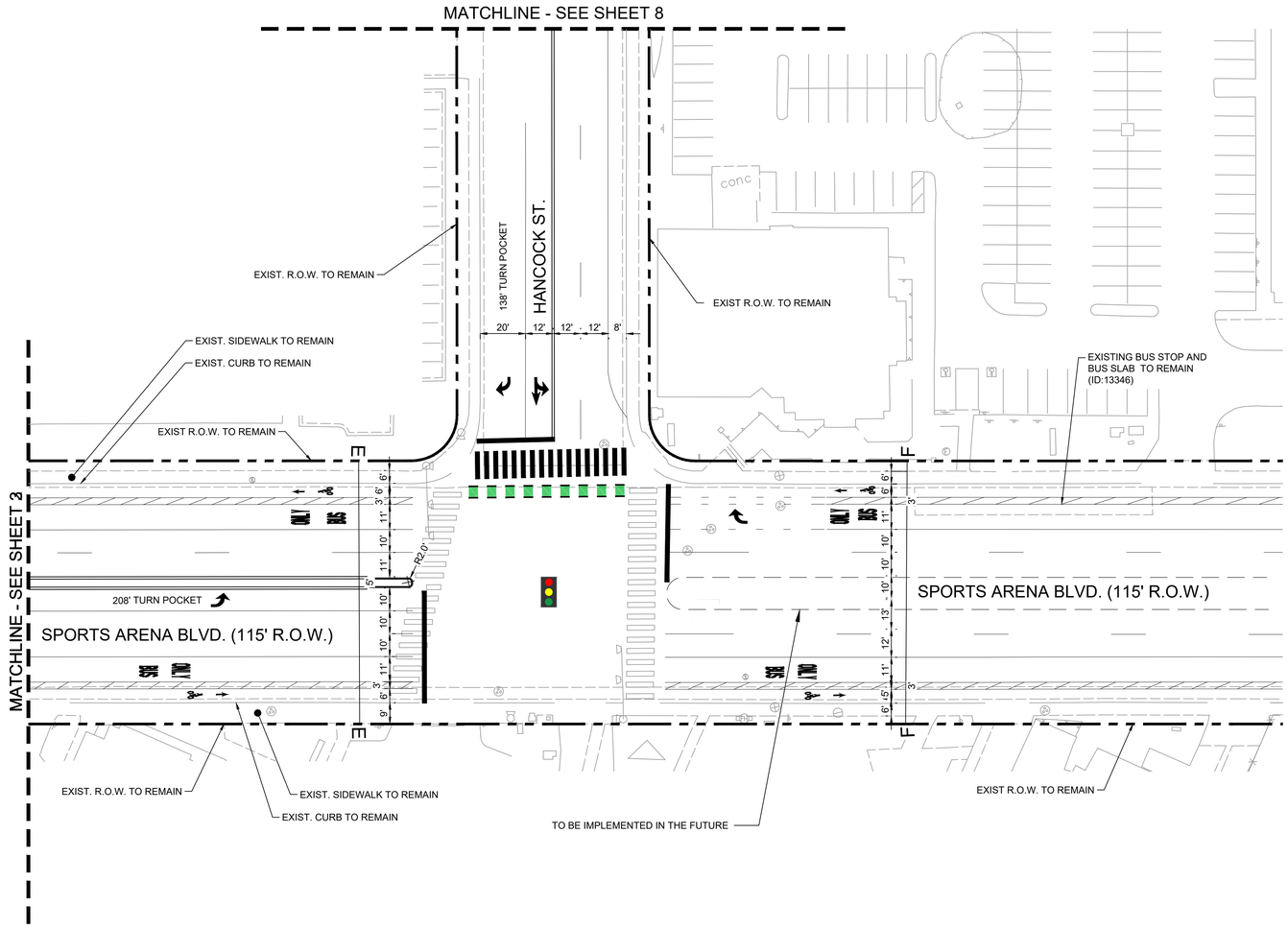
Kimley»Horn

INTERSECTION #3: SPORTS ARENA BLVD. AND HANCOCK ST.
PROPOSED CONDITIONS - INTERIM (IMPROVEMENTS TO BE IMPLEMENTED BY PROJECT)

Midway Rising
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NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

June 7, 2024

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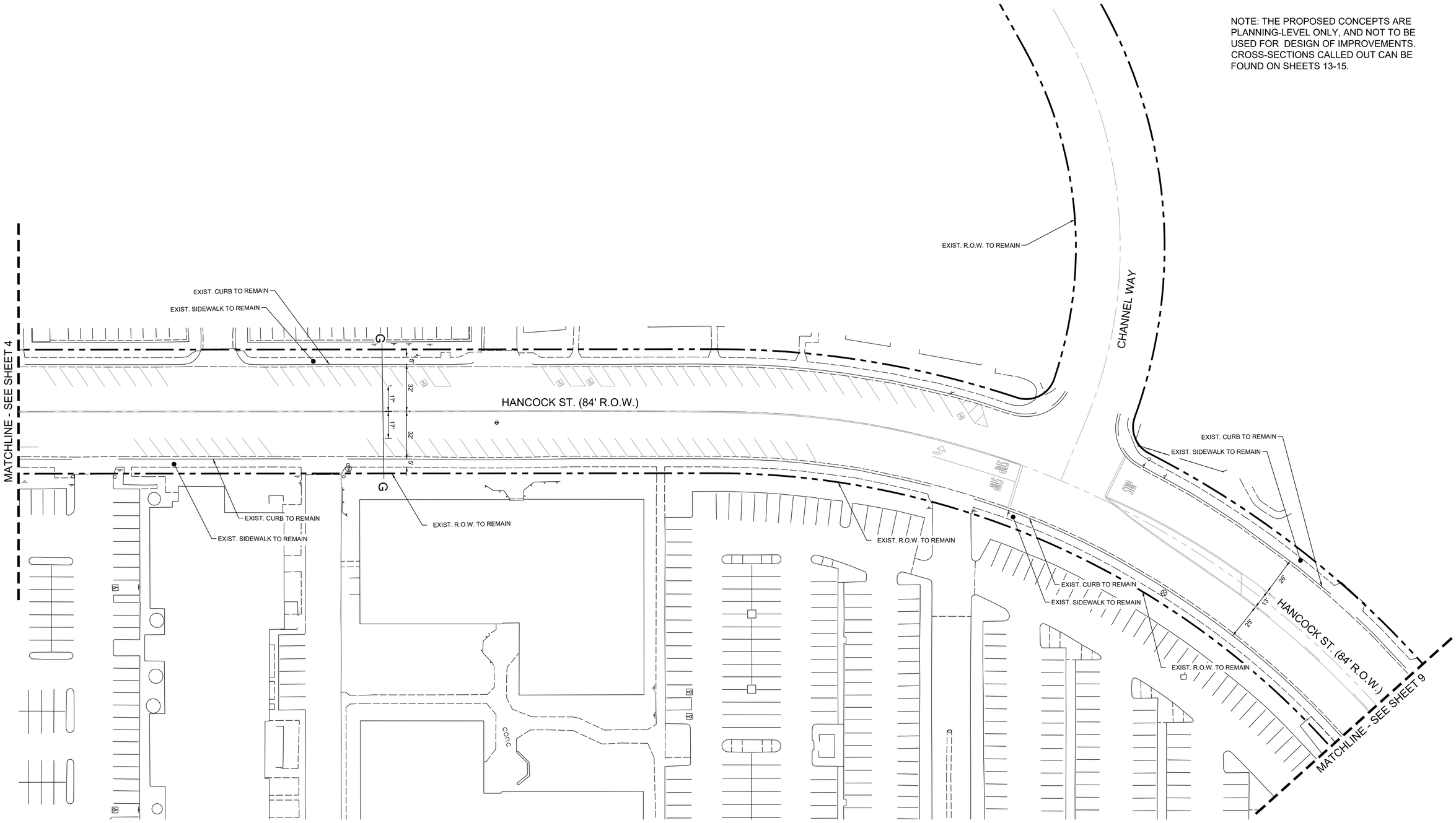
INTERSECTION #3: SPORTS ARENA BLVD. AND HANCOCK ST.
PROPOSED CONDITIONS - ULTIMATE

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NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

June 7, 2024

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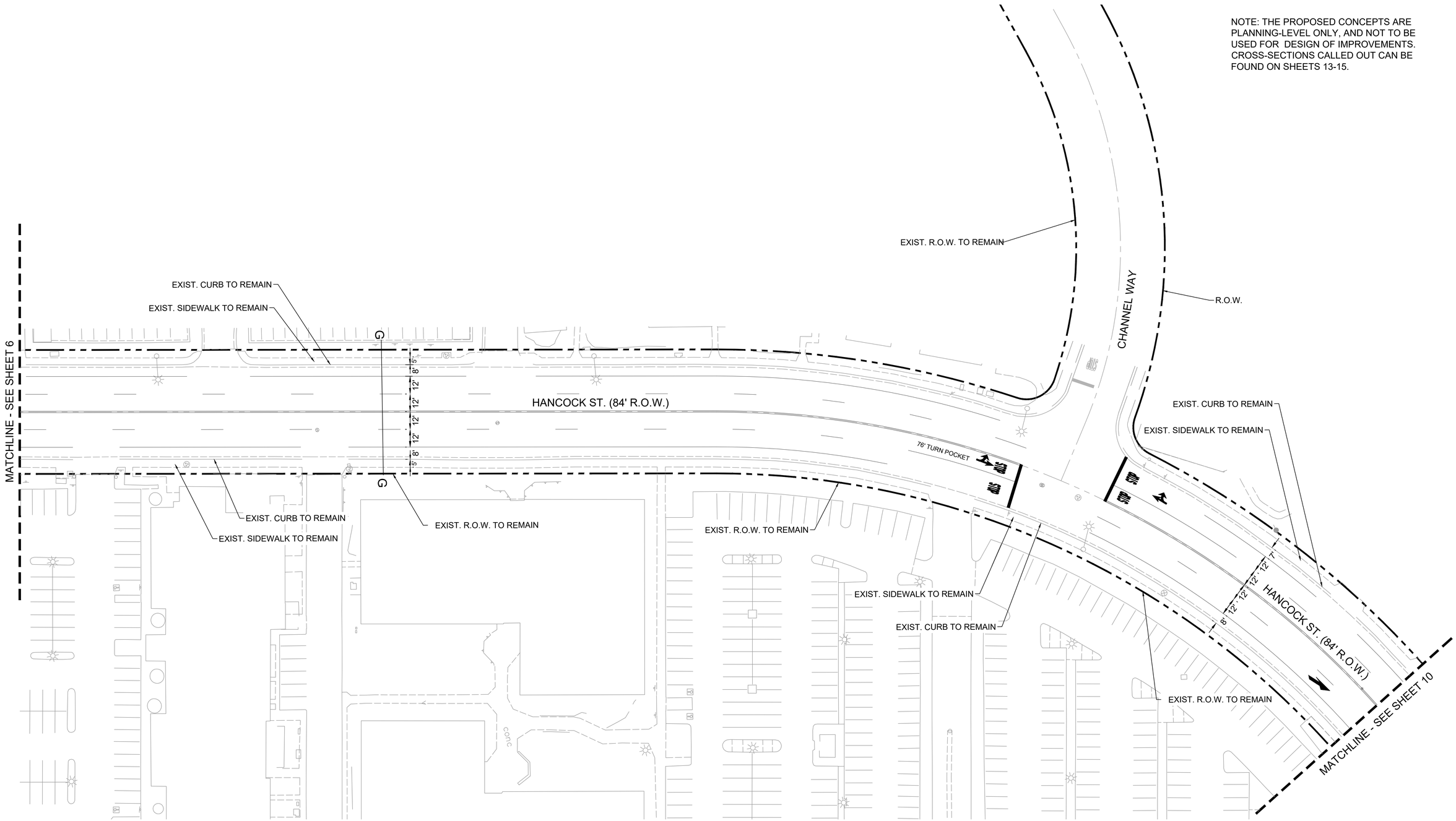
INTERSECTION #10: HANCOCK ST. AND CHANNEL WAY
EXISTING CONDITIONS

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

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NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



June 7, 2024

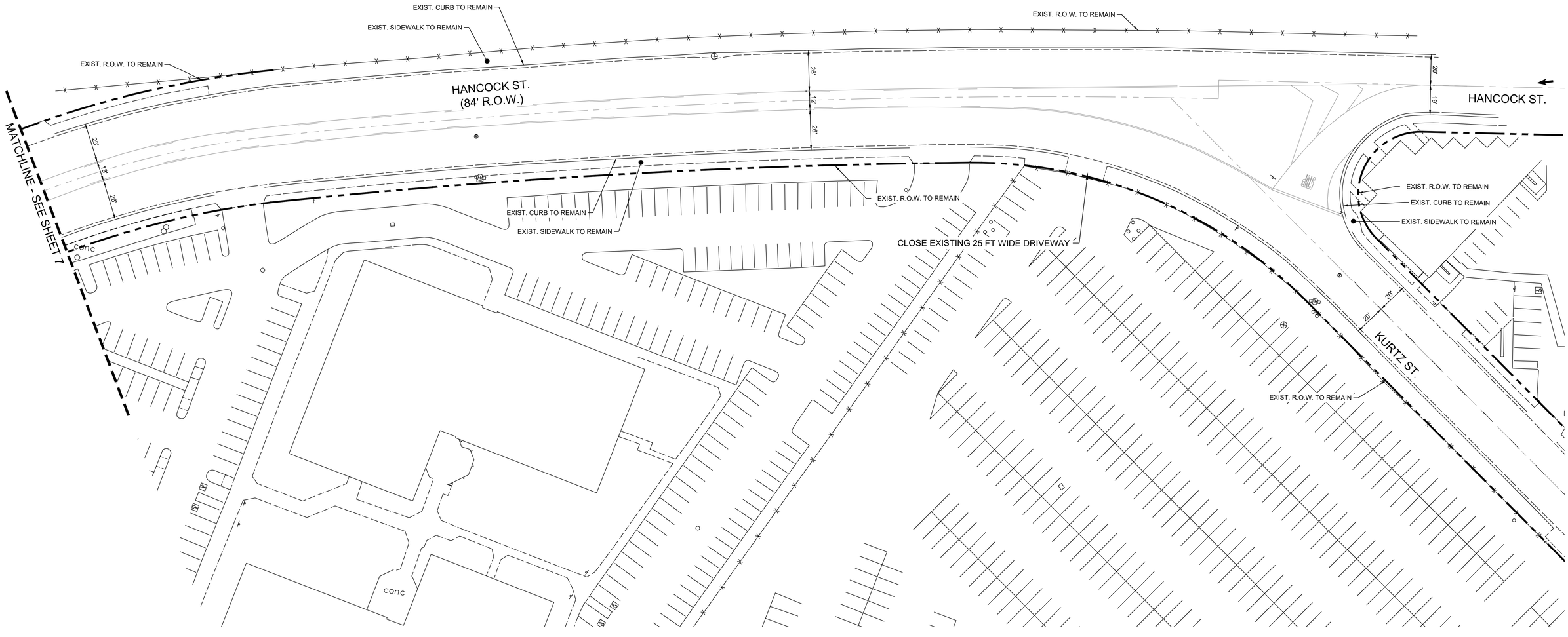
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INTERSECTION #10: HANCOCK ST. AND CHANNEL WAY
PROPOSED CONDITIONS

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

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NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



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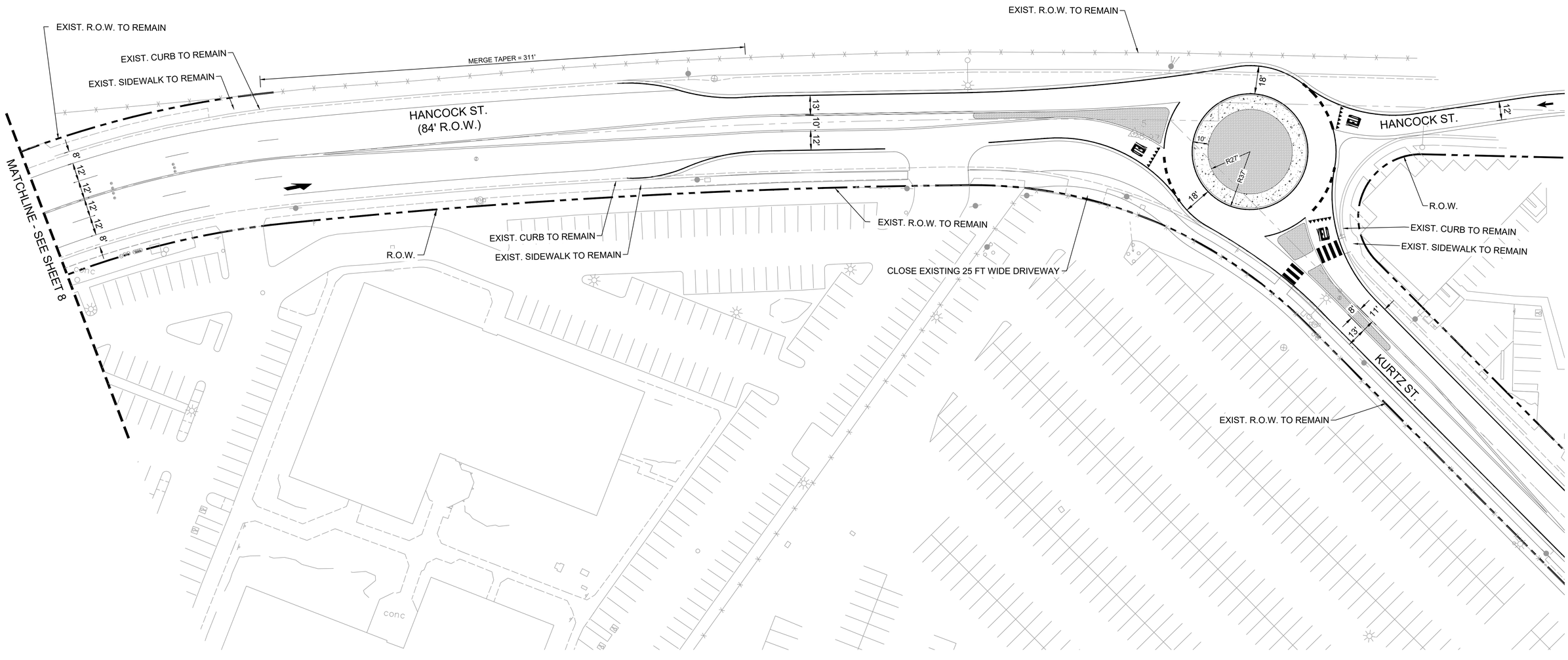
INTERSECTION #11: HANCOCK ST. AND KURTZ ST.
EXISTING CONDITIONS

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

SHEET
9 OF 17

k:\snd_tpto\195497001_midway rising\design\plans\195497001-planview_hancockst-existing-conditions.dwg 6/13/2024

NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

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INTERSECTION #11: HANCOCK ST. AND KURTZ ST.
PROPOSED CONDITIONS

Midway Rising
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NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.

CAMINO DEL RIO W.

146' (R.O.W.)

ROSECRANS ST.

EXIST. SIDEWALK TO REMAIN

EXIST. CURB TO REMAIN

EXIST. DRIVEWAY

EXIST. R.O.W. TO REMAIN

EXIST. R.O.W. TO REMAIN

SPORTS ARENA BLVD.

100' R.O.W.

107' (R.O.W.)

SPORTS ARENA BLVD.
(76' R.O.W.)

76' (R.O.W.)

EXIST. SIDEWALK TO REMAIN

EXIST. CURB TO REMAIN

EXIST. R.O.W.

EXIST. R.O.W. TO REMAIN

135' (R.O.W.)

EXISTING BUS STOP (ID: 12675)

EXIST. SIDEWALK TO REMAIN

EXIST. CURB TO REMAIN

ROSECRANS ST.

120' (R.O.W.)

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

June 7, 2024

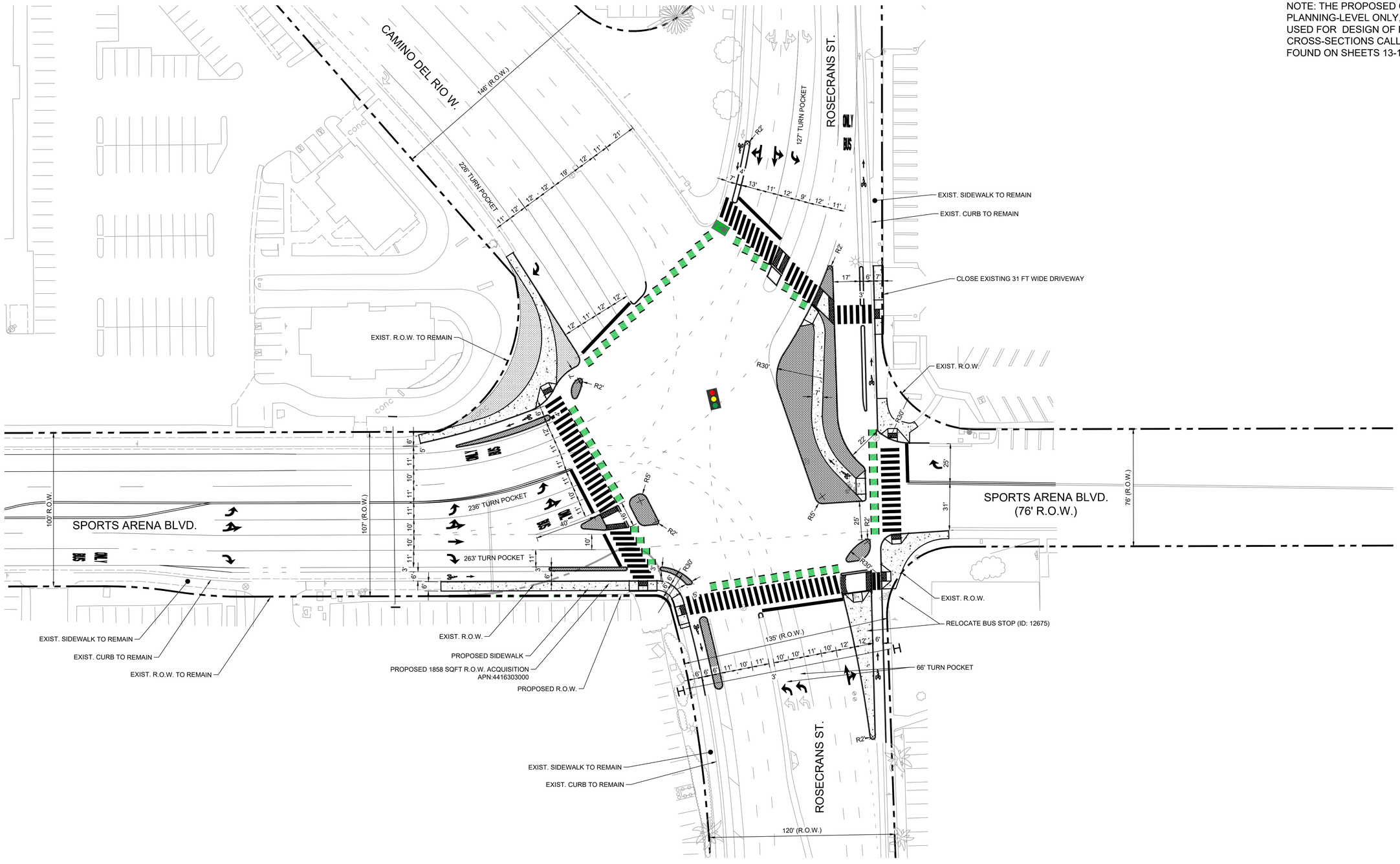
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INTERSECTION #19: SPORTS ARENA BLVD. AND ROSECRANS ST./CAMINO DEL RIO EXISTING CONDITIONS

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

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NOTE: THE PROPOSED CONCEPTS ARE PLANNING-LEVEL ONLY, AND NOT TO BE USED FOR DESIGN OF IMPROVEMENTS. CROSS-SECTIONS CALLED OUT CAN BE FOUND ON SHEETS 13-15.



GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

June 7, 2024

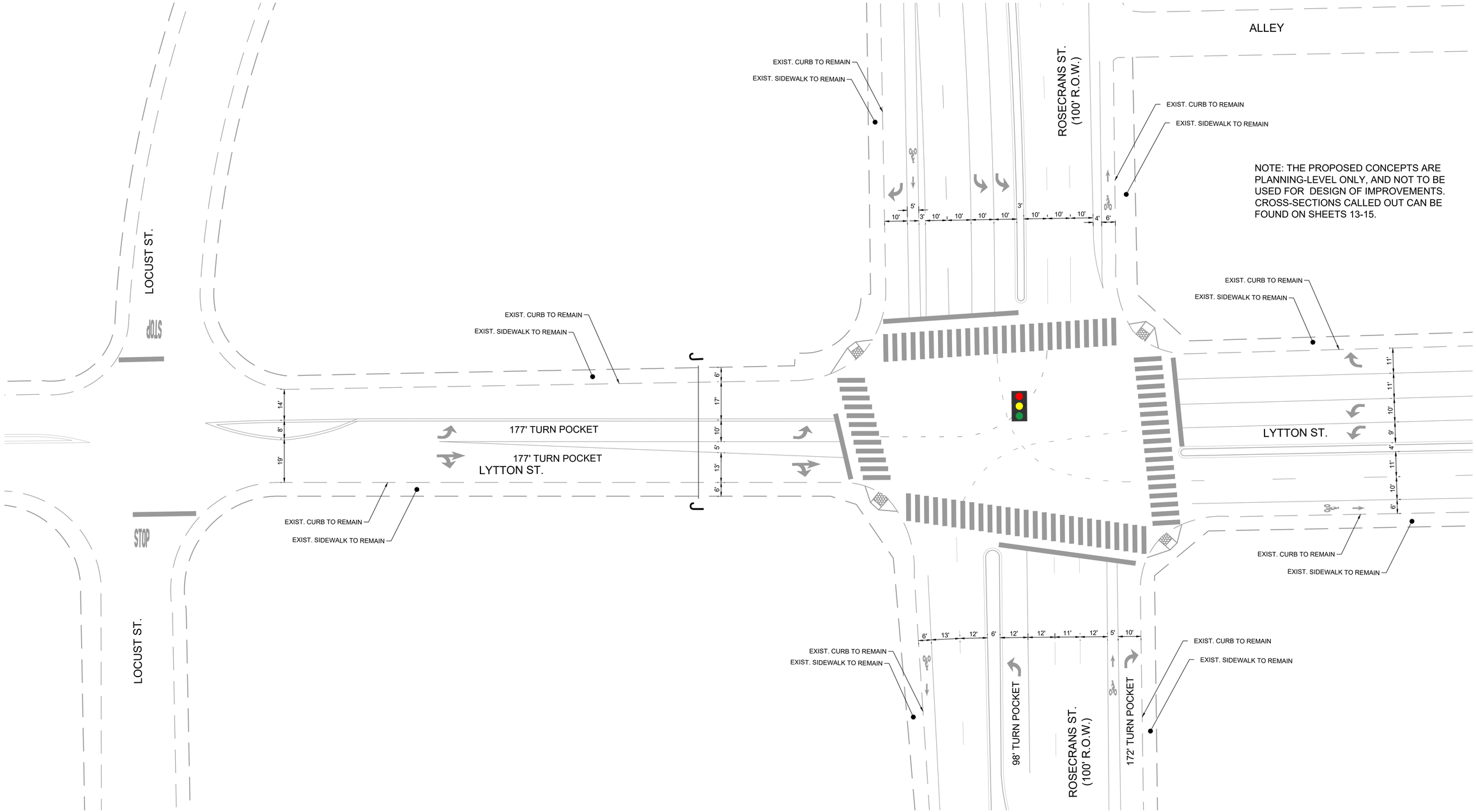
Kimley»Horn

INTERSECTION #19: SPORTS ARENA BLVD. AND ROSECRANS ST./CAMINO DEL RIO PROPOSED CONDITIONS

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

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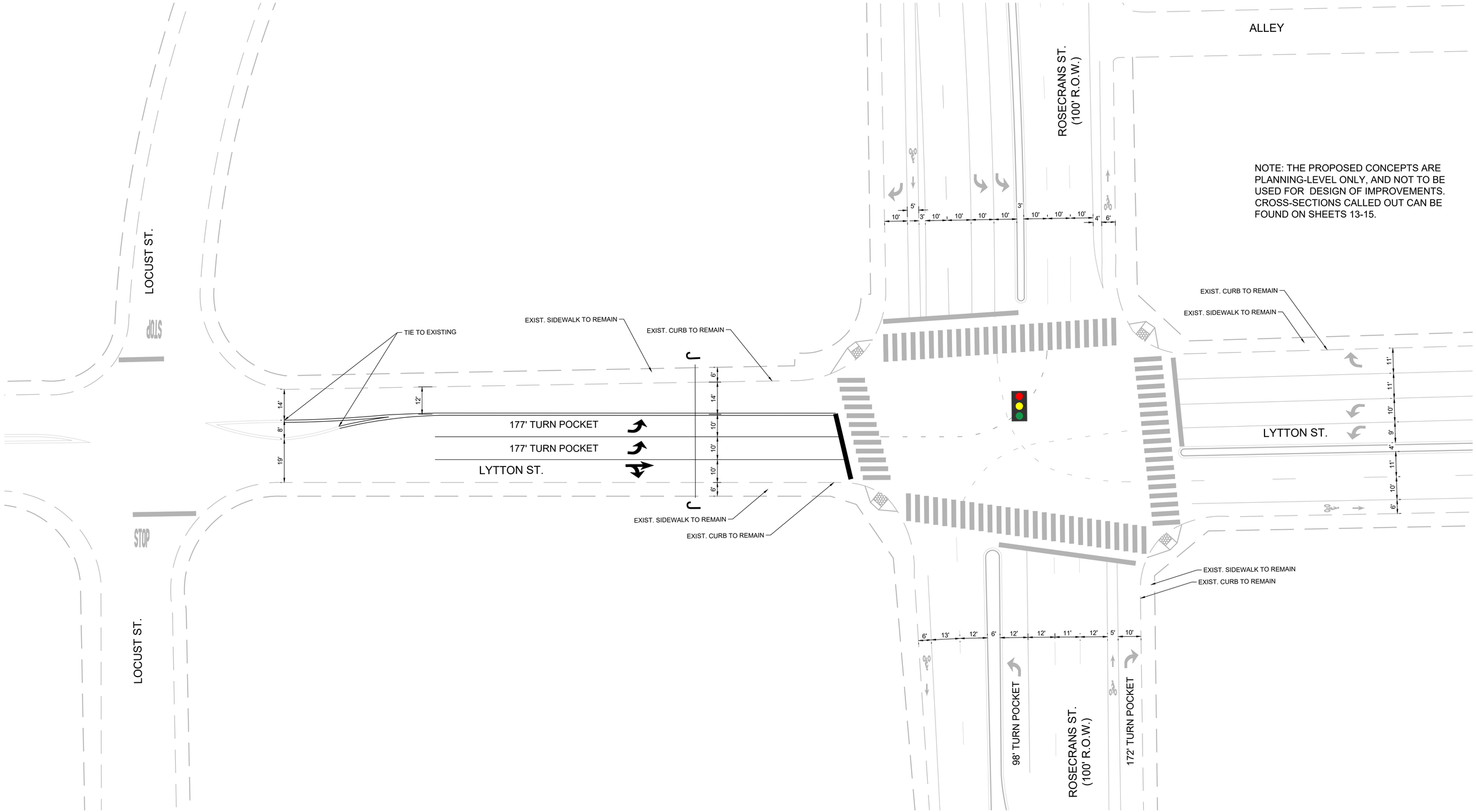
June 7, 2024

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INTERSECTION #22: ROSECRANS ST. AND LYTTON ST.
EXISTING CONDITIONS

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

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GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

June 7, 2024

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INTERSECTION #22: ROSECRANS ST. AND LYTTON ST. PROPOSED CONDITIONS

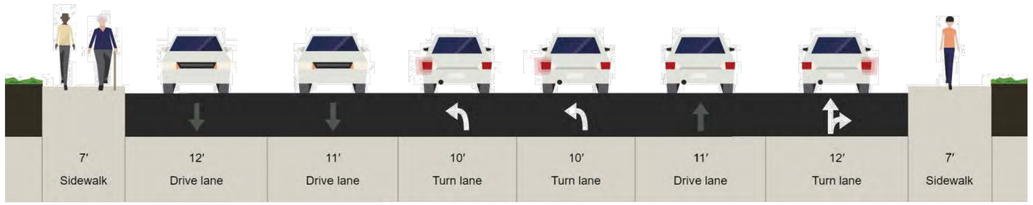
Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

SHEET
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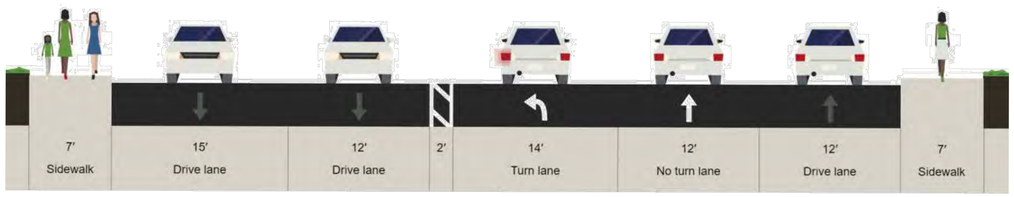
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SECTION A-A

Intersection #2: Sports Arena Blvd and Midway Dr/ W Point Loma Blvd
(Northwest-bound Approach



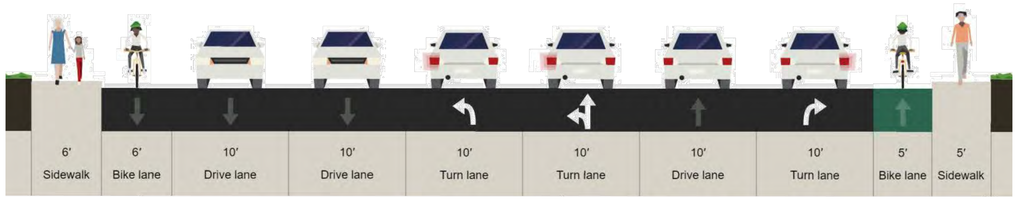
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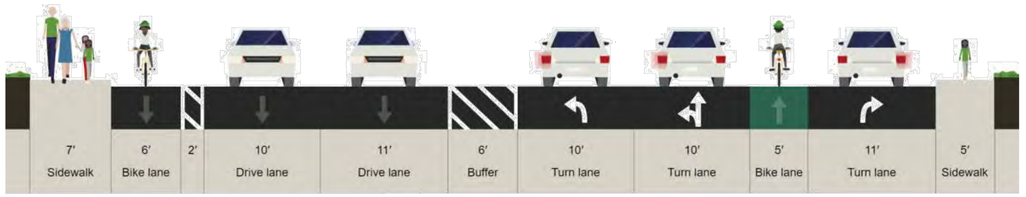
EXISTING

SECTION B-B

Intersection #2: Sports Arena Blvd and Midway Dr/ W Point Loma Blvd
(Northeast-bound Approach



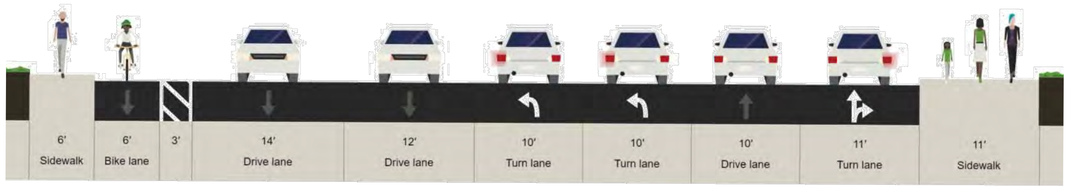
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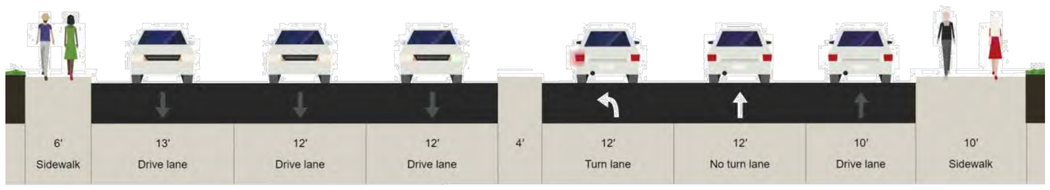
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SECTION C-C

Intersection #2: Sports Arena Blvd and Midway Dr / W Point Loma Blvd
(Southeast-bound Approach)



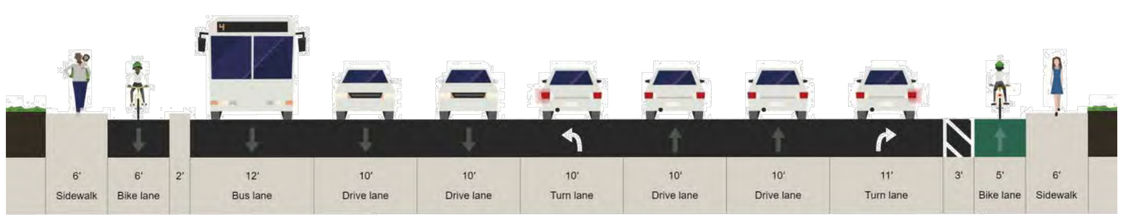
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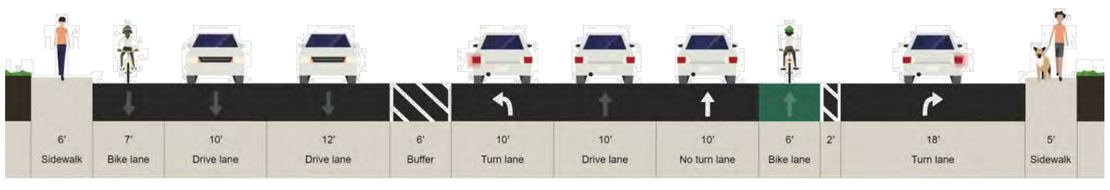
EXISTING

SECTION D-D

Intersection #2: Sports Arena Blvd and Midway Dr / W Point Loma Blvd
(Southwest-bound Approach)



PROPOSED



EXISTING

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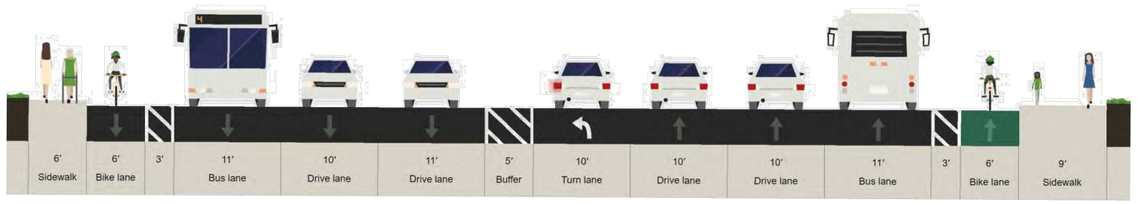
TYPICAL SECTIONS

Midway Rising
LOCAL MOBILITY ANALYSIS
Improvement Feasibility Concept

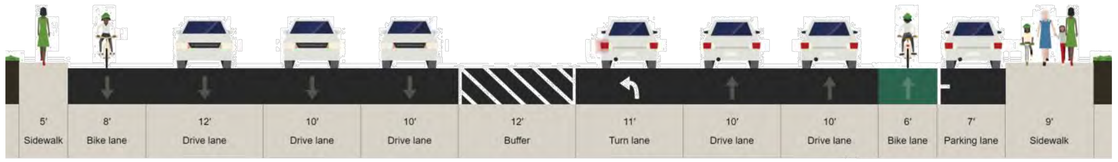
SHEET
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SECTION E-E

Intersection #3: Sports Arena Blvd and Hancock St
(Eastbound Approach)



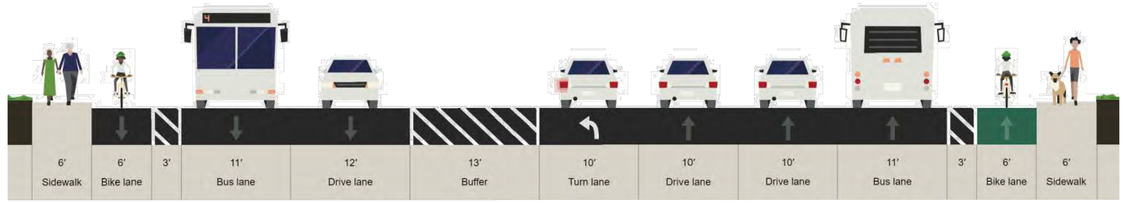
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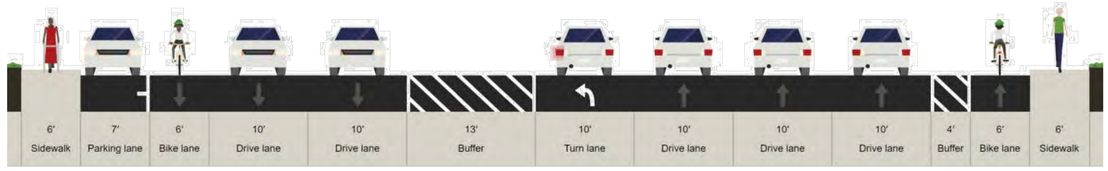
EXISTING

SECTION F-F

Intersection #3: Sports Arena Blvd and Hancock St
(Westbound Approach)



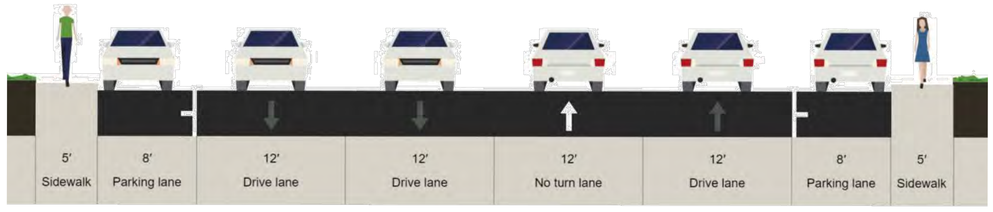
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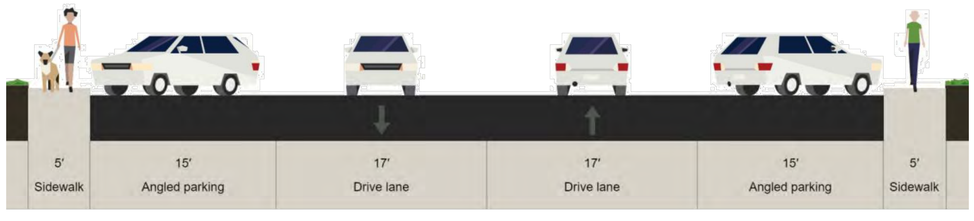
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SECTION G-G

Intersection #10: Hancock St and Channel Way (Hancock Street Typical)



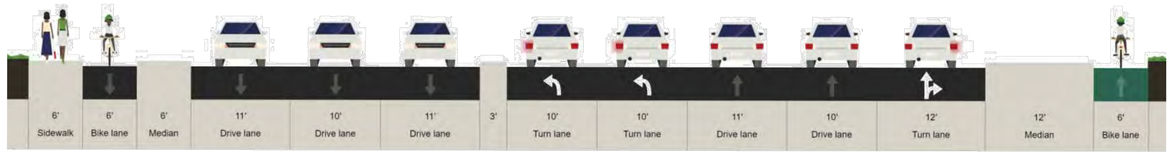
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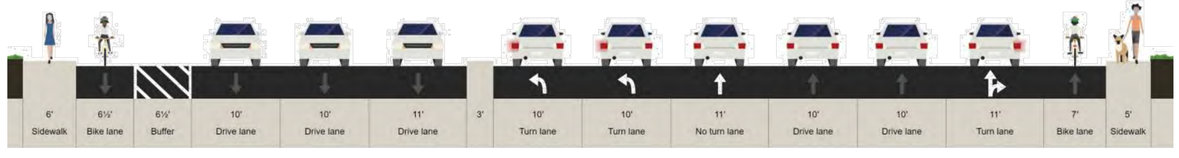
EXISTING

SECTION H-H

Intersection #19: Sports Arena Blvd and Rosecrans St / Camino del Rio
(Northbound Approach)



PROPOSED



EXISTING

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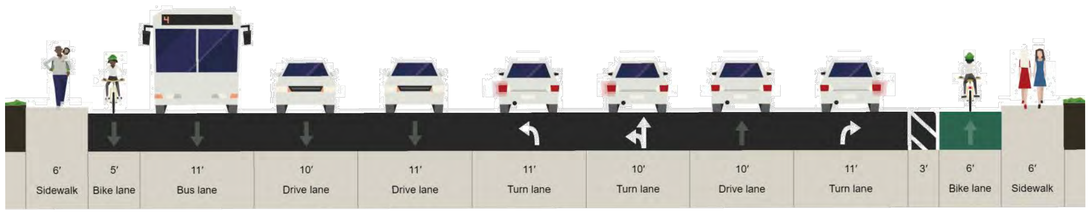
TYPICAL SECTIONS

Midway Rising
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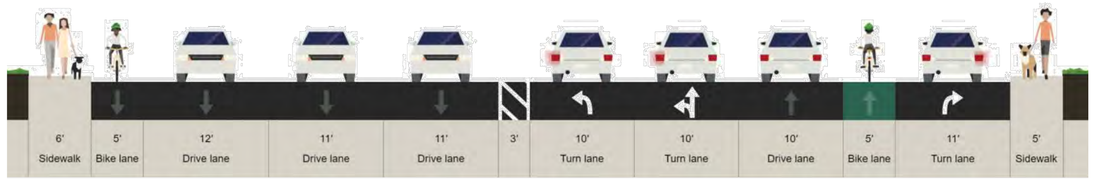
SHEET
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SECTION I-I

Intersection #19: Sports Arena Blvd and Rosecrans St /Camino Del Rio (Eastbound Approach



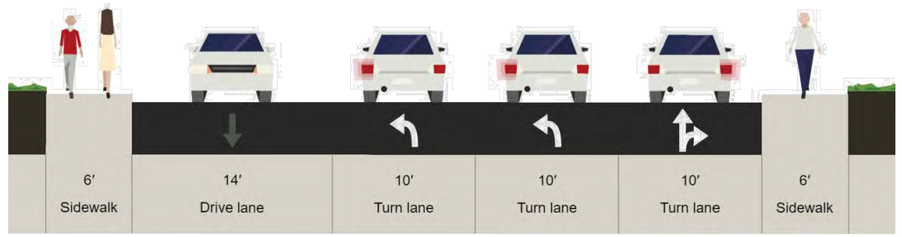
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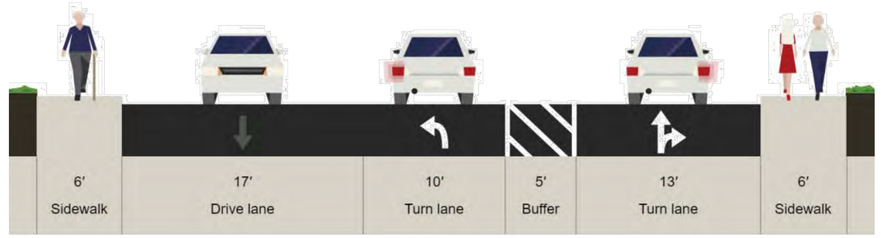
EXISTING

SECTION J-J

Intersection #22: Rosecrans St and Lytton St (Eastbound Approach



PROPOSED



EXISTING

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TYPICAL SECTIONS

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Appendix V

Opening Year (2030) Plus Project Phase 1 Plus Improvements Intersection LOS Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	228	193	16	282	456	154	298	16	276	300	156
Future Volume (veh/h)	326	228	193	16	282	456	154	298	16	276	300	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	248	210	17	307	496	167	324	17	300	326	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1596	838	797	345	689	485	217	398	21	415	391	199
Arrive On Green	0.45	0.45	0.45	0.32	0.32	0.32	0.06	0.12	0.12	0.12	0.17	0.17
Sat Flow, veh/h	3563	1870	1557	1781	3554	1524	3456	3432	179	3456	2258	1149
Grp Volume(v), veh/h	354	248	210	17	307	496	167	167	174	300	255	241
Grp Sat Flow(s),veh/h/ln	1781	1870	1557	1781	1777	1524	1728	1777	1835	1728	1777	1630
Q Serve(g_s), s	9.7	13.5	12.2	1.0	10.9	31.0	7.6	14.7	14.8	13.4	22.1	23.0
Cycle Q Clear(g_c), s	9.7	13.5	12.2	1.0	10.9	31.0	7.6	14.7	14.8	13.4	22.1	23.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.70
Lane Grp Cap(c), veh/h	1596	838	797	345	689	485	217	206	213	415	308	282
V/C Ratio(X)	0.22	0.30	0.26	0.05	0.45	1.02	0.77	0.81	0.82	0.72	0.83	0.85
Avail Cap(c_a), veh/h	1596	838	797	345	689	485	713	389	401	758	408	374
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	28.1	22.2	44.0	47.3	44.3	73.8	69.0	69.1	67.8	63.8	64.2
Incr Delay (d2), s/veh	0.3	0.9	0.8	0.2	1.6	45.0	4.3	4.4	4.4	2.4	8.8	12.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	6.3	4.8	0.5	4.7	14.2	3.5	7.0	7.3	6.1	10.8	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	29.0	23.0	44.2	48.9	89.3	78.2	73.4	73.5	70.3	72.7	76.3
LnGrp LOS	C	C	C	D	D	F	E	E	E	E	E	E
Approach Vol, veh/h		812			820			508			796	
Approach Delay, s/veh		26.7			73.3			75.0			72.9	
Approach LOS		C			E			E			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	76.6	24.1	23.4	35.9	14.9	32.6
Change Period (Y+Rc), s	4.9	4.9	* 4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.7	35.1	* 35	31.0	33.0	36.7
Max Q Clear Time (g_c+I1), s	15.5	15.4	16.8	33.0	9.6	25.0
Green Ext Time (p_c), s	8.6	1.0	1.4	0.0	0.4	1.9

Intersection Summary	
HCM 6th Ctrl Delay	60.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.



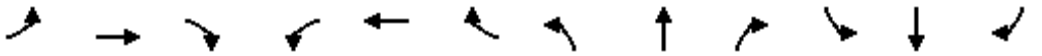
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	388	53	108	394	61	53	9	45	120	33	129
Future Volume (veh/h)	58	388	53	108	394	61	53	9	45	120	33	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	422	58	117	428	66	58	10	49	130	36	140
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1897	819	135	2005	1070	107	18	230	230	43	168
Arrive On Green	0.05	0.53	0.53	0.08	0.56	0.56	0.07	0.07	0.07	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1535	1781	3554	1533	1530	264	1565	1781	335	1301
Grp Volume(v), veh/h	63	422	58	117	428	66	68	0	49	130	0	176
Grp Sat Flow(s),veh/h/ln	1781	1777	1535	1781	1777	1533	1794	0	1565	1781	0	1636
Q Serve(g_s), s	3.5	6.3	1.8	6.5	6.0	1.4	3.7	0.0	2.8	6.9	0.0	10.5
Cycle Q Clear(g_c), s	3.5	6.3	1.8	6.5	6.0	1.4	3.7	0.0	2.8	6.9	0.0	10.5
Prop In Lane	1.00		1.00	1.00		1.00	0.85		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	81	1897	819	135	2005	1070	126	0	230	230	0	212
V/C Ratio(X)	0.78	0.22	0.07	0.86	0.21	0.06	0.54	0.00	0.21	0.56	0.00	0.83
Avail Cap(c_a), veh/h	91	1897	819	135	2005	1070	646	0	684	321	0	294
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.2	12.3	11.3	45.7	10.8	4.9	45.0	0.0	37.6	40.9	0.0	42.5
Incr Delay (d2), s/veh	26.8	0.3	0.2	38.8	0.2	0.1	1.4	0.0	0.2	0.8	0.0	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.4	0.6	4.3	2.3	0.7	1.7	0.0	1.1	3.0	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.1	12.6	11.5	84.5	11.0	5.0	46.3	0.0	37.8	41.7	0.0	52.2
LnGrp LOS	E	B	B	F	B	A	D	A	D	D	A	D
Approach Vol, veh/h		543			611			117			306	
Approach Delay, s/veh		19.6			24.5			42.8			47.7	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	58.3		17.8	8.9	61.3		11.9				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	7.6	19.3		18.0	5.1	21.8		36.0				
Max Q Clear Time (g_c+I1), s	19.5	8.3		12.5	5.5	8.0		5.7				
Green Ext Time (p_c), s	0.0	2.2		0.4	0.0	1.3		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	25	115	78	47	1773	46	0	2142	94
Future Volume (veh/h)	0	0	0	25	115	78	47	1773	46	0	2142	94
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				27	125	85	51	1927	50	0	2328	102
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				63	292	201	434	3873	100	0	2413	744
Arrive On Green				0.16	0.16	0.16	0.49	1.00	1.00	0.00	0.47	0.47
Sat Flow, veh/h				390	1811	1243	1781	5118	133	0	5274	1575
Grp Volume(v), veh/h				128	0	109	51	1281	696	0	2328	102
Grp Sat Flow(s),veh/h/ln				1851	0	1593	1781	1702	1846	0	1702	1575
Q Serve(g_s), s				7.5	0.0	7.4	1.9	0.0	0.0	0.0	53.0	4.4
Cycle Q Clear(g_c), s				7.5	0.0	7.4	1.9	0.0	0.0	0.0	53.0	4.4
Prop In Lane				0.21		0.78	1.00		0.07	0.00		1.00
Lane Grp Cap(c), veh/h				299	0	257	434	2576	1397	0	2413	744
V/C Ratio(X)				0.43	0.00	0.42	0.12	0.50	0.50	0.00	0.96	0.14
Avail Cap(c_a), veh/h				679	0	584	434	2576	1397	0	2413	744
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.78	0.00	1.00	1.00
Uniform Delay (d), s/veh				45.3	0.0	45.3	23.8	0.0	0.0	0.0	30.7	17.9
Incr Delay (d2), s/veh				0.4	0.0	0.4	0.0	0.5	1.0	0.0	11.8	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	0.0	3.0	0.8	0.2	0.4	0.0	22.9	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.7	0.0	45.7	23.8	0.5	1.0	0.0	42.4	18.2
LnGrp LOS				D	A	D	C	A	A	A	D	B
Approach Vol, veh/h					237			2028			2430	
Approach Delay, s/veh					45.7			1.3			41.4	
Approach LOS					D			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	95.7	24.3	34.1	61.6
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	66.2	44.0	5.1	* 57
Max Q Clear Time (g_c+I1), s	2.0	9.5	3.9	55.0
Green Ext Time (p_c), s	6.4	0.5	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

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



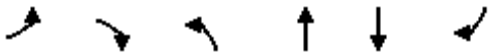
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	222	182	133	387	218	301	1560	73	224	1641	195
Future Volume (veh/h)	160	222	182	133	387	218	301	1560	73	224	1641	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	174	241	198	145	421	237	327	1696	79	243	1784	212
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	613	268	158	673	292	743	2135	99	599	1758	208
Arrive On Green	0.07	0.17	0.17	0.09	0.19	0.19	0.21	0.43	0.43	0.17	0.38	0.38
Sat Flow, veh/h	3456	3554	1552	1781	3554	1542	3456	4995	232	3456	4625	547
Grp Volume(v), veh/h	174	241	198	145	421	237	327	1155	620	243	1310	686
Grp Sat Flow(s),veh/h/ln	1728	1777	1552	1781	1777	1542	1728	1702	1823	1728	1702	1768
Q Serve(g_s), s	6.6	8.1	16.3	10.9	14.7	19.9	11.1	39.7	39.8	8.4	51.3	51.3
Cycle Q Clear(g_c), s	6.6	8.1	16.3	10.9	14.7	19.9	11.1	39.7	39.8	8.4	51.3	51.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.31
Lane Grp Cap(c), veh/h	249	613	268	158	673	292	743	1455	779	599	1294	672
V/C Ratio(X)	0.70	0.39	0.74	0.92	0.63	0.81	0.44	0.79	0.80	0.41	1.01	1.02
Avail Cap(c_a), veh/h	312	898	392	158	892	387	743	1455	779	599	1294	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	1.00	0.68	0.68	0.68	0.63	0.63	0.63
Uniform Delay (d), s/veh	61.2	49.6	53.0	61.0	50.3	52.4	45.9	33.5	33.5	49.6	41.9	41.9
Incr Delay (d2), s/veh	3.0	0.1	1.7	46.8	0.4	7.0	0.1	3.1	5.7	0.1	23.1	32.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.7	6.5	7.0	6.6	8.2	4.7	16.5	18.2	3.6	24.9	27.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	49.7	54.6	107.8	50.7	59.5	46.1	36.6	39.3	49.7	65.0	74.7
LnGrp LOS	E	D	D	F	D	E	D	D	D	D	F	F
Approach Vol, veh/h		613			803			2102			2239	
Approach Delay, s/veh		55.4			63.6			38.9			66.3	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	62.6	16.4	28.2	33.4	57.0	14.1	30.4
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	12.6	57.7	12.0	34.1	18.2	51.3	12.2	33.9
Max Q Clear Time (g_c+I1), s	10.4	41.8	12.9	18.3	13.1	53.3	8.6	21.9
Green Ext Time (p_c), s	0.0	4.3	0.0	0.6	0.1	0.0	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	54.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	160	300	334	447	8
Future Volume (vph)	0	160	300	334	447	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	0.91	0.91	
Frpb, ped/bikes		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	
Frt		0.86	1.00	1.00	1.00	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1611	1770	5085	5068	
Flt Permitted		1.00	0.32	1.00	1.00	
Satd. Flow (perm)		1611	592	5085	5068	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	174	326	363	486	9
RTOR Reduction (vph)	0	116	0	0	6	0
Lane Group Flow (vph)	0	58	326	363	489	0
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						12
Turn Type		Perm	pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases		5	2			
Actuated Green, G (s)		9.4	23.9	28.4	10.0	
Effective Green, g (s)		9.4	23.9	28.4	10.0	
Actuated g/C Ratio		0.33	0.84	1.00	0.35	
Clearance Time (s)		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		533	888	5085	1784	
v/s Ratio Prot			c0.12	0.07	0.10	
v/s Ratio Perm		0.04	c0.19			
v/c Ratio		0.11	0.37	0.07	0.27	
Uniform Delay, d1		6.6	1.0	0.0	6.6	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.3	0.0	0.1	
Delay (s)		6.7	1.3	0.0	6.7	
Level of Service		A	A	A	A	
Approach Delay (s)	6.7			0.6	6.7	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	28.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	33.1%	ICU Level of Service	A
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)	314	396	285	27	346	504	297	431	33	836	488	341
Future Volume (veh/h)	314	396	285	27	346	504	297	431	33	836	488	341
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	257	548	310	29	376	548	323	468	36	909	530	371
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	416	873	671	319	636	780	672	533	41	1102	564	394
Arrive On Green	0.23	0.23	0.23	0.18	0.18	0.18	0.19	0.16	0.16	0.32	0.28	0.28
Sat Flow, veh/h	1781	3741	1553	1781	3554	1536	3456	3339	256	3456	1984	1387
Grp Volume(v), veh/h	257	548	310	29	376	548	323	248	256	909	475	426
Grp Sat Flow(s),veh/h/ln	1781	1870	1553	1781	1777	1536	1728	1777	1818	1728	1777	1594
Q Serve(g_s), s	23.3	23.7	25.7	2.4	17.5	0.0	15.0	24.6	24.8	43.8	47.0	47.0
Cycle Q Clear(g_c), s	23.3	23.7	25.7	2.4	17.5	0.0	15.0	24.6	24.8	43.8	47.0	47.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.87
Lane Grp Cap(c), veh/h	416	873	671	319	636	780	672	284	290	1102	505	453
V/C Ratio(X)	0.62	0.63	0.46	0.09	0.59	0.70	0.48	0.87	0.88	0.82	0.94	0.94
Avail Cap(c_a), veh/h	416	873	671	319	636	780	672	345	353	1102	534	479
HCM Platoon Ratio	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	0.90	0.90	0.90	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.8	62.0	36.8	61.7	67.9	34.7	64.4	73.9	73.9	56.6	62.9	62.9
Incr Delay (d2), s/veh	4.7	2.4	1.4	0.5	3.6	4.7	2.3	16.2	16.7	5.0	23.8	25.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	11.5	10.2	1.2	8.3	19.6	6.9	12.6	13.0	20.0	24.7	22.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.5	64.4	38.2	62.2	71.5	39.4	66.7	90.1	90.6	61.6	86.8	88.7
LnGrp LOS	E	E	D	E	E	D	E	F	F	E	F	F
Approach Vol, veh/h		1115			953			827			1810	
Approach Delay, s/veh		57.6			52.8			81.1			74.6	
Approach LOS		E			D			F			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	46.9	62.3	33.7	37.1	39.9	56.1
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	54.1	35.0	32.2	35.0	54.1
Max Q Clear Time (g_c+I1), s	27.7	45.8	26.8	19.5	17.0	49.0
Green Ext Time (p_c), s	7.5	1.8	1.5	8.2	0.8	2.2

Intersection Summary	
HCM 6th Ctrl Delay	67.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



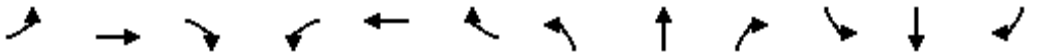
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	303	628	70	85	827	369	116	31	73	195	34	169
Future Volume (veh/h)	303	628	70	85	827	369	116	31	73	195	34	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.91	1.00		0.89	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	329	683	76	92	899	401	126	34	79	212	37	184
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	422	1386	553	228	1000	627	303	82	504	251	38	188
Arrive On Green	0.24	0.39	0.39	0.26	0.56	0.56	0.21	0.21	0.21	0.14	0.14	0.14
Sat Flow, veh/h	1781	3554	1417	1781	3554	1436	1417	382	1405	1781	269	1339
Grp Volume(v), veh/h	329	683	76	92	899	401	160	0	79	212	0	221
Grp Sat Flow(s),veh/h/ln	1781	1777	1417	1781	1777	1436	1800	0	1405	1781	0	1609
Q Serve(g_s), s	25.9	21.8	5.2	6.4	33.6	33.4	11.5	0.0	0.0	17.4	0.0	20.5
Cycle Q Clear(g_c), s	25.9	21.8	5.2	6.4	33.6	33.4	11.5	0.0	0.0	17.4	0.0	20.5
Prop In Lane	1.00		1.00	1.00		1.00	0.79		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	422	1386	553	228	1000	627	385	0	504	251	0	226
V/C Ratio(X)	0.78	0.49	0.14	0.40	0.90	0.64	0.42	0.00	0.16	0.85	0.00	0.98
Avail Cap(c_a), veh/h	422	1386	553	228	1000	627	432	0	540	251	0	226
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.6	34.5	29.5	51.1	30.9	21.1	50.9	0.0	34.2	62.9	0.0	64.2
Incr Delay (d2), s/veh	8.4	1.3	0.5	0.4	12.6	4.9	0.3	0.0	0.1	21.6	0.0	52.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	9.7	1.9	2.8	12.7	11.8	5.3	0.0	2.0	9.4	0.0	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.0	35.8	30.0	51.5	43.5	26.1	51.1	0.0	34.2	84.4	0.0	117.0
LnGrp LOS	E	D	C	D	D	C	D	A	C	F	A	F
Approach Vol, veh/h		1088			1392			239			433	
Approach Delay, s/veh		43.3			39.0			45.5			101.1	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.6	63.4		26.0	39.9	47.1		37.0				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	15.3	58.5		21.1	31.6	42.2		36.0				
Max Q Clear Time (g_c+I1), s	19.4	23.8		22.5	27.9	35.6		13.5				
Green Ext Time (p_c), s	0.0	5.8		0.0	0.2	1.9		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	49.5
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	68	191	70	122	2017	9	0	2324	327
Future Volume (veh/h)	0	0	0	68	191	70	122	2017	9	0	2324	327
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				74	208	76	133	2192	10	0	2526	355
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				95	277	105	450	4188	19	0	2613	789
Arrive On Green				0.13	0.13	0.13	0.51	1.00	1.00	0.00	0.51	0.51
Sat Flow, veh/h				711	2062	783	1781	5246	24	0	5274	1542
Grp Volume(v), veh/h				191	0	167	133	1422	780	0	2526	355
Grp Sat Flow(s),veh/h/ln				1835	0	1721	1781	1702	1866	0	1702	1542
Q Serve(g_s), s				14.6	0.0	13.5	6.3	0.0	0.0	0.0	69.3	21.2
Cycle Q Clear(g_c), s				14.6	0.0	13.5	6.3	0.0	0.0	0.0	69.3	21.2
Prop In Lane				0.39		0.45	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				246	0	231	450	2717	1490	0	2613	789
V/C Ratio(X)				0.78	0.00	0.72	0.30	0.52	0.52	0.00	0.97	0.45
Avail Cap(c_a), veh/h				557	0	522	450	2717	1490	0	2613	789
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.69	0.69	0.69	0.00	1.00	1.00
Uniform Delay (d), s/veh				60.7	0.0	60.2	28.3	0.0	0.0	0.0	34.2	22.5
Incr Delay (d2), s/veh				2.0	0.0	1.6	0.1	0.5	0.9	0.0	11.4	1.9
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				7.0	0.0	6.0	2.5	0.2	0.4	0.0	30.0	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				62.7	0.0	61.8	28.4	0.5	0.9	0.0	45.6	24.3
LnGrp LOS				E	A	E	C	A	A	A	D	C
Approach Vol, veh/h					358			2335			2881	
Approach Delay, s/veh					62.3			2.2			43.0	
Approach LOS					E			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	120.6	24.4	41.5	79.1
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	91.2	44.0	12.6	* 74
Max Q Clear Time (g_c+I1), s	2.0	16.6	8.3	71.3
Green Ext Time (p_c), s	7.8	0.8	0.0	2.3

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

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	497	263	126	568	329	328	1749	90	316	1405	234
Future Volume (veh/h)	228	497	263	126	568	329	328	1749	90	316	1405	234
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	248	540	286	137	617	358	357	1901	98	343	1527	254
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	660	280	165	702	297	395	2130	109	540	2087	346
Arrive On Green	0.08	0.19	0.19	0.09	0.20	0.20	0.23	0.86	0.86	0.16	0.47	0.47
Sat Flow, veh/h	3456	3554	1507	1781	3554	1503	3456	4961	255	3456	4397	729
Grp Volume(v), veh/h	248	540	286	137	617	358	357	1303	696	343	1181	600
Grp Sat Flow(s),veh/h/ln	1728	1777	1507	1781	1777	1503	1728	1702	1812	1728	1702	1722
Q Serve(g_s), s	10.6	21.9	21.8	11.3	25.3	21.2	15.1	34.6	35.2	13.9	41.9	42.1
Cycle Q Clear(g_c), s	10.6	21.9	21.8	11.3	25.3	21.2	15.1	34.6	35.2	13.9	41.9	42.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.42
Lane Grp Cap(c), veh/h	291	660	280	165	702	297	395	1461	778	540	1616	817
V/C Ratio(X)	0.85	0.82	1.02	0.83	0.88	1.21	0.90	0.89	0.90	0.64	0.73	0.73
Avail Cap(c_a), veh/h	311	808	342	166	820	347	438	1461	778	540	1616	817
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)	0.79	0.79	0.79	1.00	1.00	1.00	0.58	0.58	0.58	0.47	0.47	0.47
Uniform Delay (d), s/veh	67.8	58.7	37.5	66.9	58.5	31.0	57.1	8.5	8.5	59.3	31.7	31.8
Incr Delay (d2), s/veh	14.4	3.6	45.8	26.6	8.8	120.2	12.7	5.3	9.5	0.9	0.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	10.2	11.6	6.4	12.2	17.6	6.4	4.7	5.9	6.1	16.9	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.2	62.3	83.3	93.5	67.2	151.2	69.8	13.8	18.1	60.2	32.4	33.2
LnGrp LOS	F	E	F	F	E	F	E	B	B	E	C	C
Approach Vol, veh/h		1074			1112			2356			2124	
Approach Delay, s/veh		72.5			97.5			23.5			37.1	
Approach LOS		E			F			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	69.3	18.8	32.7	21.5	76.9	17.0	34.5
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	3.4	* 64	14.0	* 34	19.0	63.5	13.5	34.6
Max Q Clear Time (g_c+I1), s	15.9	37.2	13.3	23.9	17.1	44.1	12.6	27.3
Green Ext Time (p_c), s	0.1	5.7	0.0	1.3	0.1	4.7	0.0	1.3

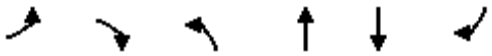
Intersection Summary	
HCM 6th Ctrl Delay	48.1
HCM 6th LOS	D

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	285	271	600	731	15
Future Volume (vph)	0	285	271	600	731	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	0.91	0.91	
Frpb, ped/bikes		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	
Frt		0.86	1.00	1.00	1.00	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1611	1770	5085	5067	
Flt Permitted		1.00	0.33	1.00	1.00	
Satd. Flow (perm)		1611	606	5085	5067	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	310	295	652	795	16
RTOR Reduction (vph)	0	18	0	0	2	0
Lane Group Flow (vph)	0	292	295	652	809	0
Confl. Peds. (#/hr)						4
Confl. Bikes (#/hr)						7
Turn Type		Perm	pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases		5	2			
Actuated Green, G (s)		20.1	70.5	75.0	45.9	
Effective Green, g (s)		20.1	70.5	75.0	45.9	
Actuated g/C Ratio		0.27	0.94	1.00	0.61	
Clearance Time (s)		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		431	881	5085	3101	
v/s Ratio Prot			0.09	0.13	0.16	
v/s Ratio Perm		c0.18	c0.22			
v/c Ratio		0.68	0.33	0.13	0.26	
Uniform Delay, d1		24.6	0.4	0.0	6.7	
Progression Factor		1.00	1.00	1.00	0.25	
Incremental Delay, d2		4.2	0.2	0.1	0.2	
Delay (s)		28.8	0.6	0.1	1.9	
Level of Service		C	A	A	A	
Approach Delay (s)	28.8			0.2	1.9	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay	5.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
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)	289	362	229	25	273	449	236	442	22	926	453	221
Future Volume (veh/h)	289	362	229	25	273	449	236	442	22	926	453	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	236	503	249	27	297	488	257	480	24	1007	492	240
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	705	599	262	523	765	672	550	27	1183	711	345
Arrive On Green	0.19	0.19	0.19	0.15	0.15	0.15	0.19	0.16	0.16	0.34	0.31	0.31
Sat Flow, veh/h	1781	3741	1541	1781	3554	1510	3456	3440	172	3456	2311	1121
Grp Volume(v), veh/h	236	503	249	27	297	488	257	247	257	1007	378	354
Grp Sat Flow(s),veh/h/ln	1781	1870	1541	1781	1777	1510	1728	1777	1835	1728	1777	1656
Q Serve(g_s), s	22.3	22.7	21.4	2.4	14.0	0.0	11.6	24.5	24.6	48.7	33.6	33.9
Cycle Q Clear(g_c), s	22.3	22.7	21.4	2.4	14.0	0.0	11.6	24.5	24.6	48.7	33.6	33.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.68
Lane Grp Cap(c), veh/h	336	705	599	262	523	765	672	284	294	1183	547	510
V/C Ratio(X)	0.70	0.71	0.42	0.10	0.57	0.64	0.38	0.87	0.87	0.85	0.69	0.70
Avail Cap(c_a), veh/h	386	810	642	307	612	803	672	348	360	1183	547	510
HCM Platoon Ratio	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	0.85	0.85	0.85	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.3	68.5	40.9	66.5	71.4	33.9	63.1	73.8	73.8	54.9	54.8	54.9
Incr Delay (d2), s/veh	8.2	4.3	1.3	0.6	3.2	3.0	1.6	15.6	15.7	5.9	7.0	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	11.2	8.5	1.1	6.6	16.6	5.3	12.5	13.0	22.3	16.3	15.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.5	72.7	42.1	67.0	74.6	36.9	64.6	89.4	89.6	60.9	61.8	62.5
LnGrp LOS	E	E	D	E	E	D	E	F	F	E	E	E
Approach Vol, veh/h		988			812			761			1739	
Approach Delay, s/veh		65.9			51.7			81.1			61.4	
Approach LOS		E			D			F			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	38.8	66.5	33.7	31.4	39.9	60.3
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.0	55.1	35.3	31.0	35.0	55.4
Max Q Clear Time (g_c+I1), s	24.7	50.7	26.6	16.0	13.6	35.9
Green Ext Time (p_c), s	8.1	1.4	1.5	8.0	0.7	4.0

Intersection Summary	
HCM 6th Ctrl Delay	64.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	567	81	78	755	405	104	43	75	81	35	177
Future Volume (veh/h)	350	567	81	78	755	405	104	43	75	81	35	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.67	1.00		0.78	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	380	616	88	85	821	440	113	47	82	88	38	192
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	411	1530	643	104	905	505	302	126	384	262	39	199
Arrive On Green	0.23	0.43	0.43	0.12	0.51	0.51	0.24	0.24	0.24	0.15	0.15	0.15
Sat Flow, veh/h	1781	3554	1493	1781	3554	1067	1276	531	1231	1781	267	1348
Grp Volume(v), veh/h	380	616	88	85	821	440	160	0	82	88	0	230
Grp Sat Flow(s),veh/h/ln	1781	1777	1493	1781	1777	1067	1807	0	1231	1781	0	1615
Q Serve(g_s), s	31.3	17.9	5.4	7.0	31.6	38.2	11.1	0.0	7.5	6.6	0.0	21.2
Cycle Q Clear(g_c), s	31.3	17.9	5.4	7.0	31.6	38.2	11.1	0.0	7.5	6.6	0.0	21.2
Prop In Lane	1.00		1.00	1.00		1.00	0.71		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	411	1530	643	104	905	505	427	0	384	262	0	238
V/C Ratio(X)	0.92	0.40	0.14	0.82	0.91	0.87	0.37	0.00	0.21	0.34	0.00	0.97
Avail Cap(c_a), veh/h	411	1530	643	175	905	505	434	0	388	262	0	238
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.4	29.4	25.9	65.5	35.2	25.2	48.0	0.0	39.9	57.4	0.0	63.6
Incr Delay (d2), s/veh	26.0	0.8	0.4	5.8	14.4	18.3	0.2	0.0	0.1	0.3	0.0	48.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	7.9	2.0	3.2	12.6	18.2	5.1	0.0	2.3	3.0	0.0	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.4	30.2	26.3	71.2	49.6	43.4	48.2	0.0	40.0	57.6	0.0	112.2
LnGrp LOS	F	C	C	E	D	D	D	A	D	E	A	F
Approach Vol, veh/h		1084			1346			242			318	
Approach Delay, s/veh		48.2			49.0			45.4			97.1	
Approach LOS		D			D			D			F	

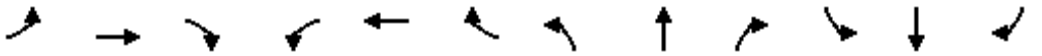
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.2	69.5		27.0	39.5	43.1		40.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	14.7	58.1		22.1	34.6	* 38		36.0
Max Q Clear Time (g_c+I1), s	19.0	19.9		23.2	33.3	33.6		13.1
Green Ext Time (p_c), s	0.0	5.0		0.0	0.1	1.3		0.8

Intersection Summary	
HCM 6th Ctrl Delay	53.5
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	122	261	48	110	1866	14	0	1882	445
Future Volume (veh/h)	0	0	0	122	261	48	110	1866	14	0	1882	445
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				133	284	52	120	2028	15	0	2046	484
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				208	468	89	458	3654	27	0	2029	621
Arrive On Green				0.21	0.21	0.21	0.51	1.00	1.00	0.00	0.40	0.40
Sat Flow, veh/h				979	2206	418	1781	5229	39	0	5274	1563
Grp Volume(v), veh/h				247	0	222	120	1320	723	0	2046	484
Grp Sat Flow(s),veh/h/ln				1821	0	1782	1781	1702	1863	0	1702	1563
Q Serve(g_s), s				13.6	0.0	12.3	4.2	0.0	0.0	0.0	43.7	29.7
Cycle Q Clear(g_c), s				13.6	0.0	12.3	4.2	0.0	0.0	0.0	43.7	29.7
Prop In Lane				0.54		0.23	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				386	0	378	458	2379	1302	0	2029	621
V/C Ratio(X)				0.64	0.00	0.59	0.26	0.55	0.56	0.00	1.01	0.78
Avail Cap(c_a), veh/h				729	0	713	458	2379	1302	0	2029	621
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.75	0.75	0.75	0.00	1.00	1.00
Uniform Delay (d), s/veh				39.5	0.0	39.0	20.9	0.0	0.0	0.0	33.2	28.9
Incr Delay (d2), s/veh				0.7	0.0	0.5	0.1	0.7	1.3	0.0	22.1	9.4
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				6.1	0.0	5.4	1.6	0.2	0.5	0.0	21.0	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.2	0.0	39.5	21.0	0.7	1.3	0.0	55.3	38.3
LnGrp LOS				D	A	D	C	A	A	A	F	D
Approach Vol, veh/h					469			2163			2530	
Approach Delay, s/veh					39.9			2.0			52.0	
Approach LOS					D			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	81.8	28.2	33.2	48.6
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	56.2	44.0	8.1	* 44
Max Q Clear Time (g_c+I1), s	2.0	15.6	6.2	45.7
Green Ext Time (p_c), s	6.7	1.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	420	254	86	574	333	307	1505	98	256	1080	294
Future Volume (veh/h)	199	420	254	86	574	333	307	1505	98	256	1080	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	457	276	93	624	362	334	1636	107	278	1174	320
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	751	316	132	785	336	388	1800	118	556	1668	455
Arrive On Green	0.07	0.21	0.21	0.07	0.22	0.22	0.22	0.74	0.74	0.16	0.42	0.42
Sat Flow, veh/h	3456	3554	1497	1781	3554	1521	3456	4890	320	3456	3959	1079
Grp Volume(v), veh/h	216	457	276	93	624	362	334	1138	605	278	1009	485
Grp Sat Flow(s),veh/h/ln	1728	1777	1497	1781	1777	1521	1728	1702	1806	1728	1702	1634
Q Serve(g_s), s	6.8	12.8	14.7	5.6	18.3	16.3	10.2	29.3	29.4	8.1	26.8	26.8
Cycle Q Clear(g_c), s	6.8	12.8	14.7	5.6	18.3	16.3	10.2	29.3	29.4	8.1	26.8	26.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.66
Lane Grp Cap(c), veh/h	239	751	316	132	785	336	388	1253	665	556	1434	689
V/C Ratio(X)	0.90	0.61	0.87	0.70	0.80	1.08	0.86	0.91	0.91	0.50	0.70	0.70
Avail Cap(c_a), veh/h	239	1102	464	132	1069	458	569	1253	665	556	1434	689
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)	0.90	0.90	0.90	1.00	1.00	1.00	0.62	0.62	0.62	0.34	0.34	0.34
Uniform Delay (d), s/veh	50.8	39.3	23.6	49.7	40.5	19.2	41.8	13.0	13.0	42.1	26.2	26.2
Incr Delay (d2), s/veh	30.9	0.3	7.9	13.4	2.0	61.2	4.0	7.5	12.8	0.1	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	5.6	5.8	3.0	8.1	11.2	4.0	5.7	7.1	3.4	10.4	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.7	39.5	31.5	63.1	42.5	80.4	45.8	20.5	25.9	42.2	26.6	27.1
LnGrp LOS	F	D	C	E	D	F	D	C	C	D	C	C
Approach Vol, veh/h		949			1079			2077			1772	
Approach Delay, s/veh		46.8			57.0			26.1			29.2	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	45.4	13.1	28.1	16.8	52.0	12.0	29.2
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	10.3	* 41	6.6	* 34	18.1	31.8	7.6	33.1
Max Q Clear Time (g_c+I1), s	10.1	31.4	7.6	16.7	12.2	28.8	8.8	20.3
Green Ext Time (p_c), s	0.0	3.4	0.0	1.3	0.1	1.4	0.0	1.6

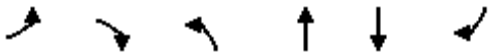
Intersection Summary	
HCM 6th Ctrl Delay	36.1
HCM 6th LOS	D

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	332	220	603	549	14
Future Volume (vph)	0	332	220	603	549	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	0.91	0.91	
Frpb, ped/bikes		0.99	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	
Frt		0.86	1.00	1.00	1.00	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1591	1770	5085	5064	
Flt Permitted		1.00	0.41	1.00	1.00	
Satd. Flow (perm)		1591	762	5085	5064	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	361	239	655	597	15
RTOR Reduction (vph)	0	163	0	0	6	0
Lane Group Flow (vph)	0	198	239	655	606	0
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)		1				
Turn Type		Perm	pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases		5	2			
Actuated Green, G (s)		10.1	35.5	40.0	20.9	
Effective Green, g (s)		10.1	35.5	40.0	20.9	
Actuated g/C Ratio		0.25	0.89	1.00	0.52	
Clearance Time (s)		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		401	930	5085	2645	
v/s Ratio Prot			0.06	0.13	0.12	
v/s Ratio Perm		c0.12	c0.16			
v/c Ratio		0.49	0.26	0.13	0.23	
Uniform Delay, d1		12.8	0.4	0.0	5.2	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.0	0.1	0.1	0.2	
Delay (s)		13.7	0.5	0.1	5.4	
Level of Service		B	A	A	A	
Approach Delay (s)	13.7			0.2	5.4	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	4.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
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)	289	376	229	25	278	484	236	442	22	1031	453	221
Future Volume (veh/h)	289	376	229	25	278	484	236	442	22	1031	453	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	241	511	249	27	302	526	257	480	24	1121	492	240
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	448	940	697	310	618	749	672	550	27	1058	627	304
Arrive On Green	0.25	0.25	0.25	0.17	0.17	0.17	0.19	0.16	0.16	0.31	0.27	0.27
Sat Flow, veh/h	1781	3741	1547	1781	3554	1519	3456	3440	172	3456	2310	1121
Grp Volume(v), veh/h	241	511	249	27	302	526	257	247	257	1121	378	354
Grp Sat Flow(s),veh/h/ln	1781	1870	1547	1781	1777	1519	1728	1777	1835	1728	1777	1654
Q Serve(g_s), s	21.1	21.3	19.1	2.3	13.8	0.0	11.6	24.5	24.6	55.1	35.4	35.7
Cycle Q Clear(g_c), s	21.1	21.3	19.1	2.3	13.8	0.0	11.6	24.5	24.6	55.1	35.4	35.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.68
Lane Grp Cap(c), veh/h	448	940	697	310	618	749	672	284	293	1058	482	449
V/C Ratio(X)	0.54	0.54	0.36	0.09	0.49	0.70	0.38	0.87	0.87	1.06	0.78	0.79
Avail Cap(c_a), veh/h	448	940	697	310	618	749	672	345	357	1058	544	506
HCM Platoon Ratio	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	0.81	0.81	0.81	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	58.4	33.0	62.4	67.1	36.4	63.1	73.8	73.9	62.5	60.7	60.8
Incr Delay (d2), s/veh	2.9	1.4	0.9	0.4	2.2	4.4	1.5	15.9	15.9	44.9	6.0	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	10.3	7.5	1.1	6.5	19.1	5.3	12.5	13.0	30.8	16.9	16.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.2	59.9	33.8	62.8	69.4	40.9	64.6	89.7	89.8	107.4	66.6	67.5
LnGrp LOS	E	E	C	E	E	D	E	F	F	F	E	E
Approach Vol, veh/h		1001			855			761			1853	
Approach Delay, s/veh		53.7			51.6			81.3			91.4	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	50.1	60.0	33.7	36.2	39.9	53.8
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.0	55.1	35.0	31.3	35.0	55.1
Max Q Clear Time (g_c+I1), s	23.3	57.1	26.6	15.8	13.6	37.7
Green Ext Time (p_c), s	8.7	0.0	1.5	8.6	0.7	3.4

Intersection Summary	
HCM 6th Ctrl Delay	73.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



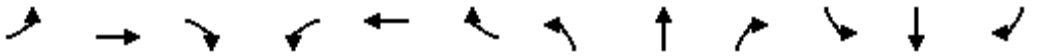
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	376	604	81	78	844	405	104	43	75	81	35	177
Future Volume (veh/h)	376	604	81	78	844	405	104	43	75	81	35	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.74	1.00		0.73	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	409	657	88	85	917	440	113	47	82	88	38	192
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	460	1591	670	169	1011	577	254	105	382	271	41	205
Arrive On Green	0.26	0.45	0.45	0.09	0.28	0.28	0.20	0.20	0.20	0.15	0.15	0.15
Sat Flow, veh/h	1781	3554	1497	1781	3554	1178	1276	531	1164	1781	267	1348
Grp Volume(v), veh/h	409	657	88	85	917	440	160	0	82	88	0	230
Grp Sat Flow(s),veh/h/ln	1781	1777	1497	1781	1777	1178	1807	0	1164	1781	0	1615
Q Serve(g_s), s	39.8	22.5	6.2	8.2	44.8	51.2	14.0	0.0	0.0	7.9	0.0	25.3
Cycle Q Clear(g_c), s	39.8	22.5	6.2	8.2	44.8	51.2	14.0	0.0	0.0	7.9	0.0	25.3
Prop In Lane	1.00		1.00	1.00		1.00	0.71		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	460	1591	670	169	1011	577	359	0	382	271	0	246
V/C Ratio(X)	0.89	0.41	0.13	0.50	0.91	0.76	0.45	0.00	0.21	0.32	0.00	0.93
Avail Cap(c_a), veh/h	460	1591	670	169	1011	577	361	0	383	278	0	252
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.3	33.7	29.2	77.4	62.1	43.0	63.4	0.0	47.3	68.0	0.0	75.4
Incr Delay (d2), s/veh	18.3	0.8	0.4	0.9	13.2	9.2	0.3	0.0	0.1	0.3	0.0	38.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	10.0	2.4	3.8	22.0	22.1	6.6	0.0	2.8	3.7	0.0	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.6	34.5	29.6	78.3	75.3	52.2	63.7	0.0	47.4	68.3	0.0	113.5
LnGrp LOS	F	C	C	E	E	D	E	A	D	E	A	F
Approach Vol, veh/h		1154			1442			242			318	
Approach Delay, s/veh		51.1			68.5			58.2			101.0	
Approach LOS		D			E			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.5	85.5		32.3	50.9	56.1		40.7				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	16.3	80.6		28.1	45.6	51.2		36.0				
Max Q Clear Time (g_c+I1), s	10.2	24.5		27.3	41.8	46.8		16.0				
Green Ext Time (p_c), s	0.0	5.6		0.1	0.3	1.5		0.8				

Intersection Summary	
HCM 6th Ctrl Delay	64.6
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	122	269	48	114	1917	14	0	1940	491
Future Volume (veh/h)	0	0	0	122	269	48	114	1917	14	0	1940	491
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				133	292	52	124	2084	15	0	2109	534
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				206	477	88	451	3646	26	0	2038	624
Arrive On Green				0.21	0.21	0.21	0.51	1.00	1.00	0.00	0.40	0.40
Sat Flow, veh/h				963	2231	412	1781	5230	38	0	5274	1563
Grp Volume(v), veh/h				252	0	225	124	1356	743	0	2109	534
Grp Sat Flow(s),veh/h/ln				1822	0	1784	1781	1702	1863	0	1702	1563
Q Serve(g_s), s				13.9	0.0	12.5	4.4	0.0	0.0	0.0	43.9	34.3
Cycle Q Clear(g_c), s				13.9	0.0	12.5	4.4	0.0	0.0	0.0	43.9	34.3
Prop In Lane				0.53		0.23	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				390	0	381	451	2373	1299	0	2038	624
V/C Ratio(X)				0.65	0.00	0.59	0.27	0.57	0.57	0.00	1.03	0.86
Avail Cap(c_a), veh/h				729	0	713	451	2373	1299	0	2038	624
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.72	0.00	1.00	1.00
Uniform Delay (d), s/veh				39.4	0.0	38.9	21.3	0.0	0.0	0.0	33.0	30.2
Incr Delay (d2), s/veh				0.7	0.0	0.5	0.1	0.7	1.3	0.0	29.6	14.1
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				6.2	0.0	5.5	1.7	0.2	0.5	0.0	22.6	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.1	0.0	39.5	21.4	0.7	1.3	0.0	62.7	44.2
LnGrp LOS				D	A	D	C	A	A	A	F	D
Approach Vol, veh/h					477			2223			2643	
Approach Delay, s/veh					39.8			2.1			58.9	
Approach LOS					D			A			E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	81.6	28.4	32.8	48.8
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	56.2	44.0	7.9	* 44
Max Q Clear Time (g_c+I1), s	2.0	15.9	6.4	45.9
Green Ext Time (p_c), s	7.1	1.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



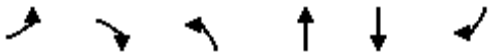
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	420	259	86	614	352	312	1515	98	265	1080	294
Future Volume (veh/h)	199	420	259	86	614	352	312	1515	98	265	1080	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	457	282	93	667	383	339	1647	107	288	1174	320
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	757	319	146	818	350	393	1792	116	531	1626	443
Arrive On Green	0.07	0.21	0.21	0.08	0.23	0.23	0.23	0.73	0.73	0.15	0.41	0.41
Sat Flow, veh/h	3456	3554	1497	1781	3554	1523	3456	4893	318	3456	3959	1079
Grp Volume(v), veh/h	216	457	282	93	667	383	339	1145	609	288	1010	484
Grp Sat Flow(s),veh/h/ln	1728	1777	1497	1781	1777	1523	1728	1702	1806	1728	1702	1634
Q Serve(g_s), s	6.8	12.8	15.0	5.6	19.6	17.1	10.4	30.3	30.4	8.5	27.3	27.3
Cycle Q Clear(g_c), s	6.8	12.8	15.0	5.6	19.6	17.1	10.4	30.3	30.4	8.5	27.3	27.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.66
Lane Grp Cap(c), veh/h	239	757	319	146	818	350	393	1247	662	531	1398	671
V/C Ratio(X)	0.90	0.60	0.88	0.64	0.82	1.09	0.86	0.92	0.92	0.54	0.72	0.72
Avail Cap(c_a), veh/h	239	1102	464	146	1069	458	569	1247	662	531	1398	671
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)	0.89	0.89	0.89	1.00	1.00	1.00	0.61	0.61	0.61	0.66	0.66	0.66
Uniform Delay (d), s/veh	50.8	39.1	23.5	48.9	40.1	19.3	41.7	13.4	13.4	43.0	27.2	27.2
Incr Delay (d2), s/veh	30.6	0.3	9.1	7.0	2.9	67.9	4.2	8.1	13.8	0.4	1.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	5.6	6.0	2.7	8.7	12.4	4.1	5.9	7.3	3.6	10.7	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.5	39.4	32.6	56.0	43.0	87.2	45.9	21.5	27.1	43.4	28.2	29.4
LnGrp LOS	F	D	C	E	D	F	D	C	C	D	C	C
Approach Vol, veh/h		955			1143			2093			1782	
Approach Delay, s/veh		46.9			58.9			27.1			31.0	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	45.2	13.9	28.3	16.9	50.9	12.0	30.2
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	10.4	* 40	6.6	* 34	18.1	31.8	7.6	33.1
Max Q Clear Time (g_c+I1), s	10.5	32.4	7.6	17.0	12.4	29.3	8.8	21.6
Green Ext Time (p_c), s	0.0	3.2	0.0	1.3	0.1	1.2	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	341	220	603	549	14
Future Volume (vph)	0	341	220	603	549	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	0.91	0.91	
Frpb, ped/bikes		0.99	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	
Frt		0.86	1.00	1.00	1.00	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1591	1770	5085	5064	
Flt Permitted		1.00	0.41	1.00	1.00	
Satd. Flow (perm)		1591	762	5085	5064	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	371	239	655	597	15
RTOR Reduction (vph)	0	161	0	0	6	0
Lane Group Flow (vph)	0	210	239	655	606	0
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)		1				
Turn Type		Perm	pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases		5	2			
Actuated Green, G (s)		10.4	35.5	40.0	20.6	
Effective Green, g (s)		10.4	35.5	40.0	20.6	
Actuated g/C Ratio		0.26	0.89	1.00	0.52	
Clearance Time (s)		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		413	938	5085	2607	
v/s Ratio Prot			0.07	0.13	0.12	
v/s Ratio Perm		c0.13	c0.16			
v/c Ratio		0.51	0.25	0.13	0.23	
Uniform Delay, d1		12.6	0.4	0.0	5.3	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.0	0.1	0.1	0.2	
Delay (s)		13.6	0.5	0.1	5.6	
Level of Service		B	A	A	A	
Approach Delay (s)	13.6			0.2	5.6	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	4.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
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)	382	339	341	33	372	792	280	492	21	546	430	206
Future Volume (veh/h)	382	339	341	33	372	792	280	492	21	546	430	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	436	338	371	36	404	861	304	535	23	593	467	224
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	864	453	543	445	888	694	365	621	27	677	618	294
Arrive On Green	0.24	0.24	0.24	0.25	0.25	0.25	0.11	0.18	0.18	0.20	0.27	0.27
Sat Flow, veh/h	3563	1870	1549	1781	3554	1533	3456	3469	149	3456	2319	1103
Grp Volume(v), veh/h	436	338	371	36	404	861	304	274	284	593	357	334
Grp Sat Flow(s),veh/h/ln	1781	1870	1549	1781	1777	1533	1728	1777	1841	1728	1777	1645
Q Serve(g_s), s	15.3	24.2	29.7	2.2	13.9	36.2	12.5	21.6	21.7	24.1	26.7	27.0
Cycle Q Clear(g_c), s	15.3	24.2	29.7	2.2	13.9	36.2	12.5	21.6	21.7	24.1	26.7	27.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		0.67
Lane Grp Cap(c), veh/h	864	453	543	445	888	694	365	318	329	677	474	439
V/C Ratio(X)	0.50	0.75	0.68	0.08	0.45	1.24	0.83	0.86	0.86	0.88	0.75	0.76
Avail Cap(c_a), veh/h	888	466	554	445	889	694	788	430	445	1277	676	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	50.7	40.5	41.6	45.9	40.4	63.5	57.7	57.7	56.5	48.7	48.9
Incr Delay (d2), s/veh	1.3	8.4	5.1	0.3	1.4	120.2	4.1	11.0	10.9	3.8	2.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	12.3	12.1	1.0	6.3	47.5	5.7	10.7	11.1	10.9	12.2	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	59.1	45.5	41.9	47.3	160.6	67.6	68.7	68.7	60.3	50.8	51.3
LnGrp LOS	D	E	D	D	D	F	E	E	E	E	D	D
Approach Vol, veh/h		1145			1301			862			1284	
Approach Delay, s/veh		50.7			122.1			68.3			55.3	
Approach LOS		D			F			E			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	40.0	32.9	30.8	41.1	20.2	43.5
Change Period (Y+Rc), s	4.9	4.5	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	36.1	53.5	35.0	36.2	33.0	55.1
Max Q Clear Time (g_c+I1), s	31.7	26.1	23.7	38.2	14.5	29.0
Green Ext Time (p_c), s	3.3	2.3	2.0	0.0	0.8	3.5

Intersection Summary	
HCM 6th Ctrl Delay	75.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

User approved changes to right turn type.



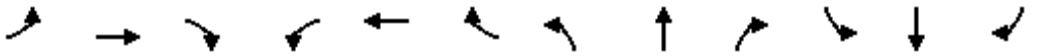
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	552	112	183	615	436	134	50	118	375	72	483
Future Volume (veh/h)	123	552	112	183	615	436	134	50	118	375	72	483
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	600	122	199	668	474	146	54	128	408	78	525
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	809	344	230	942	896	190	70	432	557	65	440
Arrive On Green	0.09	0.23	0.23	0.13	0.27	0.27	0.14	0.14	0.14	0.31	0.31	0.31
Sat Flow, veh/h	1781	3554	1511	1781	3554	1510	1317	487	1575	1781	209	1408
Grp Volume(v), veh/h	134	600	122	199	668	474	200	0	128	408	0	603
Grp Sat Flow(s),veh/h/ln	1781	1777	1511	1781	1777	1510	1804	0	1575	1781	0	1617
Q Serve(g_s), s	7.6	16.1	7.0	11.2	17.5	19.8	10.9	0.0	6.6	21.0	0.0	32.1
Cycle Q Clear(g_c), s	7.6	16.1	7.0	11.2	17.5	19.8	10.9	0.0	6.6	21.0	0.0	32.1
Prop In Lane	1.00		1.00	1.00		1.00	0.73		1.00	1.00		0.87
Lane Grp Cap(c), veh/h	163	809	344	230	942	896	261	0	432	557	0	506
V/C Ratio(X)	0.82	0.74	0.35	0.87	0.71	0.53	0.77	0.00	0.30	0.73	0.00	1.19
Avail Cap(c_a), veh/h	184	809	344	257	942	896	633	0	757	557	0	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.8	36.8	33.3	43.8	34.1	13.3	42.2	0.0	29.5	31.4	0.0	35.3
Incr Delay (d2), s/veh	20.4	6.1	2.9	21.7	4.5	2.2	1.8	0.0	0.1	4.3	0.0	104.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	7.5	2.8	6.3	7.9	12.6	5.0	0.0	2.5	9.5	0.0	27.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.1	42.9	36.2	65.6	38.6	15.6	44.0	0.0	29.6	35.8	0.0	140.0
LnGrp LOS	E	D	D	E	D	B	D	A	C	D	A	F
Approach Vol, veh/h		856			1341			328			1011	
Approach Delay, s/veh		45.6			34.5			38.4			97.9	
Approach LOS		D			C			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.6	28.2		37.0	13.8	32.1		19.7
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	14.8	23.0		32.1	10.6	27.2		36.0
Max Q Clear Time (g_c+I1), s	13.2	18.1		34.1	9.6	19.5		12.9
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	1.2		0.9

Intersection Summary	
HCM 6th Ctrl Delay	55.7
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	37	64	130	112	2362	8	0	2381	236
Future Volume (veh/h)	0	0	0	37	64	130	112	2362	8	0	2381	236
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				40	70	141	122	2567	9	0	2588	257
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				111	193	253	360	4040	14	0	2730	843
Arrive On Green				0.17	0.17	0.17	0.40	1.00	1.00	0.00	0.53	0.53
Sat Flow, veh/h				668	1169	1530	1781	5253	18	0	5274	1576
Grp Volume(v), veh/h				110	0	141	122	1663	913	0	2588	257
Grp Sat Flow(s),veh/h/ln				1837	0	1530	1781	1702	1867	0	1702	1576
Q Serve(g_s), s				8.0	0.0	12.7	7.1	0.0	0.0	0.0	71.7	13.6
Cycle Q Clear(g_c), s				8.0	0.0	12.7	7.1	0.0	0.0	0.0	71.7	13.6
Prop In Lane				0.36		1.00	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				304	0	253	360	2618	1436	0	2730	843
V/C Ratio(X)				0.36	0.00	0.56	0.34	0.64	0.64	0.00	0.95	0.30
Avail Cap(c_a), veh/h				539	0	449	360	2618	1436	0	2730	843
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.40	0.40	0.40	0.00	1.00	1.00
Uniform Delay (d), s/veh				55.6	0.0	57.5	37.8	0.0	0.0	0.0	32.9	19.4
Incr Delay (d2), s/veh				0.3	0.0	0.7	0.1	0.5	0.9	0.0	8.7	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.8	0.0	5.0	2.9	0.2	0.3	0.0	30.3	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				55.8	0.0	58.2	37.9	0.5	0.9	0.0	41.7	20.3
LnGrp LOS				E	A	E	D	A	A	A	D	C
Approach Vol, veh/h					251			2698			2845	
Approach Delay, s/veh					57.2			2.3			39.7	
Approach LOS					E			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	120.3	29.7	35.2	85.1
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	96.2	44.0	11.6	* 80
Max Q Clear Time (g_c+I1), s	2.0	14.7	9.1	73.7
Green Ext Time (p_c), s	10.9	0.6	0.0	4.6

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	522	306	143	600	426	426	1617	130	516	1482	298
Future Volume (veh/h)	295	522	306	143	600	426	426	1617	130	516	1482	298
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	321	567	333	155	652	463	463	1758	141	561	1611	324
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	355	917	403	177	893	389	498	1818	145	1350	2678	535
Arrive On Green	0.10	0.26	0.26	0.10	0.25	0.25	0.14	0.38	0.38	0.39	0.63	0.63
Sat Flow, veh/h	3456	3554	1563	1781	3554	1548	3456	4811	385	3456	4265	852
Grp Volume(v), veh/h	321	567	333	155	652	463	463	1243	656	561	1283	652
Grp Sat Flow(s),veh/h/ln	1728	1777	1563	1781	1777	1548	1728	1702	1791	1728	1702	1713
Q Serve(g_s), s	13.8	21.1	30.1	12.9	25.2	37.7	19.9	53.6	54.0	17.7	33.8	34.3
Cycle Q Clear(g_c), s	13.8	21.1	30.1	12.9	25.2	37.7	19.9	53.6	54.0	17.7	33.8	34.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.50
Lane Grp Cap(c), veh/h	355	917	403	177	893	389	498	1287	677	1350	2137	1076
V/C Ratio(X)	0.90	0.62	0.83	0.88	0.73	1.19	0.93	0.97	0.97	0.42	0.60	0.61
Avail Cap(c_a), veh/h	355	917	403	226	893	389	498	1287	677	1350	2137	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	0.39	0.39	0.39	0.22	0.22	0.22
Uniform Delay (d), s/veh	66.6	49.1	52.5	66.7	51.5	56.2	63.5	45.7	45.8	33.3	16.7	16.8
Incr Delay (d2), s/veh	21.7	0.8	10.4	22.1	2.7	108.4	11.9	9.5	15.5	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	9.5	12.9	6.9	11.5	26.3	9.5	23.8	26.3	7.4	12.6	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.2	49.9	62.8	88.7	54.2	164.5	75.4	55.2	61.3	33.3	16.7	16.9
LnGrp LOS	F	D	E	F	D	F	E	E	E	C	B	B
Approach Vol, veh/h		1221			1270			2362			2496	
Approach Delay, s/veh		63.5			98.6			60.8			20.5	
Approach LOS		E			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	61.6	19.3	43.6	26.0	99.9	20.3	42.6
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	21.6	* 57	19.0	34.1	21.6	55.9	15.4	* 38
Max Q Clear Time (g_c+I1), s	19.7	56.0	14.9	32.1	21.9	36.3	15.8	39.7
Green Ext Time (p_c), s	0.1	0.5	0.0	0.5	0.0	5.3	0.0	0.0

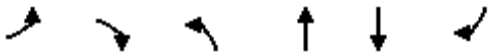
Intersection Summary	
HCM 6th Ctrl Delay	54.1
HCM 6th LOS	D

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	210	270	322	287	12
Future Volume (vph)	0	210	270	322	287	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	0.91	0.91	
Frpb, ped/bikes		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	
Frt		0.86	1.00	1.00	0.99	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1611	1770	5085	5048	
Flt Permitted		1.00	0.36	1.00	1.00	
Satd. Flow (perm)		1611	661	5085	5048	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	228	293	350	312	13
RTOR Reduction (vph)	0	151	0	0	9	0
Lane Group Flow (vph)	0	77	293	350	316	0
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						12
Turn Type		Perm	pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases		5	2			
Actuated Green, G (s)		8.9	21.7	26.2	8.3	
Effective Green, g (s)		8.9	21.7	26.2	8.3	
Actuated g/C Ratio		0.34	0.83	1.00	0.32	
Clearance Time (s)		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		547	924	5085	1599	
v/s Ratio Prot			c0.11	0.07	0.06	
v/s Ratio Perm		0.05	c0.15			
v/c Ratio		0.14	0.32	0.07	0.20	
Uniform Delay, d1		6.0	1.0	0.0	6.5	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.2	0.0	0.1	
Delay (s)		6.1	1.2	0.0	6.6	
Level of Service		A	A	A	A	
Approach Delay (s)	6.1			0.6	6.6	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	3.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	26.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	28.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Appendix W

Opening Year (2030) Plus Project Phase 1 Plus Improvements 95th Percentile Queue Worksheets

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	295	394	415	354	370	109	117	122	99	186	218	162
Average Queue (ft)	126	201	233	185	189	49	58	64	42	85	132	29
95th Queue (ft)	263	338	366	302	310	91	103	105	84	159	197	99
Link Distance (ft)	2516	2516	2516	2516	2516		754	754	1715	1715	1715	1715
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)						400						
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	223	262	181	31	19	177	180	258	173	288	601	595
Average Queue (ft)	78	122	48	1	1	71	79	80	45	141	336	365
95th Queue (ft)	185	231	139	10	9	148	155	185	116	327	728	741
Link Distance (ft)		1924	1924	1924		620	620	620			1514	1514
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	360				150				230	230		
Storage Blk Time (%)						2				0	33	
Queuing Penalty (veh)						0				0	50	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	155	181	238	324
Average Queue (ft)	74	87	132	186
95th Queue (ft)	144	157	223	301
Link Distance (ft)		602	602	602
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	200			
Storage Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R
Maximum Queue (ft)	133	98	162	19	130	195	42	66	111
Average Queue (ft)	54	22	46	3	28	80	15	26	55
95th Queue (ft)	106	66	117	13	78	157	39	54	93
Link Distance (ft)		620	620		955	955		864	864
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	350			100			350		
Storage Blk Time (%)					0				
Queuing Penalty (veh)					0				

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	115	134	202	80	218	172	177	52	140	152	67	103
Average Queue (ft)	37	46	75	28	91	37	78	14	63	58	20	34
95th Queue (ft)	86	104	157	66	181	103	152	41	120	117	53	75
Link Distance (ft)		955	955			285	285	285		702		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440			350	175				100		150	
Storage Blk Time (%)					3	0			2	2		
Queuing Penalty (veh)					5	0			3	3		

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	251	239	267	58	234	275	181	32	348	125	225	518
Average Queue (ft)	86	45	72	13	120	88	47	4	86	38	132	221
95th Queue (ft)	203	139	186	44	226	242	132	18	230	97	246	522
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)			0		3	13	0		1			
Queuing Penalty (veh)			0		0	24	1		0			
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)					19	8			34	0	21	22
Queuing Penalty (veh)					38	9			16	0	34	26

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB
Directions Served	T	T	R	L	T	T
Maximum Queue (ft)	20	35	22	148	249	225
Average Queue (ft)	1	2	1	37	23	13
95th Queue (ft)	11	19	8	89	134	101
Link Distance (ft)	194	194	194		370	370
Upstream Blk Time (%)					0	
Queuing Penalty (veh)					1	
Storage Bay Dist (ft)				125		
Storage Blk Time (%)				0	4	
Queuing Penalty (veh)				0	5	

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	202	278	50	184	398	141	50	92
Average Queue (ft)	50	96	13	102	48	30	14	34
95th Queue (ft)	134	211	38	166	239	96	41	65
Link Distance (ft)	370	370	370		1083	1083	920	
Upstream Blk Time (%)					0			
Queuing Penalty (veh)					0			
Storage Bay Dist (ft)				125				100
Storage Blk Time (%)				5	0			0
Queuing Penalty (veh)				17	1			0

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	139	187	184	92	87	36	166	192	120	161	71	83
Average Queue (ft)	52	80	87	25	38	5	79	89	35	76	26	22
95th Queue (ft)	109	158	161	63	73	24	139	161	84	132	51	60
Link Distance (ft)		1514	1514				1839	1839		355	355	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			2						0	8		0
Queuing Penalty (veh)			1						0	5		0

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	143	91
Average Queue (ft)	58	27
95th Queue (ft)	117	63
Link Distance (ft)	702	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	2	
Queuing Penalty (veh)	2	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	91	197	211	32	301	314	27	112
Average Queue (ft)	11	66	85	8	105	124	7	38
95th Queue (ft)	46	140	168	25	214	234	22	81
Link Distance (ft)		1839	1839		964	964	270	920
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		4			5			
Queuing Penalty (veh)		1			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	59	88	36	53	96
Average Queue (ft)	25	46	4	28	49
95th Queue (ft)	51	77	22	50	78
Link Distance (ft)	236	864	864	541	541
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	71	107	78	104
Average Queue (ft)	35	40	39	41
95th Queue (ft)	63	79	74	86
Link Distance (ft)	327	631	631	101
Upstream Blk Time (%)				1
Queuing Penalty (veh)				1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	110	28	57
Average Queue (ft)	57	3	29
95th Queue (ft)	88	18	41
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	54	65	36
Average Queue (ft)	34	35	23
95th Queue (ft)	47	51	45
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	60	74	39	53
Average Queue (ft)	35	40	27	26
95th Queue (ft)	50	60	43	48
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	98	104	36	74
Average Queue (ft)	43	46	9	36
95th Queue (ft)	73	79	31	57
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	25	31	58	76	90	149	197	267
Average Queue (ft)	2	8	4	6	7	16	21	59
95th Queue (ft)	13	23	28	44	48	80	100	183
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	102	156	89	175	197	212	308	313	324	205
Average Queue (ft)	41	44	32	61	70	76	191	202	234	56
95th Queue (ft)	85	109	79	138	156	161	344	356	386	185
Link Distance (ft)	526	526		289	289	289	254	254	254	
Upstream Blk Time (%)							5	5	11	
Queuing Penalty (veh)							36	39	81	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			0	2					23	0
Queuing Penalty (veh)			3	1					21	0

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	248	213	252	269	246	174	318	312	305	204
Average Queue (ft)	123	87	88	103	105	93	118	113	114	61
95th Queue (ft)	210	162	207	219	214	176	284	271	269	157
Link Distance (ft)	535	535	345	345	345		289	289	289	289
Upstream Blk Time (%)			0	0	0		2	1	1	
Queuing Penalty (veh)			0	0	0		10	8	6	
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						13	9			
Queuing Penalty (veh)						66	11			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	>	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	197	239	166	202	216	282	227	163	334	455	490	514
Average Queue (ft)	82	113	75	97	126	178	128	83	96	224	269	311
95th Queue (ft)	153	189	141	178	212	263	206	144	240	431	485	536
Link Distance (ft)	1083	1083	1083			305	305			630	630	630
Upstream Blk Time (%)						1	0					
Queuing Penalty (veh)						2	0					
Storage Bay Dist (ft)				300	180			260	260			
Storage Blk Time (%)					4	18				6		
Queuing Penalty (veh)					10	20				13		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	398	410	418	316
Average Queue (ft)	217	229	235	79
95th Queue (ft)	419	433	442	198
Link Distance (ft)	345	345	345	345
Upstream Blk Time (%)	5	6	6	1
Queuing Penalty (veh)	27	29	33	3
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	135	157	189	168	162	244	238	254	247	188	286	418
Average Queue (ft)	57	79	75	86	72	114	136	151	101	99	120	202
95th Queue (ft)	115	142	150	151	138	201	209	223	194	169	222	364
Link Distance (ft)			964	964			2550	2550				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	1	6	5			0	0	5	1		0	2
Queuing Penalty (veh)	1	7	8			1	0	10	2		0	6

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	430	457	179	395	641	628	615
Average Queue (ft)	233	263	82	201	401	407	409
95th Queue (ft)	396	420	145	428	623	622	627
Link Distance (ft)	1229	1229			630	630	630
Upstream Blk Time (%)					0	0	0
Queuing Penalty (veh)					2	2	1
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)					22		
Queuing Penalty (veh)					50		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	145	149	96	512	731	522	156	457	348	229
Average Queue (ft)	79	73	18	184	196	197	67	117	131	85
95th Queue (ft)	134	128	61	388	458	397	134	313	265	197
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)					0			0		
Queuing Penalty (veh)					0			0		
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				6				0		
Queuing Penalty (veh)				1				0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	TR	L	L	T	R	L	T	T	T	R
Maximum Queue (ft)	162	200	1229	282	320	1169	635	114	364	381	363	237
Average Queue (ft)	87	186	1041	199	271	597	109	18	256	250	223	122
95th Queue (ft)	176	247	1816	309	366	1451	671	87	351	352	330	217
Link Distance (ft)			1405			2313	2313		2446	2446	2446	
Upstream Blk Time (%)			35			1	0					
Queuing Penalty (veh)			0			0	0					
Storage Bay Dist (ft)	125	125		245	245			100				490
Storage Blk Time (%)	7	11	66	5	10	29			40			
Queuing Penalty (veh)	21	34	237	15	29	167			4			

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	140	389	681	850	259
Average Queue (ft)	67	107	359	371	74
95th Queue (ft)	125	304	625	664	181
Link Distance (ft)			1347	1347	1347
Upstream Blk Time (%)				0	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)	470	470			
Storage Blk Time (%)			5		
Queuing Penalty (veh)			8		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	L	R	T	R	L	T
Maximum Queue (ft)	81	248	107	144	378	226	47	100	139
Average Queue (ft)	22	105	85	90	115	84	11	30	46
95th Queue (ft)	61	199	122	164	300	171	36	76	114
Link Distance (ft)	257	257			1367	305	305		261
Upstream Blk Time (%)		0				0			
Queuing Penalty (veh)		0				0			
Storage Bay Dist (ft)			70	70				100	
Storage Blk Time (%)			52	15	4			0	2
Queuing Penalty (veh)			74	21	7			0	1

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	SB
Directions Served	L	R
Maximum Queue (ft)	70	6
Average Queue (ft)	28	0
95th Queue (ft)	60	5
Link Distance (ft)		640
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	120	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	71	109	130	66	118	107	106	33	128	64	83	62
Average Queue (ft)	27	35	64	22	84	57	68	6	55	16	30	15
95th Queue (ft)	62	81	109	52	117	115	121	18	107	45	67	45
Link Distance (ft)			248							1868	1868	1868
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120		100	150	150			150			
Storage Blk Time (%)		0	2	0	0	0			0			
Queuing Penalty (veh)		0	4	0	1	0			0			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	63	20	62	68	50	42
Average Queue (ft)	16	2	18	24	7	3
95th Queue (ft)	48	12	47	56	28	21
Link Distance (ft)				1531	1531	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	320	230	230			65
Storage Blk Time (%)					0	0
Queuing Penalty (veh)					0	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	44	206	97	120	26
Average Queue (ft)	3	75	28	29	1
95th Queue (ft)	23	160	74	84	10
Link Distance (ft)	1367		1868	1868	1868
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	R	L	T	R	L	L	T	T	R	L
Maximum Queue (ft)	56	39	31	53	33	30	198	216	266	201	64	85
Average Queue (ft)	14	8	5	15	4	3	101	140	158	99	4	29
95th Queue (ft)	42	31	24	42	21	17	178	196	242	181	31	69
Link Distance (ft)		692		222	222	222			1613	1613		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280	280			300	200
Storage Blk Time (%)									0			
Queuing Penalty (veh)									0			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	103	257	278
Average Queue (ft)	50	148	167
95th Queue (ft)	88	232	253
Link Distance (ft)		706	706
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	200		
Storage Blk Time (%)		2	
Queuing Penalty (veh)		2	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	SB	SB
Directions Served	T	T	T	R	R
Maximum Queue (ft)	173	149	11	44	62
Average Queue (ft)	38	17	0	3	11
95th Queue (ft)	119	83	8	22	48
Link Distance (ft)	2550	2550	112	692	692
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	184	177	66	372	383	359	439	76	410	412
Average Queue (ft)	146	117	5	215	193	278	333	3	116	92
95th Queue (ft)	207	176	49	328	325	391	449	55	410	372
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	25	15	1			0	3	0	3	2
Queuing Penalty (veh)	50	31	1			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						0	3			
Queuing Penalty (veh)						1	21			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	13	158	124	73	64	71	91	103
Average Queue (ft)	0	1	71	46	27	11	37	13	22
95th Queue (ft)	5	7	134	103	57	41	59	54	71
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	22	59	52	37	54	70	61	62	21	199	213	86
Average Queue (ft)	2	19	10	5	18	14	11	17	1	84	93	12
95th Queue (ft)	12	43	32	21	43	43	37	41	11	154	163	48
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											6	
Queuing Penalty (veh)											2	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	86	149	161	72
Average Queue (ft)	33	57	71	21
95th Queue (ft)	68	114	122	53
Link Distance (ft)		511	511	511
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	215			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	137	141	60	157	194	237	140	87
Average Queue (ft)	94	106	14	127	172	138	43	58
95th Queue (ft)	129	138	43	188	217	297	101	80
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	8	13	0					64
Queuing Penalty (veh)	28	45	0					150
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				3	42	0		
Queuing Penalty (veh)				5	76	1		

Intersection: 33: Kemper St & Kurtz St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	NB	NB
Directions Served	TR	L	R
Maximum Queue (ft)	9	120	59
Average Queue (ft)	0	45	25
95th Queue (ft)	6	85	50
Link Distance (ft)	143		949
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		150	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	5
95th Queue (ft)	24
Link Distance (ft)	283
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 36: E2 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	13
95th Queue (ft)	37
Link Distance (ft)	365
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	SB
Directions Served	T	T	R
Maximum Queue (ft)	208	206	82
Average Queue (ft)	34	17	24
95th Queue (ft)	155	106	68
Link Distance (ft)	194	194	355
Upstream Blk Time (%)	9	3	
Queuing Penalty (veh)	16	5	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 39: A3 Dwy & Kurtz St

Movement	WB
Directions Served	T
Maximum Queue (ft)	40
Average Queue (ft)	1
95th Queue (ft)	17
Link Distance (ft)	139
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	24	62
Average Queue (ft)	1	26
95th Queue (ft)	9	53
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 46: Sea World Dr

Movement	EB	EB	SB
Directions Served	T	T	R
Maximum Queue (ft)	186	214	229
Average Queue (ft)	49	70	221
95th Queue (ft)	139	162	230
Link Distance (ft)	511	511	210
Upstream Blk Time (%)			26
Queuing Penalty (veh)			158
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	1392	1426
Average Queue (ft)	671	995
95th Queue (ft)	1577	1746
Link Distance (ft)	1472	1472
Upstream Blk Time (%)	12	18
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	NB
Directions Served	TR
Maximum Queue (ft)	8
Average Queue (ft)	0
95th Queue (ft)	6
Link Distance (ft)	602
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	389	386
Average Queue (ft)	263	158
95th Queue (ft)	496	416
Link Distance (ft)	360	360
Upstream Blk Time (%)	2	1
Queuing Penalty (veh)	18	5
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 1997

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	377	402	424	598	612	188	230	231	405	422	416	339
Average Queue (ft)	223	258	285	311	315	97	116	137	216	237	262	212
95th Queue (ft)	341	378	400	508	513	166	196	212	344	345	365	326
Link Distance (ft)	2516	2516	2516	2516	2516		754	754	1715	1715	1715	1715
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)						400						
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	435	1757	1718	1574	33	163	172	286	228	305	1368	1358
Average Queue (ft)	384	1342	1284	850	3	70	74	76	93	236	888	884
95th Queue (ft)	541	2364	2348	2154	17	136	146	239	212	403	1610	1591
Link Distance (ft)		1924	1924	1924		620	620	620			1514	1514
Upstream Blk Time (%)		24	11	3							5	5
Queuing Penalty (veh)		0	0	0							17	16
Storage Bay Dist (ft)	360				150				230	230		
Storage Blk Time (%)	11	76				1			1	4	70	
Queuing Penalty (veh)	39	119				0			3	8	206	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	275	697	679	710
Average Queue (ft)	270	624	537	581
95th Queue (ft)	289	806	803	787
Link Distance (ft)		602	602	602
Upstream Blk Time (%)		39	19	33
Queuing Penalty (veh)		214	104	178
Storage Bay Dist (ft)	200			
Storage Blk Time (%)	56	44		
Queuing Penalty (veh)	235	183		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R
Maximum Queue (ft)	422	505	426	32	79	212	63	129	120
Average Queue (ft)	266	132	117	4	19	73	15	53	57
95th Queue (ft)	419	367	320	18	57	164	44	106	97
Link Distance (ft)		620	620		955	955		864	864
Upstream Blk Time (%)		0	0						
Queuing Penalty (veh)		0	0						
Storage Bay Dist (ft)	350			100			350		
Storage Blk Time (%)	6	1			0				
Queuing Penalty (veh)	29	3			0				

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	229	323	349	143	242	300	314	67	174	342	151	74
Average Queue (ft)	108	139	150	25	137	173	223	26	85	160	67	18
95th Queue (ft)	204	293	304	88	234	305	339	57	176	298	123	53
Link Distance (ft)		955	955			285	285	285		702		1251
Upstream Blk Time (%)						1	3					
Queuing Penalty (veh)						3	9					
Storage Bay Dist (ft)	440			350	175				100		150	
Storage Blk Time (%)			0		4	5			4	27	1	
Queuing Penalty (veh)			0		12	7			8	27	0	

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	312	335	328	59	233	259	275	206	275	125	225	404
Average Queue (ft)	218	214	240	27	124	198	229	79	108	49	164	147
95th Queue (ft)	338	355	352	56	227	274	277	158	205	120	246	325
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	3	5	5		0	5	17	0				
Queuing Penalty (veh)	0	18	17		0	21	70	1				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	3	5			2	13			45	1	20	6
Queuing Penalty (veh)	9	16			9	11			33	2	42	11

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB
Directions Served	T	T	R	L	T	T
Maximum Queue (ft)	78	145	31	130	83	132
Average Queue (ft)	3	13	2	43	7	16
95th Queue (ft)	36	75	15	96	63	89
Link Distance (ft)	194	194	194		370	370
Upstream Blk Time (%)	0	0				
Queuing Penalty (veh)	0	1				
Storage Bay Dist (ft)				125		
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				2	0	

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	343	387	374	190	226	245	138	123
Average Queue (ft)	183	255	60	111	108	129	67	51
95th Queue (ft)	341	411	229	178	206	231	123	99
Link Distance (ft)	370	370	370		1083	1083	920	
Upstream Blk Time (%)	0	2	0					
Queuing Penalty (veh)	0	7	1					
Storage Bay Dist (ft)				125				100
Storage Blk Time (%)				6	3		3	1
Queuing Penalty (veh)				41	6		5	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	142	273	290	225	180	182	298	305	165	357	86	10
Average Queue (ft)	56	121	128	52	93	40	141	148	102	177	38	0
95th Queue (ft)	113	238	253	167	159	138	276	279	187	293	70	7
Link Distance (ft)		1514	1514				1839	1839		355	355	701
Upstream Blk Time (%)										1		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)		0	10				3		6	40		
Queuing Penalty (veh)		0	12				4		17	33		

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	174	268	190
Average Queue (ft)	33	95	43
95th Queue (ft)	100	191	116
Link Distance (ft)		702	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		115
Storage Blk Time (%)	0	11	1
Queuing Penalty (veh)	0	12	2

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	123	312	316	174	393	419	35	213
Average Queue (ft)	33	120	138	13	199	229	8	99
95th Queue (ft)	98	244	261	71	340	378	23	174
Link Distance (ft)		1839	1839		964	964	270	920
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	8			21			
Queuing Penalty (veh)	0	5			3			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	40	172	135	61	92
Average Queue (ft)	23	90	41	30	50
95th Queue (ft)	45	147	101	54	75
Link Distance (ft)	236	864	864	541	541
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	166	319	116	80
Average Queue (ft)	88	144	61	28
95th Queue (ft)	146	281	104	63
Link Distance (ft)	327	631	631	101
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	119	11	90
Average Queue (ft)	67	1	50
95th Queue (ft)	102	7	81
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	75	64	55
Average Queue (ft)	38	36	27
95th Queue (ft)	58	52	50
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	107	97	54	72
Average Queue (ft)	58	47	30	38
95th Queue (ft)	88	75	47	61
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	111	113	35	66
Average Queue (ft)	66	57	18	35
95th Queue (ft)	99	92	43	55
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	T	T	TR
Maximum Queue (ft)	90	44	12	8	3994	3995	3994
Average Queue (ft)	46	12	0	0	3287	3323	3335
95th Queue (ft)	112	34	9	6	4845	4791	4777
Link Distance (ft)	361	414	254	254	3946	3946	3946
Upstream Blk Time (%)					39	55	57
Queuing Penalty (veh)					0	0	0
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	204	171	171	242	250	222	311	306	322	205
Average Queue (ft)	104	84	90	84	80	73	187	196	302	167
95th Queue (ft)	169	151	166	203	200	186	327	334	319	283
Link Distance (ft)	526	526		289	289	289	254	254	254	
Upstream Blk Time (%)				0	0		5	6	39	
Queuing Penalty (veh)				0	0		41	50	350	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			12	3					53	0
Queuing Penalty (veh)			79	3					172	2

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	344	332	216	217	199	98	190	130	115	358
Average Queue (ft)	206	172	94	106	93	22	34	22	19	295
95th Queue (ft)	313	290	199	202	181	66	126	90	76	421
Link Distance (ft)	535	535	345	345	345		289	289	289	289
Upstream Blk Time (%)										19
Queuing Penalty (veh)										115
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						0	1			
Queuing Penalty (veh)						1	1			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	>	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	361	424	387	338	255	320	298	297	335	623	630	630
Average Queue (ft)	230	286	166	129	170	221	191	241	267	341	325	360
95th Queue (ft)	345	401	295	257	269	316	287	349	398	716	645	596
Link Distance (ft)	1083	1083	1083			305	305			630	630	630
Upstream Blk Time (%)						6	0			5	0	0
Queuing Penalty (veh)						13	0			37	3	2
Storage Bay Dist (ft)				300	180			260	260			
Storage Blk Time (%)			1	1	16	38		25	32	4		
Queuing Penalty (veh)			3	1	36	41		121	155	17		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB	NW
Directions Served	T	T	T	R	>
Maximum Queue (ft)	286	295	344	430	1
Average Queue (ft)	108	107	139	418	0
95th Queue (ft)	243	236	317	431	0
Link Distance (ft)	345	345	345	345	255
Upstream Blk Time (%)	0	0	0	56	
Queuing Penalty (veh)	0	0	1	341	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	447	475	313	298	491	996	255	249	355	802
Average Queue (ft)	93	144	224	217	104	104	250	306	208	142	250	414
95th Queue (ft)	156	209	371	365	248	207	443	714	306	215	419	711
Link Distance (ft)			964	964			2550	2550				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	14	30	33	6	0	0	4	19	26	0	0	23
Queuing Penalty (veh)	35	75	74	17	0	1	5	63	74	0	2	74

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	739	747	190	276	425	446	454
Average Queue (ft)	422	459	98	121	209	227	240
95th Queue (ft)	688	713	163	199	371	386	393
Link Distance (ft)	1229	1229			630	630	630
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)					2		
Queuing Penalty (veh)					7		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	116	232	37	428	375	364	129	184	230	150
Average Queue (ft)	41	124	6	212	187	190	40	66	88	49
95th Queue (ft)	84	208	24	366	338	329	93	157	189	129
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				8						
Queuing Penalty (veh)				1						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	TR	L	L	T	R	L	T	T	T	R
Maximum Queue (ft)	148	200	809	282	320	1489	1119	174	442	470	454	510
Average Queue (ft)	60	152	410	195	286	793	299	31	310	296	271	231
95th Queue (ft)	127	255	813	318	387	1796	1305	109	428	425	409	421
Link Distance (ft)			1405			2313	2313		2446	2446	2446	
Upstream Blk Time (%)						3	1					
Queuing Penalty (veh)						0	0					
Storage Bay Dist (ft)	125	125		245	245			100				490
Storage Blk Time (%)	0	3	56	3	9	39		0	38		0	1
Queuing Penalty (veh)	1	7	122	11	31	210		0	8		0	3

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	110	114	367	386	107
Average Queue (ft)	54	60	176	183	42
95th Queue (ft)	98	103	315	324	85
Link Distance (ft)			1347	1347	1347
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	470	470			
Storage Blk Time (%)			0		
Queuing Penalty (veh)			0		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	L	R	T	R	L	T
Maximum Queue (ft)	106	248	106	138	163	322	47	174	271
Average Queue (ft)	52	144	64	62	67	117	14	37	86
95th Queue (ft)	105	234	107	120	133	250	41	104	219
Link Distance (ft)	257	257			1367	305	305		261
Upstream Blk Time (%)		1				0			1
Queuing Penalty (veh)		1				1			4
Storage Bay Dist (ft)			70	70				100	
Storage Blk Time (%)			25	12	8			0	9
Queuing Penalty (veh)			34	16	11			1	6

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	96	26	41	6
Average Queue (ft)	37	1	2	0
95th Queue (ft)	72	19	25	4
Link Distance (ft)		261	640	640
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	120			
Storage Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	B73	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	T	L	L	T	R	L	T	T
Maximum Queue (ft)	155	195	324	175	243	105	107	127	43	198	219	95
Average Queue (ft)	69	155	214	72	29	93	90	89	8	116	48	40
95th Queue (ft)	141	228	346	183	137	115	126	129	25	204	146	83
Link Distance (ft)			248		640						1868	1868
Upstream Blk Time (%)			7									
Queuing Penalty (veh)			49									
Storage Bay Dist (ft)	120	120		100		150	150			150		
Storage Blk Time (%)	3	18	33	0				0		9	0	
Queuing Penalty (veh)	13	72	159	0				1		6	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	207	210	50	162	229	229	139
Average Queue (ft)	82	88	8	48	122	102	31
95th Queue (ft)	169	171	30	116	205	199	109
Link Distance (ft)	1868				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)				0	0	20	1
Queuing Penalty (veh)				0	0	18	1

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	129	214	114	117	58
Average Queue (ft)	30	90	17	23	4
95th Queue (ft)	89	175	72	80	36
Link Distance (ft)	1367		1868	1868	1868
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		1			
Queuing Penalty (veh)		1			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	L	T	T	L	L
Maximum Queue (ft)	127	43	83	86	64	98	210	227	314	307	19	274
Average Queue (ft)	51	7	36	33	15	39	91	130	193	183	2	44
95th Queue (ft)	103	30	72	71	47	80	185	204	278	268	14	174
Link Distance (ft)		692		222	222	222			1613	1613		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280	280			200	200
Storage Blk Time (%)							0	0	0	0		
Queuing Penalty (veh)							0	2	1	0		

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	643	683
Average Queue (ft)	448	458
95th Queue (ft)	664	677
Link Distance (ft)	706	706
Upstream Blk Time (%)	0	1
Queuing Penalty (veh)	2	3
Storage Bay Dist (ft)		
Storage Blk Time (%)	48	
Queuing Penalty (veh)	11	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	TR	R	R
Maximum Queue (ft)	1441	1467	40	95	87	105
Average Queue (ft)	860	873	2	5	25	45
95th Queue (ft)	1615	1645	24	59	76	95
Link Distance (ft)	2550	2550	112	112	692	692
Upstream Blk Time (%)			0	0		
Queuing Penalty (veh)			0	2		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	196	180	76	3169	3177	359	435	256	408	403
Average Queue (ft)	175	169	3	2827	2827	293	351	26	71	46
95th Queue (ft)	190	190	34	3742	3747	399	461	156	303	258
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	79	73	0	68	68	0	5	0	1	1
Queuing Penalty (veh)	261	242	2	0	0	0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						0	5			
Queuing Penalty (veh)						2	31			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	L	T	T
Maximum Queue (ft)	4	4	13	359	511	132	76	90	175	201
Average Queue (ft)	0	0	1	99	104	49	25	51	28	34
95th Queue (ft)	5	3	7	241	287	95	60	80	118	125
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)				0	0					
Queuing Penalty (veh)				0	0					
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					0					
Queuing Penalty (veh)					1					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	130	173	111	152	113	84	112	98	195	454	498	175
Average Queue (ft)	26	72	39	49	44	22	29	35	10	213	248	94
95th Queue (ft)	86	138	90	110	88	58	73	76	71	371	412	215
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)				0	0	0				3	38	0
Queuing Penalty (veh)				0	0	0				2	55	2

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	289	406	416	265
Average Queue (ft)	101	207	213	30
95th Queue (ft)	210	335	346	129
Link Distance (ft)		511	511	511
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	8		
Queuing Penalty (veh)	1	15		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	126	141	125	157	194	243	181	75
Average Queue (ft)	62	84	39	112	162	127	54	52
95th Queue (ft)	124	138	91	183	210	267	128	64
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	3	6	1					54
Queuing Penalty (veh)	14	26	2					117
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				2	36	1		
Queuing Penalty (veh)				6	109	2		

Intersection: 33: Kemper St & Kurtz St

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	42	112
Average Queue (ft)	13	44
95th Queue (ft)	40	85
Link Distance (ft)		1251
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	39	58	62	60
Average Queue (ft)	3	16	28	27
95th Queue (ft)	21	46	54	50
Link Distance (ft)	143	300		949
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	4	60	29
Average Queue (ft)	0	21	3
95th Queue (ft)	5	52	17
Link Distance (ft)	182	259	283
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 36: E2 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	33
Average Queue (ft)	6
95th Queue (ft)	25
Link Distance (ft)	365
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB
Directions Served	T	T	T	T
Maximum Queue (ft)	191	140	114	168
Average Queue (ft)	21	17	6	23
95th Queue (ft)	106	85	47	98
Link Distance (ft)	285	285	313	313
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	EB	WB	WB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	26	199	223	35
Average Queue (ft)	1	46	98	9
95th Queue (ft)	15	153	232	31
Link Distance (ft)	234	194	194	355
Upstream Blk Time (%)		1	3	
Queuing Penalty (veh)		3	11	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 39: A3 Dwy & Kurtz St

Movement	WB
Directions Served	T
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	139
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	44	31
Average Queue (ft)	12	15
95th Queue (ft)	39	40
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	174	220	28	63
Average Queue (ft)	22	50	1	10
95th Queue (ft)	99	154	13	42
Link Distance (ft)	511	511	100	210
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	242	250
Average Queue (ft)	98	95
95th Queue (ft)	185	184
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	SB	SB	SB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	754	749	769	705
Average Queue (ft)	415	374	339	230
95th Queue (ft)	917	884	832	679
Link Distance (ft)	754	754	754	754
Upstream Blk Time (%)	8	2	1	0
Queuing Penalty (veh)	59	14	8	3
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	411	420
Average Queue (ft)	381	376
95th Queue (ft)	407	448
Link Distance (ft)	360	360
Upstream Blk Time (%)	13	6
Queuing Penalty (veh)	137	63
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 5844

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	481	507	521	467	487	124	133	153	236	255	271	228
Average Queue (ft)	248	293	318	261	264	53	55	82	133	150	178	109
95th Queue (ft)	453	493	510	417	425	107	112	138	211	235	251	213
Link Distance (ft)	2516	2516	2516	2516	2516		754	754	1715	1715	1715	1715
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)						400						
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	435	1793	1748	1512	43	197	202	256	164	305	1447	1432
Average Queue (ft)	389	1283	1214	591	5	74	81	89	29	184	962	966
95th Queue (ft)	546	2093	2046	1714	28	159	173	227	105	408	1647	1643
Link Distance (ft)		1924	1924	1924		620	620	620			1514	1514
Upstream Blk Time (%)		5	1	0							5	4
Queuing Penalty (veh)		0	0	0							14	12
Storage Bay Dist (ft)	360				150				230	230		
Storage Blk Time (%)	14	82				4				0	73	
Queuing Penalty (veh)	46	119				1				0	172	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	275	680	470	432
Average Queue (ft)	229	359	242	301
95th Queue (ft)	334	699	373	417
Link Distance (ft)		602	602	602
Upstream Blk Time (%)		5	0	
Queuing Penalty (veh)		27	2	
Storage Bay Dist (ft)	200			
Storage Blk Time (%)	24	15		
Queuing Penalty (veh)	110	71		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	R	LT	R
Maximum Queue (ft)	312	366	370	212	296	57	114	108
Average Queue (ft)	177	176	162	88	193	27	38	50
95th Queue (ft)	297	332	326	170	298	52	86	86
Link Distance (ft)		620	620	955	955		864	864
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	350					350		
Storage Blk Time (%)	0	0		10	0			
Queuing Penalty (veh)	1	1		0	0			

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	482	578	426	81	204	282	291	44	175	328	160	52
Average Queue (ft)	314	176	120	31	92	150	196	8	72	143	70	15
95th Queue (ft)	523	486	316	64	176	258	295	30	160	265	125	38
Link Distance (ft)		955	955			285	285	285		702		1251
Upstream Blk Time (%)						0	1					
Queuing Penalty (veh)						0	1					
Storage Bay Dist (ft)	440			350	175				100		150	
Storage Blk Time (%)	9	1	0		1	5			1	24	1	
Queuing Penalty (veh)	33	3	0		2	5			3	25	0	

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	312	344	312	69	232	255	264	221	303	125	208	328
Average Queue (ft)	248	208	190	27	96	167	212	90	118	58	80	131
95th Queue (ft)	348	387	310	61	198	259	285	186	217	129	156	253
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	8	10	0		0	4	14	1				
Queuing Penalty (veh)	0	32	1		0	18	59	3				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	8	10			1	11			44	2	1	11
Queuing Penalty (veh)	22	34			3	8			33	2	2	9

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB
Directions Served	T	T	R	L	T	T	R
Maximum Queue (ft)	37	102	30	116	192	220	24
Average Queue (ft)	2	6	2	43	10	23	2
95th Queue (ft)	25	50	13	90	90	129	23
Link Distance (ft)	194	194	194		370	370	468
Upstream Blk Time (%)		0			0	0	
Queuing Penalty (veh)		0			0	1	
Storage Bay Dist (ft)				125			
Storage Blk Time (%)				0	0		
Queuing Penalty (veh)				0	0		

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	319	386	323	193	268	260	144	95
Average Queue (ft)	187	250	57	100	128	151	60	46
95th Queue (ft)	317	380	220	169	224	241	113	82
Link Distance (ft)	370	370	370		1083	1083	920	
Upstream Blk Time (%)	0	1	0					
Queuing Penalty (veh)	0	3	1					
Storage Bay Dist (ft)				125				100
Storage Blk Time (%)				5	5		3	0
Queuing Penalty (veh)				35	10		4	0

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	191	238	255	222	148	159	346	407	165	325	74	97
Average Queue (ft)	83	102	110	41	77	29	127	164	81	144	32	39
95th Queue (ft)	166	205	214	123	131	111	295	350	175	252	59	85
Link Distance (ft)		1514	1514				1839	1839		355	355	
Upstream Blk Time (%)										0		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)		0	6	0			3		3	29		0
Queuing Penalty (veh)		0	8	0			4		6	20		1

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	141	91
Average Queue (ft)	54	33
95th Queue (ft)	115	73
Link Distance (ft)	702	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	3	0
Queuing Penalty (veh)	3	0

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	71	237	276	85	315	374	27	164
Average Queue (ft)	19	92	126	7	159	208	4	75
95th Queue (ft)	57	184	231	43	268	325	18	139
Link Distance (ft)		1839	1839		964	964	270	920
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	5			12			
Queuing Penalty (veh)	0	2			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	57	142	109	55	80
Average Queue (ft)	25	77	31	25	45
95th Queue (ft)	52	119	81	50	68
Link Distance (ft)	236	864	864	541	541
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	150	420	178	69
Average Queue (ft)	69	216	54	14
95th Queue (ft)	120	372	116	47
Link Distance (ft)	327	631	631	101
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	99	17	94
Average Queue (ft)	63	1	50
95th Queue (ft)	91	9	80
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	69	65	36
Average Queue (ft)	37	33	23
95th Queue (ft)	55	46	45
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	146	115	52	55
Average Queue (ft)	73	54	30	25
95th Queue (ft)	121	88	47	50
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	141	130	48	79
Average Queue (ft)	76	63	20	38
95th Queue (ft)	118	103	46	74
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	80	86	20	34	71	3802	3801	3817
Average Queue (ft)	26	30	1	1	4	3022	3063	3081
95th Queue (ft)	76	129	9	16	33	4463	4422	4411
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						27	31	32
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	217	173	154	204	223	224	281	306	317	205
Average Queue (ft)	110	74	63	65	69	75	129	146	232	146
95th Queue (ft)	190	144	139	161	163	172	285	318	426	285
Link Distance (ft)	526	526		289	289	289	254	254	254	
Upstream Blk Time (%)						0	1	2	19	
Queuing Penalty (veh)						0	11	18	148	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			6	2					28	3
Queuing Penalty (veh)			36	3					123	19

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	277	190	204	211	197	63	131	156	229	295
Average Queue (ft)	131	85	98	108	108	18	44	41	47	121
95th Queue (ft)	228	150	185	190	185	53	121	129	157	306
Link Distance (ft)	535	535	345	345	345		289	289	289	289
Upstream Blk Time (%)									0	1
Queuing Penalty (veh)									0	7
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						0	1			
Queuing Penalty (veh)						0	1			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	>	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	266	331	197	219	198	237	201	297	335	651	602	512
Average Queue (ft)	124	163	92	92	92	151	122	271	297	444	287	260
95th Queue (ft)	216	266	167	180	188	241	219	345	396	811	583	419
Link Distance (ft)	1083	1083	1083			305	305			630	630	630
Upstream Blk Time (%)						1	0			20	0	0
Queuing Penalty (veh)						2	0			136	1	0
Storage Bay Dist (ft)				300	180			260	260			
Storage Blk Time (%)				0	3	11		43	56	1		
Queuing Penalty (veh)				0	6	12		195	253	3		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB	NW
Directions Served	T	T	T	R	>
Maximum Queue (ft)	211	233	238	362	0
Average Queue (ft)	94	91	99	215	0
95th Queue (ft)	202	200	210	407	0
Link Distance (ft)	345	345	345	345	255
Upstream Blk Time (%)			0	2	
Queuing Penalty (veh)			0	10	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	491	451	234	142	1295	1536	254	198	353	836
Average Queue (ft)	92	119	213	186	80	69	449	627	183	101	213	455
95th Queue (ft)	155	201	533	450	165	130	1506	1831	301	170	412	931
Link Distance (ft)			964	964			2550	2550				1229
Upstream Blk Time (%)							3	5				0
Queuing Penalty (veh)							19	30				2
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	29	32	10	1	0		0	6	39		0	33
Queuing Penalty (veh)	59	67	21	1	0		0	20	111		0	100

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	798	769	124	156	199	267	338
Average Queue (ft)	409	413	54	76	110	138	166
95th Queue (ft)	801	758	113	137	193	234	281
Link Distance (ft)	1229	1229			630	630	630
Upstream Blk Time (%)	0	0					
Queuing Penalty (veh)	0	0					
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	101	184	29	320	230	245	100	121	143	116
Average Queue (ft)	37	81	5	136	97	100	30	31	49	22
95th Queue (ft)	79	141	21	259	195	196	75	89	115	77
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				3						
Queuing Penalty (veh)				0						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	TR	L	L	T	R	L	T	T	T	R
Maximum Queue (ft)	113	166	207	244	319	470	151	148	318	298	251	290
Average Queue (ft)	47	62	93	138	171	211	68	21	195	177	143	104
95th Queue (ft)	94	118	169	217	270	368	124	92	276	262	225	199
Link Distance (ft)			1405			2313	2313		2446	2446	2446	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	125	125		245	245			100				490
Storage Blk Time (%)	0	0	7	0	1	5			28			
Queuing Penalty (veh)	0	0	12	1	3	28			5			

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	77	78	260	284	117
Average Queue (ft)	25	33	112	123	44
95th Queue (ft)	55	67	226	244	97
Link Distance (ft)			1347	1347	1347
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	470	470			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	L	R	T	R	L	T
Maximum Queue (ft)	68	161	61	51	83	192	51	123	201
Average Queue (ft)	16	66	22	12	32	78	16	21	63
95th Queue (ft)	47	142	55	36	65	162	44	68	154
Link Distance (ft)	257	257			1367	305	305		261
Upstream Blk Time (%)									0
Queuing Penalty (veh)									0
Storage Bay Dist (ft)			70	70				100	
Storage Blk Time (%)			1	0	0			0	4
Queuing Penalty (veh)			1	0	0			0	2

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	SB	SE
Directions Served	L	R	LR
Maximum Queue (ft)	66	31	16
Average Queue (ft)	29	2	1
95th Queue (ft)	60	18	6
Link Distance (ft)		640	526
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	120		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	88	158	169	130	113	113	112	53	225	1482	760	97
Average Queue (ft)	30	58	90	25	96	93	100	5	224	1021	97	27
95th Queue (ft)	71	118	143	76	114	125	113	25	226	1608	415	75
Link Distance (ft)			248							1868	1868	1868
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120		100	150	150			150			
Storage Blk Time (%)		0	6	0					87			
Queuing Penalty (veh)		1	18	0					56			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	115	28	76	127	107	82
Average Queue (ft)	33	5	28	64	29	20
95th Queue (ft)	87	22	64	113	81	58
Link Distance (ft)				1531	1531	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	320	230	230			65
Storage Blk Time (%)					2	1
Queuing Penalty (veh)					2	1

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	94	162	122	134	54
Average Queue (ft)	14	54	27	40	4
95th Queue (ft)	56	127	79	101	25
Link Distance (ft)	1367		1868	1868	1868
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	L	T	T	L	L
Maximum Queue (ft)	109	35	48	61	12	52	254	315	347	311	12	274
Average Queue (ft)	43	3	15	15	1	10	121	160	217	190	1	34
95th Queue (ft)	87	18	44	45	8	36	205	240	317	288	8	141
Link Distance (ft)		692		222	222	222			1613	1613		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280	280			200	200
Storage Blk Time (%)							0	1	2	0		
Queuing Penalty (veh)							0	3	7	0		

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	552	571
Average Queue (ft)	365	381
95th Queue (ft)	563	580
Link Distance (ft)	706	706
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)	43	
Queuing Penalty (veh)	8	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	TR	R	R
Maximum Queue (ft)	216	180	22	44	120	136
Average Queue (ft)	65	42	4	10	28	54
95th Queue (ft)	183	144	39	82	105	121
Link Distance (ft)	2550	2550	112	112	692	692
Upstream Blk Time (%)			0	2		
Queuing Penalty (veh)			2	10		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	200	173	131	1122	1131	359	447	370	412	418
Average Queue (ft)	153	130	11	761	768	323	380	52	142	118
95th Queue (ft)	212	193	69	1377	1384	413	482	251	437	422
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	29	18	1			1	10	3	4	4
Queuing Penalty (veh)	87	55	3			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						1	10			
Queuing Penalty (veh)						5	59			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	T	R	L	L	T	T
Maximum Queue (ft)	5	13	122	111	71	66	83	95	118
Average Queue (ft)	0	1	55	44	22	16	48	10	14
95th Queue (ft)	3	7	101	88	58	48	79	51	61
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	128	153	90	114	95	82	44	78	48	206	232	129
Average Queue (ft)	32	72	23	40	35	20	11	25	5	96	116	27
95th Queue (ft)	96	137	62	90	78	59	31	60	28	175	206	97
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0	0					12	0
Queuing Penalty (veh)					0	0					7	1

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	444	458	276
Average Queue (ft)	112	240	247	33
95th Queue (ft)	242	390	402	154
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		0	0	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	12		
Queuing Penalty (veh)	1	19		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	127	134	76	157	194	245	152	72
Average Queue (ft)	48	68	22	125	170	144	53	51
95th Queue (ft)	111	126	58	183	214	291	131	64
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	2	3	0					58
Queuing Penalty (veh)	5	9	0					115
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				4	44	0		
Queuing Penalty (veh)				9	116	1		

Intersection: 33: Kemper St & Kurtz St

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	48	123
Average Queue (ft)	15	58
95th Queue (ft)	43	103
Link Distance (ft)		1251
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	9	52	58	72
Average Queue (ft)	0	19	22	34
95th Queue (ft)	5	48	51	59
Link Distance (ft)	143	300		949
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	10	60
Average Queue (ft)	0	26
95th Queue (ft)	7	54
Link Distance (ft)	182	259
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: E2 Dwy & Kurtz St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB	WB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	166	67	10	56	8
Average Queue (ft)	32	2	0	5	0
95th Queue (ft)	144	33	8	31	6
Link Distance (ft)	285	285	313	313	313
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	1				
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	EB	WB	WB
Directions Served	T	T	T
Maximum Queue (ft)	14	201	200
Average Queue (ft)	1	26	62
95th Queue (ft)	11	124	194
Link Distance (ft)	234	194	194
Upstream Blk Time (%)		1	4
Queuing Penalty (veh)		4	15
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 39: A3 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	10
95th Queue (ft)	29
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	36	25
Average Queue (ft)	4	1
95th Queue (ft)	21	12
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	162	190	22	110
Average Queue (ft)	19	35	1	14
95th Queue (ft)	92	127	9	66
Link Distance (ft)	511	511	100	210
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	223	421
Average Queue (ft)	103	134
95th Queue (ft)	201	302
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	230	146
Average Queue (ft)	25	8
95th Queue (ft)	147	87
Link Distance (ft)	754	754
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 53: Bend

Movement	SB
Directions Served	T
Maximum Queue (ft)	75
Average Queue (ft)	3
95th Queue (ft)	54
Link Distance (ft)	355
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	409	410
Average Queue (ft)	327	263
95th Queue (ft)	522	521
Link Distance (ft)	360	360
Upstream Blk Time (%)	6	2
Queuing Penalty (veh)	53	20
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 3133

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2545	2550	2550	2535	2534	144	154	189	1284	1277	1254	1178
Average Queue (ft)	1642	1649	1629	1372	1061	59	64	92	775	762	725	590
95th Queue (ft)	3027	3016	2974	2990	2588	119	123	154	1358	1341	1291	1159
Link Distance (ft)	2516	2516	2516	2516	2516		754	754	1715	1715	1715	1715
Upstream Blk Time (%)	23	27	26	23	11							
Queuing Penalty (veh)	0	0	0	0	0							
Storage Bay Dist (ft)						400						
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	435	1821	1779	1713	24	147	154	239	170	305	1385	1368
Average Queue (ft)	383	1260	1190	572	3	45	50	82	53	227	802	812
95th Queue (ft)	556	2103	2085	1832	14	112	120	211	142	420	1408	1400
Link Distance (ft)		1924	1924	1924		620	620	620			1514	1514
Upstream Blk Time (%)		16	9	3							1	1
Queuing Penalty (veh)		0	0	0							4	2
Storage Bay Dist (ft)	360				150				230	230		
Storage Blk Time (%)	13	83				0				0	73	
Queuing Penalty (veh)	45	120				0				0	173	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	275	696	670	597
Average Queue (ft)	272	673	465	348
95th Queue (ft)	280	682	796	565
Link Distance (ft)		602	602	602
Upstream Blk Time (%)		61	17	0
Queuing Penalty (veh)		347	94	1
Storage Bay Dist (ft)	200			
Storage Blk Time (%)	64	46		
Queuing Penalty (veh)	327	239		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	R	LT	R
Maximum Queue (ft)	366	351	342	217	358	105	94	123
Average Queue (ft)	208	159	147	85	202	50	38	58
95th Queue (ft)	343	312	304	167	317	85	79	99
Link Distance (ft)		620	620	955	955		864	864
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	350					350		
Storage Blk Time (%)	0	0		9	0			
Queuing Penalty (veh)	2	1		0	0			

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	468	432	242	81	248	311	299	68	174	334	210	217
Average Queue (ft)	273	104	87	30	110	157	216	20	97	149	113	41
95th Queue (ft)	462	288	185	68	217	292	333	51	185	285	205	157
Link Distance (ft)		955	955			285	285	285		702		1251
Upstream Blk Time (%)						1	5					
Queuing Penalty (veh)						3	12					
Storage Bay Dist (ft)	440			350	175				100		150	
Storage Blk Time (%)	3	0			1	6			4	24	15	0
Queuing Penalty (veh)	11	1			5	6			9	35	7	0

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	312	363	312	77	233	268	272	241	287	125	214	291
Average Queue (ft)	266	201	160	23	126	199	226	110	140	57	80	120
95th Queue (ft)	334	397	303	59	236	299	282	227	251	133	158	232
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	6	6	0		0	11	23	1				
Queuing Penalty (veh)	0	20	1		0	50	105	5				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	6	6			2	19			50	1	2	9
Queuing Penalty (veh)	17	22			6	15			38	2	5	8

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	WB	WB	WB
Directions Served	T	R	L	T	T
Maximum Queue (ft)	46	13	148	267	363
Average Queue (ft)	4	0	43	44	90
95th Queue (ft)	43	4	96	189	269
Link Distance (ft)	194	194		370	370
Upstream Blk Time (%)	0			0	0
Queuing Penalty (veh)	0			0	3
Storage Bay Dist (ft)			125		
Storage Blk Time (%)			0	1	
Queuing Penalty (veh)			1	2	

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	320	353	224	194	298	300	148	127
Average Queue (ft)	140	205	39	100	138	167	63	51
95th Queue (ft)	289	345	151	167	229	254	118	100
Link Distance (ft)	370	370	370		1083	1083	920	
Upstream Blk Time (%)	0	0	0					
Queuing Penalty (veh)	0	1	0					
Storage Bay Dist (ft)				125				100
Storage Blk Time (%)				5	4		2	1
Queuing Penalty (veh)				35	9		4	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	161	232	266	191	165	157	269	333	164	322	72	99
Average Queue (ft)	67	94	103	36	80	31	117	161	73	138	31	37
95th Queue (ft)	134	197	212	115	141	102	223	292	160	246	56	84
Link Distance (ft)		1514	1514				1839	1839		355	355	
Upstream Blk Time (%)										0		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			7				0		2	28		1
Queuing Penalty (veh)			10				0		4	19		1

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	137	98
Average Queue (ft)	59	31
95th Queue (ft)	116	71
Link Distance (ft)	702	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	4	
Queuing Penalty (veh)	5	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	91	225	258	20	327	416	31	140
Average Queue (ft)	15	89	116	5	159	208	5	65
95th Queue (ft)	51	181	222	18	267	342	20	125
Link Distance (ft)		1839	1839		964	964	270	920
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		5			13			
Queuing Penalty (veh)		2			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	54	117	90	50	84
Average Queue (ft)	25	61	19	28	45
95th Queue (ft)	49	97	57	48	70
Link Distance (ft)	236	864	864	541	541
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	121	655	656	61
Average Queue (ft)	60	372	122	22
95th Queue (ft)	104	668	426	53
Link Distance (ft)	327	631	631	101
Upstream Blk Time (%)		8	5	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	118	11	92
Average Queue (ft)	62	0	49
95th Queue (ft)	92	6	79
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	81	63	31
Average Queue (ft)	38	35	23
95th Queue (ft)	59	49	45
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	143	126	56	59
Average Queue (ft)	72	58	31	27
95th Queue (ft)	112	93	46	54
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	162	136	57	78
Average Queue (ft)	82	70	23	40
95th Queue (ft)	130	111	49	65
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	136	47	26	46	66	3994	4000	3994
Average Queue (ft)	63	11	1	2	2	3303	3345	3362
95th Queue (ft)	177	31	14	19	29	4726	4685	4671
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						36	54	56
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	222	195	172	293	295	308	287	313	318	205
Average Queue (ft)	115	80	79	85	89	89	158	179	296	192
95th Queue (ft)	192	156	159	221	221	215	292	317	341	257
Link Distance (ft)	526	526		289	289	289	254	254	254	
Upstream Blk Time (%)				0	0	0	2	3	30	
Queuing Penalty (veh)				2	2	2	14	24	245	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			12	4					44	6
Queuing Penalty (veh)			80	4					215	40

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	266	209	359	367	358	92	156	156	132	355
Average Queue (ft)	128	87	236	248	243	23	44	39	38	240
95th Queue (ft)	222	168	370	380	374	68	122	117	109	427
Link Distance (ft)	535	535	345	345	345		289	289	289	289
Upstream Blk Time (%)			1	2	1					14
Queuing Penalty (veh)			7	9	7					71
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						1	1			
Queuing Penalty (veh)						4	1			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	>	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	293	369	293	220	201	236	230	297	335	597	547	552
Average Queue (ft)	190	233	147	104	90	137	113	251	282	377	285	282
95th Queue (ft)	277	327	249	179	168	214	190	352	400	731	545	463
Link Distance (ft)	1083	1083	1083			305	305			630	630	630
Upstream Blk Time (%)										5	0	0
Queuing Penalty (veh)										38	0	0
Storage Bay Dist (ft)				300	180			260	260			
Storage Blk Time (%)			0		1	5		27	36	2		
Queuing Penalty (veh)			1		2	5		121	164	10		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB	NW
Directions Served	T	T	T	R	>
Maximum Queue (ft)	332	308	350	429	10
Average Queue (ft)	186	176	186	390	0
95th Queue (ft)	315	301	315	482	5
Link Distance (ft)	345	345	345	345	255
Upstream Blk Time (%)	1	0	0	29	
Queuing Penalty (veh)	3	1	1	147	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	133	173	207	196	186	172	847	928	255	222	355	686
Average Queue (ft)	67	84	103	117	75	76	189	218	148	106	204	373
95th Queue (ft)	124	148	176	187	141	140	580	634	261	183	409	651
Link Distance (ft)			964	964			2550	2550				1229
Upstream Blk Time (%)							0	0				
Queuing Penalty (veh)							0	1				
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	3	5	9	0	0		0	6	11	0	0	19
Queuing Penalty (veh)	6	11	18	0	0		0	21	33	0	0	60

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	623	553	150	169	348	360	409
Average Queue (ft)	339	357	74	96	178	208	246
95th Queue (ft)	550	518	132	150	312	338	387
Link Distance (ft)	1229	1229			630	630	630
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)					1		
Queuing Penalty (veh)					2		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	93	169	78	308	264	276	106	118	158	121
Average Queue (ft)	34	83	7	149	110	111	35	39	56	28
95th Queue (ft)	72	146	44	265	217	213	86	97	124	85
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				4						
Queuing Penalty (veh)				0						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	TR	L	L	T	R	L	T	T	T	R
Maximum Queue (ft)	111	141	201	278	317	455	200	174	338	326	286	219
Average Queue (ft)	41	60	92	150	184	217	72	27	210	195	159	107
95th Queue (ft)	84	112	173	243	292	374	141	104	311	284	262	192
Link Distance (ft)			1405			2313	2313		2446	2446	2446	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	125	125		245	245			100				490
Storage Blk Time (%)	0	1	6	0	2	6		0	31			
Queuing Penalty (veh)	0	1	11	1	6	32		0	6			

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	77	80	318	336	173
Average Queue (ft)	22	32	137	149	48
95th Queue (ft)	53	68	272	292	115
Link Distance (ft)			1347	1347	1347
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	470	470			
Storage Blk Time (%)			0		
Queuing Penalty (veh)			0		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	L	R	T	R	L	T
Maximum Queue (ft)	59	184	61	50	79	244	57	45	198
Average Queue (ft)	14	81	19	14	30	111	17	15	58
95th Queue (ft)	42	153	50	39	62	226	47	39	147
Link Distance (ft)	257	257			1367	305	305		261
Upstream Blk Time (%)		0				0			0
Queuing Penalty (veh)		0				0			0
Storage Bay Dist (ft)			70	70				100	
Storage Blk Time (%)			1	0	0				3
Queuing Penalty (veh)			1	0	0				2

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	SB	SE
Directions Served	L	R	LR
Maximum Queue (ft)	75	24	8
Average Queue (ft)	27	1	0
95th Queue (ft)	63	9	4
Link Distance (ft)		640	526
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	120		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	107	167	192	141	114	120	123	63	225	1545	944	112
Average Queue (ft)	29	59	85	28	98	94	100	9	224	1128	111	26
95th Queue (ft)	76	131	152	78	110	128	113	37	225	1651	535	74
Link Distance (ft)			248							1868	1868	1868
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)	120	120		100	150	150			150			
Storage Blk Time (%)	1	1	6	0		0			87			
Queuing Penalty (veh)	2	2	19	0		0			56			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	108	41	71	146	124	78
Average Queue (ft)	31	7	25	66	35	19
95th Queue (ft)	80	24	60	120	95	57
Link Distance (ft)				1531	1531	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	320	230	230			65
Storage Blk Time (%)					3	2
Queuing Penalty (veh)					3	1

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	88	135	131	156	57
Average Queue (ft)	15	53	32	44	5
95th Queue (ft)	55	114	93	115	29
Link Distance (ft)	1367		1868	1868	1868
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	L	T	T	L	L
Maximum Queue (ft)	121	25	72	57	15	47	230	287	339	299	24	274
Average Queue (ft)	53	2	19	17	0	9	127	162	206	182	1	37
95th Queue (ft)	106	15	53	44	6	32	218	244	307	277	10	149
Link Distance (ft)		692		222	222	222			1613	1613		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280	280			200	200
Storage Blk Time (%)							0	1	1	0		
Queuing Penalty (veh)							0	4	4	0		

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	464	481
Average Queue (ft)	316	335
95th Queue (ft)	450	466
Link Distance (ft)	706	706
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)	32	
Queuing Penalty (veh)	6	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	SB	SB
Directions Served	T	T	TR	R	R
Maximum Queue (ft)	230	217	13	98	113
Average Queue (ft)	64	41	0	23	47
95th Queue (ft)	184	151	7	76	100
Link Distance (ft)	2550	2550	112	692	692
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	188	182	105	1049	1055	360	459	337	412	409
Average Queue (ft)	149	127	8	681	686	329	392	34	146	93
95th Queue (ft)	215	194	58	1369	1372	410	484	191	428	371
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	29	19	1			1	12	0	2	2
Queuing Penalty (veh)	88	59	2			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						1	12			
Queuing Penalty (veh)						6	70			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	R	T	T	R	L	L	T	T
Maximum Queue (ft)	13	109	104	69	72	99	59	64
Average Queue (ft)	1	51	40	22	24	50	4	8
95th Queue (ft)	7	98	84	56	60	84	30	40
Link Distance (ft)		980	980				1274	1274
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	300			185	300	300		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	129	156	89	122	102	75	44	81	50	274	283	175
Average Queue (ft)	36	78	24	38	40	17	11	26	6	125	146	37
95th Queue (ft)	103	140	65	92	85	50	33	62	29	218	240	129
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0					0	17	
Queuing Penalty (veh)					0					0	10	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	487	544	536
Average Queue (ft)	167	284	291	71
95th Queue (ft)	321	457	482	332
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		0	1	1
Queuing Penalty (veh)		1	6	6
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	1	17		
Queuing Penalty (veh)	5	28		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	129	139	89	157	194	242	198	72
Average Queue (ft)	75	88	33	122	165	146	55	51
95th Queue (ft)	142	153	76	186	214	284	133	62
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	6	9	0					53
Queuing Penalty (veh)	19	29	0					105
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				3	40	1		
Queuing Penalty (veh)				9	120	2		

Intersection: 33: Kemper St & Kurtz St

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	57	124
Average Queue (ft)	21	59
95th Queue (ft)	47	105
Link Distance (ft)		1251
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 34: Frontier Dr & Kurtz St

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	64	70	66
Average Queue (ft)	18	31	34
95th Queue (ft)	49	60	58
Link Distance (ft)	300		949
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	4	74
Average Queue (ft)	0	28
95th Queue (ft)	4	61
Link Distance (ft)	182	259
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: E2 Dwy & Kurtz St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB
Directions Served	T	T	T	T
Maximum Queue (ft)	110	48	97	175
Average Queue (ft)	16	3	7	21
95th Queue (ft)	73	33	47	100
Link Distance (ft)	285	285	313	313
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	239	242
Average Queue (ft)	85	146
95th Queue (ft)	228	284
Link Distance (ft)	194	194
Upstream Blk Time (%)	3	12
Queuing Penalty (veh)	11	51
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 39: A3 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	9
95th Queue (ft)	28
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	40	19
Average Queue (ft)	4	1
95th Queue (ft)	22	11
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	208	228	64	88	192
Average Queue (ft)	43	62	4	7	43
95th Queue (ft)	140	172	36	48	141
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			0	0	0
Queuing Penalty (veh)			0	1	5
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	454	747
Average Queue (ft)	142	284
95th Queue (ft)	429	730
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	SB	SB	SB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	784	810	802	786
Average Queue (ft)	762	746	638	321
95th Queue (ft)	789	903	1042	914
Link Distance (ft)	754	754	754	754
Upstream Blk Time (%)	48	24	8	1
Queuing Penalty (veh)	396	197	67	9
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	401	411
Average Queue (ft)	336	280
95th Queue (ft)	483	528
Link Distance (ft)	360	360
Upstream Blk Time (%)	5	2
Queuing Penalty (veh)	44	20
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 4731

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	404	399	404	559	552	210	207	239	452	477	472	374
Average Queue (ft)	175	213	233	292	301	123	130	137	85	119	154	67
95th Queue (ft)	315	343	359	489	492	193	208	217	271	295	328	248
Link Distance (ft)	2516	2516	2516	2516	2516		754	754	1715	1715	1715	1715
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)						400						
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	435	1260	1248	1065	25	172	536	635	202	305	982	965
Average Queue (ft)	331	540	444	158	3	67	93	410	59	168	581	596
95th Queue (ft)	512	1121	1054	756	14	150	267	758	145	370	1363	1356
Link Distance (ft)		1924	1924	1924		620	620	620			1514	1514
Upstream Blk Time (%)		1	1	1			0	3			0	0
Queuing Penalty (veh)		0	0	0			0	14			2	1
Storage Bay Dist (ft)	360				150				230	230		
Storage Blk Time (%)	14	41				1			0	1	44	
Queuing Penalty (veh)	49	79				0			0	2	122	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	262	655	665	663
Average Queue (ft)	126	184	208	249
95th Queue (ft)	237	462	520	549
Link Distance (ft)		602	602	602
Upstream Blk Time (%)		8	10	11
Queuing Penalty (veh)		30	39	43
Storage Bay Dist (ft)	200			
Storage Blk Time (%)	5	6		
Queuing Penalty (veh)	13	15		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R
Maximum Queue (ft)	198	372	362	99	744	830	180	142	189
Average Queue (ft)	94	112	118	10	270	443	7	38	82
95th Queue (ft)	174	358	348	39	783	937	90	95	148
Link Distance (ft)		620	620		955	955		864	864
Upstream Blk Time (%)		5	3		1	3			
Queuing Penalty (veh)		23	11		6	17			
Storage Bay Dist (ft)	350			100			350		
Storage Blk Time (%)		7			8	36			
Queuing Penalty (veh)		15			2	1			

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	297	680	694	214	202	284	300	70	143	296	160	381
Average Queue (ft)	102	232	259	33	84	130	166	27	51	108	51	78
95th Queue (ft)	256	725	740	97	185	280	325	59	111	332	147	299
Link Distance (ft)		955	955			285	285	285		702		
Upstream Blk Time (%)		11	11			1	4			3		
Queuing Penalty (veh)		39	38			5	15			12		
Storage Bay Dist (ft)	440			350	175				100		150	
Storage Blk Time (%)	0	16	16		1	5			1	14	11	1
Queuing Penalty (veh)	0	26	18		4	9			3	19	15	0

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	201	314	317	82	217	241	245	170	404	125	225	700
Average Queue (ft)	83	187	224	33	96	104	112	53	186	65	212	491
95th Queue (ft)	182	331	343	73	202	219	229	130	398	131	256	796
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	0	20	22		0	0	1	0	17			5
Queuing Penalty (veh)	0	47	53		0	2	2	0	0			5
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	0	20			3	2			39	21	51	25
Queuing Penalty (veh)	0	23			8	4			47	38	279	95

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB
Directions Served	T	T	R	L	T	T	R
Maximum Queue (ft)	239	223	30	185	226	154	359
Average Queue (ft)	103	148	2	71	20	11	135
95th Queue (ft)	262	288	13	166	147	111	440
Link Distance (ft)	194	194	194		370	370	468
Upstream Blk Time (%)	20	38			1	0	20
Queuing Penalty (veh)	70	138			6	2	0
Storage Bay Dist (ft)				125			
Storage Blk Time (%)				6	0		
Queuing Penalty (veh)				39	0		

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	390	401	443	199	1042	1023	251	114
Average Queue (ft)	273	308	315	137	473	468	80	48
95th Queue (ft)	476	510	573	228	1189	1172	359	99
Link Distance (ft)	370	370	370		1083	1083	920	
Upstream Blk Time (%)	10	30	43		25	24		
Queuing Penalty (veh)	45	133	190		201	195		
Storage Bay Dist (ft)				125				100
Storage Blk Time (%)				45	7		8	1
Queuing Penalty (veh)				300	17		15	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	378	1489	1499	225	266	306	584	557	164	263	399	478
Average Queue (ft)	123	529	531	52	174	152	267	215	77	133	141	78
95th Queue (ft)	317	1476	1482	177	322	359	808	667	168	250	392	424
Link Distance (ft)		1514	1514				1839	1839		355	355	701
Upstream Blk Time (%)		18	18								19	7
Queuing Penalty (veh)		70	71								0	0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	5	32	42		29	14	1		1	25		
Queuing Penalty (veh)	15	51	44		67	32	1		2	20		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	458	171	412	164
Average Queue (ft)	83	80	134	40
95th Queue (ft)	426	168	377	97
Link Distance (ft)	701		702	
Upstream Blk Time (%)	7		4	
Queuing Penalty (veh)	0		13	
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		26	7	0
Queuing Penalty (veh)		76	12	0

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	164	1863	1864	173	314	330	162	932
Average Queue (ft)	38	1055	1052	21	129	159	54	581
95th Queue (ft)	139	2345	2339	89	272	318	182	1215
Link Distance (ft)		1839	1839		964	964	270	920
Upstream Blk Time (%)		32	33				9	41
Queuing Penalty (veh)		124	128				0	149
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	72			13			
Queuing Penalty (veh)	0	51			5			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	39	99	60	57	86
Average Queue (ft)	22	61	16	30	52
95th Queue (ft)	44	96	47	52	76
Link Distance (ft)	236	864	864	541	541
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Kurtz St & Hancock St

Movement	EB	B44	WB	WB	NB
Directions Served	R	T	L	T	L
Maximum Queue (ft)	157	29	262	185	110
Average Queue (ft)	49	3	64	28	59
95th Queue (ft)	165	32	200	118	96
Link Distance (ft)	327	541	631	631	101
Upstream Blk Time (%)	3		1	1	2
Queuing Penalty (veh)	8		0	0	2
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	232	32	187
Average Queue (ft)	116	3	64
95th Queue (ft)	227	19	193
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	15		7
Queuing Penalty (veh)	68		9
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	320	304	179
Average Queue (ft)	116	114	52
95th Queue (ft)	375	373	163
Link Distance (ft)	461	461	321
Upstream Blk Time (%)	14	12	2
Queuing Penalty (veh)	40	35	1
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	80	82	44	110
Average Queue (ft)	40	39	22	33
95th Queue (ft)	77	62	46	83
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	75	74	31	103
Average Queue (ft)	36	35	12	39
95th Queue (ft)	68	66	36	64
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	80	71	52	110	110	3962	3965	3964
Average Queue (ft)	19	17	4	6	7	2401	2484	2526
95th Queue (ft)	81	46	29	46	56	4543	4481	4426
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						22	22	21
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	101	142	139	191	202	223	309	336	321	205
Average Queue (ft)	32	46	50	79	83	126	213	216	299	135
95th Queue (ft)	82	113	115	178	181	322	387	377	316	288
Link Distance (ft)	526	526		289	289	289	254	254	254	
Upstream Blk Time (%)				0		5	18	12	57	
Queuing Penalty (veh)				0		38	157	103	491	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			2	7					66	0
Queuing Penalty (veh)			14	8					154	2

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	494	467	276	271	270	174	321	302	299	357
Average Queue (ft)	272	286	149	150	135	91	137	75	63	309
95th Queue (ft)	487	531	288	288	267	191	335	235	206	414
Link Distance (ft)	535	535	345	345	345		289	289	289	289
Upstream Blk Time (%)	0	21		0			10	1	0	40
Queuing Penalty (veh)	1	65		0			61	4	3	238
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						23	14			
Queuing Penalty (veh)						130	19			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	>	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	815	846	741	374	255	325	321	297	335	657	656	652
Average Queue (ft)	464	494	324	186	178	285	267	280	328	624	426	375
95th Queue (ft)	974	984	816	398	327	369	359	322	357	721	785	698
Link Distance (ft)	1083	1083	1083			305	305			630	630	630
Upstream Blk Time (%)	13	6	8			42	19			55	7	15
Queuing Penalty (veh)	62	26	38			114	52			431	51	115
Storage Bay Dist (ft)				300	180			260	260			
Storage Blk Time (%)			1	11	24	69		48	82	0		
Queuing Penalty (veh)			3	24	66	70		237	398	0		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB	NW
Directions Served	T	T	T	R	>
Maximum Queue (ft)	416	410	438	428	165
Average Queue (ft)	241	205	195	409	44
95th Queue (ft)	487	439	439	439	194
Link Distance (ft)	345	345	345	345	255
Upstream Blk Time (%)	11	5	5	45	12
Queuing Penalty (veh)	70	32	32	269	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	997	936	315	324	2553	2634	255	316	355	1259
Average Queue (ft)	118	168	844	263	79	102	1821	1989	251	151	266	964
95th Queue (ft)	170	190	1269	801	232	271	3305	3333	268	302	495	1538
Link Distance (ft)			964	964			2550	2550				1229
Upstream Blk Time (%)			63	1			33	51				30
Queuing Penalty (veh)			341	7			174	268				204
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	84	35	12	3	1	2	4	10	91	2	4	63
Queuing Penalty (veh)	220	91	36	10	2	6	6	44	274	12	25	266

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1273	1262	327	364	562	526	468
Average Queue (ft)	907	878	226	248	275	207	189
95th Queue (ft)	1510	1491	432	482	635	484	409
Link Distance (ft)	1229	1229			630	630	630
Upstream Blk Time (%)	18	18			2	0	0
Queuing Penalty (veh)	125	122			11	1	0
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			6	13	1		
Queuing Penalty (veh)			30	66	4		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	142	947	221	1196	1173	1129	224	229	251	205
Average Queue (ft)	40	284	36	617	576	546	85	77	92	59
95th Queue (ft)	105	874	154	1409	1392	1348	186	186	214	157
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)		3		18	17	16				
Queuing Penalty (veh)		0		118	114	107				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				50						
Queuing Penalty (veh)				11						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	TR	L	L	T	R	L	T	T	T	R
Maximum Queue (ft)	152	199	981	224	246	603	800	127	1637	1630	1608	421
Average Queue (ft)	84	111	245	129	144	167	176	18	562	543	519	89
95th Queue (ft)	144	197	842	212	228	450	624	79	1736	1724	1719	231
Link Distance (ft)			1405			2313	2313		2446	2446	2446	
Upstream Blk Time (%)			5						9	9	9	
Queuing Penalty (veh)			0						0	0	0	
Storage Bay Dist (ft)	125	125		245	245			100				490
Storage Blk Time (%)	10	18	11	0	0	1		0	47		17	
Queuing Penalty (veh)	17	30	28	0	1	5		0	9		71	

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	152	309	671	481	156
Average Queue (ft)	69	84	183	185	45
95th Queue (ft)	143	195	467	419	108
Link Distance (ft)			1347	1347	1347
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)	470	470			
Storage Blk Time (%)			0		
Queuing Penalty (veh)			1		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	L	R	T	R	L	T
Maximum Queue (ft)	143	260	106	144	978	355	261	150	333
Average Queue (ft)	59	121	70	83	368	200	52	34	193
95th Queue (ft)	192	242	120	159	1211	371	206	125	395
Link Distance (ft)	257	257			1367	305	305		261
Upstream Blk Time (%)	10	1			15	25	7		32
Queuing Penalty (veh)	16	1			40	99	29		102
Storage Bay Dist (ft)			70	70				100	
Storage Blk Time (%)			43	25	18			0	43
Queuing Penalty (veh)			52	30	38			0	19

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	SB	B73	SE
Directions Served	L	T	T	T	LR
Maximum Queue (ft)	148	163	452	185	4
Average Queue (ft)	79	74	184	53	0
95th Queue (ft)	188	268	655	240	3
Link Distance (ft)		261	640	248	526
Upstream Blk Time (%)		26	19	17	
Queuing Penalty (veh)		188	39	71	
Storage Bay Dist (ft)	120				
Storage Blk Time (%)	29	0			
Queuing Penalty (veh)	165	0			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	57	97	120	63	110	98	100	31	182	123	120	70
Average Queue (ft)	14	30	51	20	63	33	75	5	87	26	25	17
95th Queue (ft)	42	81	114	51	117	92	121	17	174	153	89	49
Link Distance (ft)			248							1868	1868	1868
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120		100	150	150			150			
Storage Blk Time (%)			2						10			
Queuing Penalty (veh)			5						5			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	75	28	80	242	302	63
Average Queue (ft)	18	6	28	41	47	17
95th Queue (ft)	52	22	65	171	255	64
Link Distance (ft)				1531	1531	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	320	230	230			65
Storage Blk Time (%)				2	13	14
Queuing Penalty (veh)				1	11	6

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	NB	B87	B87	SB	SB	SB
Directions Served	R	L	T	T	T	T	T	T	TR
Maximum Queue (ft)	30	221	255	70	374	218	61	74	32
Average Queue (ft)	2	70	50	2	59	13	12	16	4
95th Queue (ft)	14	207	272	51	356	143	42	50	21
Link Distance (ft)	1367		357	357	706	706	1868	1868	1868
Upstream Blk Time (%)			11	0	5	0			
Queuing Penalty (veh)			21	0	9	0			
Storage Bay Dist (ft)		200							
Storage Blk Time (%)		12							
Queuing Penalty (veh)		13							

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	L	T	T	L	T
Maximum Queue (ft)	56	34	35	25	22	24	202	224	765	746	43	256
Average Queue (ft)	18	2	7	2	1	1	60	107	163	112	7	156
95th Queue (ft)	49	14	29	15	11	12	173	213	486	425	29	243
Link Distance (ft)		692		222	222	222			1613	1613		706
Upstream Blk Time (%)									0	0		
Queuing Penalty (veh)									0	0		
Storage Bay Dist (ft)	200		200				280	280			200	
Storage Blk Time (%)							4	4	3			3
Queuing Penalty (veh)							10	12	6			0

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB
Directions Served	TR
Maximum Queue (ft)	273
Average Queue (ft)	157
95th Queue (ft)	250
Link Distance (ft)	706
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	TR	R	R
Maximum Queue (ft)	180	137	91	233	480	512
Average Queue (ft)	42	22	29	107	143	171
95th Queue (ft)	134	100	102	282	526	560
Link Distance (ft)	2550	2550	112	112	692	692
Upstream Blk Time (%)			1	40	8	10
Queuing Penalty (veh)			4	180	11	13
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	200	183	50	292	299	333	374	450	409	412
Average Queue (ft)	130	108	2	188	168	141	179	206	163	179
95th Queue (ft)	234	204	31	282	282	305	372	555	488	503
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	22	14	0			0	0	39	33	33
Queuing Penalty (veh)	64	39	0			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						0	0			
Queuing Penalty (veh)						0	2			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	T	R	L	L	T	T
Maximum Queue (ft)	8	16	117	115	59	31	58	73	103
Average Queue (ft)	0	1	54	40	20	6	34	9	18
95th Queue (ft)	6	8	97	85	48	26	51	42	64
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	146	171	81	82	42	45	53	69	45	172	210	92
Average Queue (ft)	34	82	13	23	13	11	10	26	4	83	101	10
95th Queue (ft)	104	149	48	61	33	35	33	58	23	142	176	49
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)			0								7	
Queuing Penalty (veh)			0								2	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	89	229	231	68
Average Queue (ft)	25	118	118	26
95th Queue (ft)	58	191	192	57
Link Distance (ft)		511	511	511
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	126	140	100	157	194	254	150	88
Average Queue (ft)	79	95	41	104	151	107	52	48
95th Queue (ft)	129	140	81	179	209	246	108	73
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	3	7	0					37
Queuing Penalty (veh)	13	28	1					74
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	28	0		
Queuing Penalty (veh)				4	87	1		

Intersection: 33: Kemper St & Kurtz St

Movement	EB
Directions Served	TR
Maximum Queue (ft)	84
Average Queue (ft)	11
95th Queue (ft)	71
Link Distance (ft)	139
Upstream Blk Time (%)	7
Queuing Penalty (veh)	31
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	86	25	53	51
Average Queue (ft)	18	1	23	22
95th Queue (ft)	97	12	52	47
Link Distance (ft)	143	300		949
Upstream Blk Time (%)	12			
Queuing Penalty (veh)	49			
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	110	31	43
Average Queue (ft)	27	4	10
95th Queue (ft)	133	20	34
Link Distance (ft)	182	259	283
Upstream Blk Time (%)	14		
Queuing Penalty (veh)	65		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 36: E2 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	285	107
Average Queue (ft)	48	29
95th Queue (ft)	279	81
Link Distance (ft)	464	365
Upstream Blk Time (%)	8	
Queuing Penalty (veh)	35	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB
Directions Served	T	T	T	T
Maximum Queue (ft)	186	229	50	83
Average Queue (ft)	56	62	8	12
95th Queue (ft)	243	249	65	83
Link Distance (ft)	285	285	313	313
Upstream Blk Time (%)	18	18		
Queuing Penalty (veh)	71	71		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	EB	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	255	263	248	40	44	61
Average Queue (ft)	79	120	62	2	2	22
95th Queue (ft)	252	305	236	18	21	48
Link Distance (ft)	234	234	234	194	194	355
Upstream Blk Time (%)	17	26	22			
Queuing Penalty (veh)	56	87	73			
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	T	LR
Maximum Queue (ft)	67	19	51
Average Queue (ft)	8	0	19
95th Queue (ft)	50	6	39
Link Distance (ft)	101	139	321
Upstream Blk Time (%)	6		
Queuing Penalty (veh)	26		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 40: X Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	154	39	170
Average Queue (ft)	33	11	50
95th Queue (ft)	176	36	164
Link Distance (ft)	300	182	297
Upstream Blk Time (%)	8		4
Queuing Penalty (veh)	30		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	150	191	19	229
Average Queue (ft)	28	56	1	221
95th Queue (ft)	93	140	9	230
Link Distance (ft)	511	511	100	210
Upstream Blk Time (%)				26
Queuing Penalty (veh)				234
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	1523	1512
Average Queue (ft)	1491	1490
95th Queue (ft)	1507	1503
Link Distance (ft)	1472	1472
Upstream Blk Time (%)	86	100
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	NB	SB	SB	SB	SB
Directions Served	TR	T	T	TR	R
Maximum Queue (ft)	18	606	585	580	513
Average Queue (ft)	1	51	51	53	48
95th Queue (ft)	10	333	332	340	323
Link Distance (ft)	602	754	754	754	754
Upstream Blk Time (%)		4	3	3	2
Queuing Penalty (veh)		20	17	15	11
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	387	380
Average Queue (ft)	211	104
95th Queue (ft)	474	344
Link Distance (ft)	360	360
Upstream Blk Time (%)	1	0
Queuing Penalty (veh)	10	2
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 12584

Appendix X

Opening Year (2035) Base Conditions Intersection LOS Worksheets



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	802	1412	402	0	0	1376
Future Volume (vph)	802	1412	402	0	0	1376
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	872	1535	437	0	0	1496
RTOR Reduction (vph)	0	91	0	0	0	0
Lane Group Flow (vph)	872	1444	437	0	0	1496
Confl. Bikes (#/hr)				1		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.3	61.9	17.3			43.9
Effective Green, g (s)	35.3	61.9	14.3			43.9
Actuated g/C Ratio	0.37	0.66	0.15			0.47
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1286	1831	771			2986
v/s Ratio Prot	0.25	c0.52	0.09			c0.23
v/s Ratio Perm						
v/c Ratio	0.68	0.79	0.57			0.50
Uniform Delay, d1	24.7	11.5	37.1			17.5
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.1	2.2	0.6			0.0
Delay (s)	25.8	13.7	37.6			17.6
Level of Service	C	B	D			B
Approach Delay (s)	18.1		37.6			17.6
Approach LOS	B		D			B

Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	94.2	Sum of lost time (s)	25.5
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
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)	348	237	206	17	232	364	164	318	17	277	320	167
Future Volume (veh/h)	348	237	206	17	232	364	164	318	17	277	320	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	318	342	224	18	252	0	175	351	0	216	467	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	533	559	688	271	541		257	541		321	674	
Arrive On Green	0.30	0.30	0.30	0.15	0.15	0.00	0.14	0.14	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1781	1870	1535	1781	3554	1585	1781	3741	1585	1781	3741	1585
Grp Volume(v), veh/h	318	342	224	18	252	0	175	351	0	216	467	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1535	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	13.3	13.7	8.3	0.8	5.7	0.0	8.2	7.8	0.0	9.9	10.2	0.0
Cycle Q Clear(g_c), s	13.3	13.7	8.3	0.8	5.7	0.0	8.2	7.8	0.0	9.9	10.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	533	559	688	271	541		257	541		321	674	
V/C Ratio(X)	0.60	0.61	0.33	0.07	0.47		0.68	0.65		0.67	0.69	
Avail Cap(c_a), veh/h	715	750	845	1020	2035		613	1287		613	1287	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.2	26.3	15.9	31.8	33.8	0.0	35.5	35.3	0.0	33.5	33.6	0.0
Incr Delay (d2), s/veh	2.9	3.0	0.8	0.4	2.4	0.0	2.5	1.1	0.0	1.5	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	6.2	3.7	0.3	2.6	0.0	3.7	3.5	0.0	4.3	4.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	29.3	16.6	32.2	36.2	0.0	38.0	36.4	0.0	35.0	34.4	0.0
LnGrp LOS	C	C	B	C	D		D	D		C	C	
Approach Vol, veh/h		884			270			526			683	
Approach Delay, s/veh		26.0			36.0			36.9			34.6	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	31.1	20.7	18.2	17.5
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	35.1	30.1	50.1	30.1
Max Q Clear Time (g_c+I1), s	15.7	12.2	7.7	10.2
Green Ext Time (p_c), s	8.5	2.6	4.5	2.3

Intersection Summary	
HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	462	13	5	511	48	0	0	0	50	0	81
Future Volume (veh/h)	103	462	13	5	511	48	0	0	0	50	0	81
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99				1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	112	502	14	5	555	52				54	0	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	144	1472	41	10	1625	151				202	0	175
Arrive On Green	0.08	0.42	0.42	0.01	0.34	0.34				0.11	0.00	0.11
Sat Flow, veh/h	1781	3527	98	1781	4750	440				1781	0	1546
Grp Volume(v), veh/h	112	253	263	5	396	211				54	0	88
Grp Sat Flow(s),veh/h/ln	1781	1777	1848	1781	1702	1786				1781	0	1546
Q Serve(g_s), s	1.9	3.0	3.0	0.1	2.7	2.7				0.8	0.0	1.6
Cycle Q Clear(g_c), s	1.9	3.0	3.0	0.1	2.7	2.7				0.8	0.0	1.6
Prop In Lane	1.00		0.05	1.00		0.25				1.00		1.00
Lane Grp Cap(c), veh/h	144	742	771	10	1165	611				202	0	175
V/C Ratio(X)	0.78	0.34	0.34	0.52	0.34	0.35				0.27	0.00	0.50
Avail Cap(c_a), veh/h	1780	3487	3627	1780	6680	3505				2332	0	2024
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	1.00	1.00	1.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	13.8	6.1	6.1	15.2	7.5	7.5				12.4	0.0	12.8
Incr Delay (d2), s/veh	3.4	0.3	0.3	14.9	0.2	0.4				0.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.6	0.6	0.1	0.6	0.7				0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	6.4	6.4	30.1	7.7	7.9				12.7	0.0	13.6
LnGrp LOS	B	A	A	C	A	A				B	A	B
Approach Vol, veh/h		628			612						142	
Approach Delay, s/veh		8.3			8.0						13.2	
Approach LOS		A			A						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	4.6	17.7		8.4	6.9	15.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1
Max Q Clear Time (g_c+I2), s	2.1	5.0		3.6	3.9	4.7
Green Ext Time (p_c), s	0.0	4.1		0.3	0.1	5.3

Intersection Summary	
HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	352	116	125	370	46	125	43	89	29	28	72
Future Volume (veh/h)	54	352	116	125	370	46	125	43	89	29	28	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	383	126	136	402	50	136	47	97	32	30	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	822	266	179	1696	207	416	146	301	274	220	431
Arrive On Green	0.05	0.31	0.31	0.10	0.37	0.37	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	3456	2616	847	1781	4607	562	1286	537	1108	563	809	1585
Grp Volume(v), veh/h	59	258	251	136	295	157	136	0	144	62	0	78
Grp Sat Flow(s),veh/h/ln	1728	1777	1686	1781	1702	1764	1286	0	1644	1372	0	1585
Q Serve(g_s), s	0.7	5.3	5.4	3.4	2.7	2.8	4.3	0.0	3.2	0.1	0.0	1.7
Cycle Q Clear(g_c), s	0.7	5.3	5.4	3.4	2.7	2.8	7.6	0.0	3.2	3.2	0.0	1.7
Prop In Lane	1.00		0.50	1.00		0.32	1.00		0.67	0.52		1.00
Lane Grp Cap(c), veh/h	160	558	530	179	1253	650	416	0	447	494	0	431
V/C Ratio(X)	0.37	0.46	0.47	0.76	0.24	0.24	0.33	0.00	0.32	0.13	0.00	0.18
Avail Cap(c_a), veh/h	2718	2359	2239	2385	4520	2343	1205	0	1457	2698	0	2805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.9	12.5	12.5	19.8	9.9	9.9	16.2	0.0	13.2	12.4	0.0	12.6
Incr Delay (d2), s/veh	0.5	1.2	1.3	2.5	0.2	0.4	0.2	0.0	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.8	1.8	1.3	0.8	0.9	1.1	0.0	1.0	0.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	13.6	13.8	22.4	10.1	10.3	16.4	0.0	13.3	12.5	0.0	12.7
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		568			588			280			140	
Approach Delay, s/veh		14.5			13.0			14.8			12.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.5	21.6		17.2	8.9	19.1		17.2
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	35.6	60.1		40.1	60.6	60.1		80.1
Max Q Clear Time (g_c+I1), s	2.7	4.8		9.6	5.4	7.4		5.2
Green Ext Time (p_c), s	0.1	5.9		0.8	0.2	6.6		0.4

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	427	57	88	444	72	57	10	48	47	10	33
Future Volume (veh/h)	34	427	57	88	444	72	57	10	48	47	10	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	464	62	96	483	78	62	11	52	51	11	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	888	118	122	1412	223	134	24	246	145	31	155
Arrive On Green	0.03	0.28	0.28	0.07	0.32	0.32	0.09	0.09	0.09	0.10	0.10	0.10
Sat Flow, veh/h	3456	3130	416	1781	4431	700	1524	270	1570	1478	319	1585
Grp Volume(v), veh/h	37	262	264	96	368	193	73	0	52	62	0	36
Grp Sat Flow(s),veh/h/ln	1728	1777	1769	1781	1702	1727	1794	0	1570	1796	0	1585
Q Serve(g_s), s	0.4	5.1	5.2	2.2	3.4	3.5	1.6	0.0	1.2	1.3	0.0	0.9
Cycle Q Clear(g_c), s	0.4	5.1	5.2	2.2	3.4	3.5	1.6	0.0	1.2	1.3	0.0	0.9
Prop In Lane	1.00		0.23	1.00		0.41	0.85		1.00	0.82		1.00
Lane Grp Cap(c), veh/h	116	504	502	122	1085	550	157	0	246	176	0	155
V/C Ratio(X)	0.32	0.52	0.53	0.79	0.34	0.35	0.46	0.00	0.21	0.35	0.00	0.23
Avail Cap(c_a), veh/h	426	916	912	457	2208	1120	1563	0	1477	782	0	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.5	12.4	12.5	18.9	10.8	10.8	17.9	0.0	15.2	17.4	0.0	17.2
Incr Delay (d2), s/veh	0.6	1.0	1.1	4.2	0.1	0.1	0.8	0.0	0.2	0.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.7	1.7	0.9	1.0	1.0	0.6	0.0	0.4	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	13.5	13.5	23.1	10.8	10.9	18.7	0.0	15.4	17.9	0.0	17.5
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		563			657			125			98	
Approach Delay, s/veh		13.9			12.7			17.3			17.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	16.6		9.0	5.8	18.1		8.5
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	21.3		18.0	5.1	26.8		36.0
Max Q Clear Time (g_c+I1), s	4.2	7.2		3.3	2.4	5.5		3.6
Green Ext Time (p_c), s	0.0	3.2		0.2	0.0	2.3		0.3

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

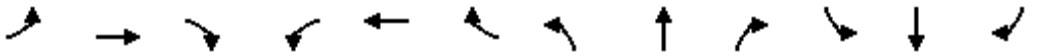
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	504	21	119	601	6	0	0	43	1	0	6
Future Vol, veh/h	25	504	21	119	601	6	0	0	43	1	0	6
Conflicting Peds, #/hr	0	0	11	0	0	5	0	0	1	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	548	23	129	653	7	0	0	47	1	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	665	0	0	582	0	0	-	-	298	1194	1556	335
Stage 1	-	-	-	-	-	-	-	-	-	920	920	-
Stage 2	-	-	-	-	-	-	-	-	-	274	636	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	566	-	-	620	-	-	0	0	596	196	112	564
Stage 1	-	-	-	-	-	-	0	0	-	226	348	-
Stage 2	-	-	-	-	-	-	0	0	-	650	470	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	563	-	-	614	-	-	-	-	589	145	83	561
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	145	83	-
Stage 1	-	-	-	-	-	-	-	-	-	214	274	-
Stage 2	-	-	-	-	-	-	-	-	-	569	443	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	2	11.6	14.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	589	563	-	-	614	-	-	398
HCM Lane V/C Ratio	0.079	0.048	-	-	0.211	-	-	0.019
HCM Control Delay (s)	11.6	11.7	-	-	12.4	-	-	14.2
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0.8	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	517	14	148	669	42	19	3	91	0	0	0
Future Volume (veh/h)	26	517	14	148	669	42	19	3	91	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	28	562	15	161	727	46	21	3	99			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	48	1873	50	212	2247	141	195	28	192			
Arrive On Green	0.03	0.37	0.37	0.12	0.46	0.46	0.12	0.12	0.12			
Sat Flow, veh/h	1781	5106	136	1781	4899	308	1568	224	1543			
Grp Volume(v), veh/h	28	374	203	161	504	269	24	0	99			
Grp Sat Flow(s),veh/h/ln	1781	1702	1838	1781	1702	1803	1792	0	1543			
Q Serve(g_s), s	0.6	2.8	2.9	3.2	3.4	3.5	0.4	0.0	2.2			
Cycle Q Clear(g_c), s	0.6	2.8	2.9	3.2	3.4	3.5	0.4	0.0	2.2			
Prop In Lane	1.00		0.07	1.00		0.17	0.87		1.00			
Lane Grp Cap(c), veh/h	48	1249	674	212	1561	827	223	0	192			
V/C Ratio(X)	0.58	0.30	0.30	0.76	0.32	0.33	0.11	0.00	0.52			
Avail Cap(c_a), veh/h	1497	5617	3032	1497	5617	2975	1973	0	1699			
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	17.5	8.2	8.2	15.5	6.3	6.3	14.2	0.0	14.9			
Incr Delay (d2), s/veh	4.0	0.3	0.5	2.1	0.2	0.3	0.1	0.0	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.8	1.1	0.7	0.8	0.1	0.0	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	8.5	8.7	17.7	6.4	6.6	14.2	0.0	15.7			
LnGrp LOS	C	A	A	B	A	A	B	A	B			
Approach Vol, veh/h		605			934			123				
Approach Delay, s/veh		9.2			8.4			15.4				
Approach LOS		A			A			B				
Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	8.7	18.3			5.4	21.6		9.4				
Change Period (Y+Rc), s	4.4	4.9			4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1			30.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	5.2	4.9			2.6	5.5		4.2				
Green Ext Time (p_c), s	0.2	8.1			0.0	8.3		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	9.2
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	398	96	72	337	41	132	110	108	32	82	59
Future Volume (veh/h)	80	398	96	72	337	41	132	110	108	32	82	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	433	104	78	366	45	132	136	117	35	89	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	929	408	176	790	96	274	288	321	327	344	283
Arrive On Green	0.06	0.26	0.26	0.05	0.25	0.25	0.15	0.15	0.15	0.18	0.18	0.18
Sat Flow, veh/h	1781	3554	1559	3456	3174	387	1781	1870	1563	1781	1870	1538
Grp Volume(v), veh/h	87	433	104	78	204	207	132	136	117	35	89	64
Grp Sat Flow(s),veh/h/ln	1781	1777	1559	1728	1777	1784	1781	1870	1563	1781	1870	1538
Q Serve(g_s), s	2.6	5.6	2.9	1.2	5.3	5.4	3.7	3.6	3.5	0.9	2.2	1.9
Cycle Q Clear(g_c), s	2.6	5.6	2.9	1.2	5.3	5.4	3.7	3.6	3.5	0.9	2.2	1.9
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	929	408	176	442	444	274	288	321	327	344	283
V/C Ratio(X)	0.77	0.47	0.26	0.44	0.46	0.47	0.48	0.47	0.36	0.11	0.26	0.23
Avail Cap(c_a), veh/h	966	3914	1717	1874	1957	1964	1309	1374	1229	1309	1374	1130
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	16.9	15.9	25.2	17.4	17.4	21.1	21.1	18.7	18.5	19.1	19.0
Incr Delay (d2), s/veh	4.1	0.5	0.5	0.7	1.3	1.3	0.5	0.4	0.3	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.1	1.0	0.5	2.1	2.2	1.5	1.5	1.2	0.3	0.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	17.5	16.4	25.8	18.7	18.7	21.6	21.5	18.9	18.6	19.2	19.1
LnGrp LOS	C	B	B	C	B	B	C	C	B	B	B	B
Approach Vol, veh/h		624			489			385			188	
Approach Delay, s/veh		18.9			19.8			20.7			19.1	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	19.2		14.9	7.9	18.5		13.3
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	29.6	60.1		40.1	29.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	3.2	7.6		4.2	4.6	7.4		5.7
Green Ext Time (p_c), s	0.1	5.4		0.5	0.1	4.8		0.9

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	567	12	23	747	180	13	4	2	60	4	38
Future Volume (veh/h)	35	567	12	23	747	180	13	4	2	60	4	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.96	0.97		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	616	13	25	812	196	14	4	2	65	4	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	363	1708	36	498	1323	319	306	80	28	256	40	100
Arrive On Green	0.03	0.48	0.48	0.02	0.47	0.47	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3555	75	1781	2811	679	947	445	155	718	225	560
Grp Volume(v), veh/h	38	308	321	25	513	495	20	0	0	110	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1853	1781	1777	1713	1547	0	0	1503	0	0
Q Serve(g_s), s	0.5	4.9	4.9	0.3	9.6	9.6	0.0	0.0	0.0	1.4	0.0	0.0
Cycle Q Clear(g_c), s	0.5	4.9	4.9	0.3	9.6	9.6	0.4	0.0	0.0	2.7	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.40	0.70		0.10	0.59		0.37
Lane Grp Cap(c), veh/h	363	854	891	498	837	806	414	0	0	397	0	0
V/C Ratio(X)	0.10	0.36	0.36	0.05	0.61	0.61	0.05	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	1518	2379	2482	1670	2379	2294	1430	0	0	1440	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.7	7.3	7.3	6.0	8.8	8.8	15.3	0.0	0.0	16.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	0.8	0.8	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.4	1.5	0.1	2.9	2.8	0.2	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.8	7.6	7.6	6.1	9.6	9.7	15.3	0.0	0.0	16.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h		667			1033			20			110	
Approach Delay, s/veh		7.6			9.6			15.3			16.3	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.5	26.5		12.9	5.9	26.0		12.9
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	2.3	6.9		4.7	2.5	11.6		2.4
Green Ext Time (p_c), s	0.0	4.8		0.4	0.0	9.5		0.0

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	28	30	99	92	32
Future Vol, veh/h	14	28	30	99	92	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	30	33	108	100	35
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.5	8.2	7.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	33%	0%
Vol Thru, %	0%	100%	0%	74%
Vol Right, %	0%	0%	67%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	99	42	124
LT Vol	30	0	14	0
Through Vol	0	99	0	92
RT Vol	0	0	28	32
Lane Flow Rate	33	108	46	135
Geometry Grp	7	7	2	5
Degree of Util (X)	0.047	0.14	0.054	0.152
Departure Headway (Hd)	5.184	4.684	4.223	4.063
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	689	763	853	872
Service Time	2.93	2.429	2.223	2.138
HCM Lane V/C Ratio	0.048	0.142	0.054	0.155
HCM Control Delay	8.2	8.2	7.5	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0.2	0.5

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	119	0	0	85	0
Future Vol, veh/h	0	119	0	0	85	0
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	0	129	0	0	92	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	129	-
Stage 1	-	-	0	-
Stage 2	-	-	129	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	865	0
Stage 1	0	-	-	0
Stage 2	0	-	897	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	865	-
Mov Cap-2 Maneuver	-	-	820	-
Stage 1	-	-	-	-
Stage 2	-	-	897	-

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

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	820
HCM Lane V/C Ratio	-	0.113
HCM Control Delay (s)	-	9.9
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.4

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	75	153	0	0	99	0
Future Vol, veh/h	75	153	0	0	99	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	166	0	0	108	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	8.7	8.5
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	60%	0%	100%
Vol Thru, %	40%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	126	102	99
LT Vol	75	0	99
Through Vol	51	102	0
RT Vol	0	0	0
Lane Flow Rate	137	111	108
Geometry Grp	7	7	2
Degree of Util (X)	0.191	0.145	0.141
Departure Headway (Hd)	5.022	4.724	4.733
Convergence, Y/N	Yes	Yes	Yes
Cap	707	749	762
Service Time	2.811	2.513	2.733
HCM Lane V/C Ratio	0.194	0.148	0.142
HCM Control Delay	9	8.3	8.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.5	0.5

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	222	0	0	47	0
Future Vol, veh/h	15	222	0	0	47	0
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Stop	Stop	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	16	241	0	0	51	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	153	-
Stage 1	-	-	0	-
Stage 2	-	-	153	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	823	0
Stage 1	-	-	-	0
Stage 2	-	-	859	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	823	-
Mov Cap-2 Maneuver	-	-	823	-
Stage 1	-	-	-	-
Stage 2	-	-	859	-

Approach	EB	SB
HCM Control Delay, s		9.7
HCM LOS		A

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	823
HCM Lane V/C Ratio	-	-	0.062
HCM Control Delay (s)	-	-	9.7
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.2

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	65	213	64	50	20	0	0	47	11
Future Vol, veh/h	0	0	0	65	213	64	50	20	0	0	47	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	71	232	70	54	22	0	0	51	12
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.2	8.6	8.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	71%	38%	0%	0%
Vol Thru, %	29%	62%	62%	81%
Vol Right, %	0%	0%	38%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	172	171	58
LT Vol	50	65	0	0
Through Vol	20	107	107	47
RT Vol	0	0	64	11
Lane Flow Rate	76	186	185	63
Geometry Grp	2	7	7	2
Degree of Util (X)	0.106	0.262	0.238	0.083
Departure Headway (Hd)	4.994	5.068	4.615	4.759
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	719	710	780	754
Service Time	3.016	2.789	2.335	2.781
HCM Lane V/C Ratio	0.106	0.262	0.237	0.084
HCM Control Delay	8.6	9.6	8.8	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	1	0.9	0.3

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	274	25	9	4	0	0	41	87
Future Vol, veh/h	0	0	0	20	274	25	9	4	0	0	41	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	22	298	27	10	4	0	0	45	95
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9	8.1	8.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	69%	13%	0%	0%
Vol Thru, %	31%	87%	85%	32%
Vol Right, %	0%	0%	15%	68%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	157	162	128
LT Vol	9	20	0	0
Through Vol	4	137	137	41
RT Vol	0	0	25	87
Lane Flow Rate	14	171	176	139
Geometry Grp	2	7	7	2
Degree of Util (X)	0.02	0.231	0.23	0.168
Departure Headway (Hd)	5.029	4.866	4.694	4.337
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	715	727	754	832
Service Time	3.039	2.665	2.492	2.338
HCM Lane V/C Ratio	0.02	0.235	0.233	0.167
HCM Control Delay	8.1	9.2	8.9	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0.9	0.6

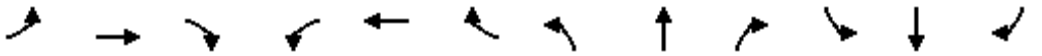
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	5	0	0	27	0	1890	15	0	2380	90
Future Vol, veh/h	0	0	5	0	0	27	0	1890	15	0	2380	90
Conflicting Peds, #/hr	0	0	6	0	0	0	0	0	1	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	0	0	29	0	2054	16	0	2587	98

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1350	-	-	1036	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	127	0	0	196	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	126	-	-	196	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34.9	26.6	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	126	196	-	-
HCM Lane V/C Ratio	-	-	0.043	0.15	-	-
HCM Control Delay (s)	-	-	34.9	26.6	-	-
HCM Lane LOS	-	-	D	D	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	27	123	83	51	1826	49	0	2292	98
Future Volume (veh/h)	0	0	0	27	123	83	51	1826	49	0	2292	98
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				29	134	90	55	1985	53	0	2491	107
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				44	205	141	899	4155	111	0	1379	423
Arrive On Green				0.11	0.11	0.11	0.50	0.81	0.81	0.00	0.27	0.27
Sat Flow, veh/h				394	1828	1253	1781	5113	136	0	5274	1567
Grp Volume(v), veh/h				136	0	117	55	1321	717	0	2491	107
Grp Sat Flow(s),veh/h/ln				1851	0	1625	1781	1702	1846	0	1702	1567
Q Serve(g_s), s				9.2	0.0	8.9	2.1	15.4	15.5	0.0	35.1	7.0
Cycle Q Clear(g_c), s				9.2	0.0	8.9	2.1	15.4	15.5	0.0	35.1	7.0
Prop In Lane				0.21		0.77	1.00		0.07	0.00		1.00
Lane Grp Cap(c), veh/h				208	0	182	899	2766	1500	0	1379	423
V/C Ratio(X)				0.66	0.00	0.64	0.06	0.48	0.48	0.00	1.81	0.25
Avail Cap(c_a), veh/h				799	0	701	899	2766	1500	0	1379	423
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	0.77	0.77	0.77	0.00	1.00	1.00
Uniform Delay (d), s/veh				55.3	0.0	55.2	16.4	3.7	3.7	0.0	47.5	37.2
Incr Delay (d2), s/veh				1.3	0.0	1.4	0.0	0.5	0.8	0.0	366.0	1.4
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				4.4	0.0	3.7	0.8	4.1	4.6	0.0	61.2	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				56.6	0.0	56.6	16.5	4.2	4.6	0.0	413.4	38.6
LnGrp LOS				E	A	E	B	A	A	A	F	D
Approach Vol, veh/h					253			2093			2598	
Approach Delay, s/veh					56.6			4.6			398.0	
Approach LOS					E			A			F	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	110.5	19.5	70.5	40.0
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	64.1	56.1	24.6	* 35
Max Q Clear Time (g_c+I1), s	17.5	11.2	4.1	37.1
Green Ext Time (p_c), s	6.7	0.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	214.0
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



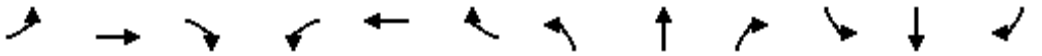
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	84	37	0	0	0	0	1784	15	134	2195	0
Future Volume (veh/h)	113	84	37	0	0	0	0	1784	15	134	2195	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	123	91	40				0	1939	16	146	2386	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	168	176	145				0	3666	30	169	5343	0
Arrive On Green	0.09	0.09	0.09				0.00	1.00	1.00	0.19	1.00	0.00
Sat Flow, veh/h	1781	1870	1540				0	5392	43	1781	6696	0
Grp Volume(v), veh/h	123	91	40				0	1263	692	146	2386	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1540				0	1702	1863	1781	1609	0
Q Serve(g_s), s	8.7	6.0	3.1				0.0	0.0	0.0	10.3	0.0	0.0
Cycle Q Clear(g_c), s	8.7	6.0	3.1				0.0	0.0	0.0	10.3	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	168	176	145				0	2389	1307	169	5343	0
V/C Ratio(X)	0.73	0.52	0.28				0.00	0.53	0.53	0.87	0.45	0.00
Avail Cap(c_a), veh/h	481	505	416				0	2389	1307	282	5343	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.62	0.62	0.19	0.19	0.00
Uniform Delay (d), s/veh	57.3	56.1	54.7				0.0	0.0	0.0	51.9	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.9	0.4				0.0	0.5	1.0	1.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	2.9	1.2				0.0	0.2	0.3	4.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	56.9	55.1				0.0	0.5	1.0	53.3	0.1	0.0
LnGrp LOS	E	E	E				A	A	A	D	A	A
Approach Vol, veh/h		254						1955			2532	
Approach Delay, s/veh		57.9						0.7			3.1	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2		4		6			
Phs Duration (G+Y+Rc), s	16.7	96.1		17.1		112.9			
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9			
Max Green Setting (Gmax), s	20.0	60.1		35.1		85.1			
Max Q Clear Time (g_c+I1), s	12.3	2.0		10.7		2.0			
Green Ext Time (p_c), s	0.0	5.6		0.2		10.3			

Intersection Summary	
HCM 6th Ctrl Delay	5.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	192	161	272	271	12	242	1602	298	0	1638	372
Future Volume (vph)	222	192	161	272	271	12	242	1602	298	0	1638	372
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.98			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3338	1550	1610	3328		3662	4956			5085	1534
Flt Permitted	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3338	1550	1610	3328		3662	4956			5085	1534
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	241	209	175	296	295	13	263	1741	324	0	1780	404
RTOR Reduction (vph)	0	0	150	0	2	0	0	15	0	0	0	142
Lane Group Flow (vph)	147	303	25	198	404	0	263	2050	0	0	1780	262
Confl. Peds. (#/hr)			3			20						13
Confl. Bikes (#/hr)			4			4			1			3
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	18.6	18.6	18.6	19.4	19.4		12.5	74.3			56.4	56.4
Effective Green, g (s)	18.6	18.6	18.6	19.4	19.4		12.5	74.3			56.4	56.4
Actuated g/C Ratio	0.14	0.14	0.14	0.15	0.15		0.10	0.57			0.43	0.43
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	230	477	221	240	496		352	2832			2206	665
v/s Ratio Prot	c0.09	0.09		c0.12	0.12		0.07	c0.41			c0.35	
v/s Ratio Perm			0.02									0.17
v/c Ratio	0.64	0.64	0.11	0.82	0.82		0.75	0.72			0.81	0.39
Uniform Delay, d1	52.5	52.5	48.5	53.7	53.6		57.2	20.4			32.1	25.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.41	0.34			0.99	1.36
Incremental Delay, d2	4.2	2.0	0.1	19.2	9.5		4.9	1.1			2.9	1.6
Delay (s)	56.8	54.5	48.6	72.9	63.0		85.4	8.0			34.8	35.6
Level of Service	E	D	D	E	E		F	A			C	D
Approach Delay (s)		53.4			66.2			16.8			35.0	
Approach LOS		D			E			B			C	

Intersection Summary			
HCM 2000 Control Delay	32.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
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)	173	239	177	147	418	274	325	1681	78	228	1721	213
Future Volume (veh/h)	173	239	177	147	418	274	325	1681	78	228	1721	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	260	192	160	454	298	353	1827	85	248	1871	232
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	240	730	321	145	759	328	407	1694	79	763	2053	253
Arrive On Green	0.07	0.21	0.21	0.08	0.21	0.21	0.08	0.23	0.23	0.22	0.45	0.45
Sat Flow, veh/h	3456	3554	1562	1781	3554	1536	3456	4994	232	3456	4602	566
Grp Volume(v), veh/h	188	260	192	160	454	298	353	1244	668	248	1380	723
Grp Sat Flow(s),veh/h/ln	1728	1777	1562	1781	1777	1536	1728	1702	1822	1728	1702	1764
Q Serve(g_s), s	7.0	8.2	14.5	10.6	15.0	24.6	13.1	44.1	44.1	7.8	49.1	50.0
Cycle Q Clear(g_c), s	7.0	8.2	14.5	10.6	15.0	24.6	13.1	44.1	44.1	7.8	49.1	50.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.32
Lane Grp Cap(c), veh/h	240	730	321	145	759	328	407	1155	618	763	1519	787
V/C Ratio(X)	0.78	0.36	0.60	1.10	0.60	0.91	0.87	1.08	1.08	0.33	0.91	0.92
Avail Cap(c_a), veh/h	441	959	422	145	795	344	574	1155	618	763	1519	787
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	44.3	46.8	59.7	46.1	49.9	58.9	50.2	50.2	42.5	33.5	33.8
Incr Delay (d2), s/veh	2.0	0.1	0.6	104.5	0.7	25.4	5.0	45.5	53.1	0.1	8.2	15.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.6	5.7	9.0	6.7	11.7	6.2	26.5	29.7	3.3	21.1	23.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.5	44.4	47.4	164.2	46.8	75.2	63.9	95.7	103.4	42.6	41.7	49.2
LnGrp LOS	E	D	D	F	D	E	E	F	F	D	D	D
Approach Vol, veh/h		640			912			2265			2351	
Approach Delay, s/veh		50.3			76.7			93.0			44.1	
Approach LOS		D			E			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	49.0	15.0	31.6	19.7	63.7	13.9	32.7
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	20.6	* 44	10.6	35.1	21.6	43.3	16.6	* 29
Max Q Clear Time (g_c+I1), s	9.0	46.1	12.6	16.5	15.1	52.0	9.0	26.6
Green Ext Time (p_c), s	0.1	0.0	0.0	0.7	0.2	0.0	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	67.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	11	13	65	16	88	20	1905	25	144	1891	75
Future Volume (veh/h)	115	11	13	65	16	88	20	1905	25	144	1891	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	12	14	71	17	96	22	2071	27	157	2055	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	16	16	129	36	138	38	3254	42	182	3564	142
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.02	0.63	0.63	0.10	0.71	0.71
Sat Flow, veh/h	896	103	102	580	231	885	1781	5194	68	1781	5038	200
Grp Volume(v), veh/h	151	0	0	184	0	0	22	1357	741	157	1387	750
Grp Sat Flow(s),veh/h/ln	1102	0	0	1697	0	0	1781	1702	1858	1781	1702	1834
Q Serve(g_s), s	4.8	0.0	0.0	0.0	0.0	0.0	1.6	32.2	32.2	11.3	26.1	26.3
Cycle Q Clear(g_c), s	18.0	0.0	0.0	13.1	0.0	0.0	1.6	32.2	32.2	11.3	26.1	26.3
Prop In Lane	0.83		0.09	0.39		0.52	1.00		0.04	1.00		0.11
Lane Grp Cap(c), veh/h	223	0	0	303	0	0	38	2132	1164	182	2408	1297
V/C Ratio(X)	0.68	0.00	0.00	0.61	0.00	0.00	0.59	0.64	0.64	0.86	0.58	0.58
Avail Cap(c_a), veh/h	375	0	0	476	0	0	159	2132	1164	296	2408	1297
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.24	0.24	0.24	0.36	0.36	0.36
Uniform Delay (d), s/veh	54.4	0.0	0.0	51.8	0.0	0.0	63.1	15.1	15.1	57.5	9.4	9.4
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.7	0.0	0.0	1.3	0.4	0.6	2.9	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	0.0	5.8	0.0	0.0	0.7	11.5	12.7	5.2	8.6	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.8	0.0	0.0	52.6	0.0	0.0	64.4	15.4	15.7	60.4	9.8	10.1
LnGrp LOS	E	A	A	D	A	A	E	B	B	E	A	B
Approach Vol, veh/h		151			184			2120			2294	
Approach Delay, s/veh		55.8			52.6			16.0			13.3	
Approach LOS		E			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.7	87.1		25.2	7.1	97.7		25.2
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	20.6	* 59		35.1	11.6	68.3		35.1
Max Q Clear Time (g_c+I1), s	13.3	34.2		20.0	3.6	28.3		15.1
Green Ext Time (p_c), s	0.0	6.0		0.3	0.0	6.6		0.4

Intersection Summary	
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Notes

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

User approved ignoring U-Turning movement.

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



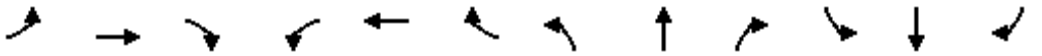
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	393	312	14	622	319	131	11	1425	534	179	1511	312
Future Volume (veh/h)	393	312	14	622	319	131	11	1425	534	179	1511	312
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	427	339	15	676	347	142	12	1549	580	195	1642	339
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	449	445	20	725	382	317	24	1629	505	247	1340	597
Arrive On Green	0.25	0.25	0.25	0.21	0.20	0.20	0.01	0.32	0.32	0.07	0.38	0.38
Sat Flow, veh/h	1781	1776	79	3456	1870	1550	1781	5106	1582	3456	3554	1583
Grp Volume(v), veh/h	427	0	354	676	347	142	12	1549	580	195	1642	339
Grp Sat Flow(s),veh/h/ln	1781	0	1854	1728	1870	1550	1781	1702	1582	1728	1777	1583
Q Serve(g_s), s	30.7	0.0	23.0	25.0	23.6	8.6	0.9	38.6	41.5	7.2	49.0	10.3
Cycle Q Clear(g_c), s	30.7	0.0	23.0	25.0	23.6	8.6	0.9	38.6	41.5	7.2	49.0	10.3
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	449	0	464	725	382	317	24	1629	505	247	1340	597
V/C Ratio(X)	0.95	0.00	0.76	0.93	0.91	0.45	0.50	0.95	1.15	0.79	1.23	0.57
Avail Cap(c_a), veh/h	488	0	501	813	433	359	145	1629	505	521	1340	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	47.8	0.0	45.1	50.5	50.5	30.5	63.7	43.3	44.3	59.4	40.5	6.9
Incr Delay (d2), s/veh	27.1	0.0	5.4	15.7	19.9	0.4	5.8	13.3	88.1	1.6	106.6	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	0.0	11.3	12.2	12.9	3.2	0.4	17.8	28.1	3.2	40.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.9	0.0	50.6	66.1	70.4	30.8	69.5	56.6	132.3	61.0	147.1	9.9
LnGrp LOS	E	A	D	E	E	C	E	E	F	E	F	A
Approach Vol, veh/h		781			1165			2141			2176	
Approach Delay, s/veh		63.9			63.1			77.2			118.0	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	47.2	31.7	37.5	6.2	54.7	37.7	31.5
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	9.3	* 26	30.6	35.1	10.6	34.3	35.6	* 30
Max Q Clear Time (g_c+I1), s	9.2	43.5	27.0	25.0	2.9	51.0	32.7	25.6
Green Ext Time (p_c), s	0.1	0.0	0.3	0.6	0.0	0.0	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	87.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	137	5	241	0	152	0	367	171	40	270	0
Future Volume (vph)	35	137	5	241	0	152	0	367	171	40	270	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.97		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	1.00		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1853		1770		1554		3255		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.26	1.00	
Satd. Flow (perm)	1770	1853		1770		1554		3255		477	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	149	5	262	0	165	0	399	186	43	293	0
RTOR Reduction (vph)	0	1	0	0	0	63	0	45	0	0	0	0
Lane Group Flow (vph)	38	153	0	262	0	102	0	540	0	43	293	0
Confl. Peds. (#/hr)			4			5			51			13
Confl. Bikes (#/hr)			2						9			5
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	11.8	11.8		15.3		15.3		19.0		26.2	26.2	
Effective Green, g (s)	11.8	11.8		15.3		15.3		19.0		26.2	26.2	
Actuated g/C Ratio	0.17	0.17		0.23		0.23		0.28		0.39	0.39	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	309	323		401		352		916		238	1373	
v/s Ratio Prot	0.02	c0.08		c0.15				c0.17		0.01	c0.08	
v/s Ratio Perm						0.07				0.06		
v/c Ratio	0.12	0.47		0.65		0.29		0.59		0.18	0.21	
Uniform Delay, d1	23.5	25.1		23.7		21.6		20.9		13.7	13.8	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.4		2.9		0.2		0.7		0.1	0.0	
Delay (s)	23.6	25.5		26.6		21.8		21.6		13.8	13.8	
Level of Service	C	C		C		C		C		B	B	
Approach Delay (s)		25.1			24.7			21.6			13.8	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	18.6
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

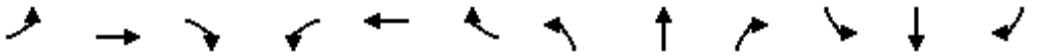
Intersection	
Int Delay, s/veh	1.4

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	143	407	305	60	0	1
Future Vol, veh/h	143	407	305	60	0	1
Conflicting Peds, #/hr	0	0	0	16	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	155	442	332	65	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	413	0	-	0	912	215
Stage 1	-	-	-	-	381	-
Stage 2	-	-	-	-	531	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1142	-	-	-	273	790
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	554	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1125	-	-	-	228	778
Mov Cap-2 Maneuver	-	-	-	-	228	-
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	546	-

Approach	NB	SB	SE
HCM Control Delay, s	2.3	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1125	-	778	-	-
HCM Lane V/C Ratio	0.138	-	0.001	-	-
HCM Control Delay (s)	8.7	-	9.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	234	65	268	254	64	93	165	222	45	121	46
Future Volume (veh/h)	80	234	65	268	254	64	93	165	222	45	121	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.92	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	254	71	291	276	70	101	179	241	49	132	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	1286	497	413	575	447	132	804	942	126	671	283
Arrive On Green	0.06	0.25	0.25	0.12	0.31	0.31	0.07	0.23	0.23	0.04	0.19	0.19
Sat Flow, veh/h	1781	5106	1509	3456	1870	1452	1781	3554	2690	3456	3554	1500
Grp Volume(v), veh/h	87	254	71	291	276	70	101	179	241	49	132	50
Grp Sat Flow(s),veh/h/ln	1781	1702	1509	1728	1870	1452	1781	1777	1345	1728	1777	1500
Q Serve(g_s), s	3.1	2.5	2.1	5.2	7.7	2.2	3.6	2.6	4.1	0.9	2.0	1.8
Cycle Q Clear(g_c), s	3.1	2.5	2.1	5.2	7.7	2.2	3.6	2.6	4.1	0.9	2.0	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	1286	497	413	575	447	132	804	942	126	671	283
V/C Ratio(X)	0.77	0.20	0.14	0.70	0.48	0.16	0.77	0.22	0.26	0.39	0.20	0.18
Avail Cap(c_a), veh/h	836	3195	1061	1622	1170	909	836	2224	2017	1622	2224	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	18.8	15.3	27.1	18.0	16.1	29.1	20.2	15.0	30.1	21.8	21.8
Incr Delay (d2), s/veh	4.0	0.1	0.2	0.8	0.3	0.1	3.5	0.1	0.1	0.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.9	0.6	2.0	3.0	0.7	1.5	1.0	1.1	0.3	0.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	18.9	15.4	27.9	18.3	16.2	32.6	20.3	15.2	30.8	21.9	21.9
LnGrp LOS	C	B	B	C	B	B	C	C	B	C	C	C
Approach Vol, veh/h		412			637			521			231	
Approach Delay, s/veh		21.4			22.4			20.3			23.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	22.0	10.1	18.8	9.5	25.6	7.7	21.2
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	7.2	4.5	5.6	4.0	5.1	9.7	2.9	6.1
Green Ext Time (p_c), s	0.5	2.5	0.1	0.6	0.1	1.3	0.1	2.1

Intersection Summary	
HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

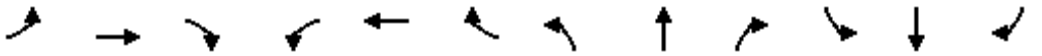
Intersection	
Int Delay, s/veh	8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	304	364	432	530	9
Future Vol, veh/h	0	304	364	432	530	9
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	330	396	470	576	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	294	587	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	599	616	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	598	615	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	9.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	615	-	598	-	-
HCM Lane V/C Ratio	0.643	-	0.553	-	-
HCM Control Delay (s)	20.8	-	18.2	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	4.6	-	3.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	12	9	18	4	4	377	814	200	101	779	122
Future Volume (veh/h)	13	12	9	18	4	4	377	814	200	101	779	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.85	1.00		1.00	1.00		0.95	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	13	10	20	4	4	410	885	217	110	847	133
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	448	322	29	470	399	438	1703	722	135	949	149
Arrive On Green	0.01	0.24	0.24	0.02	0.25	0.25	0.25	0.48	0.48	0.08	0.31	0.31
Sat Flow, veh/h	1781	1870	1345	1781	1870	1585	1781	3554	1507	1781	3066	481
Grp Volume(v), veh/h	14	13	10	20	4	4	410	885	217	110	491	489
Grp Sat Flow(s),veh/h/ln	1781	1870	1345	1781	1870	1585	1781	1777	1507	1781	1777	1771
Q Serve(g_s), s	1.0	0.7	0.7	1.4	0.2	0.2	27.9	21.4	10.8	7.5	32.6	32.6
Cycle Q Clear(g_c), s	1.0	0.7	0.7	1.4	0.2	0.2	27.9	21.4	10.8	7.5	32.6	32.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	22	448	322	29	470	399	438	1703	722	135	550	548
V/C Ratio(X)	0.64	0.03	0.03	0.70	0.01	0.01	0.94	0.52	0.30	0.81	0.89	0.89
Avail Cap(c_a), veh/h	66	514	369	91	570	483	757	2599	1102	276	820	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.8	36.0	36.0	60.6	34.7	34.8	45.7	22.3	19.6	56.3	40.8	40.8
Incr Delay (d2), s/veh	36.1	0.0	0.0	10.8	0.0	0.0	7.5	0.1	0.1	4.4	6.3	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.3	0.2	0.7	0.1	0.1	12.6	8.2	3.5	3.5	14.6	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.0	36.1	36.1	71.4	34.8	34.8	53.2	22.4	19.7	60.8	47.1	47.1
LnGrp LOS	F	D	D	E	C	C	D	C	B	E	D	D
Approach Vol, veh/h		37			28			1512			1090	
Approach Delay, s/veh		59.1			61.0			30.4			48.5	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	38.4	34.8	43.2	5.9	39.8	13.8	64.2
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	6.3	34.0	52.6	57.1	4.6	* 38	19.2	90.5
Max Q Clear Time (g_c+I1), s	3.4	2.7	29.9	34.6	3.0	2.2	9.5	23.4
Green Ext Time (p_c), s	0.0	0.1	0.5	3.7	0.0	0.0	0.1	4.0

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

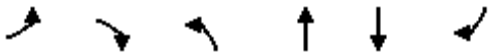
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	732	752	22	0	186
Future Vol, veh/h	0	732	752	22	0	186
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	796	817	24	0	202

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	409
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	592
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	592
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	592
HCM Lane V/C Ratio	-	-	0.342
HCM Control Delay (s)	-	-	14.2
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.5



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	580	90	0	1072	1451	667
Future Volume (vph)	580	90	0	1072	1451	667
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	630	98	0	1165	1577	725
RTOR Reduction (vph)	0	72	0	0	0	0
Lane Group Flow (vph)	630	26	0	1165	1577	725
Confl. Peds. (#/hr)						3
Confl. Bikes (#/hr)						4
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	26.4	26.4		61.2	61.2	112.0
Effective Green, g (s)	26.4	26.4		61.2	61.2	106.6
Actuated g/C Ratio	0.22	0.22		0.50	0.50	0.87
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	741	341		1772	1772	1380
v/s Ratio Prot	c0.18			0.33	c0.45	c0.46
v/s Ratio Perm		0.02				
v/c Ratio	0.85	0.08		0.66	0.89	0.53
Uniform Delay, d1	46.0	38.2		22.7	27.5	1.8
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	9.1	0.1		0.9	5.9	0.3
Delay (s)	55.1	38.2		23.6	33.4	2.1
Level of Service	E	D		C	C	A
Approach Delay (s)	52.8			23.6	23.5	
Approach LOS	D			C	C	

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	122.2	Sum of lost time (s)	19.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	976	292	113	855
Future Volume (veh/h)	0	1	976	292	113	855
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1061	317	123	929
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	4	7	2069	906	232	2633
Arrive On Green	0.00	0.00	0.58	0.58	0.07	0.74
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	1061	317	123	929
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	8.5	5.1	1.7	4.4
Cycle Q Clear(g_c), s	0.0	0.0	8.5	5.1	1.7	4.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	4	7	2069	906	232	2633
V/C Ratio(X)	0.00	0.15	0.51	0.35	0.53	0.35
Avail Cap(c_a), veh/h	1483	2638	4436	1940	2157	4436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	24.0	6.0	5.2	21.7	2.2
Incr Delay (d2), s/veh	0.0	3.9	0.3	0.3	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.8	1.0	0.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	27.8	6.3	5.6	22.4	2.4
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1378			1052
Approach Delay, s/veh	27.8		6.1			4.7
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.6	34.2			41.8	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	3.7	10.5			6.4	2.0
Green Ext Time (p_c), s	0.2	17.4			17.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	38	51	72	44	116	51	888	46	128	851	166
Future Volume (veh/h)	64	38	51	72	44	116	51	888	46	128	851	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	41	55	78	48	126	55	965	50	139	925	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	185	153	101	211	172	132	1609	791	179	1829	884
Arrive On Green	0.04	0.10	0.10	0.06	0.11	0.11	0.04	0.45	0.45	0.10	0.51	0.51
Sat Flow, veh/h	3456	1870	1545	1781	1870	1531	3456	3554	1549	1781	3554	1584
Grp Volume(v), veh/h	70	41	55	78	48	126	55	965	50	139	925	180
Grp Sat Flow(s),veh/h/ln	1728	1870	1545	1781	1870	1531	1728	1777	1549	1781	1777	1584
Q Serve(g_s), s	1.3	1.4	2.2	2.9	1.6	5.4	1.0	13.7	1.1	5.1	11.5	3.8
Cycle Q Clear(g_c), s	1.3	1.4	2.2	2.9	1.6	5.4	1.0	13.7	1.1	5.1	11.5	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	150	185	153	101	211	172	132	1609	791	179	1829	884
V/C Ratio(X)	0.47	0.22	0.36	0.77	0.23	0.73	0.42	0.60	0.06	0.78	0.51	0.20
Avail Cap(c_a), veh/h	1540	833	688	794	833	682	1540	3694	1700	794	3694	1716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	27.9	28.3	31.3	27.2	28.9	31.7	13.8	8.4	29.6	10.7	7.4
Incr Delay (d2), s/veh	0.8	0.6	1.4	4.6	0.2	2.2	0.8	0.6	0.1	2.8	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.6	0.8	1.3	0.7	1.9	0.4	4.7	0.3	2.2	3.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	28.5	29.7	35.9	27.4	31.1	32.4	14.4	8.4	32.3	11.0	7.6
LnGrp LOS	C	C	C	D	C	C	C	B	A	C	B	A
Approach Vol, veh/h		166			252			1070			1244	
Approach Delay, s/veh		30.5			31.9			15.1			12.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	35.8	8.2	12.2	7.0	40.0	7.3	13.1
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	7.1	15.7	4.9	4.2	3.0	13.5	3.3	7.4
Green Ext Time (p_c), s	0.2	14.7	0.1	0.3	0.1	15.0	0.1	0.3

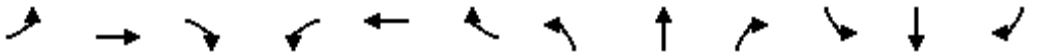
Intersection Summary	
HCM 6th Ctrl Delay	16.6
HCM 6th LOS	B

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1106	64	361	387	0	0	0	0	253	0	0
Future Volume (vph)	0	1106	64	361	387	0	0	0	0	253	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.98	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1555	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1555	3433	3539					1770		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1202	70	392	421	0	0	0	0	275	0	0
RTOR Reduction (vph)	0	0	36	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1202	34	392	421	0	0	0	0	275	0	0
Confl. Peds. (#/hr)			5			2						
Confl. Bikes (#/hr)			2			5						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		47.6	47.6	10.3	62.6					15.8		
Effective Green, g (s)		43.6	43.6	10.3	58.6					15.8		
Actuated g/C Ratio		0.48	0.48	0.11	0.65					0.18		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1714	753	392	2304					310		
v/s Ratio Prot		c0.34		c0.11	0.12					c0.16		
v/s Ratio Perm			0.02									
v/c Ratio		0.70	0.05	1.00	0.18					0.89		
Uniform Delay, d1		18.1	12.2	39.9	6.2					36.2		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		1.3	0.0	45.5	0.0					24.1		
Delay (s)		19.4	12.3	85.3	6.3					60.3		
Level of Service		B	B	F	A					E		
Approach Delay (s)		19.0			44.4			0.0			60.3	
Approach LOS		B			D			A			E	

Intersection Summary				
HCM 2000 Control Delay	32.6	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.79			
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.3	
Intersection Capacity Utilization	67.6%	ICU Level of Service	C	
Analysis Period (min)	15			

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	866	1595	600	0	0	2015
Future Volume (vph)	866	1595	600	0	0	2015
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	941	1734	652	0	0	2190
RTOR Reduction (vph)	0	96	0	0	0	0
Lane Group Flow (vph)	941	1638	652	0	0	2190
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)				4		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.3	57.9	23.6			46.2
Effective Green, g (s)	35.3	57.9	20.6			46.2
Actuated g/C Ratio	0.37	0.60	0.21			0.48
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1255	1672	1085			3067
v/s Ratio Prot	0.27	c0.59	0.13			c0.34
v/s Ratio Perm						
v/c Ratio	0.75	0.98	0.60			0.71
Uniform Delay, d1	26.7	18.7	34.2			19.9
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	2.2	17.1	0.6			0.7
Delay (s)	28.9	35.8	34.9			20.6
Level of Service	C	D	C			C
Approach Delay (s)	33.4		34.9			20.6
Approach LOS	C		C			C

Intersection Summary			
HCM 2000 Control Delay	28.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	96.5	Sum of lost time (s)	25.5
Intersection Capacity Utilization	88.4%	ICU Level of Service	E
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)	323	317	293	28	334	457	305	443	34	503	502	350
Future Volume (veh/h)	323	317	293	28	334	457	305	443	34	503	502	350
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	348	349	318	30	363	0	271	567	0	612	456	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	412	433	715	257	512		402	844		985	517	
Arrive On Green	0.23	0.23	0.23	0.14	0.14	0.00	0.07	0.07	0.00	0.28	0.28	0.00
Sat Flow, veh/h	1781	1870	1546	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	348	349	318	30	363	0	271	567	0	612	456	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1546	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	29.9	28.2	22.5	2.3	15.6	0.0	23.7	23.6	0.0	24.0	37.3	0.0
Cycle Q Clear(g_c), s	29.9	28.2	22.5	2.3	15.6	0.0	23.7	23.6	0.0	24.0	37.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	412	433	715	257	512		402	844		985	517	
V/C Ratio(X)	0.84	0.81	0.44	0.12	0.71		0.67	0.67		0.62	0.88	
Avail Cap(c_a), veh/h	435	457	736	357	713		402	844		985	517	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.00	0.89	0.89	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.7	58.1	29.7	59.6	65.3	0.0	68.3	68.3	0.0	50.6	55.4	0.0
Incr Delay (d2), s/veh	16.2	12.3	1.2	0.7	6.5	0.0	7.8	3.8	0.0	1.0	15.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.2	14.7	12.6	1.1	7.5	0.0	12.3	12.4	0.0	11.0	19.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.9	70.4	30.9	60.4	71.8	0.0	76.1	72.1	0.0	51.6	71.3	0.0
LnGrp LOS	E	E	C	E	E		E	E		D	E	
Approach Vol, veh/h		1015			393			838			1068	
Approach Delay, s/veh		59.6			70.9			73.4			60.0	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	41.9	49.1	27.9	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	31.9	39.3	17.6	25.7
Green Ext Time (p_c), s	4.7	0.0	4.3	3.0

Intersection Summary	
HCM 6th Ctrl Delay	64.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	749	0	6	613	88	0	0	0	69	0	124
Future Volume (veh/h)	144	749	0	6	613	88	0	0	0	69	0	124
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	157	814	0	7	666	96				75	0	135
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	188	1747	0	101	2010	286				562	0	495
Arrive On Green	0.11	0.49	0.00	0.11	0.89	0.89				0.32	0.00	0.32
Sat Flow, veh/h	1781	3647	0	1781	4497	640				1781	0	1568
Grp Volume(v), veh/h	157	814	0	7	502	260				75	0	135
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1702	1733				1781	0	1568
Q Serve(g_s), s	9.3	16.3	0.0	0.4	2.4	2.5				3.2	0.0	7.0
Cycle Q Clear(g_c), s	9.3	16.3	0.0	0.4	2.4	2.5				3.2	0.0	7.0
Prop In Lane	1.00		0.00	1.00		0.37				1.00		1.00
Lane Grp Cap(c), veh/h	188	1747	0	101	1522	775				562	0	495
V/C Ratio(X)	0.83	0.47	0.00	0.07	0.33	0.34				0.13	0.00	0.27
Avail Cap(c_a), veh/h	538	1747	0	109	1522	775				562	0	495
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.42	0.42	0.00	0.97	0.97	0.97				1.00	0.00	1.00
Uniform Delay (d), s/veh	47.4	18.1	0.0	45.4	3.3	3.3				26.4	0.0	27.7
Incr Delay (d2), s/veh	1.6	0.4	0.0	0.1	0.6	1.1				0.5	0.0	1.4
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	4.2	6.5	0.0	0.2	0.8	0.9				1.5	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	18.5	0.0	45.5	3.9	4.4				26.9	0.0	29.0
LnGrp LOS	D	B	A	D	A	A				C	A	C
Approach Vol, veh/h		971			769						210	
Approach Delay, s/veh		23.4			4.4						28.3	
Approach LOS		C			A						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	15.8	53.2
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I2), s	2.4	18.3		9.0	11.3	4.5
Green Ext Time (p_c), s	0.0	7.8		0.5	0.2	6.0

Intersection Summary		
HCM 6th Ctrl Delay		16.4
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 (veh/h)	110	602	88	132	620	77	101	66	132	3	1	14
Future Volume (veh/h)	110	602	88	132	620	77	101	66	132	3	1	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.92	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	654	96	143	674	84	110	72	143	3	1	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	1543	226	171	2496	307	354	104	207	38	13	44
Arrive On Green	0.10	1.00	1.00	0.10	0.54	0.54	0.20	0.20	0.20	0.03	0.03	0.03
Sat Flow, veh/h	3456	3085	452	1781	4583	565	1781	525	1043	1352	451	1561
Grp Volume(v), veh/h	120	376	374	143	499	259	110	0	215	4	0	15
Grp Sat Flow(s),veh/h/ln	1728	1777	1761	1781	1702	1743	1781	0	1569	1803	0	1561
Q Serve(g_s), s	3.6	0.0	0.0	8.5	8.4	8.6	5.7	0.0	13.7	0.2	0.0	1.0
Cycle Q Clear(g_c), s	3.6	0.0	0.0	8.5	8.4	8.6	5.7	0.0	13.7	0.2	0.0	1.0
Prop In Lane	1.00		0.26	1.00		0.32	1.00		0.67	0.75		1.00
Lane Grp Cap(c), veh/h	179	889	881	171	1854	950	354	0	311	51	0	44
V/C Ratio(X)	0.67	0.42	0.42	0.83	0.27	0.27	0.31	0.00	0.69	0.08	0.00	0.34
Avail Cap(c_a), veh/h	595	889	881	191	1854	950	414	0	365	285	0	247
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)	0.92	0.92	0.92	0.76	0.76	0.76	0.76	0.00	0.76	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.5	0.0	0.0	48.0	13.1	13.2	37.0	0.0	40.2	51.1	0.0	51.5
Incr Delay (d2), s/veh	1.5	1.4	1.4	17.4	0.3	0.5	0.1	0.0	2.4	0.2	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.3	0.3	4.6	3.2	3.4	2.5	0.0	5.5	0.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	1.4	1.4	65.4	13.4	13.7	37.1	0.0	42.6	51.4	0.0	53.2
LnGrp LOS	D	A	A	E	B	B	D	A	D	D	A	D
Approach Vol, veh/h		870			901			325			19	
Approach Delay, s/veh		7.9			21.7			40.7			52.8	
Approach LOS		A			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	63.7		26.3	14.8	58.9		7.9
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	5.6	10.6		15.7	10.5	2.0		3.0
Green Ext Time (p_c), s	0.1	7.4		0.7	0.0	9.7		0.0

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

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	602	72	77	571	248	120	32	75	168	27	138
Future Volume (veh/h)	63	602	72	77	571	248	120	32	75	168	27	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.91	1.00		0.92	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	654	78	84	621	270	130	35	82	183	29	150
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	798	95	108	942	396	439	118	547	226	36	229
Arrive On Green	0.04	0.25	0.25	0.06	0.28	0.28	0.31	0.31	0.31	0.15	0.15	0.15
Sat Flow, veh/h	3456	3153	375	1781	3420	1437	1418	382	1457	1548	245	1566
Grp Volume(v), veh/h	68	368	364	84	618	273	165	0	82	212	0	150
Grp Sat Flow(s),veh/h/ln	1728	1777	1751	1781	1702	1452	1799	0	1457	1793	0	1566
Q Serve(g_s), s	1.6	16.1	16.2	3.8	13.3	13.9	5.8	0.0	3.1	9.5	0.0	7.5
Cycle Q Clear(g_c), s	1.6	16.1	16.2	3.8	13.3	13.9	5.8	0.0	3.1	9.5	0.0	7.5
Prop In Lane	1.00		0.21	1.00		0.99	0.79		1.00	0.86		1.00
Lane Grp Cap(c), veh/h	132	450	443	108	938	400	557	0	547	262	0	229
V/C Ratio(X)	0.52	0.82	0.82	0.78	0.66	0.68	0.30	0.00	0.15	0.81	0.00	0.66
Avail Cap(c_a), veh/h	221	519	512	164	1090	465	783	0	730	392	0	342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.1	29.1	29.1	38.3	26.5	26.8	21.7	0.0	17.4	34.2	0.0	33.4
Incr Delay (d2), s/veh	1.2	9.3	9.6	5.8	0.8	2.3	0.1	0.0	0.0	4.3	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.7	7.7	1.8	5.2	4.8	2.4	0.0	1.0	4.3	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	38.4	38.8	44.2	27.3	29.0	21.8	0.0	17.5	38.5	0.0	34.6
LnGrp LOS	D	D	D	D	C	C	C	A	B	D	A	C
Approach Vol, veh/h		800			975			247			362	
Approach Delay, s/veh		38.7			29.2			20.4			36.9	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.4	25.9		17.0	7.6	27.7		30.5
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	5.8	18.2		11.5	3.6	15.9		7.8
Green Ext Time (p_c), s	0.0	2.6		0.6	0.0	3.1		0.8

Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

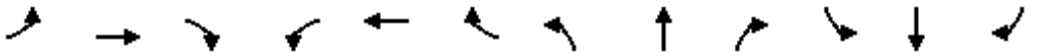
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	794	25	125	884	14	0	0	108	4	3	19
Future Vol, veh/h	47	794	25	125	884	14	0	0	108	4	3	19
Conflicting Peds, #/hr	0	0	26	0	0	26	0	0	4	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	863	27	136	961	15	0	0	117	4	3	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1002	0	0	916	0	0	-	-	475	1718	2285	516
Stage 1	-	-	-	-	-	-	-	-	-	1267	1267	-
Stage 2	-	-	-	-	-	-	-	-	-	451	1018	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	391	-	-	430	-	-	0	0	459	95	39	431
Stage 1	-	-	-	-	-	-	0	0	-	129	238	-
Stage 2	-	-	-	-	-	-	0	0	-	510	313	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	381	-	-	419	-	-	-	-	446	46	22	420
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	46	22	-
Stage 1	-	-	-	-	-	-	-	-	-	109	157	-
Stage 2	-	-	-	-	-	-	-	-	-	324	264	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	2.2	15.9	56.7
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	446	381	-	-	419	-	-	97
HCM Lane V/C Ratio	0.263	0.134	-	-	0.324	-	-	0.291
HCM Control Delay (s)	15.9	15.9	-	-	17.7	-	-	56.7
HCM Lane LOS	C	C	-	-	C	-	-	F
HCM 95th %tile Q(veh)	1	0.5	-	-	1.4	-	-	1.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	862	31	221	940	5	107	3	166	0	0	0
Future Volume (veh/h)	27	862	31	221	940	5	107	3	166	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	29	937	34	240	1022	5	116	3	180			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	271	2733	99	273	2820	14	302	8	258			
Arrive On Green	0.15	0.54	0.54	0.15	0.54	0.54	0.17	0.17	0.17			
Sat Flow, veh/h	1781	5048	183	1781	5242	26	1738	45	1487			
Grp Volume(v), veh/h	29	631	340	240	664	363	119	0	180			
Grp Sat Flow(s),veh/h/ln	1781	1702	1826	1781	1702	1864	1783	0	1487			
Q Serve(g_s), s	1.5	11.3	11.3	14.2	12.1	12.1	6.4	0.0	12.3			
Cycle Q Clear(g_c), s	1.5	11.3	11.3	14.2	12.1	12.1	6.4	0.0	12.3			
Prop In Lane	1.00		0.10	1.00		0.01	0.97		1.00			
Lane Grp Cap(c), veh/h	271	1843	989	273	1831	1003	310	0	258			
V/C Ratio(X)	0.11	0.34	0.34	0.88	0.36	0.36	0.38	0.00	0.70			
Avail Cap(c_a), veh/h	271	1843	989	785	1831	1003	398	0	332			
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	1.00	1.00	0.46	0.46	0.46	0.99	0.00	0.99			
Uniform Delay (d), s/veh	39.5	13.9	13.9	44.7	14.3	14.3	39.5	0.0	41.9			
Incr Delay (d2), s/veh	0.1	0.5	0.9	1.7	0.3	0.5	0.3	0.0	2.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.7	4.3	4.7	6.3	4.5	5.0	2.8	0.0	4.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	14.4	14.9	46.5	14.6	14.8	39.8	0.0	44.4			
LnGrp LOS	D	B	B	D	B	B	D	A	D			
Approach Vol, veh/h		1000			1267			299				
Approach Delay, s/veh		15.3			20.7			42.6				
Approach LOS		B			C			D				

Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	21.0	63.4			21.3	63.0		23.7				
Change Period (Y+Rc), s	4.4	4.9			4.9	* 4.9		4.9				
Max Green Setting (Gmax), s	47.6	22.1			11.6	* 58		24.1				
Max Q Clear Time (g_c+I1), s	16.2	13.3			3.5	14.1		14.3				
Green Ext Time (p_c), s	0.3	5.7			0.0	11.8		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	21.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	499	125	158	520	61	167	155	167	33	141	66
Future Volume (veh/h)	73	499	125	158	520	61	167	155	167	33	141	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	542	136	172	565	66	175	178	182	36	153	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	605	1999	872	215	899	105	243	255	312	213	224	184
Arrive On Green	0.68	1.00	1.00	0.12	0.56	0.56	0.14	0.14	0.14	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1550	3456	3188	371	1781	1870	1564	1781	1870	1541
Grp Volume(v), veh/h	79	542	136	172	314	317	175	178	182	36	153	72
Grp Sat Flow(s),veh/h/ln	1781	1777	1550	1728	1777	1782	1781	1870	1564	1781	1870	1541
Q Serve(g_s), s	2.5	0.0	0.0	7.7	19.1	19.3	15.1	14.5	16.9	2.9	12.5	6.9
Cycle Q Clear(g_c), s	2.5	0.0	0.0	7.7	19.1	19.3	15.1	14.5	16.9	2.9	12.5	6.9
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	605	1999	872	215	501	502	243	255	312	213	224	184
V/C Ratio(X)	0.13	0.27	0.16	0.80	0.63	0.63	0.72	0.70	0.58	0.17	0.68	0.39
Avail Cap(c_a), veh/h	605	1999	872	467	501	502	391	410	442	391	410	338
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.71	0.71	0.71	1.00	1.00	1.00	0.73	0.73	0.73
Uniform Delay (d), s/veh	17.3	0.0	0.0	69.1	29.2	29.3	66.2	66.0	58.2	63.3	67.5	65.0
Incr Delay (d2), s/veh	0.0	0.2	0.3	1.9	4.2	4.2	1.5	1.3	0.6	0.1	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.1	0.1	3.3	7.2	7.3	7.0	7.1	6.8	1.3	6.1	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.2	0.3	70.9	33.4	33.5	67.7	67.3	58.8	63.4	68.5	65.4
LnGrp LOS	B	A	A	E	C	C	E	E	E	E	E	E
Approach Vol, veh/h		757			803			535			261	
Approach Delay, s/veh		2.0			41.5			64.5			67.0	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.4	94.9		24.0	59.3	50.0		26.7
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	10.0	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	9.7	2.0		14.5	4.5	21.3		18.9
Green Ext Time (p_c), s	0.2	7.0		0.7	0.1	6.6		1.1

Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	877	10	16	791	312	11	3	7	169	12	81
Future Volume (veh/h)	64	877	10	16	791	312	11	3	7	169	12	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	0.96		1.00	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	953	11	17	860	339	12	3	8	184	13	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	298	2042	24	390	1334	523	230	67	122	293	21	107
Arrive On Green	0.05	0.76	0.76	0.02	0.54	0.54	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3597	42	1781	2453	962	675	279	509	915	88	448
Grp Volume(v), veh/h	70	471	493	17	622	577	23	0	0	285	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1638	1463	0	0	1452	0	0
Q Serve(g_s), s	1.4	8.0	8.0	0.3	19.6	19.8	0.0	0.0	0.0	14.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	8.0	8.0	0.3	19.6	19.8	0.8	0.0	0.0	14.8	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.59	0.52		0.35	0.65		0.31
Lane Grp Cap(c), veh/h	298	1009	1057	390	967	891	418	0	0	421	0	0
V/C Ratio(X)	0.23	0.47	0.47	0.04	0.64	0.65	0.06	0.00	0.00	0.68	0.00	0.00
Avail Cap(c_a), veh/h	420	1009	1057	553	967	891	453	0	0	457	0	0
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	0.96	0.96	0.40	0.40	0.40	1.00	0.00	0.00	0.58	0.00	0.00
Uniform Delay (d), s/veh	10.0	5.2	5.2	8.1	12.8	12.8	23.5	0.0	0.0	28.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.5	1.4	0.0	1.3	1.5	0.0	0.0	0.0	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.5	2.6	0.1	7.3	6.8	0.3	0.0	0.0	5.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	6.7	6.6	8.1	14.1	14.3	23.5	0.0	0.0	30.3	0.0	0.0
LnGrp LOS	B	A	A	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		1034			1216			23			285	
Approach Delay, s/veh		6.9			14.1			23.5			30.3	
Approach LOS		A			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	50.3		24.0	7.6	48.4		24.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.3	10.0		16.8	3.4	21.8		2.8
Green Ext Time (p_c), s	0.0	7.5		0.5	0.0	7.6		0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	21	25	138	160	38
Future Vol, veh/h	17	21	25	138	160	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	23	27	150	174	41
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.8	8.5	8.6
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	45%	0%
Vol Thru, %	0%	100%	0%	81%
Vol Right, %	0%	0%	55%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	138	38	198
LT Vol	25	0	17	0
Through Vol	0	138	0	160
RT Vol	0	0	21	38
Lane Flow Rate	27	150	41	215
Geometry Grp	7	7	2	5
Degree of Util (X)	0.039	0.196	0.052	0.246
Departure Headway (Hd)	5.217	4.715	4.568	4.121
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	682	756	789	857
Service Time	2.98	2.479	2.568	2.214
HCM Lane V/C Ratio	0.04	0.198	0.052	0.251
HCM Control Delay	8.2	8.6	7.8	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.7	0.2	1

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	152	0	0	166	0
Future Vol, veh/h	0	152	0	0	166	0
Conflicting Peds, #/hr	0	0	0	1	0	5
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	0	165	0	0	180	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	165	-
Stage 1	-	-	0	-
Stage 2	-	-	165	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	826	0
Stage 1	0	-	-	0
Stage 2	0	-	864	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	826	-
Mov Cap-2 Maneuver	-	-	790	-
Stage 1	-	-	-	-
Stage 2	-	-	864	-

Approach	EB	SB
HCM Control Delay, s	0	10.9
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	790
HCM Lane V/C Ratio	-	0.228
HCM Control Delay (s)	-	10.9
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.9

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	67	255	0	0	167	0
Future Vol, veh/h	67	255	0	0	167	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	73	277	0	0	182	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.5	9.6
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	44%	0%	100%
Vol Thru, %	56%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	152	170	167
LT Vol	67	0	167
Through Vol	85	170	0
RT Vol	0	0	0
Lane Flow Rate	165	185	182
Geometry Grp	7	7	2
Degree of Util (X)	0.24	0.257	0.25
Departure Headway (Hd)	5.224	5.003	4.958
Convergence, Y/N	Yes	Yes	Yes
Cap	689	719	726
Service Time	2.95	2.728	2.98
HCM Lane V/C Ratio	0.239	0.257	0.251
HCM Control Delay	9.6	9.5	9.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	1	1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	407	0	0	51	0
Future Vol, veh/h	23	407	0	0	51	0
Conflicting Peds, #/hr	0	0	0	2	0	3
Sign Control	Free	Free	Stop	Stop	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	25	442	0	0	55	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	271	-
Stage 1	-	-	0	-
Stage 2	-	-	271	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	696	0
Stage 1	-	-	-	0
Stage 2	-	-	750	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	696	-
Mov Cap-2 Maneuver	-	-	696	-
Stage 1	-	-	-	-
Stage 2	-	-	750	-

Approach	EB	SB
HCM Control Delay, s		10.6
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	696
HCM Lane V/C Ratio	-	-	0.08
HCM Control Delay (s)	-	-	10.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	72	294	28	64	14	0	0	90	11
Future Vol, veh/h	0	0	0	72	294	28	64	14	0	0	90	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	78	320	30	70	15	0	0	98	12
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	10.1	9	8.9
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	82%	33%	0%	0%
Vol Thru, %	18%	67%	84%	89%
Vol Right, %	0%	0%	16%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	219	175	101
LT Vol	64	72	0	0
Through Vol	14	147	147	90
RT Vol	0	0	28	11
Lane Flow Rate	85	238	190	110
Geometry Grp	2	7	7	2
Degree of Util (X)	0.123	0.343	0.26	0.151
Departure Headway (Hd)	5.224	5.191	4.913	4.965
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	685	693	730	721
Service Time	3.262	2.924	2.647	3
HCM Lane V/C Ratio	0.124	0.343	0.26	0.153
HCM Control Delay	9	10.6	9.4	8.9
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.4	1.5	1	0.5

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	22	275	40	19	6	0	0	25	92
Future Vol, veh/h	0	0	0	22	275	40	19	6	0	0	25	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	24	299	43	21	7	0	0	27	100
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.1	8.3	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	76%	14%	0%	0%
Vol Thru, %	24%	86%	77%	21%
Vol Right, %	0%	0%	23%	79%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	160	178	117
LT Vol	19	22	0	0
Through Vol	6	138	138	25
RT Vol	0	0	40	92
Lane Flow Rate	27	173	193	127
Geometry Grp	2	7	7	2
Degree of Util (X)	0.038	0.24	0.254	0.153
Departure Headway (Hd)	5.064	4.974	4.747	4.325
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	708	726	762	830
Service Time	3.088	2.674	2.447	2.342
HCM Lane V/C Ratio	0.038	0.238	0.253	0.153
HCM Control Delay	8.3	9.2	9.1	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.9	1	0.5

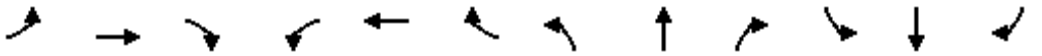
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	9	0	0	31	0	2039	11	0	2199	99
Future Vol, veh/h	0	0	9	0	0	31	0	2039	11	0	2199	99
Conflicting Peds, #/hr	0	0	0	0	0	1	0	0	5	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	10	0	0	34	0	2216	12	0	2390	108

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1255	-	-	1120	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	140	0	0	175	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	139	-	-	174	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.9	30.6	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	139	174	-	-
HCM Lane V/C Ratio	-	-	0.07	0.194	-	-
HCM Control Delay (s)	-	-	32.9	30.6	-	-
HCM Lane LOS	-	-	D	D	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.7	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	69	150	72	74	1962	10	0	2053	135
Future Volume (veh/h)	0	0	0	69	150	72	74	1962	10	0	2053	135
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				75	163	78	80	2133	11	0	2232	147
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				115	255	126	97	4199	22	0	3681	1114
Arrive On Green				0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.72	0.72
Sat Flow, veh/h				809	1798	887	1781	5242	27	0	5274	1545
Grp Volume(v), veh/h				170	0	146	80	1385	759	0	2232	147
Grp Sat Flow(s),veh/h/ln				1830	0	1665	1781	1702	1865	0	1702	1545
Q Serve(g_s), s				15.1	0.0	14.2	7.6	0.0	0.0	0.0	37.3	5.0
Cycle Q Clear(g_c), s				15.1	0.0	14.2	7.6	0.0	0.0	0.0	37.3	5.0
Prop In Lane				0.44		0.53	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				260	0	236	97	2727	1494	0	3681	1114
V/C Ratio(X)				0.65	0.00	0.62	0.82	0.51	0.51	0.00	0.61	0.13
Avail Cap(c_a), veh/h				373	0	340	275	2727	1494	0	3681	1114
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.77	0.77	0.77	0.00	1.00	1.00
Uniform Delay (d), s/veh				69.8	0.0	69.4	75.8	0.0	0.0	0.0	11.9	7.4
Incr Delay (d2), s/veh				1.0	0.0	1.0	5.0	0.5	1.0	0.0	0.7	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.2	0.0	6.2	3.4	0.2	0.4	0.0	13.4	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				70.8	0.0	70.4	80.8	0.5	1.0	0.0	12.6	7.6
LnGrp LOS				E	A	E	F	A	A	A	B	A
Approach Vol, veh/h					316			2224			2379	
Approach Delay, s/veh					70.6			3.6			12.3	
Approach LOS					E			A			B	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	142.7	29.3	13.8	128.9
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	17.1	9.6	39.3
Green Ext Time (p_c), s	7.4	0.6	0.0	9.0

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



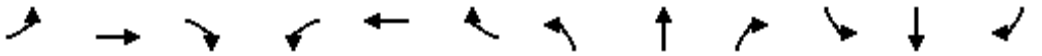
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	233	152	104	0	0	0	0	1812	33	54	2059	0
Future Volume (veh/h)	233	152	104	0	0	0	0	1812	33	54	2059	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	253	165	113				0	1970	36	59	2238	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	328	345	268				0	3571	65	74	4882	0
Arrive On Green	0.18	0.18	0.18				0.00	1.00	1.00	0.08	1.00	0.00
Sat Flow, veh/h	1781	1870	1455				0	5332	94	1781	6696	0
Grp Volume(v), veh/h	253	165	113				0	1298	708	59	2238	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1455				0	1702	1853	1781	1609	0
Q Serve(g_s), s	23.2	13.6	11.8				0.0	0.0	0.0	5.6	0.0	0.0
Cycle Q Clear(g_c), s	23.2	13.6	11.8				0.0	0.0	0.0	5.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	328	345	268				0	2354	1282	74	4882	0
V/C Ratio(X)	0.77	0.48	0.42				0.00	0.55	0.55	0.80	0.46	0.00
Avail Cap(c_a), veh/h	364	382	297				0	2354	1282	193	4882	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.50	0.50	0.73	0.73	0.00
Uniform Delay (d), s/veh	66.7	62.8	62.0				0.0	0.0	0.0	78.1	0.0	0.0
Incr Delay (d2), s/veh	7.6	0.4	0.4				0.0	0.5	0.9	5.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	6.6	4.5				0.0	0.2	0.3	2.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	63.1	62.4				0.0	0.5	0.9	83.4	0.2	0.0
LnGrp LOS	E	E	E				A	A	A	F	A	A
Approach Vol, veh/h		531						2006			2297	
Approach Delay, s/veh		68.3						0.6			2.4	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	11.6	123.8	36.6	135.4
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	19.6	104.1	35.1	127.1
Max Q Clear Time (g_c+I1), s	7.6	2.0	25.2	2.0
Green Ext Time (p_c), s	0.0	5.9	0.4	9.0

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	361	444	257	244	263	7	397	1494	498	0	1527	590
Future Volume (vph)	361	444	257	244	263	7	397	1494	498	0	1527	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.92	1.00	1.00		1.00	1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.96			1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3359	1460	1610	3341		3662	4874			5085	1504
Flt Permitted	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3359	1460	1610	3341		3662	4874			5085	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	392	483	279	265	286	8	432	1624	541	0	1660	641
RTOR Reduction (vph)	0	0	204	0	1	0	0	30	0	0	0	226
Lane Group Flow (vph)	282	593	75	183	375	0	432	2135	0	0	1660	415
Confl. Peds. (#/hr)			45			1			3			21
Confl. Bikes (#/hr)			3			7						
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	35.6	35.6	35.6	23.7	23.7		23.6	95.0			66.0	66.0
Effective Green, g (s)	35.6	35.6	35.6	23.7	23.7		23.6	95.0			66.0	66.0
Actuated g/C Ratio	0.21	0.21	0.21	0.14	0.14		0.14	0.55			0.38	0.38
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	333	695	302	221	460		502	2692			1951	577
v/s Ratio Prot	0.18	c0.18		c0.11	0.11		0.12	c0.44			c0.33	
v/s Ratio Perm			0.05									0.28
v/c Ratio	0.85	0.85	0.25	0.83	0.82		0.86	0.79			0.85	0.72
Uniform Delay, d1	65.6	65.7	57.0	72.2	72.0		72.6	30.7			48.5	45.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.21	0.42			0.67	0.36
Incremental Delay, d2	17.1	9.6	0.2	20.9	10.1		8.9	1.5			4.5	6.9
Delay (s)	82.6	75.3	57.2	93.0	82.2		96.8	14.3			36.8	22.9
Level of Service	F	E	E	F	F		F	B			D	C
Approach Delay (s)		72.7			85.7			28.1			33.0	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	42.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	517	254	133	576	323	313	1747	93	341	1439	244
Future Volume (veh/h)	240	517	254	133	576	323	313	1747	93	341	1439	244
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.95	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	562	276	145	626	351	340	1899	101	371	1564	265
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	634	267	164	663	281	381	2075	110	662	2207	372
Arrive On Green	0.09	0.18	0.18	0.09	0.19	0.19	0.07	0.28	0.28	0.19	0.50	0.50
Sat Flow, veh/h	3456	3554	1494	1781	3554	1507	3456	4951	263	3456	4384	740
Grp Volume(v), veh/h	261	562	276	145	626	351	340	1304	696	371	1213	616
Grp Sat Flow(s),veh/h/ln	1728	1777	1494	1781	1777	1507	1728	1702	1810	1728	1702	1719
Q Serve(g_s), s	12.8	26.5	24.5	13.8	29.9	22.1	16.8	63.7	64.1	16.7	47.3	47.7
Cycle Q Clear(g_c), s	12.8	26.5	24.5	13.8	29.9	22.1	16.8	63.7	64.1	16.7	47.3	47.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.43
Lane Grp Cap(c), veh/h	300	634	267	164	663	281	381	1427	759	662	1714	866
V/C Ratio(X)	0.87	0.89	1.04	0.88	0.94	1.25	0.89	0.91	0.92	0.56	0.71	0.71
Avail Cap(c_a), veh/h	434	684	287	193	663	281	675	1427	759	662	1714	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.6	68.9	45.2	77.2	69.1	33.2	78.6	58.8	59.0	62.9	32.9	33.0
Incr Delay (d2), s/veh	8.3	11.0	59.8	29.2	22.0	138.1	2.3	7.9	13.7	0.7	1.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	13.1	13.6	7.7	15.6	18.9	7.8	29.7	33.0	7.4	19.5	20.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.9	80.0	105.0	106.4	91.1	171.3	80.9	66.7	72.7	63.6	34.1	35.4
LnGrp LOS	F	E	F	F	F	F	F	E	E	E	C	D
Approach Vol, veh/h		1099			1122			2340			2200	
Approach Delay, s/veh		87.7			118.2			70.6			39.5	
Approach LOS		F			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.7	77.0	20.7	35.6	23.4	92.3	19.4	37.0
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	18.7	66.1	15.8	28.5	18.8	49.7	14.8	31.9
Green Ext Time (p_c), s	0.2	3.1	0.0	0.9	0.2	4.8	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	71.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	11	6	101	17	112	9	1983	34	103	1568	37
Future Volume (veh/h)	45	11	6	101	17	112	9	1983	34	103	1568	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	12	7	110	18	122	10	2155	37	112	1704	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	37	18	144	22	129	20	3452	59	131	3747	88
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.01	0.67	0.67	0.07	0.73	0.73
Sat Flow, veh/h	711	217	107	668	126	756	1781	5168	89	1781	5129	120
Grp Volume(v), veh/h	68	0	0	250	0	0	10	1418	774	112	1131	613
Grp Sat Flow(s),veh/h/ln	1035	0	0	1550	0	0	1781	1702	1852	1781	1702	1845
Q Serve(g_s), s	0.0	0.0	0.0	17.5	0.0	0.0	1.0	40.8	41.0	10.7	23.0	23.1
Cycle Q Clear(g_c), s	9.8	0.0	0.0	27.3	0.0	0.0	1.0	40.8	41.0	10.7	23.0	23.1
Prop In Lane	0.72		0.10	0.44		0.49	1.00		0.05	1.00		0.07
Lane Grp Cap(c), veh/h	213	0	0	295	0	0	20	2274	1237	131	2487	1348
V/C Ratio(X)	0.32	0.00	0.00	0.85	0.00	0.00	0.51	0.62	0.63	0.85	0.45	0.45
Avail Cap(c_a), veh/h	218	0	0	301	0	0	162	2274	1237	369	2487	1348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.53	0.53	0.53	0.58	0.58	0.58
Uniform Delay (d), s/veh	62.9	0.0	0.0	70.2	0.0	0.0	84.6	16.2	16.3	78.8	9.3	9.3
Incr Delay (d2), s/veh	0.3	0.0	0.0	18.2	0.0	0.0	3.9	0.7	1.3	3.5	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	12.5	0.0	0.0	0.5	15.5	17.1	5.0	8.2	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.2	0.0	0.0	88.4	0.0	0.0	88.5	16.9	17.6	82.3	9.7	10.0
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		68			250			2202			1856	
Approach Delay, s/veh		63.2			88.4			17.5			14.2	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.1	120.6		34.3	6.3	131.4		34.3
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	12.7	43.0		11.8	3.0	25.1		29.3
Green Ext Time (p_c), s	0.0	6.9		0.1	0.0	4.7		0.1

Intersection Summary	
HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	269	15	563	341	179	22	1639	767	144	1282	319
Future Volume (veh/h)	242	269	15	563	341	179	22	1639	767	144	1282	319
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	263	292	16	612	371	195	24	1782	834	157	1393	347
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	324	18	615	394	329	35	2392	730	195	1795	783
Arrive On Green	0.15	0.18	0.18	0.18	0.21	0.21	0.02	0.47	0.47	0.11	1.00	1.00
Sat Flow, veh/h	1781	1754	96	3456	1870	1562	1781	5106	1557	3456	3554	1551
Grp Volume(v), veh/h	263	0	308	612	371	195	24	1782	834	157	1393	347
Grp Sat Flow(s),veh/h/ln	1781	0	1850	1728	1870	1562	1781	1702	1557	1728	1777	1551
Q Serve(g_s), s	25.4	0.0	28.0	30.4	33.6	16.7	2.3	49.0	80.6	7.6	0.0	0.0
Cycle Q Clear(g_c), s	25.4	0.0	28.0	30.4	33.6	16.7	2.3	49.0	80.6	7.6	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	0	341	615	394	329	35	2392	730	195	1795	783
V/C Ratio(X)	0.99	0.00	0.90	1.00	0.94	0.59	0.68	0.75	1.14	0.81	0.78	0.44
Avail Cap(c_a), veh/h	265	0	442	615	501	419	120	2392	730	434	1795	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	73.1	0.0	68.6	70.6	66.8	45.3	83.8	37.3	45.7	75.4	0.0	0.0
Incr Delay (d2), s/veh	52.9	0.0	15.8	35.1	21.3	0.6	8.2	2.2	80.3	2.7	3.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	0.0	14.8	16.4	18.2	6.5	1.1	20.6	46.5	3.3	0.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	126.0	0.0	84.4	105.7	88.1	45.9	91.9	39.5	126.0	78.0	3.0	1.6
LnGrp LOS	F	A	F	F	F	D	F	D	F	E	A	A
Approach Vol, veh/h		571			1178			2640			1897	
Approach Delay, s/veh		103.6			90.3			67.3			9.0	
Approach LOS		F			F			E			A	

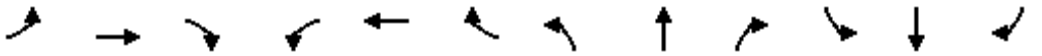
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	86.3	35.0	36.6	7.8	92.6	30.5	41.1
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	9.6	82.6	32.4	30.0	4.3	2.0	27.4	35.6
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	4.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	57.3
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	176	4	175	0	140	0	730	342	66	311	0
Future Volume (vph)	78	176	4	175	0	140	0	730	342	66	311	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.93		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	1.00		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1856		1770		1554		3136		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.10	1.00	
Satd. Flow (perm)	1770	1856		1770		1554		3136		180	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	85	191	4	190	0	152	0	793	372	72	338	0
RTOR Reduction (vph)	0	1	0	0	0	119	0	53	0	0	0	0
Lane Group Flow (vph)	85	194	0	190	0	33	0	1112	0	72	338	0
Confl. Peds. (#/hr)			15			3			94			11
Confl. Bikes (#/hr)									12			9
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	16.6	16.6		12.1		12.1		38.7		47.1	47.1	
Effective Green, g (s)	16.6	16.6		12.1		12.1		38.7		47.1	47.1	
Actuated g/C Ratio	0.18	0.18		0.13		0.13		0.43		0.52	0.52	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	326	342		237		208		1348		164	1852	
v/s Ratio Prot	0.05	c0.10		c0.11				c0.35		c0.02	0.10	
v/s Ratio Perm						0.02				0.21		
v/c Ratio	0.26	0.57		0.80		0.16		0.82		0.44	0.18	
Uniform Delay, d1	31.4	33.4		37.8		34.5		22.7		15.1	11.3	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.2	1.3		16.6		0.1		5.9		0.7	0.2	
Delay (s)	31.6	34.7		54.4		34.6		28.5		15.8	11.5	
Level of Service	C	C		D		C		C		B	B	
Approach Delay (s)		33.8			45.6			28.5			12.3	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

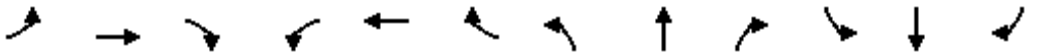
Intersection	
Int Delay, s/veh	1.2

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	178	749	393	73	0	1
Future Vol, veh/h	178	749	393	73	0	1
Conflicting Peds, #/hr	0	0	0	23	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	193	814	427	79	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	529	0	-	0	1283	276
Stage 1	-	-	-	-	490	-
Stage 2	-	-	-	-	793	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1034	-	-	-	157	721
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	406	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1011	-	-	-	122	705
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	460	-
Stage 2	-	-	-	-	397	-

Approach	NB	SB	SE
HCM Control Delay, s	1.8	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1011	-	705	-	-
HCM Lane V/C Ratio	0.191	-	0.002	-	-
HCM Control Delay (s)	9.4	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.7	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	591	106	399	268	78	154	169	510	77	373	93
Future Volume (veh/h)	98	591	106	399	268	78	154	169	510	77	373	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.86	1.00		0.97	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	107	642	115	434	291	85	167	184	554	84	405	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	1679	626	516	752	616	200	892	1086	140	637	268
Arrive On Green	0.08	0.33	0.33	0.15	0.40	0.40	0.11	0.25	0.25	0.04	0.18	0.18
Sat Flow, veh/h	1781	5106	1363	3456	1870	1532	1781	3554	2669	3456	3554	1494
Grp Volume(v), veh/h	107	642	115	434	291	85	167	184	554	84	405	101
Grp Sat Flow(s),veh/h/ln	1781	1702	1363	1728	1870	1532	1781	1777	1335	1728	1777	1494
Q Serve(g_s), s	6.0	9.8	5.2	12.4	11.2	3.6	9.3	4.2	16.0	2.4	10.7	6.0
Cycle Q Clear(g_c), s	6.0	9.8	5.2	12.4	11.2	3.6	9.3	4.2	16.0	2.4	10.7	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	1679	626	516	752	616	200	892	1086	140	637	268
V/C Ratio(X)	0.79	0.38	0.18	0.84	0.39	0.14	0.83	0.21	0.51	0.60	0.64	0.38
Avail Cap(c_a), veh/h	526	2010	714	1020	752	616	526	1399	1467	1020	1399	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	26.2	17.3	42.1	21.5	19.2	44.2	30.1	23.1	47.9	38.6	36.7
Incr Delay (d2), s/veh	3.9	0.2	0.2	1.5	0.2	0.1	3.5	0.1	0.4	1.5	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	4.0	1.6	5.3	4.8	1.2	4.2	1.7	4.7	1.0	4.5	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	26.3	17.5	43.5	21.7	19.3	47.7	30.2	23.4	49.5	39.0	37.0
LnGrp LOS	D	C	B	D	C	B	D	C	C	D	D	D
Approach Vol, veh/h		864			810			905			590	
Approach Delay, s/veh		28.1			33.1			29.3			40.2	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	39.3	16.8	24.9	13.1	46.8	9.5	32.2
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	14.4	11.8	11.3	12.7	8.0	13.2	4.4	18.0
Green Ext Time (p_c), s	0.7	6.5	0.2	1.7	0.1	1.3	0.1	3.4

Intersection Summary	
HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	47.1

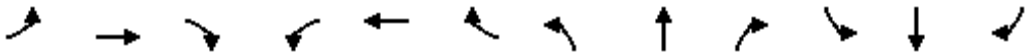
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	543	320	676	869	15
Future Vol, veh/h	0	543	320	676	869	15
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
Veh in Median Storage, #	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	0	590	348	735	945	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	485	965	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	~ 452	407	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	~ 450	405	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	181.3	15.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	405	-	450	-	-
HCM Lane V/C Ratio	0.859	-	1.312	-	-
HCM Control Delay (s)	48.8	-	181.3	-	-
HCM Lane LOS	E	-	F	-	-
HCM 95th %tile Q(veh)	8.4	-	26	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	7	75	42	21	65	234	1230	14	28	1324	108
Future Volume (veh/h)	63	7	75	42	21	65	234	1230	14	28	1324	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.94	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	8	82	46	23	71	254	1337	15	30	1439	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	306	256	59	291	232	279	2161	941	38	1571	127
Arrive On Green	0.05	0.16	0.16	0.03	0.16	0.16	0.16	0.61	0.61	0.02	0.47	0.47
Sat Flow, veh/h	1781	1870	1564	1781	1870	1487	1781	3554	1548	1781	3323	269
Grp Volume(v), veh/h	68	8	82	46	23	71	254	1337	15	30	766	790
Grp Sat Flow(s),veh/h/ln	1781	1870	1564	1781	1870	1487	1781	1777	1548	1781	1777	1815
Q Serve(g_s), s	5.1	0.5	6.2	3.5	1.4	5.7	18.9	31.8	0.5	2.3	53.8	54.8
Cycle Q Clear(g_c), s	5.1	0.5	6.2	3.5	1.4	5.7	18.9	31.8	0.5	2.3	53.8	54.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	87	306	256	59	291	232	279	2161	941	38	840	858
V/C Ratio(X)	0.78	0.03	0.32	0.78	0.08	0.31	0.91	0.62	0.02	0.79	0.91	0.92
Avail Cap(c_a), veh/h	114	473	396	135	523	416	365	2596	1131	97	1030	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.4	47.3	49.7	64.6	48.6	50.4	55.9	16.6	10.4	65.6	32.9	33.2
Incr Delay (d2), s/veh	26.4	0.0	0.9	7.8	0.3	2.0	19.6	0.1	0.0	12.6	9.4	10.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.2	2.4	1.7	0.7	2.2	9.7	11.4	0.2	1.1	23.9	25.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.8	47.4	50.6	72.4	48.9	52.5	75.5	16.7	10.4	78.2	42.3	43.4
LnGrp LOS	F	D	D	E	D	D	E	B	B	E	D	D
Approach Vol, veh/h		158			140			1606			1586	
Approach Delay, s/veh		67.3			58.4			26.0			43.5	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	30.7	25.5	68.6	11.0	29.7	7.3	86.8
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	10.2	34.1	27.6	78.1	8.6	* 38	7.3	98.4
Max Q Clear Time (g_c+I1), s	5.5	8.2	20.9	56.8	7.1	7.7	4.3	33.8
Green Ext Time (p_c), s	0.0	0.3	0.2	6.9	0.0	0.8	0.0	6.6

Intersection Summary	
HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

Notes

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

User approved ignoring U-Turning movement.

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

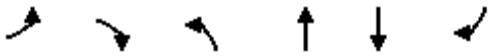
Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1090	1150	10	0	296
Future Vol, veh/h	0	1090	1150	10	0	296
Conflicting Peds, #/hr	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	1185	1250	11	0	322

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	628
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	426
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	425
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	35.4
HCM LOS			E

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	425
HCM Lane V/C Ratio	-	-	0.757
HCM Control Delay (s)	-	-	35.4
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	6.3



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	949	123	0	1375	1175	1160
Future Volume (vph)	949	123	0	1375	1175	1160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1563		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1563		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1032	134	0	1495	1277	1261
RTOR Reduction (vph)	0	54	0	0	0	0
Lane Group Flow (vph)	1032	80	0	1495	1277	1261
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)		1				1
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	40.0	40.0		69.9	69.9	153.8
Effective Green, g (s)	40.0	40.0		69.9	69.9	148.4
Actuated g/C Ratio	0.24	0.24		0.43	0.43	0.90
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	835	380		1504	1504	1428
v/s Ratio Prot	c0.30			c0.42	0.36	c0.80
v/s Ratio Perm		0.05				
v/c Ratio	1.24	0.21		0.99	0.85	0.88
Uniform Delay, d1	62.2	49.6		47.0	42.5	3.8
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	116.5	0.2		21.6	4.7	6.8
Delay (s)	178.7	49.8		68.7	47.2	10.6
Level of Service	F	D		E	D	B
Approach Delay (s)	163.9			68.7	29.0	
Approach LOS	F			E	C	

Intersection Summary			
HCM 2000 Control Delay	70.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	164.4	Sum of lost time (s)	19.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	1314	476	147	1369
Future Volume (veh/h)	0	1	1314	476	147	1369
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1428	517	160	1488
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	5	2389	1045	259	2889
Arrive On Green	0.00	0.00	0.67	0.67	0.07	0.81
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	1428	517	160	1488
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	14.7	10.9	3.0	9.0
Cycle Q Clear(g_c), s	0.0	0.0	14.7	10.9	3.0	9.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	5	2389	1045	259	2889
V/C Ratio(X)	0.00	0.21	0.60	0.49	0.62	0.51
Avail Cap(c_a), veh/h	1068	1900	3195	1397	1553	3195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	33.3	6.0	5.3	29.9	2.0
Incr Delay (d2), s/veh	0.0	7.9	0.3	0.5	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.9	2.6	1.2	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	41.2	6.3	5.9	30.8	2.3
LnGrp LOS	A	D	A	A	C	A
Approach Vol, veh/h	1		1945			1648
Approach Delay, s/veh	41.2		6.2			5.1
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.4	51.1			60.5	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	5.0	16.7			11.0	2.0
Green Ext Time (p_c), s	0.3	28.2			33.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	107	193	97	52	155	74	1076	174	215	1212	186
Future Volume (veh/h)	169	107	193	97	52	155	74	1076	174	215	1212	186
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	184	116	210	105	57	168	80	1170	189	234	1317	202
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	302	246	131	306	252	131	1600	815	264	1992	991
Arrive On Green	0.07	0.16	0.16	0.07	0.16	0.16	0.04	0.45	0.45	0.15	0.56	0.56
Sat Flow, veh/h	3456	1870	1524	1781	1870	1538	3456	3554	1550	1781	3554	1565
Grp Volume(v), veh/h	184	116	210	105	57	168	80	1170	189	234	1317	202
Grp Sat Flow(s),veh/h/ln	1728	1870	1524	1781	1870	1538	1728	1777	1550	1781	1777	1565
Q Serve(g_s), s	6.2	6.5	15.8	6.8	3.1	12.1	2.7	31.8	7.8	15.2	30.5	6.4
Cycle Q Clear(g_c), s	6.2	6.5	15.8	6.8	3.1	12.1	2.7	31.8	7.8	15.2	30.5	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	302	246	131	306	252	131	1600	815	264	1992	991
V/C Ratio(X)	0.74	0.38	0.85	0.80	0.19	0.67	0.61	0.73	0.23	0.89	0.66	0.20
Avail Cap(c_a), veh/h	880	476	388	454	476	392	880	2112	1038	454	2112	1044
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	44.1	48.0	53.7	42.5	46.3	55.8	26.5	15.2	49.2	18.1	9.1
Incr Delay (d2), s/veh	1.7	0.8	10.2	4.3	0.1	1.1	1.7	1.3	0.2	5.3	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	3.1	6.5	3.1	1.4	4.6	1.2	13.5	2.6	7.1	12.3	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.3	44.9	58.2	58.0	42.6	47.4	57.5	27.8	15.4	54.5	18.9	9.3
LnGrp LOS	E	D	E	E	D	D	E	C	B	D	B	A
Approach Vol, veh/h		510			330			1439			1753	
Approach Delay, s/veh		54.1			49.9			27.8			22.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.8	58.3	13.1	24.6	8.9	71.3	12.8	24.8
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	17.2	33.8	8.8	17.8	4.7	32.5	8.2	14.1
Green Ext Time (p_c), s	0.3	19.3	0.1	1.1	0.1	21.5	0.3	0.4

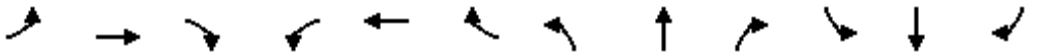
Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1101	297	288	632	0	0	0	0	223	0	0
Future Volume (vph)	0	1101	297	288	632	0	0	0	0	223	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.99	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1562	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1562	3433	3539					1770		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1197	323	313	687	0	0	0	0	242	0	0
RTOR Reduction (vph)	0	0	175	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1197	148	313	687	0	0	0	0	242	0	0
Confl. Peds. (#/hr)						4						
Confl. Bikes (#/hr)			3			2						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		49.7	49.7	15.3	69.7					18.7		
Effective Green, g (s)		45.7	45.7	15.3	65.7					18.7		
Actuated g/C Ratio		0.46	0.46	0.15	0.66					0.19		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1617	713	525	2325					330		
v/s Ratio Prot		c0.34		c0.09	0.19					c0.14		
v/s Ratio Perm			0.09									
v/c Ratio		0.74	0.21	0.60	0.30					0.73		
Uniform Delay, d1		22.3	16.3	39.5	7.3					38.3		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		1.9	0.1	1.2	0.1					7.1		
Delay (s)		24.1	16.4	40.7	7.4					45.4		
Level of Service		C	B	D	A					D		
Approach Delay (s)		22.5			17.8			0.0			45.4	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	880	1240	490	0	0	2004
Future Volume (vph)	880	1240	490	0	0	2004
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	957	1348	533	0	0	2178
RTOR Reduction (vph)	0	154	0	0	0	0
Lane Group Flow (vph)	957	1194	533	0	0	2178
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)				2		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.4	57.3	23.2			45.1
Effective Green, g (s)	35.4	57.3	23.2			45.1
Actuated g/C Ratio	0.37	0.60	0.24			0.47
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1272	1672	1235			3026
v/s Ratio Prot	0.28	c0.43	0.10			c0.34
v/s Ratio Perm						
v/c Ratio	0.75	0.71	0.43			0.72
Uniform Delay, d1	26.2	13.4	30.6			20.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	2.3	1.2	0.1			0.7
Delay (s)	28.5	14.6	30.7			20.8
Level of Service	C	B	C			C
Approach Delay (s)	20.4		30.7			20.8
Approach LOS	C		C			C

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	95.5	Sum of lost time (s)	22.5
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
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)	297	296	235	26	268	423	242	454	22	589	466	227
Future Volume (veh/h)	297	296	235	26	268	423	242	454	22	589	466	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	322	323	255	28	291	0	252	508	0	640	507	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	396	416	701	250	498		402	844		1030	541	
Arrive On Green	0.22	0.22	0.22	0.14	0.14	0.00	0.07	0.07	0.00	0.29	0.29	0.00
Sat Flow, veh/h	1781	1870	1544	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	322	323	255	28	291	0	252	508	0	640	507	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1544	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	27.4	26.0	17.5	2.2	12.3	0.0	22.0	21.1	0.0	24.9	42.3	0.0
Cycle Q Clear(g_c), s	27.4	26.0	17.5	2.2	12.3	0.0	22.0	21.1	0.0	24.9	42.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	396	416	701	250	498		402	844		1030	541	
V/C Ratio(X)	0.81	0.78	0.36	0.11	0.58		0.63	0.60		0.62	0.94	
Avail Cap(c_a), veh/h	435	457	735	357	713		402	844		1030	541	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.00	0.90	0.90	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	59.0	58.5	29.2	60.1	64.4	0.0	67.5	67.1	0.0	49.3	55.5	0.0
Incr Delay (d2), s/veh	13.4	10.4	0.9	0.7	4.0	0.0	6.5	2.9	0.0	1.0	24.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	13.4	9.7	1.0	5.8	0.0	11.3	11.0	0.0	11.3	23.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.4	68.8	30.1	60.8	68.4	0.0	74.0	69.9	0.0	50.3	79.5	0.0
LnGrp LOS	E	E	C	E	E		E	E		D	E	
Approach Vol, veh/h		900			319			760			1147	
Approach Delay, s/veh		59.1			67.7			71.3			63.2	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.5	51.2	27.3	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	29.4	44.3	14.3	24.0
Green Ext Time (p_c), s	5.4	0.0	3.9	2.9

Intersection Summary	
HCM 6th Ctrl Delay	64.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	803	3	0	577	68	0	0	0	74	1	139
Future Volume (veh/h)	101	803	3	0	577	68	0	0	0	74	1	139
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	110	873	3	0	627	74				80	1	151
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	138	1786	6	101	2193	255				556	7	494
Arrive On Green	0.08	0.49	0.49	0.00	0.95	0.95				0.32	0.32	0.32
Sat Flow, veh/h	1781	3632	12	1781	4615	538				1760	22	1564
Grp Volume(v), veh/h	110	427	449	0	460	241				81	0	151
Grp Sat Flow(s),veh/h/ln	1781	1777	1867	1781	1702	1748				1782	0	1564
Q Serve(g_s), s	6.6	17.4	17.4	0.0	1.0	1.0				3.5	0.0	7.9
Cycle Q Clear(g_c), s	6.6	17.4	17.4	0.0	1.0	1.0				3.5	0.0	7.9
Prop In Lane	1.00		0.01	1.00		0.31				0.99		1.00
Lane Grp Cap(c), veh/h	138	874	918	101	1618	831				563	0	494
V/C Ratio(X)	0.80	0.49	0.49	0.00	0.28	0.29				0.14	0.00	0.31
Avail Cap(c_a), veh/h	538	874	918	109	1618	831				563	0	494
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	0.00	0.97	0.97				1.00	0.00	1.00
Uniform Delay (d), s/veh	49.0	18.4	18.4	0.0	1.4	1.4				26.5	0.0	28.0
Incr Delay (d2), s/veh	1.7	0.8	0.8	0.0	0.4	0.9				0.5	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	7.0	7.4	0.0	0.4	0.5				1.6	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	19.2	19.1	0.0	1.9	2.3				27.0	0.0	29.6
LnGrp LOS	D	B	B	A	A	A				C	A	C
Approach Vol, veh/h		986			701						232	
Approach Delay, s/veh		22.7			2.0						28.7	
Approach LOS		C			A						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	12.8	56.2
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I1), s	10.0	19.4		9.9	8.6	3.0
Green Ext Time (p_c), s	0.0	7.6		0.5	0.1	5.5

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	254	509	109	104	523	51	107	143	107	2	0	12
Future Volume (veh/h)	254	509	109	104	523	51	107	143	107	2	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	1.00		0.93	1.00		0.75	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	276	553	118	113	568	55	116	155	116	2	0	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	339	1393	295	140	2218	212	410	198	148	42	0	37
Arrive On Green	0.20	0.98	0.98	0.08	0.47	0.47	0.23	0.23	0.23	0.02	0.00	0.02
Sat Flow, veh/h	3456	2839	602	1781	4707	449	1781	859	643	1781	0	1585
Grp Volume(v), veh/h	276	345	326	113	408	215	116	0	271	2	0	13
Grp Sat Flow(s),veh/h/ln	1728	1777	1664	1781	1702	1752	1781	0	1502	1781	0	1585
Q Serve(g_s), s	8.3	0.6	0.6	6.7	7.8	8.0	5.8	0.0	18.3	0.1	0.0	0.9
Cycle Q Clear(g_c), s	8.3	0.6	0.6	6.7	7.8	8.0	5.8	0.0	18.3	0.1	0.0	0.9
Prop In Lane	1.00		0.36	1.00		0.26	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	339	872	816	140	1604	826	410	0	346	42	0	37
V/C Ratio(X)	0.81	0.40	0.40	0.81	0.25	0.26	0.28	0.00	0.78	0.05	0.00	0.35
Avail Cap(c_a), veh/h	595	872	816	191	1604	826	414	0	349	282	0	251
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)	0.91	0.91	0.91	0.57	0.57	0.57	0.89	0.00	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	0.5	0.5	49.0	17.2	17.2	34.2	0.0	39.0	51.6	0.0	51.9
Incr Delay (d2), s/veh	1.7	1.2	1.3	7.1	0.2	0.4	0.1	0.0	9.0	0.2	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.4	0.4	3.2	3.0	3.2	2.5	0.0	7.6	0.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	1.7	1.8	56.0	17.4	17.6	34.3	0.0	48.1	51.7	0.0	54.0
LnGrp LOS	D	A	A	E	B	B	C	A	D	D	A	D
Approach Vol, veh/h		947			736			387			15	
Approach Delay, s/veh		14.1			23.4			43.9			53.7	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	55.8		29.8	12.9	57.9		7.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	10.3	10.0		20.3	8.7	2.6		2.9
Green Ext Time (p_c), s	0.3	6.1		0.6	0.0	8.5		0.0

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	512	83	80	448	467	107	44	77	125	36	130
Future Volume (veh/h)	46	512	83	80	448	467	107	44	77	125	36	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.74	1.00		0.83	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	557	90	87	487	508	116	48	84	136	39	141
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	754	121	111	963	333	460	191	575	170	49	188
Arrive On Green	0.03	0.25	0.25	0.06	0.28	0.28	0.36	0.36	0.36	0.12	0.12	0.12
Sat Flow, veh/h	3456	2996	481	1781	3404	1178	1278	529	1322	1399	401	1545
Grp Volume(v), veh/h	50	329	318	87	487	508	164	0	84	175	0	141
Grp Sat Flow(s),veh/h/ln	1728	1777	1700	1781	1702	1178	1806	0	1322	1800	0	1545
Q Serve(g_s), s	1.3	15.9	16.1	4.5	11.2	26.5	6.0	0.0	3.7	8.9	0.0	8.3
Cycle Q Clear(g_c), s	1.3	15.9	16.1	4.5	11.2	26.5	6.0	0.0	3.7	8.9	0.0	8.3
Prop In Lane	1.00		0.28	1.00		1.00	0.71		1.00	0.78		1.00
Lane Grp Cap(c), veh/h	107	447	428	111	963	333	651	0	575	219	0	188
V/C Ratio(X)	0.47	0.74	0.74	0.78	0.51	1.52	0.25	0.00	0.15	0.80	0.00	0.75
Avail Cap(c_a), veh/h	196	459	439	145	963	333	694	0	607	348	0	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.6	32.2	32.3	43.3	28.1	33.6	21.1	0.0	16.7	40.0	0.0	39.8
Incr Delay (d2), s/veh	1.2	6.2	6.9	13.7	0.2	250.9	0.1	0.0	0.0	2.7	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	7.4	7.2	2.4	4.4	30.4	2.5	0.0	1.1	4.0	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	38.4	39.1	57.0	28.3	284.4	21.1	0.0	16.7	42.7	0.0	42.0
LnGrp LOS	D	D	D	E	C	F	C	A	B	D	A	D
Approach Vol, veh/h		697			1082			248			316	
Approach Delay, s/veh		39.3			150.9			19.6			42.4	
Approach LOS		D			F			B			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.2	28.5		16.3	7.3	31.4		38.7
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	5.5	18.1		10.9	3.3	28.5		8.0
Green Ext Time (p_c), s	0.0	2.3		0.5	0.0	0.0		0.8

Intersection Summary	
HCM 6th Ctrl Delay	89.2
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

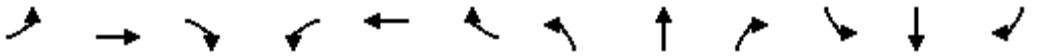
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	678	18	83	955	65	0	0	137	2	1	30
Future Vol, veh/h	47	678	18	83	955	65	0	0	137	2	1	30
Conflicting Peds, #/hr	0	0	25	0	0	80	0	0	3	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	737	20	90	1038	71	0	0	149	2	1	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1189	0	0	782	0	0	-	-	407	1734	2218	638
Stage 1	-	-	-	-	-	-	-	-	-	1334	1334	-
Stage 2	-	-	-	-	-	-	-	-	-	400	884	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	317	-	-	498	-	-	0	0	507	93	43	359
Stage 1	-	-	-	-	-	-	0	0	-	116	221	-
Stage 2	-	-	-	-	-	-	0	0	-	547	362	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	293	-	-	486	-	-	-	-	494	45	26	331
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	45	26	-
Stage 1	-	-	-	-	-	-	-	-	-	89	166	-
Stage 2	-	-	-	-	-	-	-	-	-	315	292	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	1.1	15.4	28.3
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	494	293	-	-	486	-	-	190
HCM Lane V/C Ratio	0.301	0.174	-	-	0.186	-	-	0.189
HCM Control Delay (s)	15.4	19.9	-	-	14.1	-	-	28.3
HCM Lane LOS	C	C	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.3	0.6	-	-	0.7	-	-	0.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	765	42	201	1036	1	116	0	159	0	0	0
Future Volume (veh/h)	27	765	42	201	1036	1	116	0	159	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.87	1.00		0.89			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	29	832	46	218	1126	1	126	0	173			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	232	2624	145	251	2834	3	349	0	275			
Arrive On Green	0.13	0.53	0.53	0.14	0.54	0.54	0.20	0.00	0.20			
Sat Flow, veh/h	1781	4935	272	1781	5268	5	1781	0	1403			
Grp Volume(v), veh/h	29	573	305	218	728	399	126	0	173			
Grp Sat Flow(s),veh/h/ln	1781	1702	1802	1781	1702	1869	1781	0	1403			
Q Serve(g_s), s	1.6	10.2	10.3	12.9	13.6	13.6	6.6	0.0	12.2			
Cycle Q Clear(g_c), s	1.6	10.2	10.3	12.9	13.6	13.6	6.6	0.0	12.2			
Prop In Lane	1.00		0.15	1.00		0.00	1.00		1.00			
Lane Grp Cap(c), veh/h	232	1810	958	251	1831	1005	349	0	275			
V/C Ratio(X)	0.13	0.32	0.32	0.87	0.40	0.40	0.36	0.00	0.63			
Avail Cap(c_a), veh/h	232	1810	958	785	1831	1005	397	0	313			
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	1.00	1.00	0.58	0.58	0.58	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.5	14.2	14.2	45.4	14.7	14.7	37.6	0.0	39.8			
Incr Delay (d2), s/veh	0.1	0.5	0.9	2.1	0.4	0.7	0.2	0.0	1.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.7	3.9	4.2	5.8	5.1	5.6	2.9	0.0	4.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	14.7	15.1	47.6	15.0	15.3	37.8	0.0	41.8			
LnGrp LOS	D	B	B	D	B	B	D	A	D			
Approach Vol, veh/h		907			1345			299				
Approach Delay, s/veh		15.7			20.4			40.1				
Approach LOS		B			C			D				
Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	19.6	62.3			18.9	63.0		26.1				
Change Period (Y+Rc), s	4.4	4.9			4.9	* 4.9		4.9				
Max Green Setting (Gmax), s	47.6	22.1			11.6	* 58		24.1				
Max Q Clear Time (g_c+I1), s	14.9	12.3			3.6	15.6		14.2				
Green Ext Time (p_c), s	0.3	5.7			0.0	13.3		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	473	136	134	397	185	140	125	124	43	89	68
Future Volume (veh/h)	84	473	136	134	397	185	140	125	124	43	89	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.94	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	514	148	146	432	201	144	147	135	47	97	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	592	2000	872	189	656	302	252	265	298	217	228	182
Arrive On Green	0.67	1.00	1.00	0.11	0.56	0.56	0.14	0.14	0.14	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1549	3456	2328	1070	1781	1870	1495	1781	1870	1495
Grp Volume(v), veh/h	91	514	148	146	328	305	144	147	135	47	97	74
Grp Sat Flow(s),veh/h/ln	1781	1777	1549	1728	1777	1621	1781	1870	1495	1781	1870	1495
Q Serve(g_s), s	3.0	0.0	0.0	6.6	20.5	21.0	12.1	11.7	12.8	3.8	7.7	7.3
Cycle Q Clear(g_c), s	3.0	0.0	0.0	6.6	20.5	21.0	12.1	11.7	12.8	3.8	7.7	7.3
Prop In Lane	1.00		1.00	1.00		0.66	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	592	2000	872	189	501	457	252	265	298	217	228	182
V/C Ratio(X)	0.15	0.26	0.17	0.77	0.66	0.67	0.57	0.56	0.45	0.22	0.43	0.41
Avail Cap(c_a), veh/h	592	2000	872	467	501	457	391	410	415	391	410	328
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.72	0.72	0.72	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	18.4	0.0	0.0	70.3	29.5	29.6	64.2	64.0	56.8	63.4	65.1	64.9
Incr Delay (d2), s/veh	0.0	0.2	0.3	1.8	4.8	5.5	0.8	0.7	0.4	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.1	0.1	2.9	7.7	7.3	5.6	5.7	4.9	1.8	3.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	0.2	0.3	72.1	34.3	35.1	64.9	64.7	57.2	63.5	65.5	65.3
LnGrp LOS	B	A	A	E	C	D	E	E	E	E	E	E
Approach Vol, veh/h		753			779			426			218	
Approach Delay, s/veh		2.4			41.7			62.4			65.0	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.2	94.9		24.4	58.1	50.0		27.5
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	5.0	2.0		9.7	5.0	23.0		14.8
Green Ext Time (p_c), s	0.2	6.7		0.5	0.1	6.6		0.9

Intersection Summary	
HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	723	12	10	766	397	5	6	5	167	9	53
Future Volume (veh/h)	43	723	12	10	766	397	5	6	5	167	9	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	0.96		0.97	0.99		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	786	13	11	833	432	5	7	5	182	10	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	2079	34	424	1252	643	141	188	113	311	18	76
Arrive On Green	0.03	0.58	0.58	0.01	0.56	0.56	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	3574	59	1781	2235	1147	361	817	491	1016	79	331
Grp Volume(v), veh/h	47	391	408	11	660	605	17	0	0	250	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1856	1781	1777	1606	1669	0	0	1426	0	0
Q Serve(g_s), s	0.9	9.4	9.4	0.2	20.8	21.2	0.0	0.0	0.0	12.4	0.0	0.0
Cycle Q Clear(g_c), s	0.9	9.4	9.4	0.2	20.8	21.2	0.6	0.0	0.0	13.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.71	0.29		0.29	0.73		0.23
Lane Grp Cap(c), veh/h	277	1034	1080	424	995	899	442	0	0	406	0	0
V/C Ratio(X)	0.17	0.38	0.38	0.03	0.66	0.67	0.04	0.00	0.00	0.62	0.00	0.00
Avail Cap(c_a), veh/h	411	1034	1080	596	995	899	495	0	0	454	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.45	0.45	0.45	1.00	0.00	0.00	0.60	0.00	0.00
Uniform Delay (d), s/veh	10.0	9.0	9.0	7.8	12.3	12.4	24.0	0.0	0.0	28.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.0	1.0	0.0	1.6	1.8	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.5	3.7	0.1	7.7	7.1	0.2	0.0	0.0	4.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	10.0	10.0	7.8	13.9	14.2	24.0	0.0	0.0	29.4	0.0	0.0
LnGrp LOS	B	A	A	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		846			1276			17			250	
Approach Delay, s/veh		10.0			14.0			24.0			29.4	
Approach LOS		A			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.3	51.4		23.3	7.0	49.7		23.3
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.2	11.4		15.0	2.9	23.2		2.6
Green Ext Time (p_c), s	0.0	5.8		0.5	0.0	7.5		0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	31	16	128	136	33
Future Vol, veh/h	9	31	16	128	136	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	34	17	139	148	36
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.5	8.5	8.3
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	23%	0%
Vol Thru, %	0%	100%	0%	80%
Vol Right, %	0%	0%	78%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	128	40	169
LT Vol	16	0	9	0
Through Vol	0	128	0	136
RT Vol	0	0	31	33
Lane Flow Rate	17	139	43	184
Geometry Grp	7	7	2	5
Degree of Util (X)	0.025	0.182	0.052	0.21
Departure Headway (Hd)	5.205	4.704	4.281	4.109
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	685	758	842	862
Service Time	2.96	2.458	2.281	2.191
HCM Lane V/C Ratio	0.025	0.183	0.051	0.213
HCM Control Delay	8.1	8.5	7.5	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.7	0.2	0.8

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	139	0	0	273	0
Future Vol, veh/h	0	139	0	0	273	0
Conflicting Peds, #/hr	0	0	0	1	0	7
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	0	151	0	0	297	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	151	-
Stage 1	-	-	0	-
Stage 2	-	-	151	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	841	0
Stage 1	0	-	-	0
Stage 2	0	-	877	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	841	-
Mov Cap-2 Maneuver	-	-	802	-
Stage 1	-	-	-	-
Stage 2	-	-	877	-

Approach	EB	SB
HCM Control Delay, s	0	12.1
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	802
HCM Lane V/C Ratio	-	0.37
HCM Control Delay (s)	-	12.1
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	1.7

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	77	210	0	0	182	0
Future Vol, veh/h	77	210	0	0	182	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	228	0	0	198	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.4	9.7
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	52%	0%	100%
Vol Thru, %	48%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	147	140	182
LT Vol	77	0	182
Through Vol	70	140	0
RT Vol	0	0	0
Lane Flow Rate	160	152	198
Geometry Grp	7	7	2
Degree of Util (X)	0.235	0.213	0.268
Departure Headway (Hd)	5.301	5.038	4.886
Convergence, Y/N	Yes	Yes	Yes
Cap	677	714	736
Service Time	3.027	2.764	2.908
HCM Lane V/C Ratio	0.236	0.213	0.269
HCM Control Delay	9.7	9.1	9.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.8	1.1

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	289	0	0	56	0
Future Vol, veh/h	36	289	0	0	56	0
Conflicting Peds, #/hr	0	0	0	7	0	7
Sign Control	Free	Free	Stop	Stop	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	39	314	0	0	61	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	235	-
Stage 1	-	-	0	-
Stage 2	-	-	235	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	732	0
Stage 1	-	-	-	0
Stage 2	-	-	782	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	732	-
Mov Cap-2 Maneuver	-	-	732	-
Stage 1	-	-	-	-
Stage 2	-	-	782	-

Approach	EB	SB
HCM Control Delay, s		10.4
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	732
HCM Lane V/C Ratio	-	-	0.083
HCM Control Delay (s)	-	-	10.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	141	390	21	65	18	0	0	41	11
Future Vol, veh/h	0	0	0	141	390	21	65	18	0	0	41	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	153	424	23	71	20	0	0	45	12
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	11.9	9.4	8.7
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	78%	42%	0%	0%
Vol Thru, %	22%	58%	90%	79%
Vol Right, %	0%	0%	10%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	83	336	216	52
LT Vol	65	141	0	0
Through Vol	18	195	195	41
RT Vol	0	0	21	11
Lane Flow Rate	90	365	235	57
Geometry Grp	2	7	7	2
Degree of Util (X)	0.137	0.521	0.317	0.082
Departure Headway (Hd)	5.461	5.135	4.856	5.233
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	657	701	740	684
Service Time	3.496	2.867	2.588	3.272
HCM Lane V/C Ratio	0.137	0.521	0.318	0.083
HCM Control Delay	9.4	13.3	9.8	8.7
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.5	3	1.4	0.3

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	32	402	17	31	3	0	0	29	116
Future Vol, veh/h	0	0	0	32	402	17	31	3	0	0	29	116
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	35	437	18	34	3	0	0	32	126
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	10.4	8.8	8.8
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	91%	14%	0%	0%
Vol Thru, %	9%	86%	92%	20%
Vol Right, %	0%	0%	8%	80%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	233	218	145
LT Vol	31	32	0	0
Through Vol	3	201	201	29
RT Vol	0	0	17	116
Lane Flow Rate	37	253	237	158
Geometry Grp	2	7	7	2
Degree of Util (X)	0.055	0.356	0.325	0.201
Departure Headway (Hd)	5.399	5.062	4.938	4.584
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	662	709	727	783
Service Time	3.439	2.798	2.674	2.611
HCM Lane V/C Ratio	0.056	0.357	0.326	0.202
HCM Control Delay	8.8	10.6	10.1	8.8
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.2	1.6	1.4	0.7

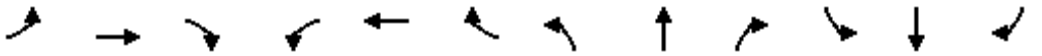
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	12	0	0	26	0	1833	13	0	1832	140
Future Vol, veh/h	0	0	12	0	0	26	0	1833	13	0	1832	140
Conflicting Peds, #/hr	0	0	0	0	0	2	0	0	4	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	13	0	0	28	0	1992	14	0	1991	152

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1076	-	-	1009	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	185	0	0	207	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	184	-	-	206	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	26.1	25.2	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	184	206	-	-
HCM Lane V/C Ratio	-	-	0.071	0.137	-	-
HCM Control Delay (s)	-	-	26.1	25.2	-	-
HCM Lane LOS	-	-	D	D	-	-
HCM 95th %tile Q(veh)	-	-	0.2	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	205	49	80	1794	14	0	1615	198
Future Volume (veh/h)	0	0	0	125	205	49	80	1794	14	0	1615	198
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				136	223	53	87	1950	15	0	1755	215
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				179	310	76	104	4103	32	0	3578	1101
Arrive On Green				0.16	0.16	0.16	0.12	1.00	1.00	0.00	0.70	0.70
Sat Flow, veh/h				1133	1962	481	1781	5227	40	0	5274	1571
Grp Volume(v), veh/h				218	0	194	87	1270	695	0	1755	215
Grp Sat Flow(s),veh/h/ln				1814	0	1763	1781	1702	1863	0	1702	1571
Q Serve(g_s), s				19.8	0.0	17.9	8.2	0.0	0.0	0.0	27.0	8.2
Cycle Q Clear(g_c), s				19.8	0.0	17.9	8.2	0.0	0.0	0.0	27.0	8.2
Prop In Lane				0.62		0.27	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				287	0	279	104	2672	1462	0	3578	1101
V/C Ratio(X)				0.76	0.00	0.70	0.83	0.48	0.48	0.00	0.49	0.20
Avail Cap(c_a), veh/h				370	0	360	275	2672	1462	0	3578	1101
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.81	0.81	0.81	0.00	1.00	1.00
Uniform Delay (d), s/veh				69.3	0.0	68.5	75.1	0.0	0.0	0.0	11.7	8.9
Incr Delay (d2), s/veh				4.6	0.0	2.3	5.2	0.5	0.9	0.0	0.5	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.6	0.0	8.3	3.7	0.2	0.4	0.0	9.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				73.9	0.0	70.8	80.3	0.5	0.9	0.0	12.2	9.3
LnGrp LOS				E	A	E	F	A	A	A	B	A
Approach Vol, veh/h					412			2052			1970	
Approach Delay, s/veh					72.4			4.0			11.9	
Approach LOS					E			A			B	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	139.9	32.1	14.5	125.4
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	21.8	10.2	29.0
Green Ext Time (p_c), s	6.3	0.8	0.0	5.8

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



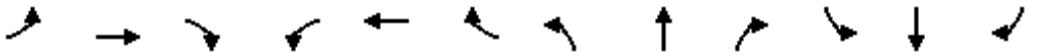
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	113	93	0	0	0	0	1687	23	59	1657	0
Future Volume (veh/h)	204	113	93	0	0	0	0	1687	23	59	1657	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	222	123	101				0	1834	25	64	1801	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	312	328	256				0	3621	49	80	4941	0
Arrive On Green	0.18	0.18	0.18				0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	1781	1870	1461				0	5359	71	1781	6696	0
Grp Volume(v), veh/h	222	123	101				0	1202	657	64	1801	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1461				0	1702	1858	1781	1609	0
Q Serve(g_s), s	20.2	10.0	10.5				0.0	0.0	0.0	6.1	0.0	0.0
Cycle Q Clear(g_c), s	20.2	10.0	10.5				0.0	0.0	0.0	6.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	312	328	256				0	2375	1296	80	4941	0
V/C Ratio(X)	0.71	0.38	0.39				0.00	0.51	0.51	0.80	0.36	0.00
Avail Cap(c_a), veh/h	364	382	298				0	2375	1296	162	4941	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.68	0.68	0.84	0.84	0.00
Uniform Delay (d), s/veh	66.8	62.6	62.9				0.0	0.0	0.0	77.6	0.0	0.0
Incr Delay (d2), s/veh	3.9	0.3	0.4				0.0	0.5	1.0	5.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	4.8	4.0				0.0	0.2	0.3	2.8	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	62.9	63.2				0.0	0.5	1.0	83.4	0.2	0.0
LnGrp LOS	E	E	E				A	A	A	F	A	A
Approach Vol, veh/h		446						1859			1865	
Approach Delay, s/veh		66.9						0.7			3.0	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	12.1	124.9	35.0	137.0
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	15.6	107.1	35.1	127.1
Max Q Clear Time (g_c+I1), s	8.1	2.0	22.2	2.0
Green Ext Time (p_c), s	0.0	5.2	0.3	6.0

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	336	367	255	234	275	10	473	1379	313	0	1264	465
Future Volume (vph)	336	367	255	234	275	10	473	1379	313	0	1264	465
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.93	1.00	1.00		1.00	0.99			1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3352	1479	1610	3342		3662	4916			5085	1483
Flt Permitted	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3352	1479	1610	3342		3662	4916			5085	1483
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	365	399	277	254	299	11	514	1499	340	0	1374	505
RTOR Reduction (vph)	0	0	210	0	1	0	0	18	0	0	0	227
Lane Group Flow (vph)	248	516	67	183	380	0	514	1821	0	0	1374	278
Confl. Peds. (#/hr)			37			4			11			28
Confl. Bikes (#/hr)			2			3			1			1
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	34.0	34.0	34.0	23.8	23.8		31.2	96.5			59.9	59.9
Effective Green, g (s)	34.0	34.0	34.0	23.8	23.8		31.2	96.5			59.9	59.9
Actuated g/C Ratio	0.20	0.20	0.20	0.14	0.14		0.18	0.56			0.35	0.35
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	318	662	292	222	462		664	2758			1770	516
v/s Ratio Prot	c0.15	0.15		0.11	c0.11		c0.14	0.37			c0.27	
v/s Ratio Perm			0.05									0.19
v/c Ratio	0.78	0.78	0.23	0.82	0.82		0.77	0.66			0.78	0.54
Uniform Delay, d1	65.5	65.4	58.0	72.1	72.0		67.0	26.3			50.1	45.0
Progression Factor	1.00	1.00	1.00	1.17	1.16		1.03	0.49			0.70	0.45
Incremental Delay, d2	10.5	5.3	0.1	20.0	10.5		3.7	0.9			3.2	3.8
Delay (s)	76.0	70.7	58.1	104.0	93.8		72.5	13.8			38.4	24.0
Level of Service	E	E	E	F	F		E	B			D	C
Approach Delay (s)		68.6			97.1			26.6			34.6	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	43.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	92.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	437	257	92	571	374	315	1544	100	296	1136	306
Future Volume (veh/h)	210	437	257	92	571	374	315	1544	100	296	1136	306
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	475	279	100	621	407	342	1678	109	322	1235	333
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	611	257	138	622	263	383	2049	133	735	2081	561
Arrive On Green	0.08	0.17	0.17	0.08	0.17	0.17	0.07	0.28	0.28	0.21	0.52	0.52
Sat Flow, veh/h	3456	3554	1497	1781	3554	1501	3456	4888	317	3456	3973	1071
Grp Volume(v), veh/h	228	475	279	100	621	407	342	1168	619	322	1058	510
Grp Sat Flow(s),veh/h/ln	1728	1777	1497	1781	1777	1501	1728	1702	1801	1728	1702	1639
Q Serve(g_s), s	11.2	22.0	23.7	9.4	30.0	20.1	16.9	55.1	55.2	13.9	36.9	37.0
Cycle Q Clear(g_c), s	11.2	22.0	23.7	9.4	30.0	20.1	16.9	55.1	55.2	13.9	36.9	37.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.65
Lane Grp Cap(c), veh/h	268	611	257	138	622	263	383	1427	755	735	1783	859
V/C Ratio(X)	0.85	0.78	1.08	0.72	1.00	1.55	0.89	0.82	0.82	0.44	0.59	0.59
Avail Cap(c_a), veh/h	434	684	288	193	622	263	675	1427	755	735	1783	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	78.4	68.1	45.7	77.5	70.9	31.6	78.6	55.7	55.8	58.8	28.3	28.3
Incr Delay (d2), s/veh	4.3	4.1	77.0	3.8	35.7	265.4	2.7	4.4	8.0	0.2	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	10.4	14.4	4.5	16.7	26.7	7.8	25.2	27.5	6.1	15.0	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.7	72.1	122.7	81.3	106.6	297.0	81.3	60.1	63.8	58.9	28.7	29.1
LnGrp LOS	F	E	F	F	F	F	F	E	E	E	C	C
Approach Vol, veh/h		982			1128			2129			1890	
Approach Delay, s/veh		88.9			173.1			64.6			33.9	
Approach LOS		F			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	77.0	18.2	34.5	23.5	95.8	17.7	35.0
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	15.9	57.2	11.4	25.7	18.9	39.0	13.2	32.0
Green Ext Time (p_c), s	0.2	4.3	0.0	1.0	0.2	4.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	79.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	9	10	95	11	83	7	1758	16	103	1339	34
Future Volume (veh/h)	42	9	10	95	11	83	7	1758	16	103	1339	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	10	11	103	12	90	8	1911	17	112	1455	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	33	29	143	16	99	16	3605	32	131	3864	98
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.01	0.69	0.69	0.07	0.76	0.76
Sat Flow, veh/h	765	221	194	750	104	669	1781	5219	46	1781	5116	130
Grp Volume(v), veh/h	67	0	0	205	0	0	8	1246	682	112	968	524
Grp Sat Flow(s),veh/h/ln	1179	0	0	1523	0	0	1781	1702	1861	1781	1702	1842
Q Serve(g_s), s	0.0	0.0	0.0	14.0	0.0	0.0	0.8	30.7	30.7	10.7	16.7	16.7
Cycle Q Clear(g_c), s	8.7	0.0	0.0	22.7	0.0	0.0	0.8	30.7	30.7	10.7	16.7	16.7
Prop In Lane	0.69		0.16	0.50		0.44	1.00		0.02	1.00		0.07
Lane Grp Cap(c), veh/h	210	0	0	257	0	0	16	2351	1286	131	2571	1391
V/C Ratio(X)	0.32	0.00	0.00	0.80	0.00	0.00	0.49	0.53	0.53	0.85	0.38	0.38
Avail Cap(c_a), veh/h	247	0	0	297	0	0	162	2351	1286	369	2571	1391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.76	0.76	0.76	0.71	0.71	0.71
Uniform Delay (d), s/veh	65.9	0.0	0.0	71.8	0.0	0.0	84.8	13.0	13.0	78.8	7.2	7.2
Incr Delay (d2), s/veh	0.3	0.0	0.0	10.5	0.0	0.0	6.1	0.7	1.2	4.3	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	9.8	0.0	0.0	0.4	11.4	12.7	5.0	5.8	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.2	0.0	0.0	82.4	0.0	0.0	90.9	13.6	14.2	83.0	7.5	7.8
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		67			205			1936			1604	
Approach Delay, s/veh		66.2			82.4			14.1			12.9	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.1	124.5		30.4	6.0	135.6		30.4
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	12.7	32.7		10.7	2.8	18.7		24.7
Green Ext Time (p_c), s	0.0	5.5		0.1	0.0	3.7		0.2

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	160	7	524	316	250	18	1346	548	81	1069	281
Future Volume (veh/h)	200	160	7	524	316	250	18	1346	548	81	1069	281
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.99	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	174	8	570	343	272	20	1463	596	88	1162	305
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	276	13	604	367	306	32	2654	813	125	1912	833
Arrive On Green	0.13	0.16	0.16	0.17	0.20	0.20	0.02	0.52	0.52	0.07	1.00	1.00
Sat Flow, veh/h	1781	1768	81	3456	1870	1562	1781	5106	1564	3456	3554	1548
Grp Volume(v), veh/h	217	0	182	570	343	272	20	1463	596	88	1162	305
Grp Sat Flow(s),veh/h/ln	1781	0	1849	1728	1870	1562	1781	1702	1564	1728	1777	1548
Q Serve(g_s), s	20.7	0.0	15.8	28.0	31.1	25.9	1.9	33.2	50.9	4.3	0.0	0.0
Cycle Q Clear(g_c), s	20.7	0.0	15.8	28.0	31.1	25.9	1.9	33.2	50.9	4.3	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	0	289	604	367	306	32	2654	813	125	1912	833
V/C Ratio(X)	0.92	0.00	0.63	0.94	0.94	0.89	0.63	0.55	0.73	0.70	0.61	0.37
Avail Cap(c_a), veh/h	265	0	442	615	501	419	120	2654	813	434	1912	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	73.7	0.0	67.9	70.1	68.1	53.0	83.9	27.8	32.0	78.9	0.0	0.0
Incr Delay (d2), s/veh	31.6	0.0	0.8	22.7	18.3	13.2	7.3	0.8	5.8	2.5	1.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	0.0	7.6	14.2	16.6	11.2	0.9	13.6	20.2	1.9	0.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	105.3	0.0	68.7	92.8	86.3	66.2	91.2	28.6	37.8	81.4	1.3	1.2
LnGrp LOS	F	A	E	F	F	E	F	C	D	F	A	A
Approach Vol, veh/h		399			1185			2079			1555	
Approach Delay, s/veh		88.6			84.8			31.9			5.8	
Approach LOS		F			F			C			A	

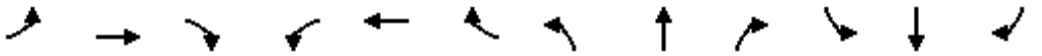
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	95.1	34.5	31.8	7.5	98.3	27.6	38.6
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	5.3	52.9	30.0	17.8	3.9	2.0	22.7	33.1
Green Ext Time (p_c), s	0.0	2.9	0.0	0.3	0.0	3.2	0.0	0.7

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

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	111	9	127	0	80	0	459	321	50	378	0
Future Volume (vph)	38	111	9	127	0	80	0	459	321	50	378	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		1.00		0.93		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.94		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1837		1770		1583		3086		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.23	1.00	
Satd. Flow (perm)	1770	1837		1770		1583		3086		420	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	121	10	138	0	87	0	499	349	54	411	0
RTOR Reduction (vph)	0	4	0	0	0	78	0	112	0	0	0	0
Lane Group Flow (vph)	41	127	0	138	0	9	0	736	0	54	411	0
Confl. Peds. (#/hr)			22						75			12
Confl. Bikes (#/hr)									12			6
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	14.8	14.8		9.1		9.1		40.5		47.9	47.9	
Effective Green, g (s)	14.8	14.8		9.1		9.1		40.5		47.9	47.9	
Actuated g/C Ratio	0.17	0.17		0.11		0.11		0.47		0.56	0.56	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	304	316		187		167		1453		281	1971	
v/s Ratio Prot	0.02	c0.07		c0.08				c0.24		0.01	c0.12	
v/s Ratio Perm						0.01				0.10		
v/c Ratio	0.13	0.40		0.74		0.06		0.51		0.19	0.21	
Uniform Delay, d1	30.2	31.7		37.3		34.6		15.8		10.0	9.5	
Progression Factor	1.22	1.40		1.00		1.00		0.63		1.00	1.00	
Incremental Delay, d2	0.1	0.3		12.3		0.1		1.1		0.1	0.2	
Delay (s)	36.9	44.5		49.6		34.6		11.0		10.2	9.8	
Level of Service	D	D		D		C		B		B	A	
Approach Delay (s)		42.7			43.8			11.0			9.8	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	117	452	444	227	0	1
Future Vol, veh/h	117	452	444	227	0	1
Conflicting Peds, #/hr	0	0	0	13	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	127	491	483	247	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	743	0	-	0	1120	378
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	860	-	-	-	200	620
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	575	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	849	-	-	-	166	612
Mov Cap-2 Maneuver	-	-	-	-	166	-
Stage 1	-	-	-	-	419	-
Stage 2	-	-	-	-	568	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	849	-	612	-	-
HCM Lane V/C Ratio	0.15	-	0.002	-	-
HCM Control Delay (s)	10	-	10.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	327	93	359	373	62	331	154	260	53	233	117
Future Volume (veh/h)	69	327	93	359	373	62	331	154	260	53	233	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	355	101	390	405	67	360	167	283	58	253	127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	1462	745	467	686	562	391	1164	1255	107	494	213
Arrive On Green	0.05	0.29	0.29	0.14	0.37	0.37	0.22	0.33	0.33	0.03	0.14	0.14
Sat Flow, veh/h	1781	5106	1386	3456	1870	1533	1781	3554	2680	3456	3554	1534
Grp Volume(v), veh/h	75	355	101	390	405	67	360	167	283	58	253	127
Grp Sat Flow(s),veh/h/ln	1781	1702	1386	1728	1870	1533	1781	1777	1340	1728	1777	1534
Q Serve(g_s), s	4.4	5.7	4.1	11.7	18.6	3.1	21.0	3.5	6.7	1.8	7.0	8.3
Cycle Q Clear(g_c), s	4.4	5.7	4.1	11.7	18.6	3.1	21.0	3.5	6.7	1.8	7.0	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	1462	745	467	686	562	391	1164	1255	107	494	213
V/C Ratio(X)	0.77	0.24	0.14	0.84	0.59	0.12	0.92	0.14	0.23	0.54	0.51	0.60
Avail Cap(c_a), veh/h	503	1921	869	975	704	577	503	1337	1385	975	1337	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	29.1	14.0	44.8	27.2	22.3	40.6	25.2	17.2	50.8	42.4	43.0
Incr Delay (d2), s/veh	4.8	0.1	0.1	1.5	0.9	0.1	17.2	0.1	0.1	1.6	0.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.3	1.2	5.0	8.2	1.1	10.6	1.4	2.0	0.8	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	29.2	14.1	46.4	28.1	22.3	57.8	25.3	17.2	52.4	42.7	44.0
LnGrp LOS	D	C	B	D	C	C	E	C	B	D	D	D
Approach Vol, veh/h		531			862			810			438	
Approach Delay, s/veh		29.9			35.9			36.9			44.4	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	36.3	28.7	21.5	11.2	44.9	8.7	41.5
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	13.7	7.7	23.0	10.3	6.4	20.6	3.8	8.7
Green Ext Time (p_c), s	0.7	3.6	0.3	1.1	0.1	1.7	0.1	2.2

Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	35.3

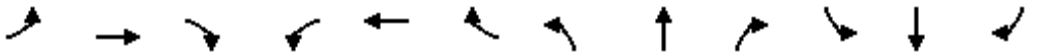
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	572	310	679	683	14
Future Vol, veh/h	0	572	310	679	683	14
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
Veh in Median Storage, #	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	0	622	337	738	742	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	381	759	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	~ 527	511	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	~ 526	510	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	125.7	7.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	510	-	526	-	-
HCM Lane V/C Ratio	0.661	-	1.182	-	-
HCM Control Delay (s)	24.7	-	125.7	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	4.8	-	22.4	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	3	33	15	1	14	313	1274	11	24	1116	158
Future Volume (veh/h)	59	3	33	15	1	14	313	1274	11	24	1116	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	3	36	16	1	15	340	1385	12	26	1213	172
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	261	218	25	217	180	370	2209	962	35	1355	191
Arrive On Green	0.05	0.14	0.14	0.01	0.12	0.12	0.21	0.62	0.62	0.02	0.43	0.43
Sat Flow, veh/h	1781	1870	1561	1781	1870	1548	1781	3554	1548	1781	3125	441
Grp Volume(v), veh/h	64	3	36	16	1	15	340	1385	12	26	687	698
Grp Sat Flow(s),veh/h/ln	1781	1870	1561	1781	1870	1548	1781	1777	1548	1781	1777	1789
Q Serve(g_s), s	4.1	0.2	2.3	1.0	0.1	1.0	21.3	27.6	0.3	1.7	40.8	41.3
Cycle Q Clear(g_c), s	4.1	0.2	2.3	1.0	0.1	1.0	21.3	27.6	0.3	1.7	40.8	41.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	82	261	218	25	217	180	370	2209	962	35	770	776
V/C Ratio(X)	0.78	0.01	0.17	0.64	0.00	0.08	0.92	0.63	0.01	0.74	0.89	0.90
Avail Cap(c_a), veh/h	125	598	499	91	595	492	587	3142	1369	106	1092	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	42.3	43.2	56.0	44.6	45.0	44.3	13.4	8.2	55.6	29.9	30.0
Incr Delay (d2), s/veh	20.4	0.0	0.4	9.9	0.0	0.5	9.8	0.1	0.0	10.8	5.5	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.1	0.9	0.5	0.0	0.4	9.9	9.1	0.1	0.8	17.3	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	42.3	43.7	65.9	44.6	45.6	54.0	13.5	8.2	66.5	35.4	36.0
LnGrp LOS	E	D	D	E	D	D	D	B	A	E	D	D
Approach Vol, veh/h		103			32			1737			1411	
Approach Delay, s/veh		62.6			55.7			21.4			36.3	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	24.6	28.1	54.4	9.7	21.9	6.6	75.8
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	5.8	36.5	37.6	70.1	8.0	* 36	6.8	100.9
Max Q Clear Time (g_c+I1), s	3.0	4.3	23.3	43.3	6.1	3.0	3.7	29.6
Green Ext Time (p_c), s	0.0	0.1	0.4	6.2	0.0	0.1	0.0	7.0

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

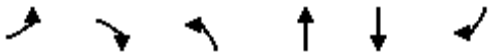
Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1022	1167	6	0	290
Future Vol, veh/h	0	1022	1167	6	0	290
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	1111	1268	7	0	315

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	634
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	422
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	422
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	34.8
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	422
HCM Lane V/C Ratio	-	-	0.747
HCM Control Delay (s)	-	-	34.8
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	6.1



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	886	135	0	949	1162	1177
Future Volume (vph)	886	135	0	949	1162	1177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1563		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1563		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	963	147	0	1032	1263	1279
RTOR Reduction (vph)	0	62	0	0	0	0
Lane Group Flow (vph)	963	85	0	1032	1263	1279
Confl. Peds. (#/hr)		1				5
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	40.5	40.5		60.8	60.8	147.1
Effective Green, g (s)	40.5	40.5		60.8	60.8	141.7
Actuated g/C Ratio	0.26	0.26		0.39	0.39	0.90
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	882	401		1365	1365	1423
v/s Ratio Prot	c0.28			0.29	0.36	c0.81
v/s Ratio Perm		0.05				
v/c Ratio	1.09	0.21		0.76	0.93	0.90
Uniform Delay, d1	58.5	46.0		42.0	46.2	4.2
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	58.5	0.2		2.4	10.8	7.9
Delay (s)	117.0	46.2		44.4	57.0	12.1
Level of Service	F	D		D	E	B
Approach Delay (s)	107.6			44.4	34.4	
Approach LOS	F			D	C	

Intersection Summary			
HCM 2000 Control Delay	54.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	157.6	Sum of lost time (s)	19.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	837	176	121	1447
Future Volume (veh/h)	0	1	837	176	121	1447
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	910	191	132	1573
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	5	2307	1009	228	2806
Arrive On Green	0.00	0.00	0.65	0.65	0.07	0.79
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	910	191	132	1573
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	7.2	2.9	2.2	9.9
Cycle Q Clear(g_c), s	0.0	0.0	7.2	2.9	2.2	9.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	5	2307	1009	228	2806
V/C Ratio(X)	0.00	0.19	0.39	0.19	0.58	0.56
Avail Cap(c_a), veh/h	1203	2142	3601	1575	1751	3601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	29.5	4.9	4.1	26.8	2.4
Incr Delay (d2), s/veh	0.0	6.1	0.2	0.1	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.8	0.7	0.9	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	35.6	5.1	4.3	27.7	2.8
LnGrp LOS	A	D	A	A	C	A
Approach Vol, veh/h	1		1101			1705
Approach Delay, s/veh	35.6		4.9			4.7
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.3	44.6			52.9	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	4.2	9.2			11.9	2.0
Green Ext Time (p_c), s	0.2	14.0			34.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



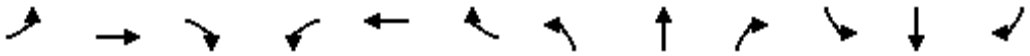
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	64	134	83	40	102	50	705	82	194	1360	184
Future Volume (veh/h)	168	64	134	83	40	102	50	705	82	194	1360	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	70	146	90	43	111	54	766	89	211	1478	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	258	240	195	116	222	182	109	1665	828	246	2045	1030
Arrive On Green	0.07	0.13	0.13	0.06	0.12	0.12	0.03	0.47	0.47	0.14	0.58	0.58
Sat Flow, veh/h	3456	1870	1517	1781	1870	1536	3456	3554	1549	1781	3554	1584
Grp Volume(v), veh/h	183	70	146	90	43	111	54	766	89	211	1478	200
Grp Sat Flow(s),veh/h/ln	1728	1870	1517	1781	1870	1536	1728	1777	1549	1781	1777	1584
Q Serve(g_s), s	5.1	3.3	9.1	4.9	2.0	6.7	1.5	14.3	2.8	11.4	29.7	5.0
Cycle Q Clear(g_c), s	5.1	3.3	9.1	4.9	2.0	6.7	1.5	14.3	2.8	11.4	29.7	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	258	240	195	116	222	182	109	1665	828	246	2045	1030
V/C Ratio(X)	0.71	0.29	0.75	0.78	0.19	0.61	0.50	0.46	0.11	0.86	0.72	0.19
Avail Cap(c_a), veh/h	1057	572	464	545	572	470	1057	2536	1208	545	2536	1249
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	38.7	41.2	45.2	39.0	41.1	46.7	17.7	11.3	41.3	15.1	6.9
Incr Delay (d2), s/veh	1.3	0.7	5.7	4.2	0.2	1.2	1.3	0.3	0.1	3.3	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.6	3.6	2.2	0.9	2.5	0.7	5.7	0.9	5.2	11.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	39.4	46.9	49.4	39.2	42.3	48.1	18.0	11.4	44.6	16.1	7.0
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	A
Approach Vol, veh/h		399			244			909			1889	
Approach Delay, s/veh		45.0			44.3			19.1			18.4	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	51.2	10.8	18.1	7.5	61.7	11.7	17.1
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	13.4	16.3	6.9	11.1	3.5	31.7	7.1	8.7
Green Ext Time (p_c), s	0.3	11.9	0.1	0.8	0.1	24.8	0.3	0.3

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

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	797	176	303	550	0	0	0	0	205	0	0
Future Volume (vph)	0	797	176	303	550	0	0	0	0	205	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.98	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1560	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1560	3433	3539					1770		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	866	191	329	598	0	0	0	0	223	0	0
RTOR Reduction (vph)	0	0	114	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	866	77	329	598	0	0	0	0	223	0	0
Confl. Peds. (#/hr)			1			9						
Confl. Bikes (#/hr)			3			1						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		40.4	40.4	13.3	58.4					32.5		
Effective Green, g (s)		40.4	40.4	13.3	58.4					32.5		
Actuated g/C Ratio		0.40	0.40	0.13	0.58					0.32		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1429	630	456	2066					575		
v/s Ratio Prot		c0.24		c0.10	0.17					c0.13		
v/s Ratio Perm			0.05									
v/c Ratio		0.61	0.12	0.72	0.29					0.39		
Uniform Delay, d1		23.5	18.7	41.6	10.4					26.1		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		0.7	0.1	4.7	0.1					0.2		
Delay (s)		24.3	18.8	46.3	10.5					26.2		
Level of Service		C	B	D	B					C		
Approach Delay (s)		23.3			23.2			0.0			26.2	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	551	1822	644	0	0	1765
Future Volume (vph)	551	1822	644	0	0	1765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	599	1980	700	0	0	1918
RTOR Reduction (vph)	0	22	0	0	0	0
Lane Group Flow (vph)	599	1958	700	0	0	1918
Confl. Bikes (#/hr)				13		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.0	82.5	21.0			68.5
Effective Green, g (s)	35.0	82.5	18.0			68.5
Actuated g/C Ratio	0.30	0.70	0.15			0.58
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1013	1940	772			3704
v/s Ratio Prot	0.17	c0.70	c0.14			0.30
v/s Ratio Perm						
v/c Ratio	0.59	1.01	0.91			0.52
Uniform Delay, d1	35.6	18.0	49.4			15.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.6	22.7	14.0			0.1
Delay (s)	36.3	40.7	63.4			15.1
Level of Service	D	D	E			B
Approach Delay (s)	39.6		63.4			15.1
Approach LOS	D		E			B

Intersection Summary			
HCM 2000 Control Delay	33.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	118.5	Sum of lost time (s)	25.5
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	393	314	350	34	300	685	287	505	21	484	442	211
Future Volume (veh/h)	393	314	350	34	300	685	287	505	21	484	442	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	384	401	380	37	326	0	287	584	0	561	431	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	451	474	701	319	636		347	728		805	423	
Arrive On Green	0.25	0.25	0.25	0.18	0.18	0.00	0.19	0.19	0.00	0.23	0.23	0.00
Sat Flow, veh/h	1781	1870	1549	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	384	401	380	37	326	0	287	584	0	561	431	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1549	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	27.3	27.1	23.9	2.3	11.0	0.0	20.6	19.8	0.0	19.3	30.1	0.0
Cycle Q Clear(g_c), s	27.3	27.1	23.9	2.3	11.0	0.0	20.6	19.8	0.0	19.3	30.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	451	474	701	319	636		347	728		805	423	
V/C Ratio(X)	0.85	0.85	0.54	0.12	0.51		0.83	0.80		0.70	1.02	
Avail Cap(c_a), veh/h	469	493	717	670	1337		403	845		805	423	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.3	47.3	26.9	45.9	49.4	0.0	51.5	51.2	0.0	47.4	51.5	0.0
Incr Delay (d2), s/veh	15.8	14.7	1.9	0.6	2.5	0.0	11.4	4.6	0.0	2.4	48.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.9	14.3	12.6	1.1	5.1	0.0	10.3	9.8	0.0	8.8	19.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.1	62.0	28.8	46.5	51.9	0.0	62.9	55.8	0.0	49.7	100.4	0.0
LnGrp LOS	E	E	C	D	D		E	E		D	F	
Approach Vol, veh/h		1165			363			871			992	
Approach Delay, s/veh		51.5			51.3			58.1			71.7	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	38.6	35.0	28.7	30.8
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	35.1	30.1	50.1	30.1
Max Q Clear Time (g_c+I1), s	29.3	32.1	13.0	22.6
Green Ext Time (p_c), s	4.3	0.0	6.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	59.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	664	16	28	1021	2	0	0	0	63	1	142
Future Volume (veh/h)	142	664	16	28	1021	2	0	0	0	63	1	142
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97				1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	154	722	17	30	1110	2				68	1	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	201	1830	43	49	2266	4				297	4	264
Arrive On Green	0.11	0.52	0.52	0.03	0.43	0.43				0.17	0.17	0.17
Sat Flow, veh/h	1781	3545	83	1781	5263	9				1757	26	1560
Grp Volume(v), veh/h	154	362	377	30	718	394				69	0	154
Grp Sat Flow(s),veh/h/ln	1781	1777	1852	1781	1702	1868				1783	0	1560
Q Serve(g_s), s	4.1	6.1	6.1	0.8	7.5	7.5				1.7	0.0	4.5
Cycle Q Clear(g_c), s	4.1	6.1	6.1	0.8	7.5	7.5				1.7	0.0	4.5
Prop In Lane	1.00		0.05	1.00		0.01				0.99		1.00
Lane Grp Cap(c), veh/h	201	917	956	49	1466	805				301	0	264
V/C Ratio(X)	0.77	0.39	0.39	0.62	0.49	0.49				0.23	0.00	0.58
Avail Cap(c_a), veh/h	1104	2162	2253	1104	4142	2273				1447	0	1266
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	1.00	1.00	1.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	21.3	7.3	7.3	23.8	10.1	10.1				17.7	0.0	18.9
Incr Delay (d2), s/veh	2.3	0.3	0.3	4.6	0.3	0.6				0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.7	1.8	0.4	2.2	2.5				0.6	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	7.6	7.6	28.4	10.5	10.7				17.9	0.0	19.7
LnGrp LOS	C	A	A	C	B	B				B	A	B
Approach Vol, veh/h		893			1142						223	
Approach Delay, s/veh		10.3			11.0						19.1	
Approach LOS		B			B						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	5.7	30.4		13.3	10.0	26.2
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1
Max Q Clear Time (g_c+I2), s	2.8	8.1		6.5	6.1	9.5
Green Ext Time (p_c), s	0.0	6.4		0.5	0.2	11.6

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	517	116	154	841	104	140	74	125	47	31	111
Future Volume (veh/h)	128	517	116	154	841	104	140	74	125	47	31	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.94	0.97		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	562	126	167	914	113	152	80	136	51	34	121
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	990	221	209	1831	225	364	204	347	272	163	542
Arrive On Green	0.07	0.35	0.35	0.12	0.40	0.40	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	3456	2853	637	1781	4587	565	1230	596	1013	565	476	1581
Grp Volume(v), veh/h	139	349	339	167	677	350	152	0	216	85	0	121
Grp Sat Flow(s),veh/h/ln	1728	1777	1713	1781	1702	1748	1230	0	1609	1041	0	1581
Q Serve(g_s), s	2.9	11.8	11.9	6.7	11.0	11.1	8.1	0.0	7.5	1.8	0.0	4.0
Cycle Q Clear(g_c), s	2.9	11.8	11.9	6.7	11.0	11.1	17.5	0.0	7.5	9.3	0.0	4.0
Prop In Lane	1.00		0.37	1.00		0.32	1.00		0.63	0.60		1.00
Lane Grp Cap(c), veh/h	226	617	595	209	1359	698	364	0	551	435	0	542
V/C Ratio(X)	0.61	0.57	0.57	0.80	0.50	0.50	0.42	0.00	0.39	0.20	0.00	0.22
Avail Cap(c_a), veh/h	1669	1449	1397	1465	2776	1425	611	0	875	1433	0	1718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.5	19.5	19.6	31.7	16.6	16.6	25.8	0.0	18.4	18.8	0.0	17.2
Incr Delay (d2), s/veh	1.0	1.6	1.7	2.6	0.6	1.1	0.3	0.0	0.2	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.7	4.6	2.9	4.0	4.2	2.3	0.0	2.7	1.1	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	21.1	21.3	34.3	17.2	17.7	26.1	0.0	18.6	18.9	0.0	17.3
LnGrp LOS	C	C	C	C	B	B	C	A	B	B	A	B
Approach Vol, veh/h		827			1194			368			206	
Approach Delay, s/veh		23.4			19.7			21.7			18.0	
Approach LOS		C			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.2	34.3		30.2	13.1	30.5		30.2
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	35.6	60.1		40.1	60.6	60.1		80.1
Max Q Clear Time (g_c+I1), s	4.9	13.1		19.5	8.7	13.9		11.3
Green Ext Time (p_c), s	0.2	16.3		1.1	0.2	9.5		0.6

Intersection Summary	
HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	567	115	153	632	350	138	51	122	281	74	319
Future Volume (veh/h)	68	567	115	153	632	350	138	51	122	281	74	319
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	616	125	166	687	380	150	55	133	305	80	347
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	714	145	201	1087	484	261	96	479	307	80	341
Arrive On Green	0.04	0.25	0.25	0.11	0.32	0.32	0.20	0.20	0.20	0.22	0.22	0.22
Sat Flow, veh/h	3456	2906	588	1781	3404	1515	1320	484	1518	1425	374	1585
Grp Volume(v), veh/h	74	376	365	166	687	380	205	0	133	385	0	347
Grp Sat Flow(s),veh/h/ln	1728	1777	1717	1781	1702	1515	1804	0	1518	1799	0	1585
Q Serve(g_s), s	1.8	16.9	17.0	7.6	14.4	19.1	8.6	0.0	5.5	17.9	0.0	18.0
Cycle Q Clear(g_c), s	1.8	16.9	17.0	7.6	14.4	19.1	8.6	0.0	5.5	17.9	0.0	18.0
Prop In Lane	1.00		0.34	1.00		1.00	0.73		1.00	0.79		1.00
Lane Grp Cap(c), veh/h	136	437	422	201	1087	484	356	0	479	387	0	341
V/C Ratio(X)	0.55	0.86	0.86	0.83	0.63	0.79	0.58	0.00	0.28	0.99	0.00	1.02
Avail Cap(c_a), veh/h	211	453	437	226	1091	486	777	0	833	387	0	341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.4	30.2	30.2	36.3	24.3	25.8	30.4	0.0	21.8	32.8	0.0	32.8
Incr Delay (d2), s/veh	1.3	15.4	16.3	17.7	0.9	7.6	0.5	0.0	0.1	44.0	0.0	53.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	8.7	8.6	4.2	5.6	7.5	3.7	0.0	1.9	12.3	0.0	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	45.6	46.5	54.0	25.2	33.4	30.9	0.0	21.9	76.8	0.0	85.9
LnGrp LOS	D	D	D	D	C	C	C	A	C	E	A	F
Approach Vol, veh/h		815			1233			338			732	
Approach Delay, s/veh		45.6			31.6			27.4			81.1	
Approach LOS		D			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.8	25.4		22.9	7.7	31.6		21.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	21.3		18.0	5.1	26.8		36.0
Max Q Clear Time (g_c+I1), s	9.6	19.0		20.0	3.8	21.1		10.6
Green Ext Time (p_c), s	0.0	1.2		0.0	0.0	2.5		1.0

Intersection Summary	
HCM 6th Ctrl Delay	46.4
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	29.3

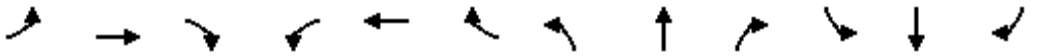
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	984	30	273	1102	4	0	0	209	0	6	27
Future Vol, veh/h	13	984	30	273	1102	4	0	0	209	0	6	27
Conflicting Peds, #/hr	0	0	14	0	0	21	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	150	-	-	125	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	1070	33	297	1198	4	0	0	227	0	7	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1223	0	0	1117	0	0	-	-	566	2271	2960	626
Stage 1	-	-	-	-	-	-	-	-	-	1815	1815	-
Stage 2	-	-	-	-	-	-	-	-	-	456	1145	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	305	-	-	344	-	-	0	0	400	43	14	366
Stage 1	-	-	-	-	-	-	0	0	-	52	128	-
Stage 2	-	-	-	-	-	-	0	0	-	506	272	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	299	-	-	339	-	-	-	-	395	4	~ 2	357
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	4	~ 2	-
Stage 1	-	-	-	-	-	-	-	-	-	49	16	-
Stage 2	-	-	-	-	-	-	-	-	-	205	256	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	11.5	25.7	$ 1700.6
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	395	299	-	-	339	-	-	11
HCM Lane V/C Ratio	0.575	0.047	-	-	0.875	-	-	3.261
HCM Control Delay (s)	25.7	17.6	-	-	58.1	-	-	$ 1700.6
HCM Lane LOS	D	C	-	-	F	-	-	F
HCM 95th %tile Q(veh)	3.5	0.1	-	-	8.2	-	-	5.5

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	1131	41	238	1238	28	67	9	203	0	0	0
Future Volume (veh/h)	45	1131	41	238	1238	28	67	9	203	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.95			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	49	1229	45	259	1346	30	73	10	221			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2			
Cap, veh/h	63	2247	82	299	2963	66	355	49	338			
Arrive On Green	0.04	0.44	0.44	0.17	0.58	0.58	0.23	0.23	0.23			
Sat Flow, veh/h	1781	5052	185	1781	5132	114	1576	216	1501			
Grp Volume(v), veh/h	49	828	446	259	893	483	83	0	221			
Grp Sat Flow(s),veh/h/ln	1781	1702	1833	1781	1702	1843	1792	0	1501			
Q Serve(g_s), s	2.4	15.6	15.6	12.4	13.2	13.2	3.3	0.0	11.7			
Cycle Q Clear(g_c), s	2.4	15.6	15.6	12.4	13.2	13.2	3.3	0.0	11.7			
Prop In Lane	1.00		0.10	1.00		0.06	0.88		1.00			
Lane Grp Cap(c), veh/h	63	1514	815	299	1965	1064	404	0	338			
V/C Ratio(X)	0.78	0.55	0.55	0.87	0.45	0.45	0.21	0.00	0.65			
Avail Cap(c_a), veh/h	622	2336	1258	622	2336	1264	820	0	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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.9	17.8	17.8	35.5	10.6	10.6	27.6	0.0	30.8			
Incr Delay (d2), s/veh	7.6	0.6	1.2	3.0	0.2	0.4	0.1	0.0	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.2	5.8	6.4	5.4	4.4	4.8	1.4	0.0	4.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	18.5	19.0	38.5	10.8	11.0	27.7	0.0	31.6			
LnGrp LOS	D	B	B	D	B	B	C	A	C			
Approach Vol, veh/h		1323			1635			304				
Approach Delay, s/veh		19.8			15.3			30.5				
Approach LOS		B			B			C				
Timer - Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	19.1	43.9			7.5	55.5		24.6				
Change Period (Y+Rc), s	4.4	4.9			4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1			30.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	14.4	17.6			4.4	15.2		13.7				
Green Ext Time (p_c), s	0.3	21.3			0.0	18.1		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	551	111	190	472	83	162	208	184	70	156	109
Future Volume (veh/h)	167	551	111	190	472	83	162	208	184	70	156	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	182	599	121	207	513	90	176	226	200	76	170	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	1101	481	299	814	142	364	383	448	290	304	251
Arrive On Green	0.13	0.31	0.31	0.09	0.27	0.27	0.20	0.20	0.20	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1553	3456	2999	523	1781	1870	1521	1781	1870	1544
Grp Volume(v), veh/h	182	599	121	207	303	300	176	226	200	76	170	118
Grp Sat Flow(s),veh/h/ln	1781	1777	1553	1728	1777	1745	1781	1870	1521	1781	1870	1544
Q Serve(g_s), s	8.0	11.3	4.7	4.7	12.1	12.2	7.0	8.8	8.7	3.0	6.8	5.6
Cycle Q Clear(g_c), s	8.0	11.3	4.7	4.7	12.1	12.2	7.0	8.8	8.7	3.0	6.8	5.6
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	223	1101	481	299	482	474	364	383	448	290	304	251
V/C Ratio(X)	0.82	0.54	0.25	0.69	0.63	0.63	0.48	0.59	0.45	0.26	0.56	0.47
Avail Cap(c_a), veh/h	652	2642	1155	1266	1321	1298	884	928	892	884	928	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	23.1	20.9	35.9	25.9	25.9	28.4	29.1	23.4	29.6	31.2	30.7
Incr Delay (d2), s/veh	2.8	0.6	0.4	1.1	2.3	2.4	0.4	0.5	0.3	0.2	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	4.6	1.7	2.0	5.2	5.2	3.0	3.9	3.0	1.3	3.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	23.7	21.3	36.9	28.2	28.3	28.7	29.6	23.6	29.8	31.8	31.2
LnGrp LOS	D	C	C	D	C	C	C	C	C	C	C	C
Approach Vol, veh/h		902			810			602			364	
Approach Delay, s/veh		26.1			30.5			27.4			31.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.4	30.0		18.0	14.5	26.8		21.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	29.6	60.1		40.1	29.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	10.7	13.3		8.8	10.0	14.2		10.8
Green Ext Time (p_c), s	0.4	7.8		0.9	0.2	7.5		1.5

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

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	809	16	36	816	397	13	5	14	246	12	98
Future Volume (veh/h)	73	809	16	36	816	397	13	5	14	246	12	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.99	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	879	17	39	887	432	14	5	15	267	13	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	1815	35	351	1144	550	228	93	206	368	14	119
Arrive On Green	0.04	0.51	0.51	0.03	0.50	0.50	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1781	3564	69	1781	2298	1105	571	313	697	1002	49	402
Grp Volume(v), veh/h	79	438	458	39	683	636	34	0	0	387	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1856	1781	1777	1626	1581	0	0	1453	0	0
Q Serve(g_s), s	1.8	13.7	13.7	0.9	26.8	27.5	0.0	0.0	0.0	20.5	0.0	0.0
Cycle Q Clear(g_c), s	1.8	13.7	13.7	0.9	26.8	27.5	1.2	0.0	0.0	21.7	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.68	0.41		0.44	0.69		0.28
Lane Grp Cap(c), veh/h	228	905	945	351	884	809	528	0	0	501	0	0
V/C Ratio(X)	0.35	0.48	0.48	0.11	0.77	0.79	0.06	0.00	0.00	0.77	0.00	0.00
Avail Cap(c_a), veh/h	797	1252	1308	940	1252	1146	783	0	0	751	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.0	13.6	13.6	10.8	17.5	17.7	21.6	0.0	0.0	28.6	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.4	0.4	0.1	2.1	2.5	0.0	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.2	5.4	0.3	10.5	10.0	0.5	0.0	0.0	7.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.4	14.1	14.1	10.9	19.5	20.2	21.6	0.0	0.0	29.9	0.0	0.0
LnGrp LOS	B	B	B	B	B	C	C	A	A	C	A	A
Approach Vol, veh/h		975			1358			34			387	
Approach Delay, s/veh		14.2			19.6			21.6			29.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.8	48.3		30.1	7.8	47.3		30.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	2.9	15.7		23.7	3.8	29.5		3.2
Green Ext Time (p_c), s	0.0	7.6		1.5	0.1	13.0		0.1

Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	20	13	141	155	31
Future Vol, veh/h	16	20	13	141	155	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	22	14	153	168	34
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	7.8	8.6	8.5
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	44%	0%
Vol Thru, %	0%	100%	0%	83%
Vol Right, %	0%	0%	56%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	141	36	186
LT Vol	13	0	16	0
Through Vol	0	141	0	155
RT Vol	0	0	20	31
Lane Flow Rate	14	153	39	202
Geometry Grp	7	7	2	5
Degree of Util (X)	0.02	0.2	0.049	0.232
Departure Headway (Hd)	5.206	4.705	4.521	4.126
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	684	759	797	857
Service Time	2.966	2.464	2.521	2.213
HCM Lane V/C Ratio	0.02	0.202	0.049	0.236
HCM Control Delay	8.1	8.7	7.8	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.7	0.2	0.9

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↰	
Traffic Vol, veh/h	0	160	0	0	161	0
Future Vol, veh/h	0	160	0	0	161	0
Conflicting Peds, #/hr	0	0	0	0	0	20
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	0	174	0	0	175	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	174	-
Stage 1	-	-	0	-
Stage 2	-	-	174	-
Critical Hdwy	-	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	-	-	3.518	-
Pot Cap-1 Maneuver	0	-	816	0
Stage 1	0	-	-	0
Stage 2	0	-	856	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	816	-
Mov Cap-2 Maneuver	-	-	783	-
Stage 1	-	-	-	-
Stage 2	-	-	856	-

Approach	EB	SB
HCM Control Delay, s	0	10.9
HCM LOS		B

Minor Lane/Major Mvmt	EBT	SBLn1
Capacity (veh/h)	-	783
HCM Lane V/C Ratio	-	0.223
HCM Control Delay (s)	-	10.9
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.9

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	75	343	0	0	89	0
Future Vol, veh/h	75	343	0	0	89	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	373	0	0	97	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.8	9
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	40%	0%	100%
Vol Thru, %	60%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	189	229	89
LT Vol	75	0	89
Through Vol	114	229	0
RT Vol	0	0	0
Lane Flow Rate	206	249	97
Geometry Grp	7	7	2
Degree of Util (X)	0.286	0.332	0.138
Departure Headway (Hd)	5.005	4.807	5.133
Convergence, Y/N	Yes	Yes	Yes
Cap	722	753	700
Service Time	2.705	2.507	3.151
HCM Lane V/C Ratio	0.285	0.331	0.139
HCM Control Delay	9.7	9.9	9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.2	1.5	0.5

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	454	0	0	53	0
Future Vol, veh/h	10	454	0	0	53	0
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Stop	Stop	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	11	493	0	0	58	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	269	-
Stage 1	-	-	0	-
Stage 2	-	-	269	-
Critical Hdwy	4.14	-	6.84	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.84	-
Follow-up Hdwy	2.22	-	3.52	-
Pot Cap-1 Maneuver	-	-	698	0
Stage 1	-	-	-	0
Stage 2	-	-	752	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	698	-
Mov Cap-2 Maneuver	-	-	698	-
Stage 1	-	-	-	-
Stage 2	-	-	752	-

Approach	EB	SB
HCM Control Delay, s		10.6
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	698
HCM Lane V/C Ratio	-	-	0.083
HCM Control Delay (s)	-	-	10.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	40	274	28	49	16	0	0	46	4
Future Vol, veh/h	0	0	0	40	274	28	49	16	0	0	46	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	43	298	30	53	17	0	0	50	4
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.2	8.6	8.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	75%	23%	0%	0%
Vol Thru, %	25%	77%	83%	92%
Vol Right, %	0%	0%	17%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	177	165	50
LT Vol	49	40	0	0
Through Vol	16	137	137	46
RT Vol	0	0	28	4
Lane Flow Rate	71	192	179	54
Geometry Grp	2	7	7	2
Degree of Util (X)	0.098	0.266	0.236	0.073
Departure Headway (Hd)	4.995	4.978	4.746	4.821
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	719	725	760	745
Service Time	3.017	2.678	2.446	2.842
HCM Lane V/C Ratio	0.099	0.265	0.236	0.072
HCM Control Delay	8.6	9.5	8.9	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1.1	0.9	0.2

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	23	233	26	6	6	0	0	51	91
Future Vol, veh/h	0	0	0	23	233	26	6	6	0	0	51	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	25	253	28	7	7	0	0	55	99
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	8.8	8	8.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	50%	16%	0%	0%
Vol Thru, %	50%	84%	82%	36%
Vol Right, %	0%	0%	18%	64%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	140	143	142
LT Vol	6	23	0	0
Through Vol	6	117	117	51
RT Vol	0	0	26	91
Lane Flow Rate	13	152	155	154
Geometry Grp	2	7	7	2
Degree of Util (X)	0.018	0.211	0.207	0.184
Departure Headway (Hd)	4.924	5.011	4.8	4.28
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	728	720	753	841
Service Time	2.948	2.711	2.5	2.294
HCM Lane V/C Ratio	0.018	0.211	0.206	0.183
HCM Control Delay	8	9	8.7	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.8	0.7

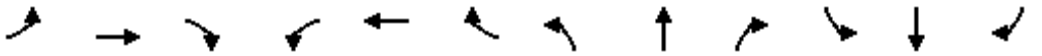
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	0	0	46	0	2426	11	0	2573	10
Future Vol, veh/h	0	0	10	0	0	46	0	2426	11	0	2573	10
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	5	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	11	0	0	50	0	2637	12	0	2797	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1407	-	-	1330	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	116	0	0	124	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	116	-	-	123	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.2	53	0	0
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	116	123	-	-
HCM Lane V/C Ratio	-	-	0.094	0.407	-	-
HCM Control Delay (s)	-	-	39.2	53	-	-
HCM Lane LOS	-	-	E	F	-	-
HCM 95th %tile Q(veh)	-	-	0.3	1.7	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	38	58	134	73	2322	9	0	2439	183
Future Volume (veh/h)	0	0	0	38	58	134	73	2322	9	0	2439	183
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				41	63	146	79	2524	10	0	2651	199
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				103	159	219	448	4133	16	0	2557	791
Arrive On Green				0.14	0.14	0.14	0.50	1.00	1.00	0.00	0.50	0.50
Sat Flow, veh/h				723	1111	1538	1781	5250	21	0	5274	1580
Grp Volume(v), veh/h				104	0	146	79	1636	898	0	2651	199
Grp Sat Flow(s),veh/h/ln				1834	0	1538	1781	1702	1867	0	1702	1580
Q Serve(g_s), s				7.2	0.0	12.6	3.4	0.0	0.0	0.0	70.1	10.1
Cycle Q Clear(g_c), s				7.2	0.0	12.6	3.4	0.0	0.0	0.0	70.1	10.1
Prop In Lane				0.39		1.00	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				262	0	219	448	2680	1470	0	2557	791
V/C Ratio(X)				0.40	0.00	0.67	0.18	0.61	0.61	0.00	1.04	0.25
Avail Cap(c_a), veh/h				460	0	386	448	2680	1470	0	2557	791
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.48	0.48	0.48	0.00	1.00	1.00
Uniform Delay (d), s/veh				54.5	0.0	56.8	26.9	0.0	0.0	0.0	35.0	20.0
Incr Delay (d2), s/veh				0.4	0.0	1.3	0.0	0.5	0.9	0.0	28.2	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.4	0.0	5.0	1.4	0.2	0.4	0.0	34.1	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				54.9	0.0	58.1	26.9	0.5	0.9	0.0	63.2	20.7
LnGrp LOS				D	A	E	C	A	A	A	F	C
Approach Vol, veh/h					250			2613			2850	
Approach Delay, s/veh					56.8			1.4			60.2	
Approach LOS					E			A			E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	115.1	24.9	40.1	75.0
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	95.1	35.1	20.6	* 70
Max Q Clear Time (g_c+I1), s	2.0	14.6	5.4	72.1
Green Ext Time (p_c), s	10.5	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	33.2
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

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



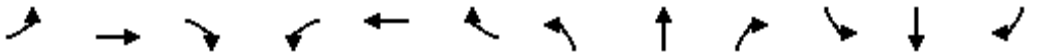
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	318	146	115	0	0	0	0	2069	45	140	2329	0
Future Volume (veh/h)	318	146	115	0	0	0	0	2069	45	140	2329	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	346	159	125				0	2249	49	152	2532	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	411	432	351				0	2934	64	173	4499	0
Arrive On Green	0.23	0.23	0.23				0.00	1.00	1.00	0.19	1.00	0.00
Sat Flow, veh/h	1781	1870	1523				0	5310	112	1781	6696	0
Grp Volume(v), veh/h	346	159	125				0	1487	811	152	2532	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1523				0	1702	1849	1781	1609	0
Q Serve(g_s), s	26.0	10.0	9.6				0.0	0.0	0.0	11.6	0.0	0.0
Cycle Q Clear(g_c), s	26.0	10.0	9.6				0.0	0.0	0.0	11.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	411	432	351				0	1942	1055	173	4499	0
V/C Ratio(X)	0.84	0.37	0.36				0.00	0.77	0.77	0.88	0.56	0.00
Avail Cap(c_a), veh/h	472	496	404				0	1942	1055	364	4499	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.53	0.53	0.28	0.28	0.00
Uniform Delay (d), s/veh	51.4	45.3	45.1				0.0	0.0	0.0	55.6	0.0	0.0
Incr Delay (d2), s/veh	10.4	0.2	0.2				0.0	1.6	2.9	1.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	4.7	3.7				0.0	0.4	0.9	4.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	45.5	45.4				0.0	1.6	2.9	57.2	0.1	0.0
LnGrp LOS	E	D	D				A	A	A	E	A	A
Approach Vol, veh/h		630						2298			2684	
Approach Delay, s/veh		54.4						2.1			3.4	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	18.0	84.8	37.2	102.8
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	20.6	60.1	37.1	93.1
Max Q Clear Time (g_c+I1), s	13.6	2.0	28.0	2.0
Green Ext Time (p_c), s	0.0	7.6	0.4	11.9

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	553	425	311	209	307	21	436	1457	344	0	1572	853
Future Volume (vph)	553	425	311	209	307	21	436	1457	344	0	1572	853
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3331	1492	1610	3340		3662	4923			5085	1506
Flt Permitted	0.95	0.98	1.00	0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3331	1492	1610	3340		3662	4923			5085	1506
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	601	462	338	227	334	23	474	1584	374	0	1709	927
RTOR Reduction (vph)	0	0	192	0	3	0	0	27	0	0	0	375
Lane Group Flow (vph)	349	714	146	191	390	0	474	1931	0	0	1709	552
Confl. Peds. (#/hr)			40			5			4			25
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	33.6	33.6	33.6	16.1	16.1		19.5	72.6			47.7	47.7
Effective Green, g (s)	33.6	33.6	33.6	16.1	16.1		19.5	72.6			47.7	47.7
Actuated g/C Ratio	0.24	0.24	0.24	0.12	0.12		0.14	0.52			0.34	0.34
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	386	799	358	185	384		510	2552			1732	513
v/s Ratio Prot	c0.22	0.21		c0.12	0.12		c0.13	0.39			0.34	
v/s Ratio Perm			0.10									c0.37
v/c Ratio	0.90	0.89	0.41	1.03	1.02		0.93	0.76			0.99	1.08
Uniform Delay, d1	51.6	51.5	44.8	62.0	62.0		59.6	26.7			45.8	46.1
Progression Factor	1.00	1.00	1.00	0.76	0.76		1.32	0.19			0.46	1.62
Incremental Delay, d2	23.4	12.1	0.3	74.0	49.5		13.7	1.1			17.0	58.7
Delay (s)	75.0	63.6	45.1	121.0	96.5		92.4	6.1			38.3	133.6
Level of Service	E	E	D	F	F		F	A			D	F
Approach Delay (s)		62.0			104.5			22.9			71.8	
Approach LOS		E			F			C			E	

Intersection Summary			
HCM 2000 Control Delay	55.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	303	536	281	147	616	382	402	1589	134	475	1444	307
Future Volume (veh/h)	303	536	281	147	616	382	402	1589	134	475	1444	307
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.97	1.00		0.98
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	329	583	305	160	670	415	437	1727	146	516	1570	334
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	417	713	306	183	637	274	487	1712	144	679	1753	370
Arrive On Green	0.12	0.20	0.20	0.10	0.18	0.18	0.09	0.24	0.24	0.20	0.42	0.42
Sat Flow, veh/h	3456	3554	1523	1781	3554	1529	3456	4785	403	3456	4203	887
Grp Volume(v), veh/h	329	583	305	160	670	415	437	1227	646	516	1269	635
Grp Sat Flow(s),veh/h/ln	1728	1777	1523	1781	1777	1529	1728	1702	1784	1728	1702	1686
Q Serve(g_s), s	13.0	22.0	28.0	12.4	25.1	25.1	17.5	50.1	50.1	19.7	48.5	49.3
Cycle Q Clear(g_c), s	13.0	22.0	28.0	12.4	25.1	25.1	17.5	50.1	50.1	19.7	48.5	49.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		0.53
Lane Grp Cap(c), veh/h	417	713	306	183	637	274	487	1218	638	679	1420	703
V/C Ratio(X)	0.79	0.82	1.00	0.87	1.05	1.51	0.90	1.01	1.01	0.76	0.89	0.90
Avail Cap(c_a), veh/h	533	713	306	237	637	274	632	1218	638	679	1420	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	0.60	0.60	0.60	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.8	53.5	55.9	61.9	57.5	57.5	62.4	53.2	53.2	53.1	37.9	38.1
Incr Delay (d2), s/veh	3.8	5.8	46.3	20.2	50.0	249.0	7.3	21.8	30.4	4.5	7.5	14.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	10.4	14.6	6.6	15.6	28.6	8.4	25.6	28.3	8.9	21.1	22.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	59.3	102.3	82.2	107.4	306.5	69.7	75.0	83.6	57.6	45.4	52.7
LnGrp LOS	E	E	F	F	F	F	E	F	F	E	D	D
Approach Vol, veh/h		1217			1245			2310			2420	
Approach Delay, s/veh		71.2			170.5			76.4			49.9	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.2	55.0	18.8	33.0	24.1	64.1	21.8	30.0
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 50	18.6	28.1	25.6	48.3	21.6	* 25
Max Q Clear Time (g_c+I1), s	21.7	52.1	14.4	30.0	19.5	51.3	15.0	27.1
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.2	0.0	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	82.9
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	5	4	104	11	103	22	1910	34	203	1706	48
Future Volume (veh/h)	38	5	4	104	11	103	22	1910	34	203	1706	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	5	4	113	12	112	24	2076	37	221	1854	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	23	14	161	17	126	39	3027	54	244	3578	100
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.02	0.59	0.59	0.14	0.70	0.70
Sat Flow, veh/h	845	134	85	723	103	740	1781	5164	92	1781	5101	143
Grp Volume(v), veh/h	50	0	0	237	0	0	24	1368	745	221	1237	669
Grp Sat Flow(s),veh/h/ln	1065	0	0	1565	0	0	1781	1702	1852	1781	1702	1840
Q Serve(g_s), s	0.0	0.0	0.0	14.9	0.0	0.0	1.9	38.9	39.0	17.1	23.9	23.9
Cycle Q Clear(g_c), s	5.7	0.0	0.0	20.6	0.0	0.0	1.9	38.9	39.0	17.1	23.9	23.9
Prop In Lane	0.82		0.08	0.48		0.47	1.00		0.05	1.00		0.08
Lane Grp Cap(c), veh/h	228	0	0	304	0	0	39	1995	1085	244	2388	1291
V/C Ratio(X)	0.22	0.00	0.00	0.78	0.00	0.00	0.62	0.69	0.69	0.91	0.52	0.52
Avail Cap(c_a), veh/h	316	0	0	404	0	0	211	1995	1085	377	2388	1291
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.53	0.53	0.53	0.34	0.34	0.34
Uniform Delay (d), s/veh	50.5	0.0	0.0	56.4	0.0	0.0	67.9	20.0	20.1	59.5	9.8	9.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	4.8	0.0	0.0	3.2	1.0	1.9	5.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	8.7	0.0	0.0	0.9	14.9	16.5	8.0	8.1	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	0.0	0.0	61.3	0.0	0.0	71.1	21.1	22.0	64.7	10.1	10.3
LnGrp LOS	D	A	A	E	A	A	E	C	C	E	B	B
Approach Vol, veh/h		50			237			2137			2127	
Approach Delay, s/veh		50.6			61.3			22.0			15.8	
Approach LOS		D			E			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.6	87.7		28.7	7.4	103.9		28.7
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	19.6	* 63		33.1	16.6	75.3		33.1
Max Q Clear Time (g_c+I1), s	11.1	41.0		7.7	3.9	25.9		22.6
Green Ext Time (p_c), s	0.1	5.9		0.1	0.0	5.4		0.4

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	156	19	381	204	234	20	1491	454	246	1246	297
Future Volume (veh/h)	262	156	19	381	204	234	20	1491	454	246	1246	297
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	285	170	21	414	222	254	22	1621	493	267	1354	323
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	350	43	463	323	266	37	2305	713	212	1749	763
Arrive On Green	0.17	0.21	0.21	0.13	0.17	0.17	0.02	0.45	0.45	0.12	0.98	0.98
Sat Flow, veh/h	1781	1629	201	3456	1870	1543	1781	5106	1580	3456	3554	1551
Grp Volume(v), veh/h	285	0	191	414	222	254	22	1621	493	267	1354	323
Grp Sat Flow(s),veh/h/ln	1781	0	1830	1728	1870	1543	1781	1702	1580	1728	1777	1551
Q Serve(g_s), s	22.1	0.0	12.8	16.5	15.6	19.3	1.7	35.7	34.8	8.6	3.5	0.4
Cycle Q Clear(g_c), s	22.1	0.0	12.8	16.5	15.6	19.3	1.7	35.7	34.8	8.6	3.5	0.4
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	307	0	393	463	323	266	37	2305	713	212	1749	763
V/C Ratio(X)	0.93	0.00	0.49	0.89	0.69	0.95	0.60	0.70	0.69	1.26	0.77	0.42
Avail Cap(c_a), veh/h	415	0	446	805	456	376	211	2305	713	212	1749	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	57.1	0.0	48.2	59.6	54.4	41.0	68.0	30.9	30.6	61.4	0.6	0.1
Incr Delay (d2), s/veh	19.7	0.0	0.3	3.3	1.0	25.4	5.8	1.8	5.4	143.7	2.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	0.0	5.9	7.3	7.3	9.1	0.8	14.6	14.0	7.7	1.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.8	0.0	48.5	62.9	55.4	66.4	73.8	32.7	36.1	205.1	3.4	1.6
LnGrp LOS	E	A	D	E	E	E	E	C	D	F	A	A
Approach Vol, veh/h		476			890			2136			1944	
Approach Delay, s/veh		65.5			62.0			33.9			30.8	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	68.9	23.2	35.0	7.3	74.6	29.1	29.1
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	8.6	* 46	32.6	34.1	16.6	37.3	32.6	* 34
Max Q Clear Time (g_c+I1), s	10.6	37.7	18.5	14.8	3.7	5.5	24.1	21.3
Green Ext Time (p_c), s	0.0	3.5	0.3	0.3	0.0	4.0	0.1	0.5

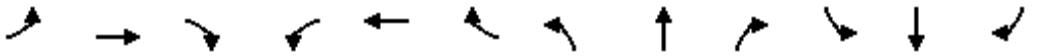
Intersection Summary	
HCM 6th Ctrl Delay	40.2
HCM 6th LOS	D

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	201	12	184	0	123	0	550	264	44	319	0
Future Volume (vph)	56	201	12	184	0	123	0	550	264	44	319	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.92		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1843		1770		1552		3101		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.24	1.00	
Satd. Flow (perm)	1770	1843		1770		1552		3101		439	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	218	13	200	0	134	0	598	287	48	347	0
RTOR Reduction (vph)	0	2	0	0	0	75	0	29	0	0	0	0
Lane Group Flow (vph)	61	229	0	200	0	59	0	856	0	48	347	0
Confl. Peds. (#/hr)			19			3			70			16
Confl. Bikes (#/hr)						1			10			12
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	20.9	20.9		19.3		19.3		76.6		85.6	85.6	
Effective Green, g (s)	20.9	20.9		19.3		19.3		76.6		85.6	85.6	
Actuated g/C Ratio	0.15	0.15		0.14		0.14		0.55		0.61	0.61	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	264	275		244		213		1696		312	2163	
v/s Ratio Prot	0.03	c0.12		c0.11				c0.28		0.01	c0.10	
v/s Ratio Perm						0.04				0.09		
v/c Ratio	0.23	0.83		0.82		0.28		0.50		0.15	0.16	
Uniform Delay, d1	52.5	57.9		58.7		54.1		19.8		12.7	11.7	
Progression Factor	0.85	0.87		1.00		1.00		0.80		1.00	1.00	
Incremental Delay, d2	0.2	17.1		18.0		0.3		0.8		0.1	0.2	
Delay (s)	44.5	67.5		76.7		54.4		16.7		12.8	11.9	
Level of Service	D	E		E		D		B		B	B	
Approach Delay (s)		62.7			67.7			16.7			12.0	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.3

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	171	574	327	41	0	1
Future Vol, veh/h	171	574	327	41	0	1
Conflicting Peds, #/hr	0	0	0	12	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	186	624	355	45	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	412	0	-	0	1074	212
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	684	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1143	-	-	-	215	793
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	462	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1130	-	-	-	176	784
Mov Cap-2 Maneuver	-	-	-	-	176	-
Stage 1	-	-	-	-	539	-
Stage 2	-	-	-	-	457	-

Approach	NB	SB	SE
HCM Control Delay, s	2	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1130	-	784	-	-
HCM Lane V/C Ratio	0.164	-	0.001	-	-
HCM Control Delay (s)	8.8	-	9.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.6	-	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	323	100	153	233	62	107	97	150	65	95	94
Future Volume (veh/h)	50	323	100	153	233	62	107	97	150	65	95	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.97	1.00		0.95	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	351	109	166	253	67	116	105	163	71	103	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	1850	650	258	745	609	150	742	764	143	590	245
Arrive On Green	0.04	0.36	0.36	0.07	0.40	0.40	0.08	0.21	0.21	0.04	0.17	0.17
Sat Flow, veh/h	1781	5106	1428	3456	1870	1530	1781	3554	2660	3456	3554	1477
Grp Volume(v), veh/h	54	351	109	166	253	67	116	105	163	71	103	102
Grp Sat Flow(s),veh/h/ln	1781	1702	1428	1728	1870	1530	1781	1777	1330	1728	1777	1477
Q Serve(g_s), s	2.2	3.5	3.4	3.5	7.0	2.1	4.8	1.8	3.5	1.5	1.9	4.6
Cycle Q Clear(g_c), s	2.2	3.5	3.4	3.5	7.0	2.1	4.8	1.8	3.5	1.5	1.9	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	1850	650	258	745	609	150	742	764	143	590	245
V/C Ratio(X)	0.78	0.19	0.17	0.64	0.34	0.11	0.78	0.14	0.21	0.50	0.17	0.42
Avail Cap(c_a), veh/h	715	2732	897	1387	1001	819	715	1902	1632	1387	1902	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	16.3	12.4	33.6	15.7	14.2	33.5	24.1	20.4	35.1	26.8	27.9
Incr Delay (d2), s/veh	7.0	0.1	0.1	1.0	0.1	0.0	3.2	0.1	0.1	1.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.3	1.0	1.4	2.8	0.6	2.0	0.7	1.0	0.6	0.7	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	16.4	12.6	34.6	15.8	14.2	36.8	24.2	20.6	36.1	26.8	28.3
LnGrp LOS	D	B	B	C	B	B	D	C	C	D	C	C
Approach Vol, veh/h		514			486			384			276	
Approach Delay, s/veh		18.3			22.0			26.5			29.8	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	33.0	11.7	19.1	8.3	35.7	8.5	22.3
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	5.5	5.5	6.8	6.6	4.2	9.0	3.5	5.5
Green Ext Time (p_c), s	0.3	3.6	0.1	0.5	0.1	1.1	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

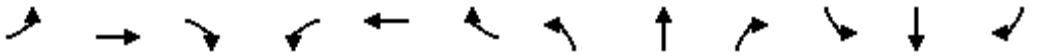
Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	408	244	331	295	13
Future Vol, veh/h	0	408	244	331	295	13
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	443	265	360	321	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	171	338	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	717	806	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	715	804	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.9	5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	804	-	715	-	-
HCM Lane V/C Ratio	0.33	-	0.62	-	-
HCM Control Delay (s)	11.7	-	17.9	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	1.4	-	4.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	3	18	2	2	3	193	540	3	7	711	84
Future Volume (veh/h)	18	3	18	2	2	3	193	540	3	7	711	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	3	20	2	2	3	210	587	3	8	773	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	313	265	4	312	264	261	1563	676	15	962	113
Arrive On Green	0.02	0.17	0.17	0.00	0.17	0.17	0.15	0.44	0.44	0.01	0.30	0.30
Sat Flow, veh/h	1781	1870	1585	1781	1870	1582	1781	3554	1538	1781	3189	375
Grp Volume(v), veh/h	20	3	20	2	2	3	210	587	3	8	431	433
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1582	1781	1777	1538	1781	1777	1787
Q Serve(g_s), s	0.7	0.1	0.7	0.1	0.1	0.1	7.0	6.8	0.1	0.3	13.7	13.7
Cycle Q Clear(g_c), s	0.7	0.1	0.7	0.1	0.1	0.1	7.0	6.8	0.1	0.3	13.7	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	34	313	265	4	312	264	261	1563	676	15	536	539
V/C Ratio(X)	0.60	0.01	0.08	0.51	0.01	0.01	0.81	0.38	0.00	0.54	0.80	0.80
Avail Cap(c_a), veh/h	874	1835	1555	874	1835	1552	874	1743	754	874	872	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	21.2	21.5	30.5	21.2	21.3	25.3	11.5	9.6	30.2	19.7	19.7
Incr Delay (d2), s/veh	21.8	0.0	0.1	34.0	0.0	0.0	2.2	0.1	0.0	10.9	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.2	0.1	0.0	0.0	2.7	1.9	0.0	0.2	4.9	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	21.3	21.6	64.4	21.3	21.3	27.5	11.6	9.6	41.1	20.8	20.8
LnGrp LOS	D	C	C	E	C	C	C	B	A	D	C	C
Approach Vol, veh/h		43			7			800			872	
Approach Delay, s/veh		35.5			33.6			15.7			21.0	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	18.9	13.4	23.3	5.6	18.9	4.9	31.8
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0
Max Q Clear Time (g_c+I1), s	2.1	2.7	9.0	15.7	2.7	2.1	2.3	8.8
Green Ext Time (p_c), s	0.0	0.1	0.2	2.8	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Notes

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

User approved ignoring U-Turning movement.

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

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	817	883	12	0	157
Future Vol, veh/h	0	817	883	12	0	157
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	888	960	13	0	171

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	483
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	530
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	528
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	528
HCM Lane V/C Ratio	-	-	0.323
HCM Control Delay (s)	-	-	15
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.4



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	710	108	0	834	904	895
Future Volume (vph)	710	108	0	834	904	895
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	772	117	0	907	983	973
RTOR Reduction (vph)	0	62	0	0	0	0
Lane Group Flow (vph)	772	55	0	907	983	973
Confl. Peds. (#/hr)						7
Confl. Bikes (#/hr)						2
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	33.1	33.1		38.7	38.7	100.5
Effective Green, g (s)	33.1	33.1		38.7	38.7	95.1
Actuated g/C Ratio	0.30	0.30		0.35	0.35	0.86
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1029	474		1240	1240	1363
v/s Ratio Prot	0.22			0.26	c0.28	c0.61
v/s Ratio Perm		0.03				
v/c Ratio	0.75	0.12		0.73	0.79	0.71
Uniform Delay, d1	34.9	28.0		31.3	32.2	2.8
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.0	0.1		2.2	3.5	1.7
Delay (s)	37.9	28.1		33.5	35.8	4.4
Level of Service	D	C		C	D	A
Approach Delay (s)	36.6			33.5	20.2	
Approach LOS	D			C	C	

Intersection Summary			
HCM 2000 Control Delay	27.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	110.4	Sum of lost time (s)	19.0
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	926	213	108	1410
Future Volume (veh/h)	0	1	926	213	108	1410
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1007	232	117	1533
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	6	2283	996	208	2772
Arrive On Green	0.00	0.00	0.64	0.64	0.06	0.78
Sat Flow, veh/h	1781	3170	3647	1547	3456	3647
Grp Volume(v), veh/h	0	1	1007	232	117	1533
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1547	1728	1777
Q Serve(g_s), s	0.0	0.0	8.0	3.6	1.9	9.5
Cycle Q Clear(g_c), s	0.0	0.0	8.0	3.6	1.9	9.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	6	2283	996	208	2772
V/C Ratio(X)	0.00	0.18	0.44	0.23	0.56	0.55
Avail Cap(c_a), veh/h	1257	2238	3763	1640	1830	3763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.3	5.1	4.2	25.9	2.4
Incr Delay (d2), s/veh	0.0	5.5	0.2	0.2	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.7	0.7	0.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	33.8	5.2	4.4	26.8	2.8
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1239			1650
Approach Delay, s/veh	33.8		5.1			4.5
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.8	42.6			50.4	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	3.9	10.0			11.5	2.0
Green Ext Time (p_c), s	0.2	15.3			32.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	60	158	35	38	81	80	829	25	91	1335	255
Future Volume (veh/h)	270	60	158	35	38	81	80	829	25	91	1335	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.92	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	293	65	172	38	41	88	87	901	27	99	1451	277
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	374	301	239	48	149	116	145	1921	899	127	2023	1074
Arrive On Green	0.11	0.16	0.16	0.03	0.08	0.08	0.04	0.54	0.54	0.07	0.57	0.57
Sat Flow, veh/h	3456	1870	1486	1781	1870	1451	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	293	65	172	38	41	88	87	901	27	99	1451	277
Grp Sat Flow(s),veh/h/ln	1728	1870	1486	1781	1870	1451	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.1	3.0	10.7	2.1	2.0	5.8	2.4	15.3	0.7	5.3	29.1	6.7
Cycle Q Clear(g_c), s	8.1	3.0	10.7	2.1	2.0	5.8	2.4	15.3	0.7	5.3	29.1	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	301	239	48	149	116	145	1921	899	127	2023	1074
V/C Ratio(X)	0.78	0.22	0.72	0.79	0.27	0.76	0.60	0.47	0.03	0.78	0.72	0.26
Avail Cap(c_a), veh/h	1060	574	456	546	574	445	1060	2543	1177	546	2543	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	35.7	38.9	47.3	42.3	44.1	46.0	13.8	9.3	44.7	15.3	6.2
Incr Delay (d2), s/veh	1.4	0.4	4.0	10.2	0.4	3.8	1.5	0.3	0.0	3.9	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	1.4	4.0	1.0	0.9	2.1	1.0	5.6	0.2	2.5	10.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	36.0	42.9	57.5	42.7	47.9	47.5	14.1	9.3	48.6	16.3	6.3
LnGrp LOS	D	D	D	E	D	D	D	B	A	D	B	A
Approach Vol, veh/h		530			167			1015			1827	
Approach Delay, s/veh		42.6			48.8			16.9			16.5	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	58.2	7.0	21.3	8.5	61.0	15.0	13.3
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	7.3	17.3	4.1	12.7	4.4	31.1	10.1	7.8
Green Ext Time (p_c), s	0.1	13.0	0.0	0.8	0.1	24.6	0.5	0.2

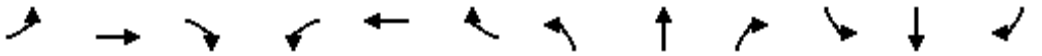
Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	947	268	278	633	0	0	0	0	205	0	0
Future Volume (vph)	0	947	268	278	633	0	0	0	0	205	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5					5.1		
Lane Util. Factor		0.95	1.00	0.97	0.95					1.00		
Frpb, ped/bikes		1.00	0.99	1.00	1.00					1.00		
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00		
Frt		1.00	0.85	1.00	1.00					1.00		
Flt Protected		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (prot)		3539	1561	3433	3539					1770		
Flt Permitted		1.00	1.00	0.95	1.00					0.95		
Satd. Flow (perm)		3539	1561	3433	3539					1770		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1029	291	302	688	0	0	0	0	223	0	0
RTOR Reduction (vph)	0	0	148	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1029	143	302	688	0	0	0	0	223	0	0
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			5			2						
Turn Type		NA	Perm	Prot	NA					Prot		
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		48.3	48.3	10.3	63.3					15.1		
Effective Green, g (s)		44.3	44.3	10.3	59.3					15.1		
Actuated g/C Ratio		0.49	0.49	0.11	0.66					0.17		
Clearance Time (s)				4.7						5.1		
Vehicle Extension (s)				2.0						2.0		
Lane Grp Cap (vph)		1741	768	392	2331					296		
v/s Ratio Prot		c0.29		c0.09	0.19					c0.13		
v/s Ratio Perm			0.09									
v/c Ratio		0.59	0.19	0.77	0.30					0.75		
Uniform Delay, d1		16.4	12.8	38.7	6.5					35.7		
Progression Factor		1.00	1.00	1.00	1.00					1.00		
Incremental Delay, d2		0.5	0.1	8.3	0.1					9.2		
Delay (s)		16.9	12.9	47.0	6.6					44.9		
Level of Service		B	B	D	A					D		
Approach Delay (s)		16.0			18.9			0.0			44.9	
Approach LOS		B			B			A			D	

Intersection Summary					
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service		B	
HCM 2000 Volume to Capacity ratio	0.65				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		20.3	
Intersection Capacity Utilization	58.1%	ICU Level of Service		B	
Analysis Period (min)	15				

c Critical Lane Group

Appendix Y

Opening Year (2035) Base Conditions 95th Percentile Queue Worksheets

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	347	356	390	386	263	221	126	266	258	200	62
Average Queue (ft)	216	221	195	198	172	124	19	196	166	89	14
95th Queue (ft)	325	329	321	324	244	207	79	256	239	181	46
Link Distance (ft)	2519	2519	2519	2519				1147	1147	1147	1147
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	T	T	R	L	LT	T	R	L
Maximum Queue (ft)	244	307	87	23	89	82	10	112	174	183	98	94
Average Queue (ft)	104	164	12	1	17	21	0	29	92	106	19	64
95th Queue (ft)	211	264	50	9	55	61	7	81	155	170	81	106
Link Distance (ft)		1939	1939		629	629	629		1525	1525		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	360			150				230			25	
Storage Blk Time (%)		0								66	0	
Queuing Penalty (veh)		0								11	0	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB
Directions Served	LT	T	R
Maximum Queue (ft)	96	92	62
Average Queue (ft)	83	69	8
95th Queue (ft)	98	103	38
Link Distance (ft)			
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			100
Storage Blk Time (%)		1	0
Queuing Penalty (veh)		2	0

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	92	107	121	25	70	109	190	69	79
Average Queue (ft)	37	21	29	4	20	33	86	31	34
95th Queue (ft)	71	63	77	17	52	82	162	63	64
Link Distance (ft)		629	629		959	959	959	857	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)		0			0				
Queuing Penalty (veh)		0			0				

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	29	60	144	243	122	102	157	211	113	133	77	69
Average Queue (ft)	3	26	63	105	54	28	55	84	51	43	34	33
95th Queue (ft)	17	53	121	187	104	70	111	159	95	91	67	60
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)					0				1	1		
Queuing Penalty (veh)					0				1	1		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	LT	R	LT	R
Maximum Queue (ft)	32	56	110	157	121	118	117	144	89	67	82	51
Average Queue (ft)	4	18	37	64	49	32	31	56	40	20	30	18
95th Queue (ft)	18	44	88	128	90	81	80	120	76	49	67	44
Link Distance (ft)			636	636		202	202	202	444		292	292
Upstream Blk Time (%)						0						
Queuing Penalty (veh)						0						
Storage Bay Dist (ft)	330	330			175					50		
Storage Blk Time (%)						0			7	0		
Queuing Penalty (veh)						0			3	0		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	L	T	TR	L	T	T	TR	LTR
Maximum Queue (ft)	47	4	19	71	6	6	18	30
Average Queue (ft)	6	0	1	27	0	0	1	5
95th Queue (ft)	28	3	10	62	4	4	11	24
Link Distance (ft)		232	232		364	364	364	458
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150			125				
Storage Blk Time (%)				0				
Queuing Penalty (veh)				0				

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	50	90	108	141	128	353	508	157	49	57
Average Queue (ft)	15	35	49	62	61	61	52	57	12	29
95th Queue (ft)	41	76	95	117	111	223	308	130	37	51
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)						0	0			
Queuing Penalty (veh)						0	0			
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)					1	1				
Queuing Penalty (veh)					2	2				

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	103	175	188	63	102	50	166	168	142	168	65	65
Average Queue (ft)	45	84	85	23	40	7	71	78	36	81	27	19
95th Queue (ft)	87	148	151	49	77	32	136	142	92	139	52	52
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			1						0	9		
Queuing Penalty (veh)			1						0	6		

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	103	65
Average Queue (ft)	41	25
95th Queue (ft)	82	54
Link Distance (ft)	708	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	41	138	188	99	243	259	26	118
Average Queue (ft)	10	53	72	10	98	128	8	39
95th Queue (ft)	28	120	145	48	197	221	24	85
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		2			6			
Queuing Penalty (veh)		1			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	54	49	74	83
Average Queue (ft)	23	20	39	39
95th Queue (ft)	48	47	64	64
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	1	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	SB
Directions Served	L
Maximum Queue (ft)	67
Average Queue (ft)	33
95th Queue (ft)	55
Link Distance (ft)	80
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	69	76	55
Average Queue (ft)	37	34	32
95th Queue (ft)	56	57	43
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	SB
Directions Served	L
Maximum Queue (ft)	43
Average Queue (ft)	23
95th Queue (ft)	47
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	71	75	40	54
Average Queue (ft)	36	39	28	30
95th Queue (ft)	53	62	45	48
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	76	90	31	77
Average Queue (ft)	43	46	8	37
95th Queue (ft)	66	75	30	61
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	38	55	49	60	89	1047	1067	1105
Average Queue (ft)	12	14	4	6	9	377	413	469
95th Queue (ft)	45	38	25	33	49	1035	1079	1120
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	129	141	114	222	218	231	413	418	421	205
Average Queue (ft)	47	53	26	70	78	78	352	360	379	87
95th Queue (ft)	99	114	73	170	181	195	477	480	477	240
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)							41	39	42	
Queuing Penalty (veh)							332	312	335	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			0	4					46	
Queuing Penalty (veh)			0	2					45	

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	179	251	116	324	326	332	175	335	316	282	187
Average Queue (ft)	86	120	15	129	144	154	139	189	119	84	33
95th Queue (ft)	154	209	65	309	322	336	207	391	318	233	131
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)				0	0	0		15	1	0	0
Queuing Penalty (veh)				1	1	2		88	5	2	0
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		2					52	4			
Queuing Penalty (veh)		1					288	6			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	201	229	215	183	169	169	166	204	197	237	254	310
Average Queue (ft)	86	118	91	77	111	141	111	96	83	100	127	158
95th Queue (ft)	163	197	172	146	178	187	174	173	155	196	227	266
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)					25	42	28			0	0	1
Queuing Penalty (veh)					39	65	43			0	0	4
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)										0		
Queuing Penalty (veh)										0		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB
Directions Served	T	T	T
Maximum Queue (ft)	399	413	426
Average Queue (ft)	259	276	285
95th Queue (ft)	421	436	452
Link Distance (ft)	341	341	341
Upstream Blk Time (%)	6	8	11
Queuing Penalty (veh)	35	45	63
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	131	163	204	200	185	270	280	303	253	194	328	458
Average Queue (ft)	52	80	82	92	73	135	139	155	123	110	141	215
95th Queue (ft)	103	136	164	162	139	240	226	256	228	174	248	400
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	1	4	6		0	2	0	7	4		0	2
Queuing Penalty (veh)	1	5	10		0	4	0	18	8		0	7

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	462	512	171	263	353	350	342
Average Queue (ft)	243	278	62	148	245	261	252
95th Queue (ft)	431	468	126	287	370	379	377
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)				0	12	16	14
Queuing Penalty (veh)				0	81	104	93
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	12		
Queuing Penalty (veh)				1	28		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	340	425	95	469	699	711	384	910	925	902
Average Queue (ft)	142	180	18	104	119	126	187	312	329	292
95th Queue (ft)	283	437	60	311	426	398	386	954	971	927
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)				0	0	0		0	1	0
Queuing Penalty (veh)				0	0	0		3	3	3
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				1			1	20		
Queuing Penalty (veh)				0			6	28		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	523	498	282	320	1639	1069	174	581	563	547	418	158
Average Queue (ft)	291	241	240	298	871	172	23	379	371	336	148	69
95th Queue (ft)	484	433	333	374	1769	734	103	552	545	510	305	129
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			12	25	35			59		1		
Queuing Penalty (veh)			39	79	218			7		8		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	545	1384	1374	1362
Average Queue (ft)	378	1059	1065	769
95th Queue (ft)	748	1660	1660	1669
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)		7	11	3
Queuing Penalty (veh)		48	69	21
Storage Bay Dist (ft)	470			
Storage Blk Time (%)		52		
Queuing Penalty (veh)		94		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	81	218	280	145	158	188	102	152	93
Average Queue (ft)	26	94	114	68	69	92	23	51	21
95th Queue (ft)	67	197	216	142	133	161	62	112	64
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)		0			0	1			
Queuing Penalty (veh)		0			1	2			
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			20	2				2	
Queuing Penalty (veh)			31	5				1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	SE
Directions Served	L	LR
Maximum Queue (ft)	73	24
Average Queue (ft)	29	1
95th Queue (ft)	61	9
Link Distance (ft)		527
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	120	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	109	79	84	94	67	105	100	109	52	134	86	76
Average Queue (ft)	33	24	33	38	23	87	65	83	10	53	20	28
95th Queue (ft)	81	60	68	77	51	112	119	125	30	108	59	67
Link Distance (ft)		242	242	242							1877	1877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)	0	0		0	0					1		
Queuing Penalty (veh)	0	0		0	0					0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	77	94	28	68	80	53	38
Average Queue (ft)	18	23	5	23	32	10	4
95th Queue (ft)	54	70	21	56	68	33	20
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						0	0
Queuing Penalty (veh)						0	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	124	223	23	29	4
Average Queue (ft)	35	99	3	3	0
95th Queue (ft)	90	196	17	17	3
Link Distance (ft)	1396		1877	1877	1877
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		1			
Queuing Penalty (veh)		1			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	64	44	40	64	32	34	350	504	391	62	250	366
Average Queue (ft)	15	9	6	17	2	4	241	184	119	5	83	217
95th Queue (ft)	46	33	26	48	15	20	352	346	245	35	182	342
Link Distance (ft)		692		222	222	222		1615	1615			706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			300	200	
Storage Blk Time (%)							7	0			0	11
Queuing Penalty (veh)							30	1			0	11

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB
Directions Served	TR
Maximum Queue (ft)	374
Average Queue (ft)	239
95th Queue (ft)	353
Link Distance (ft)	706
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	455	425	34	11	147
Average Queue (ft)	204	180	2	0	66
95th Queue (ft)	490	488	21	8	115
Link Distance (ft)	2538	2538	113	113	692
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T	T
Maximum Queue (ft)	211	202	164	2955	2949	457	463	125	434	443	422
Average Queue (ft)	186	165	12	2301	2291	429	418	7	319	302	233
95th Queue (ft)	206	208	72	3492	3480	481	484	69	554	563	566
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393	393	393
Upstream Blk Time (%)	59	50	1	44	43	54	48		34	34	18
Queuing Penalty (veh)	143	122	2	0	0	0	0		0	0	0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LR	T	T	R	L	L	T	T
Maximum Queue (ft)	8	181	160	74	49	70	92	108
Average Queue (ft)	0	75	47	30	12	37	14	20
95th Queue (ft)	5	136	107	60	39	60	55	70
Link Distance (ft)	899	980	980				1274	1274
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				185	300	300		
Storage Blk Time (%)			0					
Queuing Penalty (veh)			0					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	27	50	44	52	90	58	80	68	56	237	255	121
Average Queue (ft)	3	19	10	6	27	12	19	18	4	124	135	22
95th Queue (ft)	18	41	32	28	61	35	53	44	24	207	220	87
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0						14	
Queuing Penalty (veh)					0						6	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	87	262	384	148
Average Queue (ft)	41	94	106	28
95th Queue (ft)	78	187	212	104
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		0	0	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	128	143	58	157	195	246	189	143
Average Queue (ft)	89	103	16	135	180	163	43	122
95th Queue (ft)	136	147	47	178	215	320	118	152
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	10	15						60
Queuing Penalty (veh)	40	57						152
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				3	52	0		
Queuing Penalty (veh)				6	100	1		

Intersection: 41: Kurtz St & Hancock St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 42: Hancock St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	14	120	167	126	40
Average Queue (ft)	1	14	34	14	8
95th Queue (ft)	12	74	115	72	31
Link Distance (ft)	96		152	152	294
Upstream Blk Time (%)		0	2	0	
Queuing Penalty (veh)		0	5	1	
Storage Bay Dist (ft)		75			
Storage Blk Time (%)		2	7		
Queuing Penalty (veh)		3	10		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	SB	SB	SB
Directions Served	T	TR	T	T	T
Maximum Queue (ft)	17	32	245	230	264
Average Queue (ft)	0	1	39	38	37
95th Queue (ft)	5	19	177	164	169
Link Distance (ft)	263	263	301	301	301
Upstream Blk Time (%)			0	0	1
Queuing Penalty (veh)			2	1	4
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 46: Sea World Dr

Movement	EB	EB	WB
Directions Served	T	T	T
Maximum Queue (ft)	233	250	22
Average Queue (ft)	72	90	1
95th Queue (ft)	184	197	12
Link Distance (ft)	511	511	95
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	245	151
Average Queue (ft)	68	16
95th Queue (ft)	179	86
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B39	B39
Directions Served	T	
Maximum Queue (ft)	44	29
Average Queue (ft)	3	1
95th Queue (ft)	23	13
Link Distance (ft)	142	142
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	411	424
Average Queue (ft)	370	356
95th Queue (ft)	452	495
Link Distance (ft)	360	360
Upstream Blk Time (%)	11	5
Queuing Penalty (veh)	89	41
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 3601

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2081	2329	2418	2352	308	254	96	370	351	271	216
Average Queue (ft)	986	1220	1583	1547	203	142	20	247	229	172	60
95th Queue (ft)	2017	2399	2642	2567	285	230	67	323	310	256	160
Link Distance (ft)	2519	2519	2519	2519				1147	1147	1147	1147
Upstream Blk Time (%)	0	2	3	1							
Queuing Penalty (veh)	0	0	0	0							
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1576	1269	120	248	251	165	221	234	100	102	102
Average Queue (ft)	391	1088	642	10	115	115	36	84	93	9	77	83
95th Queue (ft)	517	2124	2004	58	218	224	107	171	189	53	108	100
Link Distance (ft)		1939	1939		629	629		1525	1525			
Upstream Blk Time (%)		21	17									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	13	62			8		0	0	45	0		
Queuing Penalty (veh)	59	99			2		0	1	15	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	105	78
Average Queue (ft)	78	30
95th Queue (ft)	105	73
Link Distance (ft)		
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		100
Storage Blk Time (%)	2	0
Queuing Penalty (veh)	7	0

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	163	200	234	33	100	149	217	112	91
Average Queue (ft)	73	69	79	6	29	35	82	39	40
95th Queue (ft)	134	160	181	22	68	98	165	87	68
Link Distance (ft)		629	629		959	959	959	857	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	0	1			0				
Queuing Penalty (veh)	2	1			0				

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	69	94	151	188	184	156	220	259	169	292	31	40
Average Queue (ft)	19	47	60	76	89	48	85	120	62	97	3	14
95th Queue (ft)	54	83	133	162	167	120	185	231	136	208	16	40
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)					1	0			3	11		
Queuing Penalty (veh)					3	0			6	11		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B83	B83	NB	NB
Directions Served	L	L	T	TR	L	T	T	TR	T	T	LT	R
Maximum Queue (ft)	46	55	207	280	161	202	231	280	122	180	165	123
Average Queue (ft)	11	21	99	141	64	97	139	213	7	27	71	36
95th Queue (ft)	33	47	190	242	128	187	238	313	59	112	129	86
Link Distance (ft)			636	636		202	202	202	232	232	444	
Upstream Blk Time (%)					0	1	1	22	0	0		
Queuing Penalty (veh)					0	2	4	66	0	0		
Storage Bay Dist (ft)	330	330			175							50
Storage Blk Time (%)					0	1					24	2
Queuing Penalty (veh)					0	1					18	2

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	231	98
Average Queue (ft)	116	48
95th Queue (ft)	194	83
Link Distance (ft)	292	292
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LTR
Maximum Queue (ft)	83	18	20	38	107	40	60	90	48
Average Queue (ft)	23	1	2	3	33	2	3	5	17
95th Queue (ft)	63	8	16	19	75	19	28	44	44
Link Distance (ft)		232	232	232		364	364	364	458
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150				125				
Storage Blk Time (%)					0	0			
Queuing Penalty (veh)					0	0			

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	98	185	200	265	199	872	1116	1086	292	175
Average Queue (ft)	28	76	94	117	159	223	172	142	110	76
95th Queue (ft)	75	167	191	239	237	611	682	539	231	166
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)						0	1	0		
Queuing Penalty (veh)						2	3	2		
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)	0	3			39	1			21	2
Queuing Penalty (veh)	0	1			120	3			35	2

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	123	178	187	115	192	246	310	298	165	371	98	136
Average Queue (ft)	45	53	63	17	103	57	152	158	120	209	39	26
95th Queue (ft)	97	128	140	64	176	173	283	281	200	330	74	78
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)										1		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			1		0	0	2		13	51		0
Queuing Penalty (veh)			1		0	0	2		31	42		0

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	289	190
Average Queue (ft)	111	40
95th Queue (ft)	217	109
Link Distance (ft)	708	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	17	0
Queuing Penalty (veh)	17	0

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	121	669	686	86	399	407	40	680
Average Queue (ft)	32	204	219	9	161	203	9	286
95th Queue (ft)	106	694	700	46	331	371	35	654
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)								2
Queuing Penalty (veh)								4
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		19			11			
Queuing Penalty (veh)		12			2			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	45	50	80	87
Average Queue (ft)	20	15	41	51
95th Queue (ft)	46	41	67	76
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	1	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	SB
Directions Served	L
Maximum Queue (ft)	78
Average Queue (ft)	42
95th Queue (ft)	67
Link Distance (ft)	80
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	69	73	63
Average Queue (ft)	39	40	35
95th Queue (ft)	58	62	53
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	22	87	62
Average Queue (ft)	1	10	27
95th Queue (ft)	10	64	52
Link Distance (ft)	455	455	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	75	91	50	62
Average Queue (ft)	40	44	30	35
95th Queue (ft)	64	73	46	53
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	100	129	40	69
Average Queue (ft)	40	47	17	35
95th Queue (ft)	80	88	43	57
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	37	38	8	9	22	690	763	850
Average Queue (ft)	8	10	0	0	1	184	199	246
95th Queue (ft)	31	29	6	7	14	1100	1125	1175
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	450	444	169	289	269	281	388	394	420	205
Average Queue (ft)	272	265	92	101	87	58	168	163	194	46
95th Queue (ft)	482	474	167	269	251	192	427	419	492	174
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	6	6		1	0	0	17	15	14	
Queuing Penalty (veh)	7	7		5	1	1	125	110	107	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			24	6					17	
Queuing Penalty (veh)			158	5					23	

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	493	554	275	233	247	294	174	326	306	219	190
Average Queue (ft)	280	350	141	52	63	80	101	139	74	54	42
95th Queue (ft)	484	563	324	167	188	258	190	338	228	165	144
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)	1	4		0	0	0		16	1	0	0
Queuing Penalty (veh)	1	9		0	0	0		86	4	1	1
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		56					41	5			
Queuing Penalty (veh)		58					212	3			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	478	521	523	366	169	178	163	289	298	382	330	339
Average Queue (ft)	174	222	220	140	113	146	112	180	187	142	135	187
95th Queue (ft)	371	413	433	276	182	190	176	272	286	318	267	328
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)		0	1		24	46	31	1	3	3	0	5
Queuing Penalty (veh)		0	2		35	68	46	0	0	21	2	39
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			5	1				4	7	1		
Queuing Penalty (veh)			14	2				19	35	6		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	401	422	432	89
Average Queue (ft)	263	274	283	3
95th Queue (ft)	437	447	461	49
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	8	7	10	0
Queuing Penalty (veh)	46	38	52	2
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	971	997	315	324	720	832	255	255	354	816
Average Queue (ft)	87	149	414	408	140	141	279	338	220	134	175	317
95th Queue (ft)	153	216	929	933	330	259	564	643	311	218	319	674
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)			12	13								1
Queuing Penalty (veh)			60	65								8
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	9	30	54	33	0	0	14	36	18	0	0	6
Queuing Penalty (veh)	25	78	128	82	0	1	19	115	53	0	1	18

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	830	825	234	263	340	342	350
Average Queue (ft)	372	408	126	162	231	231	237
95th Queue (ft)	713	736	233	281	349	346	352
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	1	1	0	2	10	11	12
Queuing Penalty (veh)	9	9	0	0	63	69	75
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	2	10		
Queuing Penalty (veh)			0	11	33		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	148	482	40	311	297	306	244	351	389	337
Average Queue (ft)	53	250	10	63	51	58	84	144	159	107
95th Queue (ft)	114	453	31	196	182	190	185	305	333	262
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				2				0		
Queuing Penalty (veh)				0				0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	376	480	282	320	2398	2387	174	535	520	476	516	130
Average Queue (ft)	218	245	228	309	2246	2076	31	326	318	289	244	69
95th Queue (ft)	330	403	335	371	2742	3182	107	474	461	431	449	114
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)					74	28						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			18	34	57		0	38		0	1	
Queuing Penalty (veh)			63	117	323		0	8		1	4	

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	140	267	277	100
Average Queue (ft)	75	111	117	32
95th Queue (ft)	124	219	231	79
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	195	267	584	145	233	256	98	191	110
Average Queue (ft)	63	123	171	90	138	184	32	62	23
95th Queue (ft)	156	272	477	166	224	276	70	148	64
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)		5	1		11	23		1	
Queuing Penalty (veh)		6	3		48	104		2	
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			39	8			0	4	
Queuing Penalty (veh)			54	14			0	3	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	SB	SB	SE
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	136	58	112	119	24
Average Queue (ft)	46	14	8	17	1
95th Queue (ft)	116	113	87	137	12
Link Distance (ft)		274	640	640	527
Upstream Blk Time (%)		5			
Queuing Penalty (veh)		21			
Storage Bay Dist (ft)	120				
Storage Blk Time (%)	5				
Queuing Penalty (veh)	19				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	153	184	177	172	131	119	114	109	75	188	159	105
Average Queue (ft)	49	101	100	92	37	97	96	83	11	101	30	35
95th Queue (ft)	115	171	170	161	94	113	119	134	39	177	89	86
Link Distance (ft)		242	242	242							1877	1877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)	1	7		8	0	0	0			4	0	
Queuing Penalty (veh)	2	7		9	0	0	0			3	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	223	211	76	101	191	181	127
Average Queue (ft)	76	78	15	41	111	85	22
95th Queue (ft)	158	164	46	84	173	163	85
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)	0				0	14	0
Queuing Penalty (veh)	0				0	13	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	B87	B87	SB	SB	SB
Directions Served	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	214	272	259	24	16	28	24	16
Average Queue (ft)	65	121	16	2	1	3	4	1
95th Queue (ft)	146	235	134	24	17	16	18	7
Link Distance (ft)	1396		357	706	706	1877	1877	1877
Upstream Blk Time (%)			0					
Queuing Penalty (veh)			1					
Storage Bay Dist (ft)		200						
Storage Blk Time (%)		4	0					
Queuing Penalty (veh)		9	0					

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	151	35	89	119	68	142	354	656	625	274	638	656
Average Queue (ft)	70	7	37	40	16	59	238	287	260	39	396	416
95th Queue (ft)	136	27	72	88	49	119	384	566	513	144	621	631
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)											1	1
Queuing Penalty (veh)											4	5
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)	0						17	2	2		29	
Queuing Penalty (veh)	0						101	6	0		8	

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87	B87
Directions Served	T	T
Maximum Queue (ft)	20	34
Average Queue (ft)	1	2
95th Queue (ft)	15	21
Link Distance (ft)	357	357
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	2511	2511	33	82	700
Average Queue (ft)	1850	1866	1	4	343
95th Queue (ft)	2956	2966	8	23	694
Link Distance (ft)	2538	2538	113	113	692
Upstream Blk Time (%)	2	3		0	2
Queuing Penalty (veh)	9	15		0	6
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T	T
Maximum Queue (ft)	217	190	148	2962	2962	456	436	305	271	325	310
Average Queue (ft)	189	177	12	2854	2847	391	342	33	65	40	35
95th Queue (ft)	201	200	80	3216	3226	491	446	204	205	196	214
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393	393	393
Upstream Blk Time (%)	85	80	1	84	83	18	7	1		0	1
Queuing Penalty (veh)	309	291	4	0	0	0	0	0		0	0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	8	3	710	783	260	70	203	376	370
Average Queue (ft)	1	0	288	311	140	23	51	124	142
95th Queue (ft)	6	2	649	708	312	59	105	289	314
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)			0	2					
Queuing Penalty (veh)			0	0					
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)				20	0			1	
Queuing Penalty (veh)				94	1			1	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	101	139	107	123	100	72	95	81	399	939	948	175
Average Queue (ft)	22	64	39	40	46	21	30	31	111	513	554	149
95th Queue (ft)	74	115	87	95	90	53	73	67	401	1077	1094	242
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)										0	0	
Queuing Penalty (veh)										3	3	
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)										31	58	0
Queuing Penalty (veh)										23	100	0

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	289	442	427	276
Average Queue (ft)	126	228	230	39
95th Queue (ft)	254	376	366	145
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		0	0	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	10		
Queuing Penalty (veh)	1	22		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	128	149	132	154	194	234	145	136
Average Queue (ft)	97	114	60	92	148	107	57	111
95th Queue (ft)	131	144	113	174	205	223	117	154
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	16	22	2					50
Queuing Penalty (veh)	75	101	8					113
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	21	1		
Queuing Penalty (veh)				3	68	3		

Intersection: 41: Kurtz St & Hancock St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 42: Hancock St

Movement	WB
Directions Served	L
Maximum Queue (ft)	40
Average Queue (ft)	2
95th Queue (ft)	16
Link Distance (ft)	967
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	102	166	119	156	98	111
Average Queue (ft)	12	28	10	37	15	32
95th Queue (ft)	61	116	57	117	63	79
Link Distance (ft)	96	96		152	152	294
Upstream Blk Time (%)	0	6	0	3	0	
Queuing Penalty (veh)	1	26	0	7	0	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			3	7		
Queuing Penalty (veh)			4	11		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	114	123	139	189	90	86
Average Queue (ft)	9	20	15	17	5	5
95th Queue (ft)	81	145	112	121	37	36
Link Distance (ft)	263	263	263	301	301	301
Upstream Blk Time (%)	0	3	3	2		
Queuing Penalty (veh)	1	25	25	12		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB
Directions Served	T	T
Maximum Queue (ft)	336	373
Average Queue (ft)	143	170
95th Queue (ft)	291	319
Link Distance (ft)	511	511
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	114	340
Average Queue (ft)	29	103
95th Queue (ft)	84	234
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B39	B39	B39
Directions Served	T	T	
Maximum Queue (ft)	59	105	5
Average Queue (ft)	3	5	0
95th Queue (ft)	31	43	4
Link Distance (ft)	142	142	142
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: Bend

Movement	SB
Directions Served	T
Maximum Queue (ft)	146
Average Queue (ft)	5
95th Queue (ft)	77
Link Distance (ft)	355
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	421	420
Average Queue (ft)	378	359
95th Queue (ft)	441	499
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	5
Queuing Penalty (veh)	145	62
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 5386

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	428	426	497	499	240	206	56	336	312	256	184
Average Queue (ft)	265	271	301	305	156	104	8	246	223	166	56
95th Queue (ft)	388	396	449	460	230	189	35	317	297	257	141
Link Distance (ft)	2519	2519	2519	2519				1147	1147	1147	1147
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	T	T	R	L	LT	T	R	L
Maximum Queue (ft)	435	1671	1382	80	205	212	4	145	231	227	86	99
Average Queue (ft)	365	1085	574	8	78	84	0	35	100	103	8	79
95th Queue (ft)	540	2148	1893	47	166	177	3	100	191	191	50	105
Link Distance (ft)		1939	1939		629	629	629		1525	1525		
Upstream Blk Time (%)		14	8									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	360			150				230			25	
Storage Blk Time (%)	10	60			3				0	49	0	
Queuing Penalty (veh)	42	90			1				1	11	0	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB
Directions Served	LT	T	R
Maximum Queue (ft)	98	103	71
Average Queue (ft)	82	73	23
95th Queue (ft)	100	109	64
Link Distance (ft)			
Upstream Blk Time (%)		1	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			100
Storage Blk Time (%)		2	0
Queuing Penalty (veh)		6	0

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	TR	LT	R
Maximum Queue (ft)	150	228	218	63	100	177	103	101
Average Queue (ft)	49	83	81	22	24	73	43	47
95th Queue (ft)	103	194	181	53	73	149	89	83
Link Distance (ft)		629	629	959	959	959	857	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	160							210
Storage Blk Time (%)	0	2						
Queuing Penalty (veh)	0	2						

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	143	144	174	189	150	123	161	202	174	301	19	32
Average Queue (ft)	57	77	57	79	67	42	68	106	63	130	2	12
95th Queue (ft)	116	129	129	165	129	105	138	191	150	244	13	36
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)					0				1	22		
Queuing Penalty (veh)					0				3	24		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B83	B83	B83	NB
Directions Served	L	L	T	TR	L	T	T	TR	T	T	T	LT
Maximum Queue (ft)	45	49	197	248	167	201	235	310	84	246	316	156
Average Queue (ft)	12	15	94	134	65	94	164	273	6	80	192	68
95th Queue (ft)	34	39	177	222	125	172	256	311	60	243	357	126
Link Distance (ft)			636	636		202	202	202	232	232	232	444
Upstream Blk Time (%)					0	0	2	75	0	0	18	
Queuing Penalty (veh)					0	1	6	245	0	1	60	
Storage Bay Dist (ft)	330	330			175							
Storage Blk Time (%)					0	1						21
Queuing Penalty (veh)					0	0						16

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	NB	SB	SB
Directions Served	R	LT	R
Maximum Queue (ft)	123	200	83
Average Queue (ft)	36	103	43
95th Queue (ft)	83	175	72
Link Distance (ft)		292	292
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	50		
Storage Blk Time (%)	3		
Queuing Penalty (veh)	4		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LTR
Maximum Queue (ft)	71	22	25	60	86	105	308	379	111
Average Queue (ft)	22	2	2	3	25	7	64	123	33
95th Queue (ft)	56	15	16	27	64	52	267	353	90
Link Distance (ft)		232	232	232		364	364	364	458
Upstream Blk Time (%)							0	3	
Queuing Penalty (veh)							1	13	
Storage Bay Dist (ft)	150				125				
Storage Blk Time (%)						0			
Queuing Penalty (veh)						0			

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	71	163	246	304	199	796	942	778	319	175
Average Queue (ft)	29	58	85	109	154	194	135	141	113	69
95th Queue (ft)	67	137	187	229	228	525	496	409	223	147
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)				0		0	0	0		
Queuing Penalty (veh)				0		0	1	0		
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)		1			36	1			23	1
Queuing Penalty (veh)		0			124	2			37	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	130	186	220	164	174	189	309	363	165	343	75	143
Average Queue (ft)	46	49	61	22	91	38	151	186	92	156	34	38
95th Queue (ft)	106	129	147	80	156	118	292	344	181	276	61	91
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)										0		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			1				2		6	39		0
Queuing Penalty (veh)			1				2		11	27		0

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	176	87
Average Queue (ft)	69	29
95th Queue (ft)	136	67
Link Distance (ft)	708	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	5	
Queuing Penalty (veh)	5	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	77	172	182	116	414	432	18	384
Average Queue (ft)	17	60	80	8	157	208	6	162
95th Queue (ft)	53	137	159	51	321	373	19	341
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		3			10			
Queuing Penalty (veh)		1			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	50	40	74	87
Average Queue (ft)	26	10	40	47
95th Queue (ft)	48	34	66	73
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	1	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	SB
Directions Served	T	L
Maximum Queue (ft)	4	82
Average Queue (ft)	0	50
95th Queue (ft)	3	73
Link Distance (ft)	148	80
Upstream Blk Time (%)		0
Queuing Penalty (veh)		1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	67	68	73
Average Queue (ft)	39	38	36
95th Queue (ft)	59	60	56
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	37	35	44
Average Queue (ft)	1	2	26
95th Queue (ft)	20	30	47
Link Distance (ft)	455	455	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	103	91	60	54
Average Queue (ft)	47	46	31	27
95th Queue (ft)	84	76	49	51
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	129	129	42	64
Average Queue (ft)	53	55	19	37
95th Queue (ft)	98	100	45	56
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	58	53	43	77	67	88	124	302
Average Queue (ft)	12	11	1	3	3	12	20	51
95th Queue (ft)	44	33	12	33	34	96	144	228
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	533	538	173	272	255	177	342	352	406	205
Average Queue (ft)	407	395	100	80	65	40	126	132	187	67
95th Queue (ft)	594	605	177	232	202	133	329	341	453	209
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	7	17		2	0	0	7	5	10	
Queuing Penalty (veh)	13	28		11	1	0	41	30	62	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			34	3					16	0
Queuing Penalty (veh)			205	3					31	1

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	374	451	275	235	245	245	171	272	244	246	234
Average Queue (ft)	203	248	104	63	65	66	96	102	51	48	51
95th Queue (ft)	348	426	288	188	189	191	185	289	189	164	170
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)	0	1						10	2	0	0
Queuing Penalty (veh)	0	1						45	7	0	0
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		33					40	2			
Queuing Penalty (veh)		31					163	1			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	454	479	509	309	169	180	160	291	295	391	333	294
Average Queue (ft)	175	209	206	123	106	147	131	226	234	205	137	146
95th Queue (ft)	409	435	453	244	175	184	181	318	335	423	297	267
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)	0	1	1		23	46	42	1	8	13	1	4
Queuing Penalty (veh)	1	2	3		35	70	65	0	0	86	5	28
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			4	0				10	19	3		
Queuing Penalty (veh)			11	1				47	88	16		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	368	360	379	23
Average Queue (ft)	194	185	195	1
95th Queue (ft)	350	331	341	14
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	1	1	1	
Queuing Penalty (veh)	5	2	4	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	587	574	289	300	567	643	255	256	355	696
Average Queue (ft)	81	128	238	233	92	100	241	301	221	136	191	303
95th Queue (ft)	145	207	560	558	225	208	387	499	306	216	343	565
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)			2	2								
Queuing Penalty (veh)			8	8								
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	8	21	38	11		0	6	27	22	0	0	9
Queuing Penalty (veh)	17	45	78	28		0	5	101	63	0	1	29

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	693	705	208	247	301	313	327
Average Queue (ft)	309	348	104	133	164	180	197
95th Queue (ft)	540	594	186	223	267	283	296
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)				0	1	3	5
Queuing Penalty (veh)				0	7	14	27
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				0	4		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	132	373	28	142	128	137	219	331	340	292
Average Queue (ft)	52	185	4	51	39	48	83	98	110	77
95th Queue (ft)	107	315	19	124	102	120	175	243	264	205
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)								0		
Queuing Penalty (veh)								0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	311	275	282	320	2379	2373	148	410	403	324	264	97
Average Queue (ft)	170	135	235	309	1912	1419	27	239	217	186	114	41
95th Queue (ft)	283	238	327	372	2844	3021	93	370	352	305	206	83
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)					31	11						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			19	35	55		0	32				
Queuing Penalty (veh)			61	109	287		2	6				

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	96	607	606	78
Average Queue (ft)	48	94	100	22
95th Queue (ft)	88	329	335	60
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	113	251	418	144	159	220	64	187	159
Average Queue (ft)	28	85	116	46	74	120	23	53	35
95th Queue (ft)	95	229	342	111	153	217	55	137	127
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)	1	2			6	8		1	1
Queuing Penalty (veh)	1	2			18	25		3	1
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			23	6				3	
Queuing Penalty (veh)			18	7				1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73	SE
Directions Served	L	T	T	T	TR	T	LR
Maximum Queue (ft)	141	98	102	278	357	76	6
Average Queue (ft)	52	22	17	32	89	14	0
95th Queue (ft)	133	139	127	219	394	123	5
Link Distance (ft)		274	274	640	640	242	527
Upstream Blk Time (%)		6	6	0	4	3	
Queuing Penalty (veh)		16	16	1	16	22	
Storage Bay Dist (ft)	120						
Storage Blk Time (%)	10						
Queuing Penalty (veh)	23						

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	113	126	117	121	61	120	108	117	58	225	767	369
Average Queue (ft)	37	57	53	49	26	96	96	81	8	206	328	54
95th Queue (ft)	95	109	101	98	55	119	120	139	33	263	773	221
Link Distance (ft)		242	242	242							1877	1877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)	0	0		1	0	0		0		54	0	
Queuing Penalty (veh)	0	0		1	0	2		0		42	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	79	88	47	94	171	163	106
Average Queue (ft)	22	23	7	33	78	55	31
95th Queue (ft)	61	66	29	75	144	130	82
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)					0	6	5
Queuing Penalty (veh)					0	7	6

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	SB	SB
Directions Served	R	L	T	T	T
Maximum Queue (ft)	225	211	49	26	30
Average Queue (ft)	73	89	2	1	3
95th Queue (ft)	171	179	36	10	16
Link Distance (ft)	1396		357	1877	1877
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		1	0		
Queuing Penalty (veh)		1	0		

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	130	24	54	59	16	56	343	402	337	232	544	527
Average Queue (ft)	54	3	18	15	1	10	221	192	147	31	276	300
95th Queue (ft)	117	18	46	44	9	38	340	353	287	128	476	487
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)							4	2	1		18	
Queuing Penalty (veh)							26	7	0		4	

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87	B87
Directions Served	T	T
Maximum Queue (ft)	71	74
Average Queue (ft)	3	3
95th Queue (ft)	52	54
Link Distance (ft)	357	357
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	2313	2329	28	539
Average Queue (ft)	1682	1700	1	254
95th Queue (ft)	2741	2757	12	499
Link Distance (ft)	2538	2538	113	692
Upstream Blk Time (%)	3	3		
Queuing Penalty (veh)	12	12		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T	T
Maximum Queue (ft)	217	206	143	2589	2538	457	436	433	290	345	346
Average Queue (ft)	189	181	14	1687	1673	405	352	63	80	58	47
95th Queue (ft)	203	208	92	2693	2658	482	448	287	236	247	255
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393	393	393
Upstream Blk Time (%)	86	81	2	2	1	20	9	2	0	0	1
Queuing Penalty (veh)	294	277	6	0	0	0	0	0	0	0	0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	12	6	151	121	72	58	61	153	163
Average Queue (ft)	0	0	61	50	24	9	40	19	32
95th Queue (ft)	4	3	112	95	58	37	60	75	93
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	86	134	67	99	93	63	73	75	24	225	261	173
Average Queue (ft)	10	55	15	24	34	14	18	22	1	112	139	43
95th Queue (ft)	49	102	45	69	72	43	49	52	13	187	224	125
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											18	0
Queuing Penalty (veh)											15	0

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	289	487	525	693
Average Queue (ft)	134	285	299	130
95th Queue (ft)	298	483	515	524
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		0	2	2
Queuing Penalty (veh)		2	13	12
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	20		
Queuing Penalty (veh)	0	39		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	123	140	95	157	194	242	159	135
Average Queue (ft)	89	104	39	100	158	134	66	100
95th Queue (ft)	132	141	77	183	213	261	137	153
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	13	21	0					39
Queuing Penalty (veh)	42	69	1					79
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	29	2		
Queuing Penalty (veh)				4	79	5		

Intersection: 41: Kurtz St & Hancock St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 42: Hancock St

Movement	WB
Directions Served	L
Maximum Queue (ft)	62
Average Queue (ft)	3
95th Queue (ft)	26
Link Distance (ft)	967
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	56	89	177	177	77
Average Queue (ft)	12	6	38	36	20
95th Queue (ft)	92	41	123	117	57
Link Distance (ft)	96		152	152	294
Upstream Blk Time (%)	5	0	2	3	
Queuing Penalty (veh)	16	0	6	7	
Storage Bay Dist (ft)		75			
Storage Blk Time (%)		0	6		
Queuing Penalty (veh)		0	10		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	252	219	163	39	22	23
Average Queue (ft)	42	25	16	1	1	1
95th Queue (ft)	211	152	117	28	12	18
Link Distance (ft)	263	263	263	301	301	301
Upstream Blk Time (%)	2	0	3			
Queuing Penalty (veh)	16	2	19			
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	271	278	41	92	121
Average Queue (ft)	81	108	3	13	10
95th Queue (ft)	203	232	27	58	86
Link Distance (ft)	511	511	95	95	216
Upstream Blk Time (%)			0	0	0
Queuing Penalty (veh)			0	1	4
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	319	683
Average Queue (ft)	34	285
95th Queue (ft)	183	571
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B39	B39	B39
Directions Served	T	T	
Maximum Queue (ft)	45	70	32
Average Queue (ft)	2	6	1
95th Queue (ft)	29	52	18
Link Distance (ft)	142	142	142
Upstream Blk Time (%)	0	0	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	410	424
Average Queue (ft)	370	358
95th Queue (ft)	464	500
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	5
Queuing Penalty (veh)	111	49
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 4262

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	311	434	725	738	290	274	232	232	281	325	271
Average Queue (ft)	132	230	402	412	173	156	103	119	172	222	148
95th Queue (ft)	246	351	703	716	261	252	200	203	247	300	253
Link Distance (ft)	2519	2519	2519	2519	757	757	757	1147	1147	1147	1147
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	T	T	R	L	LT	T	R	L
Maximum Queue (ft)	435	1845	1735	50	106	138	55	264	363	358	100	222
Average Queue (ft)	432	1498	979	6	39	49	2	100	192	214	14	176
95th Queue (ft)	464	2259	2357	29	90	109	32	208	310	326	70	244
Link Distance (ft)		1939	1939		629	629	629		1525	1525		142
Upstream Blk Time (%)		33	22									25
Queuing Penalty (veh)		0	0									97
Storage Bay Dist (ft)	360			150				230			25	
Storage Blk Time (%)	10	85						0	4	74	0	
Queuing Penalty (veh)	50	167						0	6	15	0	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	B39	B39	B39
Directions Served	LT	T	R	T	T	T
Maximum Queue (ft)	231	229	142	154	225	233
Average Queue (ft)	198	182	95	28	55	54
95th Queue (ft)	247	251	202	106	166	171
Link Distance (ft)	142	142		402	402	402
Upstream Blk Time (%)	39	23	3			
Queuing Penalty (veh)	149	88	0			
Storage Bay Dist (ft)			100			
Storage Blk Time (%)		36	1			
Queuing Penalty (veh)		76	3			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	130	151	184	39	212	402	463	86	94
Average Queue (ft)	57	51	69	13	51	108	197	32	48
95th Queue (ft)	105	126	153	32	140	298	401	70	83
Link Distance (ft)		629	629		959	959	959	857	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	0	0			1				
Queuing Penalty (veh)	0	1			0				

Intersection: 4: Kemper St/Existing Dwy 1 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	T	TR	L	TR	LT	R
Maximum Queue (ft)	77	86	244	294	183	180	246	304	148	178	121	95
Average Queue (ft)	25	52	122	164	78	75	126	177	63	63	46	42
95th Queue (ft)	60	83	221	271	144	154	216	276	116	127	93	75
Link Distance (ft)			959	959		636	636	636		708	282	282
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440	440			175				100			
Storage Blk Time (%)					1	0			2	2		
Queuing Penalty (veh)					2	0			4	3		

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B83	B83	NB	NB
Directions Served	L	L	T	TR	L	T	T	TR	T	T	LT	R
Maximum Queue (ft)	53	72	319	378	178	196	222	288	51	175	240	125
Average Queue (ft)	17	23	151	218	88	90	125	218	1	26	104	59
95th Queue (ft)	41	53	293	359	155	175	217	320	10	113	187	127
Link Distance (ft)			636	636		202	202	202	232	232	444	
Upstream Blk Time (%)					0	0	1	20		0		
Queuing Penalty (veh)					0	1	4	74		1		
Storage Bay Dist (ft)	330	330			175							50
Storage Blk Time (%)			1		1	1					36	5
Queuing Penalty (veh)			0		1	1					44	10

Intersection: 5: West Dr/Existing Dwy 2 & Sports Arena Blvd

Movement	SB	SB
Directions Served	LT	R
Maximum Queue (ft)	333	311
Average Queue (ft)	270	175
95th Queue (ft)	381	357
Link Distance (ft)	292	292
Upstream Blk Time (%)	43	7
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Target Dwy/Existing VIP Access Rd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	L	T	T	TR	L	T	T	TR	R	LTR
Maximum Queue (ft)	34	28	47	78	185	123	34	40	106	77
Average Queue (ft)	6	2	2	6	84	10	2	2	6	27
95th Queue (ft)	26	14	23	40	160	87	24	21	58	61
Link Distance (ft)		232	232	232		364	364	364	468	458
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150				125					
Storage Blk Time (%)					4					
Queuing Penalty (veh)					13					

Intersection: 7: East Dr/Commercial Dwy 3 & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	84	277	325	412	188	424	1116	750	92	124
Average Queue (ft)	30	126	163	203	93	147	190	153	33	52
95th Queue (ft)	64	227	285	346	167	420	713	458	75	99
Link Distance (ft)		364	364	364		1057	1057	1057	921	
Upstream Blk Time (%)			0	2		0	0	0		
Queuing Penalty (veh)			0	9		0	2	0		
Storage Bay Dist (ft)	125				125					100
Storage Blk Time (%)	0	6			3	7			0	1
Queuing Penalty (veh)	0	3			11	17			1	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	209	254	284	196	186	154	252	275	164	333	116	20
Average Queue (ft)	109	149	157	49	96	44	125	137	79	157	40	1
95th Queue (ft)	189	233	250	151	163	116	219	231	174	266	81	14
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)										0		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)		0	14		0		0		2	31		
Queuing Penalty (veh)		0	16		0		0		6	25		

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	161	218	166
Average Queue (ft)	45	93	50
95th Queue (ft)	105	169	119
Link Distance (ft)		708	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		115
Storage Blk Time (%)	0	8	0
Queuing Penalty (veh)	1	13	0

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	164	286	282	152	392	425	35	218
Average Queue (ft)	46	135	148	27	179	223	8	103
95th Queue (ft)	129	248	256	101	332	381	24	186
Link Distance (ft)		1839	1839		968	968	270	921
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	13			20			
Queuing Penalty (veh)	0	9			7			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	41	36	93	84
Average Queue (ft)	20	10	51	48
95th Queue (ft)	45	34	81	75
Link Distance (ft)	242		857	833
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	SB
Directions Served	T	L
Maximum Queue (ft)	6	71
Average Queue (ft)	0	41
95th Queue (ft)	4	64
Link Distance (ft)	148	80
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Kurtz St & Sherman St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	69	85	64
Average Queue (ft)	43	46	32
95th Queue (ft)	65	71	51
Link Distance (ft)	1596	1596	310
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	293	301	137
Average Queue (ft)	59	79	54
95th Queue (ft)	246	287	180
Link Distance (ft)	455	455	321
Upstream Blk Time (%)	0	0	3
Queuing Penalty (veh)	0	1	2
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	63	65	52	65
Average Queue (ft)	34	38	26	26
95th Queue (ft)	53	58	47	52
Link Distance (ft)	468	468	310	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	79	77	36	78
Average Queue (ft)	36	40	12	41
95th Queue (ft)	67	66	37	64
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	137	74	27	39	29	3995	4002	3991
Average Queue (ft)	59	20	2	2	2	2941	2971	2983
95th Queue (ft)	142	53	21	24	18	5229	5170	5126
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						50	53	49
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	306	377	174	325	337	324	410	403	417	205
Average Queue (ft)	121	157	70	163	162	149	381	254	339	71
95th Queue (ft)	302	390	149	345	354	337	446	472	568	220
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)		5		3	4	5	82	19	33	
Queuing Penalty (veh)		5		23	28	36	706	167	282	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			8	15					30	0
Queuing Penalty (veh)			62	11					55	0

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	LT	R	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	553	558	275	354	362	374	175	344	313	276	338
Average Queue (ft)	386	432	163	192	200	206	165	314	64	57	63
95th Queue (ft)	605	636	354	425	434	434	184	383	227	207	246
Link Distance (ft)	535	535		341	341	341		289	289	289	289
Upstream Blk Time (%)	14	23		2	2	2		68	0	0	1
Queuing Penalty (veh)	35	59		14	15	15		422	3	1	9
Storage Bay Dist (ft)			200				100				
Storage Blk Time (%)		67	1				88	2			
Queuing Penalty (veh)		78	2				514	3			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	379	425	524	374	175	187	176	294	300	388	344	334
Average Queue (ft)	219	251	239	195	132	162	150	220	227	235	185	183
95th Queue (ft)	352	387	420	360	202	181	183	330	349	462	358	335
Link Distance (ft)	1057	1057	1057		96	96	96			301	301	301
Upstream Blk Time (%)					46	81	72	3	10	19	2	2
Queuing Penalty (veh)					83	145	130	0	0	140	15	15
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			3	8				24	28	11		
Queuing Penalty (veh)			10	18				114	136	49		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	402	399	409	30
Average Queue (ft)	176	162	175	2
95th Queue (ft)	387	356	374	18
Link Distance (ft)	341	341	341	341
Upstream Blk Time (%)	5	2	3	
Queuing Penalty (veh)	28	13	17	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	435	358	294	274	498	578	219	307	355	1014
Average Queue (ft)	103	147	211	197	111	116	236	292	177	165	270	610
95th Queue (ft)	158	208	360	321	233	268	532	656	339	267	434	1187
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												1
Queuing Penalty (veh)												5
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	6	24	28	4	0	0	10	22	30	1	3	26
Queuing Penalty (veh)	16	63	86	12	1	1	14	82	92	6	15	104

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1008	1012	248	262	340	331	342
Average Queue (ft)	611	643	131	162	197	194	203
95th Queue (ft)	1116	1121	224	265	316	306	323
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	0	0	0	0	3	3	5
Queuing Penalty (veh)	1	1	0	0	21	24	34
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	0	3		
Queuing Penalty (veh)			0	1	13		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	131	422	136	564	364	364	281	218	248	183
Average Queue (ft)	45	197	29	137	98	111	118	52	62	39
95th Queue (ft)	96	352	87	365	236	244	239	158	180	128
Link Distance (ft)	1032	1493		1345	1345	1345		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				4			1			
Queuing Penalty (veh)				1			4			

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	367	226	246	277	303	193	126	418	417	376	224	167
Average Queue (ft)	184	110	151	165	159	91	21	276	259	230	97	87
95th Queue (ft)	302	191	230	246	271	169	78	393	370	339	172	153
Link Distance (ft)	1405	1405			2346	2346		2449	2449	2449		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			0	1	3			38				
Queuing Penalty (veh)			0	1	10			8				

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	182	416	425	190
Average Queue (ft)	97	224	232	80
95th Queue (ft)	162	380	391	159
Link Distance (ft)		1345	1345	1345
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	166	270	496	145	206	242	126	219	128
Average Queue (ft)	42	163	227	90	103	147	29	73	37
95th Queue (ft)	116	331	484	180	195	250	78	166	97
Link Distance (ft)	246	246	1396		152	152		274	274
Upstream Blk Time (%)	0	7			4	11		0	
Queuing Penalty (veh)	0	12			15	46		0	
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			55	4			0	7	
Queuing Penalty (veh)			68	7			0	3	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	SE
Directions Served	L	T	T	T	TR	LR
Maximum Queue (ft)	120	110	55	101	134	6
Average Queue (ft)	39	12	2	7	11	0
95th Queue (ft)	102	103	40	100	101	4
Link Distance (ft)		274	274	640	640	527
Upstream Blk Time (%)		2	0			
Queuing Penalty (veh)		7	0			
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	4					
Queuing Penalty (veh)	10					

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	85	90	101	101	73	115	94	111	40	134	76	65
Average Queue (ft)	18	35	43	45	30	68	28	74	7	56	11	13
95th Queue (ft)	56	78	86	88	61	109	80	123	23	111	39	42
Link Distance (ft)		242	242	242							1877	1877
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120				100	150	150			150		
Storage Blk Time (%)	0	0		0	0	0				0		
Queuing Penalty (veh)	0	0		0	0	0				0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	58	60	32	79	75	48	50
Average Queue (ft)	9	9	5	27	23	10	10
95th Queue (ft)	35	35	22	61	57	34	33
Link Distance (ft)	1877				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						0	0
Queuing Penalty (veh)						0	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB
Directions Served	R	L	T	T
Maximum Queue (ft)	395	127	13	13
Average Queue (ft)	50	48	0	1
95th Queue (ft)	258	100	6	7
Link Distance (ft)	1396		1877	1877
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		200		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	61	31	43	23	17	24	228	213	145	78	321	328
Average Queue (ft)	19	2	11	2	1	2	122	104	53	8	167	184
95th Queue (ft)	51	14	37	11	9	14	202	179	120	48	282	287
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)							0				6	
Queuing Penalty (veh)							0				0	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	463	482	49	95	146
Average Queue (ft)	205	193	3	6	62
95th Queue (ft)	401	409	31	61	118
Link Distance (ft)	2538	2538	113	113	692
Upstream Blk Time (%)			0	1	
Queuing Penalty (veh)			0	4	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T	T
Maximum Queue (ft)	208	198	149	1953	1925	349	304	390	87	122	318
Average Queue (ft)	187	171	15	1200	1197	209	183	173	7	80	138
95th Queue (ft)	203	205	95	2085	2075	465	406	498	59	338	442
Link Distance (ft)	113	113	113	2912	2912	360	360	360	393	393	393
Upstream Blk Time (%)	68	59	0			3	1	34		20	33
Queuing Penalty (veh)	184	162	0			0	0	0		0	0
Storage Bay Dist (ft)											
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	18	16	6	188	164	100	49	69	193	208
Average Queue (ft)	0	1	0	71	55	23	9	40	21	34
95th Queue (ft)	6	7	3	142	119	68	34	63	96	119
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					0					
Queuing Penalty (veh)					1					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	142	177	55	132	66	52	69	86	51	243	287	120
Average Queue (ft)	35	84	15	36	16	12	11	28	9	120	141	14
95th Queue (ft)	107	151	41	94	43	36	35	64	36	207	238	64
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0						15	
Queuing Penalty (veh)					0						4	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	537	560	790
Average Queue (ft)	103	340	361	269
95th Queue (ft)	293	558	603	823
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		2	7	6
Queuing Penalty (veh)		9	37	35
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		31		
Queuing Penalty (veh)		29		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	L
Maximum Queue (ft)	120	145	93	157	194	238	150	140
Average Queue (ft)	84	100	44	100	153	115	58	108
95th Queue (ft)	132	145	84	182	215	246	118	155
Link Distance (ft)	95	95	95					43
Upstream Blk Time (%)	8	13	0					53
Queuing Penalty (veh)	32	53	1					109
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				2	28	0		
Queuing Penalty (veh)				6	90	1		

Intersection: 41: Kurtz St & Hancock St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 42: Hancock St

Movement	WB
Directions Served	L
Maximum Queue (ft)	17
Average Queue (ft)	1
95th Queue (ft)	9
Link Distance (ft)	967
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB	NB
Directions Served	R	TR
Maximum Queue (ft)	10	73
Average Queue (ft)	0	3
95th Queue (ft)	8	54
Link Distance (ft)	258	269
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	33	86	150	239	209	133
Average Queue (ft)	1	6	74	135	107	40
95th Queue (ft)	18	40	184	245	211	88
Link Distance (ft)	96	96		152	152	294
Upstream Blk Time (%)	0	0	0	11	8	
Queuing Penalty (veh)	0	1	0	30	20	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			4	41		
Queuing Penalty (veh)			7	74		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	276	238	220	213	239	150
Average Queue (ft)	68	52	24	13	13	13
95th Queue (ft)	253	215	137	88	95	81
Link Distance (ft)	263	263	263	301	301	301
Upstream Blk Time (%)	2	0	0	0	0	0
Queuing Penalty (veh)	13	3	2	0	0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	247	291	97	122	178
Average Queue (ft)	55	81	12	23	42
95th Queue (ft)	166	207	55	87	206
Link Distance (ft)	511	511	95	95	216
Upstream Blk Time (%)			0	2	5
Queuing Penalty (veh)			0	6	50
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	217	552
Average Queue (ft)	35	123
95th Queue (ft)	160	458
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	NB	NB	B39	B39	B39
Directions Served	T	TR	T	T	
Maximum Queue (ft)	153	393	234	287	277
Average Queue (ft)	14	28	48	84	32
95th Queue (ft)	131	195	172	242	161
Link Distance (ft)	402	402	142	142	142
Upstream Blk Time (%)	0	0	0	4	1
Queuing Penalty (veh)	1	2	2	21	4
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	410	415
Average Queue (ft)	375	356
95th Queue (ft)	435	482
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	4
Queuing Penalty (veh)	90	34
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 138: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 6300

Appendix Z

Opening Year (2035) Plus Project Phase 2 Buildout (14,500-spectator) Conditions Intersection LOS Worksheets



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	807	1322	460	0	0	1299
Future Volume (vph)	807	1322	460	0	0	1299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	877	1437	500	0	0	1412
RTOR Reduction (vph)	0	59	0	0	0	0
Lane Group Flow (vph)	877	1378	500	0	0	1412
Confl. Bikes (#/hr)				1		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	34.3	57.9	17.6			41.2
Effective Green, g (s)	34.3	57.9	14.6			41.2
Actuated g/C Ratio	0.38	0.64	0.16			0.46
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1301	1783	820			2917
v/s Ratio Prot	0.26	c0.49	0.10			c0.22
v/s Ratio Perm						
v/c Ratio	0.67	0.77	0.61			0.48
Uniform Delay, d1	23.4	11.6	35.3			17.2
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.1	2.0	0.9			0.0
Delay (s)	24.5	13.6	36.2			17.3
Level of Service	C	B	D			B
Approach Delay (s)	17.7		36.2			17.3
Approach LOS	B		D			B

Intersection Summary			
HCM 2000 Control Delay	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.5	Sum of lost time (s)	25.5
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
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)	326	292	193	16	529	726	154	298	16	326	300	156
Future Volume (veh/h)	326	292	193	16	529	726	154	298	16	326	300	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	336	343	210	17	575	0	164	329	0	379	290	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	466	489	601	450	898		225	472		671	352	
Arrive On Green	0.26	0.26	0.26	0.25	0.25	0.00	0.13	0.13	0.00	0.19	0.19	0.00
Sat Flow, veh/h	1781	1870	1531	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	336	343	210	17	575	0	164	329	0	379	290	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1531	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	19.7	19.0	11.1	0.8	16.5	0.0	10.2	9.7	0.0	11.1	17.1	0.0
Cycle Q Clear(g_c), s	19.7	19.0	11.1	0.8	16.5	0.0	10.2	9.7	0.0	11.1	17.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	466	489	601	450	898		225	472		671	352	
V/C Ratio(X)	0.72	0.70	0.35	0.04	0.64		0.73	0.70		0.56	0.82	
Avail Cap(c_a), veh/h	546	573	669	779	1554		468	983		936	491	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.5	38.2	24.9	32.3	38.2	0.0	48.2	47.9	0.0	42.2	44.7	0.0
Incr Delay (d2), s/veh	6.5	5.6	1.0	0.1	2.9	0.0	3.6	1.5	0.0	0.5	6.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	9.2	5.1	0.4	7.5	0.0	4.7	4.6	0.0	4.9	8.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	43.8	25.8	32.4	41.1	0.0	51.8	49.4	0.0	42.7	51.0	0.0
LnGrp LOS	D	D	C	C	D		D	D		D	D	
Approach Vol, veh/h		889			592			493			669	
Approach Delay, s/veh		40.0			40.8			50.2			46.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	34.9	26.5	33.8	19.4
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	35.1	30.1	50.1	30.1
Max Q Clear Time (g_c+I1), s	21.7	19.1	18.5	12.2
Green Ext Time (p_c), s	6.8	1.8	10.2	2.1

Intersection Summary	
HCM 6th Ctrl Delay	43.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	501	12	5	751	45	0	0	0	47	0	500
Future Volume (veh/h)	164	501	12	5	751	45	0	0	0	47	0	500
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99				1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	178	545	13	5	816	49				51	0	543
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	222	1457	35	9	1435	86				679	0	595
Arrive On Green	0.12	0.41	0.41	0.01	0.29	0.29				0.38	0.00	0.38
Sat Flow, veh/h	1781	3544	84	1781	4923	295				1781	0	1559
Grp Volume(v), veh/h	178	273	285	5	563	302				51	0	543
Grp Sat Flow(s),veh/h/ln	1781	1777	1851	1781	1702	1813				1781	0	1559
Q Serve(g_s), s	6.8	7.5	7.5	0.2	9.9	9.9				1.3	0.0	23.2
Cycle Q Clear(g_c), s	6.8	7.5	7.5	0.2	9.9	9.9				1.3	0.0	23.2
Prop In Lane	1.00		0.05	1.00		0.16				1.00		1.00
Lane Grp Cap(c), veh/h	222	730	761	9	993	529				679	0	595
V/C Ratio(X)	0.80	0.37	0.37	0.53	0.57	0.57				0.08	0.00	0.91
Avail Cap(c_a), veh/h	776	1521	1585	776	2914	1552				1017	0	890
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	1.00	1.00	1.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	29.9	14.4	14.4	34.8	21.1	21.1				13.8	0.0	20.6
Incr Delay (d2), s/veh	2.5	0.4	0.4	16.1	0.6	1.2				0.0	0.0	7.5
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	2.9	2.8	2.9	0.1	3.7	4.1				0.5	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	14.8	14.8	50.9	21.7	22.3				13.8	0.0	28.2
LnGrp LOS	C	B	B	D	C	C				B	A	C
Approach Vol, veh/h		736			870						594	
Approach Delay, s/veh		19.0			22.1						26.9	
Approach LOS		B			C						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	14.8	33.8		31.7	13.2	25.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1
Max Q Clear Time (g_c+I1), s	12.2	9.5		25.2	8.8	11.9
Green Ext Time (p_c), s	0.0	4.5		1.2	0.2	8.1

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	376	109	203	530	43	117	62	96	27	116	157
Future Volume (veh/h)	73	376	109	203	530	43	117	62	96	27	116	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	409	118	221	576	47	127	67	104	29	126	171
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	1018	281	277	1713	138	336	218	338	437	240	325
Arrive On Green	0.06	0.26	0.26	0.16	0.36	0.36	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3947	1088	1781	4810	389	1082	654	1014	1200	719	976
Grp Volume(v), veh/h	79	350	177	221	406	217	127	0	171	29	0	297
Grp Sat Flow(s),veh/h/ln	1781	1702	1631	1781	1702	1795	1082	0	1668	1200	0	1695
Q Serve(g_s), s	2.5	4.8	5.1	6.7	4.9	5.0	6.0	0.0	4.3	1.0	0.0	7.9
Cycle Q Clear(g_c), s	2.5	4.8	5.1	6.7	4.9	5.0	14.0	0.0	4.3	5.3	0.0	7.9
Prop In Lane	1.00		0.67	1.00		0.22	1.00		0.61	1.00		0.58
Lane Grp Cap(c), veh/h	102	878	421	277	1212	639	336	0	556	437	0	565
V/C Ratio(X)	0.77	0.40	0.42	0.80	0.33	0.34	0.38	0.00	0.31	0.07	0.00	0.53
Avail Cap(c_a), veh/h	1131	3649	1749	1926	3649	1924	749	0	1193	1752	0	2421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.1	17.2	17.3	22.8	13.2	13.2	20.8	0.0	13.9	15.9	0.0	15.1
Incr Delay (d2), s/veh	4.6	0.6	1.3	2.0	0.3	0.6	0.3	0.0	0.1	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.7	1.8	2.7	1.6	1.8	1.4	0.0	1.4	0.3	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	17.8	18.6	24.8	13.5	13.8	21.0	0.0	14.0	15.9	0.0	15.4
LnGrp LOS	C	B	B	C	B	B	C	A	B	B	A	B
Approach Vol, veh/h		606			844			298			326	
Approach Delay, s/veh		19.7			16.6			17.0			15.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	24.9		23.6	13.1	19.4		23.6
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	35.6	60.1		40.1	60.6	60.1		80.1
Max Q Clear Time (g_c+I1), s	4.5	7.0		16.0	8.7	7.1		9.9
Green Ext Time (p_c), s	0.1	8.6		1.0	0.3	7.2		1.4

Intersection Summary	
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	402	53	168	447	37	53	9	45	151	9	166
Future Volume (veh/h)	90	402	53	168	447	37	53	9	45	151	9	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	437	58	183	486	40	58	10	49	164	10	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	1599	207	225	1957	159	117	20	320	276	13	234
Arrive On Green	0.07	0.35	0.35	0.13	0.41	0.41	0.08	0.08	0.08	0.15	0.15	0.15
Sat Flow, veh/h	1781	4546	589	1781	4799	390	1530	264	1566	1781	84	1514
Grp Volume(v), veh/h	98	324	171	183	343	183	68	0	49	164	0	190
Grp Sat Flow(s),veh/h/ln	1781	1702	1731	1781	1702	1785	1794	0	1566	1781	0	1598
Q Serve(g_s), s	3.6	4.5	4.7	6.6	4.4	4.5	2.4	0.0	1.7	5.6	0.0	7.5
Cycle Q Clear(g_c), s	3.6	4.5	4.7	6.6	4.4	4.5	2.4	0.0	1.7	5.6	0.0	7.5
Prop In Lane	1.00		0.34	1.00		0.22	0.85		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	125	1197	609	225	1388	728	137	0	320	276	0	247
V/C Ratio(X)	0.78	0.27	0.28	0.81	0.25	0.25	0.50	0.00	0.15	0.60	0.00	0.77
Avail Cap(c_a), veh/h	138	1197	609	287	1388	728	983	0	1059	488	0	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	15.3	15.3	27.9	12.8	12.8	29.1	0.0	21.5	25.9	0.0	26.6
Incr Delay (d2), s/veh	19.8	0.6	1.1	10.2	0.4	0.8	1.0	0.0	0.1	0.8	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	1.7	1.8	3.3	1.6	1.7	1.0	0.0	0.6	2.3	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	15.8	16.5	38.1	13.2	13.7	30.2	0.0	21.6	26.6	0.0	28.6
LnGrp LOS	D	B	B	D	B	B	C	A	C	C	A	C
Approach Vol, veh/h		593			709			117			354	
Approach Delay, s/veh		21.6			19.8			26.6			27.7	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.7	28.0		15.1	9.0	31.7		9.9
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	21.3		18.0	5.1	26.8		36.0
Max Q Clear Time (g_c+I1), s	8.6	6.7		9.5	5.6	6.5		4.4
Green Ext Time (p_c), s	0.1	3.2		0.7	0.0	2.1		0.3

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	667	43	117	578	0	40
Future Vol, veh/h	667	43	117	578	0	40
Conflicting Peds, #/hr	0	11	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	47	127	628	0	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	783	0	-	398
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	497	-	0	514
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	492	-	-	508
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	508	-	-	492	-
HCM Lane V/C Ratio	0.086	-	-	0.258	-
HCM Control Delay (s)	12.7	-	-	14.8	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	1	-



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	686	30	178	657	2	85
Future Volume (veh/h)	686	30	178	657	2	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	746	33	193	714	2	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2193	97	252	3512	128	114
Arrive On Green	0.44	0.44	0.14	0.69	0.07	0.07
Sat Flow, veh/h	5171	220	1781	5274	1781	1585
Grp Volume(v), veh/h	507	272	193	714	2	92
Grp Sat Flow(s),veh/h/ln	1702	1819	1781	1702	1781	1585
Q Serve(g_s), s	4.0	4.0	4.3	2.1	0.0	2.3
Cycle Q Clear(g_c), s	4.0	4.0	4.3	2.1	0.0	2.3
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1492	797	252	3512	128	114
V/C Ratio(X)	0.34	0.34	0.77	0.20	0.02	0.81
Avail Cap(c_a), veh/h	5015	2680	1336	11904	1751	1558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.6	7.6	16.9	2.3	17.6	18.6
Incr Delay (d2), s/veh	0.3	0.5	1.8	0.0	0.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.2	1.6	0.1	0.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.8	8.1	18.7	2.4	17.6	23.6
LnGrp LOS	A	A	B	A	B	C
Approach Vol, veh/h	779			907	94	
Approach Delay, s/veh	7.9			5.8	23.5	
Approach LOS	A			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.2	22.8				33.0	7.8
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	30.6	60.1				95.1	40.1
Max Q Clear Time (g_c+I1), s	6.3	6.0				4.1	4.3
Green Ext Time (p_c), s	0.2	11.8				8.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	373	90	67	316	49	124	124	101	75	205	55
Future Volume (veh/h)	75	373	90	67	316	49	124	124	101	75	205	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	405	98	73	343	53	135	135	110	82	223	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	889	390	166	733	112	266	279	309	385	404	334
Arrive On Green	0.06	0.25	0.25	0.05	0.24	0.24	0.15	0.15	0.15	0.22	0.22	0.22
Sat Flow, veh/h	1781	3554	1559	3456	3072	469	1781	1870	1563	1781	1870	1545
Grp Volume(v), veh/h	82	405	98	73	197	199	135	135	110	82	223	60
Grp Sat Flow(s),veh/h/ln	1781	1777	1559	1728	1777	1764	1781	1870	1563	1781	1870	1545
Q Serve(g_s), s	2.6	5.5	2.9	1.2	5.4	5.5	4.0	3.8	3.5	2.1	6.0	1.8
Cycle Q Clear(g_c), s	2.6	5.5	2.9	1.2	5.4	5.5	4.0	3.8	3.5	2.1	6.0	1.8
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	889	390	166	424	421	266	279	309	385	404	334
V/C Ratio(X)	0.77	0.46	0.25	0.44	0.46	0.47	0.51	0.48	0.36	0.21	0.55	0.18
Avail Cap(c_a), veh/h	929	3763	1651	1802	1881	1868	1258	1321	1180	1258	1321	1092
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	18.0	17.0	26.3	18.5	18.5	22.2	22.1	19.7	18.3	19.8	18.1
Incr Delay (d2), s/veh	4.4	0.5	0.5	0.7	1.4	1.4	0.6	0.5	0.3	0.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.1	1.0	0.5	2.2	2.2	1.6	1.6	1.2	0.8	2.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	18.5	17.5	26.9	19.8	20.0	22.8	22.6	19.9	18.4	20.2	18.2
LnGrp LOS	C	B	B	C	B	B	C	C	B	B	C	B
Approach Vol, veh/h		585			469			380			365	
Approach Delay, s/veh		20.1			21.0			21.9			19.5	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	19.1		17.2	7.8	18.4		13.4				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	29.6	60.1		40.1	29.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	3.2	7.5		8.0	4.6	7.5		6.0				
Green Ext Time (p_c), s	0.1	5.0		1.0	0.1	4.6		0.9				

Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	577	11	22	712	148	12	0	2	44	4	36
Future Volume (veh/h)	33	577	11	22	712	148	12	0	2	44	4	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.96	0.96		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	627	12	24	774	161	13	0	2	48	4	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	1640	31	485	1308	272	371	12	34	237	48	115
Arrive On Green	0.03	0.46	0.46	0.02	0.45	0.45	0.18	0.00	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3564	68	1781	2903	604	1194	67	194	598	272	653
Grp Volume(v), veh/h	36	312	327	24	474	461	15	0	0	91	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1855	1781	1777	1729	1455	0	0	1523	0	0
Q Serve(g_s), s	0.4	4.8	4.8	0.3	8.3	8.3	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.4	4.8	4.8	0.3	8.3	8.3	0.3	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.35	0.87		0.13	0.53		0.43
Lane Grp Cap(c), veh/h	381	818	854	485	801	780	417	0	0	399	0	0
V/C Ratio(X)	0.09	0.38	0.38	0.05	0.59	0.59	0.04	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	1632	2564	2677	1753	2564	2496	1475	0	0	1558	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.6	7.4	7.4	6.1	8.6	8.6	14.3	0.0	0.0	15.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	0.8	0.8	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	1.4	0.1	2.4	2.3	0.1	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.6	7.7	7.7	6.1	9.3	9.3	14.3	0.0	0.0	15.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h		675			959			15			91	
Approach Delay, s/veh		7.6			9.3			14.3			15.1	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	24.1		12.2	5.8	23.7		12.2				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1		40.1				
Max Q Clear Time (g_c+I2), s	2.3	6.8		4.0	2.4	10.3		2.3				
Green Ext Time (p_c), s	0.0	4.9		0.3	0.0	8.5		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	14.9
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	26	28	161	510	30
Future Vol, veh/h	13	26	28	161	510	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	28	30	175	554	33
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.7	9.3	17.3
HCM LOS	A	A	C

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	33%	0%
Vol Thru, %	0%	100%	0%	94%
Vol Right, %	0%	0%	67%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	161	39	540
LT Vol	28	0	13	0
Through Vol	0	161	0	510
RT Vol	0	0	26	30
Lane Flow Rate	30	175	42	587
Geometry Grp	7	7	2	5
Degree of Util (X)	0.047	0.245	0.063	0.709
Departure Headway (Hd)	5.553	5.049	5.333	4.347
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	646	712	670	833
Service Time	3.277	2.773	3.379	2.364
HCM Lane V/C Ratio	0.046	0.246	0.063	0.705
HCM Control Delay	8.6	9.4	8.7	17.3
HCM Lane LOS	A	A	A	C
HCM 95th-tile Q	0.1	1	0.2	6.1



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	0	179	95	127	424	0
Future Volume (veh/h)	0	179	95	127	424	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	195	103	138	461	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0
Cap, veh/h	0	0	668	701	0	0
Arrive On Green	0.00	0.00	0.37	0.37	0.45	0.00
Sat Flow, veh/h	0		1781	1870	0	0
Grp Volume(v), veh/h	0.0		103	138	0	0
Grp Sat Flow(s),veh/h/ln			1781	1870	0	0
Q Serve(g_s), s			1.9	2.5	0.0	0.0
Cycle Q Clear(g_c), s			1.9	2.5	0.0	0.0
Prop In Lane			1.00		0.00	0.00
Lane Grp Cap(c), veh/h			668	701	0	0
V/C Ratio(X)			0.15	0.20	0.00	0.00
Avail Cap(c_a), veh/h			668	701	0	0
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh			10.4	10.6	0.0	0.0
Incr Delay (d2), s/veh			0.5	0.6	0.0	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.7	1.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh			10.9	11.3	0.0	0.0
LnGrp LOS			B	B		
Approach Vol, veh/h				241	0	
Approach Delay, s/veh				11.1	0.0	
Approach LOS				B		

Timer - Assigned Phs	6	8
Phs Duration (G+Y+Rc), s	23.4	27.0
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	18.9	22.5
Max Q Clear Time (g_c+I1), s	4.5	0.0
Green Ext Time (p_c), s	0.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	11.1
HCM 6th LOS	B

LANE SUMMARY

Site: 1 [OY WP 2035 Phase 2 AM_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	424	0.0	424	0.0	1380	0.307	100	4.1	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	424	0.0	424	0.0		0.307		4.1	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	222	0.0	222	0.0	895	0.248	100	6.5	LOS A	1.2	29.0	Full	1600	0.0	0.0
Approach	222	0.0	222	0.0		0.248		6.5	LOS A	1.2	29.0				
West: Hancock Street															
Lane 1[d]	179	0.0	179	0.0	1253	0.143	100	4.0	LOS A	0.7	17.0	Full	1600	0.0	0.0
Approach	179	0.0	179	0.0		0.143		4.0	LOS A	0.7	17.0				
All Vehicles	825	0.0	825	0.0		0.307		4.8	LOS A	1.2	29.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	424	424	0.0	1380	0.307	100	NA	NA
Approach	424	424	0.0		0.307			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	95	127	222	0.0	895	0.248	100	NA	NA
Approach	95	127	222	0.0		0.248			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	179	179	0.0	1253	0.143	100	NA	NA
Approach	179	179	0.0		0.143			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	825	0.0	0.307

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	482	0	0	0	0	0	0	15	93	4	27
Future Vol, veh/h	70	482	0	0	0	0	0	0	15	93	4	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	524	0	0	0	0	0	0	16	101	4	29
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	18.1	8.1	9.8
HCM LOS	C	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	13%	75%
Vol Thru, %	0%	87%	3%
Vol Right, %	100%	0%	22%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	15	552	124
LT Vol	0	70	93
Through Vol	0	482	4
RT Vol	15	0	27
Lane Flow Rate	16	600	135
Geometry Grp	1	1	1
Degree of Util (X)	0.022	0.727	0.201
Departure Headway (Hd)	4.924	4.363	5.363
Convergence, Y/N	Yes	Yes	Yes
Cap	722	828	667
Service Time	2.988	2.392	3.413
HCM Lane V/C Ratio	0.022	0.725	0.202
HCM Control Delay	8.1	18.1	9.8
HCM Lane LOS	A	C	A
HCM 95th-tile Q	0.1	6.5	0.7

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	548	0	0	44	0
Future Vol, veh/h	14	548	0	0	44	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	596	0	0	48	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	11.1	8.8
HCM LOS	B	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	7%	0%	100%
Vol Thru, %	93%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	197	365	44
LT Vol	14	0	44
Through Vol	183	365	0
RT Vol	0	0	0
Lane Flow Rate	214	397	48
Geometry Grp	7	7	2
Degree of Util (X)	0.276	0.51	0.072
Departure Headway (Hd)	4.655	4.619	5.388
Convergence, Y/N	Yes	Yes	Yes
Cap	767	774	669
Service Time	2.412	2.376	3.388
HCM Lane V/C Ratio	0.279	0.513	0.072
HCM Control Delay	9.2	12.1	8.8
HCM Lane LOS	A	B	A
HCM 95th-tile Q	1.1	2.9	0.2

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	83	184	60	47	19	0	0	44	10
Future Vol, veh/h	0	0	0	83	184	60	47	19	0	0	44	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	90	200	65	51	21	0	0	48	11
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.1	8.5	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	71%	47%	0%	0%
Vol Thru, %	29%	53%	61%	81%
Vol Right, %	0%	0%	39%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	175	152	54
LT Vol	47	83	0	0
Through Vol	19	92	92	44
RT Vol	0	0	60	10
Lane Flow Rate	72	190	165	59
Geometry Grp	2	7	7	2
Degree of Util (X)	0.099	0.27	0.211	0.077
Departure Headway (Hd)	4.962	5.112	4.597	4.728
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	724	708	785	759
Service Time	2.982	2.812	2.297	2.75
HCM Lane V/C Ratio	0.099	0.268	0.21	0.078
HCM Control Delay	8.5	9.7	8.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1.1	0.8	0.2

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	19	265	23	8	4	0	0	38	81
Future Vol, veh/h	0	0	0	19	265	23	8	4	0	0	38	81
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	21	288	25	9	4	0	0	41	88
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	8.9	8.1	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	67%	13%	0%	0%
Vol Thru, %	33%	87%	85%	32%
Vol Right, %	0%	0%	15%	68%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	152	156	119
LT Vol	8	19	0	0
Through Vol	4	133	133	38
RT Vol	0	0	23	81
Lane Flow Rate	13	165	169	129
Geometry Grp	2	7	7	2
Degree of Util (X)	0.018	0.222	0.22	0.155
Departure Headway (Hd)	4.982	4.845	4.679	4.306
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	721	731	757	838
Service Time	2.991	2.635	2.468	2.307
HCM Lane V/C Ratio	0.018	0.226	0.223	0.154
HCM Control Delay	8.1	9	8.8	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.8	0.5

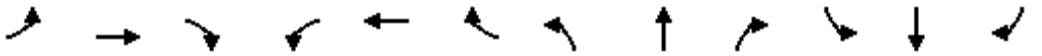
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	5	0	0	25	0	2070	14	0	2278	84
Future Vol, veh/h	0	0	5	0	0	25	0	2070	14	0	2278	84
Conflicting Peds, #/hr	0	0	6	0	0	0	0	0	1	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	0	0	27	0	2250	15	0	2476	91

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1291	-	-	1134	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	139	0	0	169	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	138	-	-	169	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.2	30.3	0	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	138	169	-	-
HCM Lane V/C Ratio	-	-	0.039	0.161	-	-
HCM Control Delay (s)	-	-	32.2	30.3	-	-
HCM Lane LOS	-	-	D	D	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	25	115	78	47	2010	46	0	2186	101
Future Volume (veh/h)	0	0	0	25	115	78	47	2010	46	0	2186	101
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				27	125	85	51	2185	50	0	2376	110
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				42	196	136	907	4196	96	0	1379	423
Arrive On Green				0.11	0.11	0.11	0.68	1.00	1.00	0.00	0.27	0.27
Sat Flow, veh/h				392	1821	1260	1781	5136	117	0	5274	1567
Grp Volume(v), veh/h				128	0	109	51	1447	788	0	2376	110
Grp Sat Flow(s),veh/h/ln				1851	0	1623	1781	1702	1849	0	1702	1567
Q Serve(g_s), s				8.6	0.0	8.4	1.2	0.0	0.0	0.0	35.1	7.2
Cycle Q Clear(g_c), s				8.6	0.0	8.4	1.2	0.0	0.0	0.0	35.1	7.2
Prop In Lane				0.21		0.78	1.00		0.06	0.00		1.00
Lane Grp Cap(c), veh/h				199	0	175	907	2781	1511	0	1379	423
V/C Ratio(X)				0.64	0.00	0.63	0.06	0.52	0.52	0.00	1.72	0.26
Avail Cap(c_a), veh/h				799	0	700	907	2781	1511	0	1379	423
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.63	0.63	0.63	0.00	1.00	1.00
Uniform Delay (d), s/veh				55.6	0.0	55.5	10.5	0.0	0.0	0.0	47.5	37.3
Incr Delay (d2), s/veh				1.3	0.0	1.4	0.0	0.4	0.8	0.0	328.6	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				4.1	0.0	3.5	0.5	0.2	0.3	0.0	56.4	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				56.9	0.0	56.9	10.5	0.4	0.8	0.0	376.1	38.7
LnGrp LOS				E	A	E	B	A	A	A	F	D
Approach Vol, veh/h					237			2286			2486	
Approach Delay, s/veh					56.9			0.8			361.2	
Approach LOS					E			A			F	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	111.1	18.9	71.1	40.0
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	64.1	56.1	24.6	* 35
Max Q Clear Time (g_c+I1), s	2.0	10.6	3.2	37.1
Green Ext Time (p_c), s	8.0	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	182.3
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



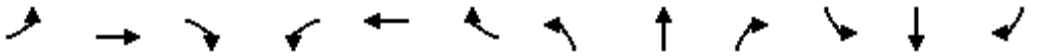
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	357	92	112	0	0	0	0	1719	14	125	2095	0
Future Volume (veh/h)	357	92	112	0	0	0	0	1719	14	125	2095	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	388	100	122				0	1868	15	136	2277	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	417	177	216				0	2967	24	159	4444	0
Arrive On Green	0.23	0.23	0.23				0.00	1.00	1.00	0.18	1.00	0.00
Sat Flow, veh/h	1781	758	925				0	5393	42	1781	6696	0
Grp Volume(v), veh/h	388	0	222				0	1217	666	136	2277	0
Grp Sat Flow(s),veh/h/ln	1781	0	1683				0	1702	1863	1781	1609	0
Q Serve(g_s), s	27.7	0.0	15.1				0.0	0.0	0.0	9.6	0.0	0.0
Cycle Q Clear(g_c), s	27.7	0.0	15.1				0.0	0.0	0.0	9.6	0.0	0.0
Prop In Lane	1.00		0.55				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	417	0	394				0	1933	1058	159	4444	0
V/C Ratio(X)	0.93	0.00	0.56				0.00	0.63	0.63	0.86	0.51	0.00
Avail Cap(c_a), veh/h	481	0	454				0	1933	1058	282	4444	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.69	0.69	0.62	0.62	0.00
Uniform Delay (d), s/veh	48.8	0.0	43.9				0.0	0.0	0.0	52.6	0.0	0.0
Incr Delay (d2), s/veh	22.0	0.0	0.5				0.0	1.1	2.0	3.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	0.0	6.4				0.0	0.3	0.6	4.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	0.0	44.4				0.0	1.1	2.0	55.9	0.3	0.0
LnGrp LOS	E	A	D				A	A	A	E	A	A
Approach Vol, veh/h		610						1883			2413	
Approach Delay, s/veh		61.2						1.4			3.4	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	16.0	78.7	35.3	94.7
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	20.6	60.1	35.1	85.1
Max Q Clear Time (g_c+I1), s	11.6	2.0	29.7	2.0
Green Ext Time (p_c), s	0.0	5.3	0.4	9.3

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	253	196	274	258	238	11	216	1503	281	0	1613	385
Future Volume (vph)	253	196	274	258	238	11	216	1503	281	0	1613	385
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00			1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.98			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3331	1549	1610	3322		3662	4956			5085	1534
Flt Permitted	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3331	1549	1610	3322		3662	4956			5085	1534
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	275	213	298	280	259	12	235	1634	305	0	1753	418
RTOR Reduction (vph)	0	0	249	0	2	0	0	14	0	0	0	143
Lane Group Flow (vph)	159	329	49	179	370	0	235	1925	0	0	1753	275
Confl. Peds. (#/hr)			3			20						13
Confl. Bikes (#/hr)			4			4			1			3
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	17.4	17.4	17.4	18.3	18.3		11.7	76.6			59.5	59.5
Effective Green, g (s)	17.4	17.4	17.4	18.3	18.3		11.7	76.6			59.5	59.5
Actuated g/C Ratio	0.13	0.13	0.13	0.14	0.14		0.09	0.59			0.46	0.46
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	215	445	207	226	467		329	2920			2327	702
v/s Ratio Prot	0.10	c0.10		0.11	c0.11		0.06	c0.39			c0.34	
v/s Ratio Perm			0.03									0.18
v/c Ratio	0.74	0.74	0.24	0.79	0.79		0.71	0.66			0.75	0.39
Uniform Delay, d1	54.1	54.1	50.4	54.0	54.0		57.5	17.9			29.2	23.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.38	0.27			0.59	0.36
Incremental Delay, d2	10.9	5.5	0.2	16.1	8.4		4.5	0.9			2.0	1.4
Delay (s)	65.0	59.6	50.6	70.1	62.4		84.1	5.7			19.2	9.8
Level of Service	E	E	D	E	E		F	A			B	A
Approach Delay (s)		57.3			64.9			14.2			17.4	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
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	225	199	138	392	252	294	1573	73	289	1741	200
Future Volume (veh/h)	163	225	199	138	392	252	294	1573	73	289	1741	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	245	216	150	426	274	320	1710	79	314	1892	217
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	684	300	145	725	313	375	1695	78	807	2175	248
Arrive On Green	0.07	0.19	0.19	0.08	0.20	0.20	0.04	0.11	0.11	0.23	0.47	0.47
Sat Flow, veh/h	3456	3554	1560	1781	3554	1535	3456	4996	231	3456	4647	529
Grp Volume(v), veh/h	177	245	216	150	426	274	320	1165	624	314	1382	727
Grp Sat Flow(s),veh/h/ln	1728	1777	1560	1781	1777	1535	1728	1702	1822	1728	1702	1772
Q Serve(g_s), s	6.6	7.8	16.9	10.6	14.1	22.5	12.0	44.1	44.1	10.0	47.3	48.1
Cycle Q Clear(g_c), s	6.6	7.8	16.9	10.6	14.1	22.5	12.0	44.1	44.1	10.0	47.3	48.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.30
Lane Grp Cap(c), veh/h	229	684	300	145	725	313	375	1155	618	807	1593	829
V/C Ratio(X)	0.77	0.36	0.72	1.03	0.59	0.88	0.85	1.01	1.01	0.39	0.87	0.88
Avail Cap(c_a), veh/h	441	959	421	145	795	344	574	1155	618	807	1593	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	45.5	49.2	59.7	46.8	50.1	61.6	57.7	57.7	42.0	31.0	31.2
Incr Delay (d2), s/veh	2.0	0.1	1.5	83.6	0.5	18.9	3.6	25.0	33.8	0.1	5.2	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.5	6.7	8.1	6.3	10.2	5.7	24.1	27.3	4.2	19.6	21.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.7	45.6	50.7	143.3	47.3	69.1	65.3	82.8	91.5	42.1	36.1	41.3
LnGrp LOS	E	D	D	F	D	E	E	F	F	D	D	D
Approach Vol, veh/h		638			850			2109			2423	
Approach Delay, s/veh		51.8			71.3			82.7			38.5	
Approach LOS		D			E			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	49.0	15.0	29.9	18.5	66.5	13.5	31.4
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 44	10.6	35.1	21.6	43.3	16.6	* 29
Max Q Clear Time (g_c+I1), s	12.0	46.1	12.6	18.9	14.0	50.1	8.6	24.5
Green Ext Time (p_c), s	0.2	0.0	0.0	0.7	0.2	0.0	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	60.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	10	12	61	15	78	19	1777	23	133	1936	70
Future Volume (veh/h)	108	10	12	61	15	78	19	1777	23	133	1936	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	11	13	66	16	85	21	1932	25	145	2104	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	15	15	123	35	123	36	3358	43	170	3649	131
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.02	0.65	0.65	0.10	0.72	0.72
Sat Flow, veh/h	924	106	105	589	243	862	1781	5195	67	1781	5059	182
Grp Volume(v), veh/h	141	0	0	167	0	0	21	1266	691	145	1414	766
Grp Sat Flow(s),veh/h/ln	1134	0	0	1693	0	0	1781	1702	1858	1781	1702	1837
Q Serve(g_s), s	4.3	0.0	0.0	0.0	0.0	0.0	1.5	27.2	27.2	10.4	25.7	25.9
Cycle Q Clear(g_c), s	16.3	0.0	0.0	12.0	0.0	0.0	1.5	27.2	27.2	10.4	25.7	25.9
Prop In Lane	0.83		0.09	0.40		0.51	1.00		0.04	1.00		0.10
Lane Grp Cap(c), veh/h	213	0	0	281	0	0	36	2200	1201	170	2455	1325
V/C Ratio(X)	0.66	0.00	0.00	0.59	0.00	0.00	0.58	0.58	0.58	0.85	0.58	0.58
Avail Cap(c_a), veh/h	384	0	0	473	0	0	159	2200	1201	296	2455	1325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.45	0.45	0.45	0.47	0.47	0.47
Uniform Delay (d), s/veh	55.1	0.0	0.0	52.9	0.0	0.0	63.1	12.9	12.9	57.9	8.6	8.7
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.8	0.0	0.0	2.4	0.5	0.9	2.3	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	0.0	5.3	0.0	0.0	0.7	9.6	10.7	4.7	8.3	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.5	0.0	0.0	53.6	0.0	0.0	65.5	13.4	13.9	60.2	9.1	9.5
LnGrp LOS	E	A	A	D	A	A	E	B	B	E	A	A
Approach Vol, veh/h		141			167			1978			2325	
Approach Delay, s/veh		56.5			53.6			14.1			12.4	
Approach LOS		E			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.8	89.7		23.5	7.1	99.5		23.5
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	20.6	* 59		35.1	11.6	68.3		35.1
Max Q Clear Time (g_c+I1), s	12.4	29.2		18.3	3.5	27.9		14.0
Green Ext Time (p_c), s	0.0	5.5		0.3	0.0	6.8		0.4

Intersection Summary	
HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	293	13	584	299	123	10	1327	501	168	1578	294
Future Volume (veh/h)	369	293	13	584	299	123	10	1327	501	168	1578	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	401	318	14	635	325	134	11	1442	545	183	1715	320
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	423	423	19	685	364	301	22	1769	548	235	1429	636
Arrive On Green	0.24	0.24	0.24	0.20	0.19	0.19	0.01	0.35	0.35	0.07	0.40	0.40
Sat Flow, veh/h	1781	1776	78	3456	1870	1549	1781	5106	1582	3456	3554	1583
Grp Volume(v), veh/h	401	0	332	635	325	134	11	1442	545	183	1715	320
Grp Sat Flow(s),veh/h/ln	1781	0	1854	1728	1870	1549	1781	1702	1582	1728	1777	1583
Q Serve(g_s), s	28.8	0.0	21.6	23.5	22.0	8.2	0.8	33.4	44.6	6.8	52.3	9.2
Cycle Q Clear(g_c), s	28.8	0.0	21.6	23.5	22.0	8.2	0.8	33.4	44.6	6.8	52.3	9.2
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	423	0	441	685	364	301	22	1769	548	235	1429	636
V/C Ratio(X)	0.95	0.00	0.75	0.93	0.89	0.44	0.49	0.81	0.99	0.78	1.20	0.50
Avail Cap(c_a), veh/h	488	0	501	813	433	359	145	1769	548	521	1429	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	48.7	0.0	46.0	51.2	51.0	31.5	63.8	38.7	42.3	59.6	38.9	6.3
Incr Delay (d2), s/veh	25.0	0.0	4.5	14.0	16.6	0.4	6.0	4.3	37.0	1.6	95.7	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	0.0	10.5	11.3	11.8	3.1	0.4	14.3	22.5	3.0	40.8	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.7	0.0	50.5	65.1	67.6	31.9	69.8	42.9	79.3	61.2	134.6	8.5
LnGrp LOS	E	A	D	E	E	C	E	D	E	E	F	A
Approach Vol, veh/h		733			1094			1998			2218	
Approach Delay, s/veh		63.2			61.8			53.0			110.3	
Approach LOS		E			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	50.8	30.2	35.8	6.0	58.0	35.8	30.2
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	8.8	* 26	30.6	35.1	10.6	34.3	35.6	* 30
Max Q Clear Time (g_c+I1), s	3.8	46.6	25.5	23.6	2.8	54.3	30.8	24.0
Green Ext Time (p_c), s	0.1	0.0	0.3	0.6	0.0	0.0	0.1	0.4

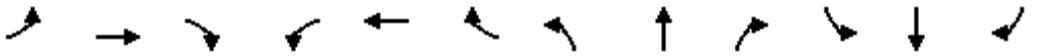
Intersection Summary	
HCM 6th Ctrl Delay	76.9
HCM 6th LOS	E

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	128	5	210	0	142	0	375	152	37	256	0
Future Volume (vph)	46	128	5	210	0	142	0	375	152	37	256	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.96		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.96		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1852		1770		1550		3235		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.37	1.00	
Satd. Flow (perm)	1770	1852		1770		1550		3235		685	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	50	139	5	228	0	154	0	408	165	40	278	0
RTOR Reduction (vph)	0	1	0	0	0	93	0	21	0	0	0	0
Lane Group Flow (vph)	50	143	0	228	0	61	0	552	0	40	278	0
Confl. Peds. (#/hr)			4			5			51			13
Confl. Bikes (#/hr)			2						9			5
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	12.5	12.5		18.2		18.2		60.9		69.4	69.4	
Effective Green, g (s)	12.5	12.5		18.2		18.2		60.9		69.4	69.4	
Actuated g/C Ratio	0.11	0.11		0.16		0.16		0.53		0.61	0.61	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	193	202		281		246		1723		454	2148	
v/s Ratio Prot	0.03	c0.08		c0.13				c0.17		0.00	c0.08	
v/s Ratio Perm						0.04				0.05		
v/c Ratio	0.26	0.71		0.81		0.25		0.32		0.09	0.13	
Uniform Delay, d1	46.7	49.1		46.4		42.1		15.0		9.5	9.6	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.3	8.9		15.4		0.2		0.5		0.0	0.1	
Delay (s)	46.9	58.1		61.7		42.2		15.5		9.5	9.7	
Level of Service	D	E		E		D		B		A	A	
Approach Delay (s)		55.2			53.9			15.5			9.7	
Approach LOS		E			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	29.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	114.3	Sum of lost time (s)	23.1
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

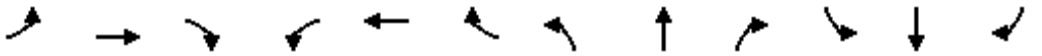
Intersection	
Int Delay, s/veh	1.3

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	134	424	289	56	0	0
Future Vol, veh/h	134	424	289	56	0	0
Conflicting Peds, #/hr	0	0	0	16	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	146	461	314	61	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	391	0	-	0	884	204
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	523	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1164	-	-	-	285	803
Stage 1	-	-	-	-	676	-
Stage 2	-	-	-	-	559	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1146	-	-	-	241	791
Mov Cap-2 Maneuver	-	-	-	-	368	-
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	551	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1146	-	-	-	-
HCM Lane V/C Ratio	0.127	-	-	-	-
HCM Control Delay (s)	8.6	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	259	61	254	241	60	87	159	215	42	117	43
Future Volume (veh/h)	78	259	61	254	241	60	87	159	215	42	117	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.92	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	282	66	276	262	65	95	173	234	46	127	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	1291	492	399	572	444	124	798	925	121	675	285
Arrive On Green	0.06	0.25	0.25	0.12	0.31	0.31	0.07	0.22	0.22	0.04	0.19	0.19
Sat Flow, veh/h	1781	5106	1509	3456	1870	1452	1781	3554	2690	3456	3554	1500
Grp Volume(v), veh/h	85	282	66	276	262	65	95	173	234	46	127	47
Grp Sat Flow(s),veh/h/ln	1781	1702	1509	1728	1870	1452	1781	1777	1345	1728	1777	1500
Q Serve(g_s), s	3.0	2.7	1.9	4.8	7.1	2.0	3.3	2.5	4.0	0.8	1.9	1.6
Cycle Q Clear(g_c), s	3.0	2.7	1.9	4.8	7.1	2.0	3.3	2.5	4.0	0.8	1.9	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	1291	492	399	572	444	124	798	925	121	675	285
V/C Ratio(X)	0.77	0.22	0.13	0.69	0.46	0.15	0.77	0.22	0.25	0.38	0.19	0.16
Avail Cap(c_a), veh/h	850	3249	1070	1649	1190	924	850	2261	2033	1649	2261	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	18.6	15.1	26.7	17.6	15.8	28.7	19.9	15.0	29.7	21.4	21.3
Incr Delay (d2), s/veh	4.2	0.1	0.1	0.8	0.3	0.1	3.7	0.1	0.1	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.0	0.6	1.9	2.8	0.6	1.4	0.9	1.0	0.3	0.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.2	18.7	15.2	27.5	17.9	15.9	32.5	20.0	15.1	30.4	21.4	21.4
LnGrp LOS	C	B	B	C	B	B	C	C	B	C	C	C
Approach Vol, veh/h		433			603			502			220	
Approach Delay, s/veh		21.0			22.1			20.1			23.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	21.8	9.8	18.6	9.3	25.1	7.6	20.8
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	6.8	4.7	5.3	3.9	5.0	9.1	2.8	6.0
Green Ext Time (p_c), s	0.5	2.7	0.1	0.5	0.1	1.2	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

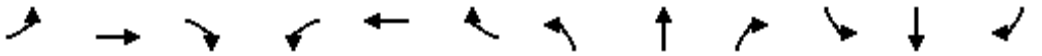
Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	276	326	416	504	8
Future Vol, veh/h	0	276	326	416	504	8
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	300	354	452	548	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	280	558	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	611	636	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	610	635	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.5	7.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	635	-	610	-	-
HCM Lane V/C Ratio	0.558	-	0.492	-	-
HCM Control Delay (s)	17.6	-	16.5	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	3.4	-	2.7	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	11	8	17	4	4	353	757	187	95	744	116
Future Volume (veh/h)	13	11	8	17	4	4	353	757	187	95	744	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.86	1.00		1.00	1.00		0.95	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	12	9	18	4	4	384	823	203	103	809	126
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	498	365	27	521	441	410	1531	647	129	838	131
Arrive On Green	0.01	0.27	0.27	0.02	0.28	0.28	0.23	0.43	0.43	0.07	0.27	0.27
Sat Flow, veh/h	1781	1870	1369	1781	1870	1585	1781	3554	1502	1781	3070	478
Grp Volume(v), veh/h	14	12	9	18	4	4	384	823	203	103	468	467
Grp Sat Flow(s),veh/h/ln	1781	1870	1369	1781	1870	1585	1781	1777	1502	1781	1777	1771
Q Serve(g_s), s	0.9	0.5	0.5	1.1	0.2	0.2	23.0	18.7	9.7	6.2	28.3	28.3
Cycle Q Clear(g_c), s	0.9	0.5	0.5	1.1	0.2	0.2	23.0	18.7	9.7	6.2	28.3	28.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	23	498	365	27	521	441	410	1531	647	129	485	484
V/C Ratio(X)	0.62	0.02	0.02	0.66	0.01	0.01	0.94	0.54	0.31	0.80	0.97	0.97
Avail Cap(c_a), veh/h	65	538	394	88	597	506	413	1531	647	216	485	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.4	29.5	29.5	53.3	28.4	28.4	41.1	22.9	20.4	49.7	39.0	39.0
Incr Delay (d2), s/veh	33.4	0.0	0.0	9.4	0.0	0.0	28.4	0.2	0.1	4.3	31.8	31.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.2	0.6	0.1	0.1	12.7	7.1	3.1	2.8	16.0	16.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.9	29.5	29.5	62.7	28.4	28.4	69.5	23.1	20.5	53.9	70.9	70.9
LnGrp LOS	F	C	C	E	C	C	E	C	C	D	E	E
Approach Vol, veh/h		35			26			1410			1038	
Approach Delay, s/veh		52.4			52.1			35.4			69.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	37.7	29.4	34.6	5.8	39.0	12.3	51.8
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	5.4	31.3	25.2	29.7	4.0	* 35	13.2	41.7
Max Q Clear Time (g_c+I1), s	3.1	2.5	25.0	30.3	2.9	2.2	8.2	20.7
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.0	0.0	3.5

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

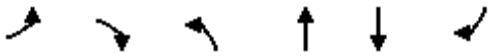
Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	776	704	21	0	175
Future Vol, veh/h	0	776	704	21	0	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	843	765	23	0	190

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	383
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	615
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	615
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	615
HCM Lane V/C Ratio	-	-	0.309
HCM Control Delay (s)	-	-	13.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.3



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	631	86	0	1006	1359	625
Future Volume (vph)	631	86	0	1006	1359	625
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	686	93	0	1093	1477	679
RTOR Reduction (vph)	0	61	0	0	0	0
Lane Group Flow (vph)	686	32	0	1093	1477	679
Confl. Peds. (#/hr)						3
Confl. Bikes (#/hr)						4
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	27.6	27.6		59.7	59.7	113.7
Effective Green, g (s)	27.6	27.6		59.7	59.7	102.9
Actuated g/C Ratio	0.24	0.24		0.53	0.53	0.91
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	833	384		1858	1858	1432
v/s Ratio Prot	c0.20			0.31	c0.42	c0.43
v/s Ratio Perm		0.02				
v/c Ratio	0.82	0.08		0.59	0.79	0.47
Uniform Delay, d1	40.7	33.3		18.6	22.0	0.9
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	6.5	0.1		0.5	2.4	0.2
Delay (s)	47.2	33.4		19.0	24.4	1.1
Level of Service	D	C		B	C	A
Approach Delay (s)	45.6			19.0	17.1	
Approach LOS	D			B	B	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	113.7	Sum of lost time (s)	19.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	916	273	106	804
Future Volume (veh/h)	0	1	916	273	106	804
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	996	297	115	874
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	4	7	1999	875	233	2582
Arrive On Green	0.00	0.00	0.56	0.56	0.07	0.73
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	996	297	115	874
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	7.8	4.7	1.5	4.1
Cycle Q Clear(g_c), s	0.0	0.0	7.8	4.7	1.5	4.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	4	7	1999	875	233	2582
V/C Ratio(X)	0.00	0.14	0.50	0.34	0.49	0.34
Avail Cap(c_a), veh/h	1565	2785	4683	2047	2277	4683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	22.7	6.1	5.4	20.5	2.3
Incr Delay (d2), s/veh	0.0	3.4	0.3	0.3	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.6	0.9	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	26.1	6.3	5.7	21.1	2.4
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1293			989
Approach Delay, s/veh	26.1		6.2			4.6
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.5	31.8			39.3	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	3.5	9.8			6.1	2.0
Green Ext Time (p_c), s	0.2	15.9			15.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	36	48	70	42	112	48	831	45	122	797	155
Future Volume (veh/h)	60	36	48	70	42	112	48	831	45	122	797	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	39	52	76	46	122	52	903	49	133	866	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	185	153	98	207	170	131	1555	765	172	1764	855
Arrive On Green	0.04	0.10	0.10	0.06	0.11	0.11	0.04	0.44	0.44	0.10	0.50	0.50
Sat Flow, veh/h	3456	1870	1545	1781	1870	1530	3456	3554	1549	1781	3554	1584
Grp Volume(v), veh/h	65	39	52	76	46	122	52	903	49	133	866	168
Grp Sat Flow(s),veh/h/ln	1728	1870	1545	1781	1870	1530	1728	1777	1549	1781	1777	1584
Q Serve(g_s), s	1.2	1.2	2.0	2.6	1.4	4.8	0.9	12.0	1.0	4.6	10.2	3.4
Cycle Q Clear(g_c), s	1.2	1.2	2.0	2.6	1.4	4.8	0.9	12.0	1.0	4.6	10.2	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	185	153	98	207	170	131	1555	765	172	1764	855
V/C Ratio(X)	0.44	0.21	0.34	0.77	0.22	0.72	0.40	0.58	0.06	0.77	0.49	0.20
Avail Cap(c_a), veh/h	1649	893	737	850	893	730	1649	3957	1812	850	3957	1832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	26.1	26.4	29.3	25.5	27.0	29.5	13.3	8.4	27.7	10.5	7.5
Incr Delay (d2), s/veh	0.7	0.6	1.3	4.8	0.2	2.1	0.7	0.6	0.1	2.8	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	0.7	1.2	0.6	1.7	0.4	4.0	0.3	1.9	3.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	26.6	27.7	34.1	25.7	29.2	30.3	13.9	8.4	30.5	10.9	7.6
LnGrp LOS	C	C	C	C	C	C	C	B	A	C	B	A
Approach Vol, veh/h		156			244			1004			1167	
Approach Delay, s/veh		28.4			30.0			14.5			12.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	32.8	7.9	11.7	6.8	36.5	7.1	12.5
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	6.6	14.0	4.6	4.0	2.9	12.2	3.2	6.8
Green Ext Time (p_c), s	0.2	13.4	0.1	0.3	0.1	13.6	0.1	0.3

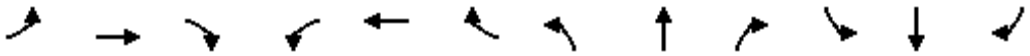
Intersection Summary	
HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1039	60	338	363	0	0	0	0	237	0	0
Future Volume (vph)	0	1039	60	338	363	0	0	0	0	237	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						4.0	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.98	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1553	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1553	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1129	65	367	395	0	0	0	0	258	0	0
RTOR Reduction (vph)	0	0	29	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1129	36	367	395	0	0	0	0	0	258	0
Confl. Peds. (#/hr)			5			2						
Confl. Bikes (#/hr)			2			5						
Turn Type		NA	Perm	Prot	NA					Prot	NA	
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		50.5	50.5	12.3	67.5						10.9	
Effective Green, g (s)		50.5	50.5	12.3	67.5						10.9	
Actuated g/C Ratio		0.56	0.56	0.14	0.75						0.12	
Clearance Time (s)				4.7								
Vehicle Extension (s)				2.0								
Lane Grp Cap (vph)		1985	871	469	2654						214	
v/s Ratio Prot		c0.32		c0.11	0.11						0.15	
v/s Ratio Perm			0.02									
v/c Ratio		0.57	0.04	0.78	0.15						1.21	
Uniform Delay, d1		12.7	8.9	37.6	3.2						39.5	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		0.4	0.0	7.7	0.0						128.0	
Delay (s)		13.1	8.9	45.2	3.2						167.6	
Level of Service		B	A	D	A						F	
Approach Delay (s)		12.9			23.4			0.0			167.6	
Approach LOS		B			C			A			F	

Intersection Summary					
HCM 2000 Control Delay	34.5	HCM 2000 Level of Service	C		
HCM 2000 Volume to Capacity ratio	0.74				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.3		
Intersection Capacity Utilization	64.2%	ICU Level of Service	C		
Analysis Period (min)	15				

c Critical Lane Group

Intersection	
Int Delay, s/veh	4.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	162	45	0	30	180	0
Future Vol, veh/h	162	45	0	30	180	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	176	49	0	33	196	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	225	0	234	201
Stage 1	-	-	-	-	201	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1344	-	754	840
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	989	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1344	-	754	840
Mov Cap-2 Maneuver	-	-	-	-	754	-
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	989	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	754	-	-	-	1344	-
HCM Lane V/C Ratio	0.259	-	-	-	-	-
HCM Control Delay (s)	11.4	0	-	-	0	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1	-	-	-	0	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	256	0	7	0	0	130
Future Vol, veh/h	256	0	7	0	0	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	278	0	8	0	0	141

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	278	0	294	278
Stage 1	-	-	-	-	278	-
Stage 2	-	-	-	-	16	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1285	-	697	761
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	1007	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1285	-	693	761
Mov Cap-2 Maneuver	-	-	-	-	693	-
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	1001	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.8	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	761	-	-	1285	-
HCM Lane V/C Ratio	-	0.186	-	-	0.006	-
HCM Control Delay (s)	0	10.8	-	-	7.8	0
HCM Lane LOS	A	B	-	-	A	A
HCM 95th %tile Q(veh)	-	0.7	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	540	0	0	29	0	12
Future Vol, veh/h	540	0	0	29	0	12
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	587	0	0	32	0	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	587	0	619	587
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	32	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	988	-	452	510
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	991	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	988	-	452	510
Mov Cap-2 Maneuver	-	-	-	-	452	-
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	991	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	510	-	-	988	-
HCM Lane V/C Ratio	0.026	-	-	-	-
HCM Control Delay (s)	12.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	173	15	0	0	43	55
Future Vol, veh/h	173	15	0	0	43	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	188	16	0	0	47	60

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	204	0	197	196
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1368	-	792	845
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1368	-	792	845
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	1022	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	821	-	-	1368	-
HCM Lane V/C Ratio	0.13	-	-	-	-
HCM Control Delay (s)	10	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	499	645	28	0	131
Future Vol, veh/h	0	499	645	28	0	131
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	0	542	701	30	0	142

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	366
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	539
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	539
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	539
HCM Lane V/C Ratio	-	-	-	0.264
HCM Control Delay (s)	-	-	-	14.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	1.1

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	684	565	14	0	86
Future Vol, veh/h	0	684	565	14	0	86
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	0	743	614	15	0	93

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	315
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	581
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	581
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	581
HCM Lane V/C Ratio	-	-	-	0.161
HCM Control Delay (s)	-	-	-	12.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	5.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	207	56	0	210	225	0
Future Vol, veh/h	207	56	0	210	225	0
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	225	61	0	228	245	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	484	256
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	542	783
Stage 1	-	-	0	-	787	-
Stage 2	-	-	0	-	810	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	542	783
Mov Cap-2 Maneuver	-	-	-	-	542	-
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	810	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	542	-	-	-
HCM Lane V/C Ratio	0.451	-	-	-
HCM Control Delay (s)	17	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	2.3	-	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	398	0	21	7	0	143
Future Vol, veh/h	398	0	21	7	0	143
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	433	0	23	8	0	155

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	433	0	487	433
Stage 1	-	-	-	-	433	-
Stage 2	-	-	-	-	54	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1127	-	540	623
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	969	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1127	-	529	623
Mov Cap-2 Maneuver	-	-	-	-	529	-
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	950	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.2	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	623	-	-	1127	-
HCM Lane V/C Ratio	0.249	-	-	0.02	-
HCM Control Delay (s)	12.7	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.1	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1149	1795	650	0	0	2150
Future Volume (vph)	1149	1795	650	0	0	2150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1249	1951	707	0	0	2337
RTOR Reduction (vph)	0	82	0	0	0	0
Lane Group Flow (vph)	1249	1869	707	0	0	2337
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)				4		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.2	57.8	24.8			47.4
Effective Green, g (s)	35.2	57.8	21.8			47.4
Actuated g/C Ratio	0.36	0.59	0.22			0.49
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1238	1650	1135			3112
v/s Ratio Prot	0.36	c0.67	0.14			c0.36
v/s Ratio Perm						
v/c Ratio	1.01	1.13	0.62			0.75
Uniform Delay, d1	31.2	19.9	34.2			20.3
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	27.8	68.0	0.8			0.9
Delay (s)	59.0	87.9	35.0			21.3
Level of Service	E	F	C			C
Approach Delay (s)	76.6		35.0			21.3
Approach LOS	E		C			C

Intersection Summary			
HCM 2000 Control Delay	51.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	97.6	Sum of lost time (s)	25.5
Intersection Capacity Utilization	94.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	323	576	293	28	440	609	305	443	34	922	502	350
Future Volume (veh/h)	323	576	293	28	440	609	305	443	34	922	502	350
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	351	626	318	30	478	0	271	567	0	1002	546	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	435	457	737	307	612		402	844		839	440	
Arrive On Green	0.24	0.24	0.24	0.17	0.17	0.00	0.07	0.07	0.00	0.24	0.24	0.00
Sat Flow, veh/h	1781	1870	1553	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	351	626	318	30	478	0	271	567	0	1002	546	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1553	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	29.7	39.1	21.8	2.3	20.6	0.0	23.7	23.6	0.0	37.7	37.7	0.0
Cycle Q Clear(g_c), s	29.7	39.1	21.8	2.3	20.6	0.0	23.7	23.6	0.0	37.7	37.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	435	457	737	307	612		402	844		839	440	
V/C Ratio(X)	0.81	1.37	0.43	0.10	0.78		0.67	0.67		1.19	1.24	
Avail Cap(c_a), veh/h	435	457	737	357	713		402	844		839	440	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.69	0.69	0.00	0.86	0.86	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.9	60.5	28.3	55.8	63.4	0.0	68.3	68.3	0.0	61.2	61.2	0.0
Incr Delay (d2), s/veh	12.7	179.8	1.1	0.4	6.1	0.0	7.6	3.7	0.0	99.3	126.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	41.1	12.3	1.1	9.8	0.0	12.3	12.4	0.0	28.6	33.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.6	240.3	29.4	56.1	69.4	0.0	75.9	71.9	0.0	160.5	187.4	0.0
LnGrp LOS	E	F	C	E	E		E	E		F	F	
Approach Vol, veh/h		1295			508			838			1548	
Approach Delay, s/veh		142.2			68.6			73.2			170.0	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	44.0	42.6	32.4	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	41.1	39.7	22.6	25.7
Green Ext Time (p_c), s	0.0	0.0	4.2	3.0

Intersection Summary	
HCM 6th Ctrl Delay	129.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	512	1059	0	6	714	143	0	0	0	69	0	282
Future Volume (veh/h)	512	1059	0	6	714	143	0	0	0	69	0	282
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.93				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	557	1151	0	7	776	155				75	0	307
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	538	1747	0	101	1059	209				562	0	495
Arrive On Green	0.30	0.49	0.00	0.11	0.50	0.50				0.32	0.00	0.32
Sat Flow, veh/h	1781	3647	0	1781	4221	833				1781	0	1568
Grp Volume(v), veh/h	557	1151	0	7	624	307				75	0	307
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1702	1649				1781	0	1568
Q Serve(g_s), s	32.6	26.3	0.0	0.4	15.6	16.0				3.2	0.0	18.0
Cycle Q Clear(g_c), s	32.6	26.3	0.0	0.4	15.6	16.0				3.2	0.0	18.0
Prop In Lane	1.00		0.00	1.00		0.50				1.00		1.00
Lane Grp Cap(c), veh/h	538	1747	0	101	854	414				562	0	495
V/C Ratio(X)	1.04	0.66	0.00	0.07	0.73	0.74				0.13	0.00	0.62
Avail Cap(c_a), veh/h	538	1747	0	109	854	414				562	0	495
HCM Platoon Ratio	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	0.00	0.90	0.90	0.90				1.00	0.00	1.00
Uniform Delay (d), s/veh	37.7	20.6	0.0	45.4	24.0	24.1				26.4	0.0	31.4
Incr Delay (d2), s/veh	22.4	0.2	0.0	0.1	4.9	10.3				0.5	0.0	5.7
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	17.1	10.4	0.0	0.2	5.2	5.7				1.5	0.0	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	20.8	0.0	45.5	29.0	34.5				26.9	0.0	37.2
LnGrp LOS	F	C	A	D	C	C				C	A	D
Approach Vol, veh/h		1708			938						382	
Approach Delay, s/veh		33.6			30.9						35.2	
Approach LOS		C			C						D	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	37.0	32.0
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I2), s	2.4	28.3		20.0	34.6	18.0
Green Ext Time (p_c), s	0.0	10.7		0.7	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	830	88	155	717	64	121	138	192	65	40	53
Future Volume (veh/h)	191	830	88	155	717	64	121	138	192	65	40	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.94	1.00		0.93	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	208	902	96	168	779	70	132	150	209	71	43	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	1876	199	191	1790	160	414	157	218	142	57	77
Arrive On Green	0.13	0.40	0.40	0.11	0.38	0.38	0.23	0.23	0.23	0.08	0.08	0.08
Sat Flow, veh/h	1781	4646	492	1781	4744	423	1781	675	940	1781	715	965
Grp Volume(v), veh/h	208	660	338	168	557	292	132	0	359	71	0	101
Grp Sat Flow(s),veh/h/ln	1781	1702	1734	1781	1702	1763	1781	0	1615	1781	0	1680
Q Serve(g_s), s	12.4	15.5	15.6	10.0	13.2	13.3	6.6	0.0	23.7	4.1	0.0	6.4
Cycle Q Clear(g_c), s	12.4	15.5	15.6	10.0	13.2	13.3	6.6	0.0	23.7	4.1	0.0	6.4
Prop In Lane	1.00		0.28	1.00		0.24	1.00		0.58	1.00		0.57
Lane Grp Cap(c), veh/h	238	1375	700	191	1285	665	414	0	375	142	0	134
V/C Ratio(X)	0.87	0.48	0.48	0.88	0.43	0.44	0.32	0.00	0.96	0.50	0.00	0.76
Avail Cap(c_a), veh/h	307	1375	700	191	1285	665	414	0	375	282	0	266
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	1.00	1.00	1.00	0.60	0.00	0.60	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.9	23.8	23.8	47.5	25.0	25.1	34.4	0.0	40.9	47.7	0.0	48.7
Incr Delay (d2), s/veh	13.6	1.0	1.9	32.9	1.1	2.1	0.1	0.0	25.4	1.0	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	6.2	6.6	6.1	5.4	5.8	2.9	0.0	11.9	1.9	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	24.8	25.8	80.4	26.1	27.2	34.5	0.0	66.3	48.7	0.0	51.9
LnGrp LOS	E	C	C	F	C	C	C	A	E	D	A	D
Approach Vol, veh/h		1206			1017			491			172	
Approach Delay, s/veh		31.0			35.4			57.7			50.6	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.9	45.7		30.0	16.0	48.5		13.5
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	14.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	14.4	15.3		25.7	12.0	17.6		8.4
Green Ext Time (p_c), s	0.1	6.7		0.0	0.0	9.6		0.3

Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	664	72	100	794	145	120	32	75	162	27	184
Future Volume (veh/h)	352	664	72	100	794	145	120	32	75	162	27	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.85	1.00		0.90	1.00		0.91	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	383	722	78	109	863	158	130	35	82	176	29	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	1210	129	137	1209	219	412	111	543	294	33	231
Arrive On Green	0.06	0.26	0.26	0.08	0.28	0.28	0.29	0.29	0.29	0.17	0.17	0.17
Sat Flow, veh/h	1781	4596	489	1781	4265	774	1418	382	1449	1781	203	1398
Grp Volume(v), veh/h	383	532	268	109	687	334	165	0	82	176	0	229
Grp Sat Flow(s),veh/h/ln	1781	1702	1681	1781	1702	1635	1799	0	1449	1781	0	1601
Q Serve(g_s), s	5.3	12.8	13.1	5.6	16.9	17.2	6.7	0.0	3.5	8.6	0.0	13.0
Cycle Q Clear(g_c), s	5.3	12.8	13.1	5.6	16.9	17.2	6.7	0.0	3.5	8.6	0.0	13.0
Prop In Lane	1.00		0.29	1.00		0.47	0.79		1.00	1.00		0.87
Lane Grp Cap(c), veh/h	101	896	443	137	965	463	523	0	543	294	0	264
V/C Ratio(X)	3.79	0.59	0.61	0.80	0.71	0.72	0.32	0.00	0.15	0.60	0.00	0.87
Avail Cap(c_a), veh/h	101	896	443	145	965	463	693	0	680	345	0	310
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	30.1	30.2	42.4	30.1	30.2	25.9	0.0	19.8	36.2	0.0	38.0
Incr Delay (d2), s/veh	1280.7	2.9	6.0	22.6	4.5	9.3	0.1	0.0	0.0	0.9	0.0	17.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	38.2	5.4	5.9	3.3	7.3	7.7	2.8	0.0	1.2	3.7	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1324.8	32.9	36.2	65.1	34.5	39.5	26.0	0.0	19.9	37.1	0.0	55.7
LnGrp LOS	F	C	D	E	C	D	C	A	B	D	A	E
Approach Vol, veh/h		1183			1130			247			405	
Approach Delay, s/veh		451.9			38.9			24.0			47.6	
Approach LOS		F			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.6	29.5		20.3	9.7	31.4		32.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	7.6	15.1		15.0	7.3	19.2		8.7
Green Ext Time (p_c), s	0.0	4.0		0.4	0.0	2.8		0.8

Intersection Summary		
HCM 6th Ctrl Delay	203.7	
HCM 6th LOS	F	

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	873	72	139	1104	0	108
Future Vol, veh/h	873	72	139	1104	0	108
Conflicting Peds, #/hr	0	26	0	0	0	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	949	78	151	1200	0	117

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1053	0	-	544
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	369	-	0	414
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	360	-	-	402
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	402	-	-	360	-
HCM Lane V/C Ratio	0.292	-	-	0.42	-
HCM Control Delay (s)	17.6	-	-	22	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	1.2	-	-	2	-



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	954	45	226	1159	107	166
Future Volume (veh/h)	954	45	226	1159	107	166
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1037	49	246	1260	116	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2884	136	279	3964	237	211
Arrive On Green	0.58	0.58	0.16	0.78	0.13	0.13
Sat Flow, veh/h	5150	235	1781	5274	1781	1585
Grp Volume(v), veh/h	708	378	246	1260	116	180
Grp Sat Flow(s),veh/h/ln	1702	1813	1781	1702	1781	1585
Q Serve(g_s), s	11.9	12.0	14.6	7.9	6.5	12.0
Cycle Q Clear(g_c), s	11.9	12.0	14.6	7.9	6.5	12.0
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1971	1050	279	3964	237	211
V/C Ratio(X)	0.36	0.36	0.88	0.32	0.49	0.85
Avail Cap(c_a), veh/h	1971	1050	785	3964	397	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.32	0.32	0.98	0.98
Uniform Delay (d), s/veh	12.1	12.1	44.6	3.6	43.4	45.8
Incr Delay (d2), s/veh	0.5	1.0	1.2	0.1	0.6	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.8	6.4	2.0	2.9	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.6	13.1	45.8	3.7	44.0	50.2
LnGrp LOS	B	B	D	A	D	D
Approach Vol, veh/h	1086			1506	296	
Approach Delay, s/veh	12.8			10.5	47.8	
Approach LOS	B			B	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	21.3	67.4				88.7	19.3
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	47.6	22.1				74.1	24.1
Max Q Clear Time (g_c+I1), s	16.6	14.0				9.9	14.0
Green Ext Time (p_c), s	0.3	5.8				18.4	0.4

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	499	125	158	520	117	167	246	167	56	175	66
Future Volume (veh/h)	73	499	125	158	520	117	167	246	167	56	175	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	542	136	172	565	127	182	267	182	61	190	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	524	1836	802	215	804	180	296	311	359	241	253	209
Arrive On Green	0.59	1.00	1.00	0.12	0.56	0.56	0.17	0.17	0.17	0.14	0.14	0.14
Sat Flow, veh/h	1781	3554	1551	3456	2852	638	1781	1870	1568	1781	1870	1546
Grp Volume(v), veh/h	79	542	136	172	351	341	182	267	182	61	190	72
Grp Sat Flow(s),veh/h/ln	1781	1777	1551	1728	1777	1714	1781	1870	1568	1781	1870	1546
Q Serve(g_s), s	3.2	0.0	0.0	7.7	22.8	23.1	15.2	22.2	16.2	4.9	15.6	6.8
Cycle Q Clear(g_c), s	3.2	0.0	0.0	7.7	22.8	23.1	15.2	22.2	16.2	4.9	15.6	6.8
Prop In Lane	1.00		1.00	1.00		0.37	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	524	1836	802	215	501	483	296	311	359	241	253	209
V/C Ratio(X)	0.15	0.30	0.17	0.80	0.70	0.71	0.61	0.86	0.51	0.25	0.75	0.34
Avail Cap(c_a), veh/h	524	1836	802	467	501	483	391	410	443	391	410	339
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.62	0.62	0.62	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	23.9	0.0	0.0	69.1	30.0	30.1	61.9	64.9	53.9	61.9	66.6	62.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.6	5.0	5.3	0.8	10.8	0.4	0.1	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	3.3	8.6	8.4	7.0	11.6	6.5	2.3	7.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	0.0	0.0	70.7	35.1	35.4	62.7	75.6	54.3	62.1	67.8	63.0
LnGrp LOS	C	A	A	E	D	D	E	E	D	E	E	E
Approach Vol, veh/h		757			864			631			323	
Approach Delay, s/veh		2.5			42.3			65.7			65.7	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.4	87.6		26.6	51.9	50.0		31.5
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	10.0	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	9.7	2.0		17.6	5.2	25.1		24.2
Green Ext Time (p_c), s	0.2	7.0		0.8	0.1	6.9		1.3

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

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	900	10	16	847	304	11	0	7	149	12	81
Future Volume (veh/h)	64	900	10	16	847	304	11	0	7	149	12	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	0.96		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	978	11	17	921	330	12	0	8	162	13	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	1954	22	359	1315	468	274	17	146	296	33	129
Arrive On Green	0.05	0.72	0.72	0.02	0.52	0.52	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3598	40	1781	2533	902	766	66	555	846	126	489
Grp Volume(v), veh/h	70	483	506	17	644	607	20	0	0	263	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1658	1388	0	0	1461	0	0
Q Serve(g_s), s	1.4	9.5	9.5	0.4	21.9	22.2	0.0	0.0	0.0	11.8	0.0	0.0
Cycle Q Clear(g_c), s	1.4	9.5	9.5	0.4	21.9	22.2	0.7	0.0	0.0	12.8	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.54	0.60		0.40	0.62		0.33
Lane Grp Cap(c), veh/h	268	965	1011	359	923	861	438	0	0	458	0	0
V/C Ratio(X)	0.26	0.50	0.50	0.05	0.70	0.70	0.05	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	389	965	1011	523	923	861	438	0	0	458	0	0
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	0.96	0.96	0.41	0.41	0.41	1.00	0.00	0.00	0.58	0.00	0.00
Uniform Delay (d), s/veh	11.6	6.4	6.4	9.1	14.5	14.6	21.9	0.0	0.0	26.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	1.8	1.7	0.0	1.8	2.0	0.0	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.0	3.2	0.1	8.3	7.9	0.3	0.0	0.0	4.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	8.2	8.1	9.1	16.3	16.6	22.0	0.0	0.0	29.4	0.0	0.0
LnGrp LOS	B	A	A	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		1059			1268			20			263	
Approach Delay, s/veh		8.4			16.4			22.0			29.4	
Approach LOS		A			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	48.3		26.0	7.6	46.4		26.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I2), s	2.4	11.5		14.8	3.4	24.2		2.7
Green Ext Time (p_c), s	0.0	7.6		0.5	0.0	7.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	21	25	466	318	38
Future Vol, veh/h	17	21	25	466	318	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	23	27	507	346	41
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	9.2	17.6	12.3
HCM LOS	A	C	B

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	45%	0%
Vol Thru, %	0%	100%	0%	89%
Vol Right, %	0%	0%	55%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	466	38	356
LT Vol	25	0	17	0
Through Vol	0	466	0	318
RT Vol	0	0	21	38
Lane Flow Rate	27	507	41	387
Geometry Grp	7	7	2	5
Degree of Util (X)	0.041	0.693	0.066	0.502
Departure Headway (Hd)	5.43	4.928	5.728	4.67
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	660	734	622	770
Service Time	3.162	2.659	3.793	2.7
HCM Lane V/C Ratio	0.041	0.691	0.066	0.503
HCM Control Delay	8.4	18.1	9.2	12.3
HCM Lane LOS	A	C	A	B
HCM 95th-tile Q	0.1	5.6	0.2	2.9



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	0	495	305	232	158	0
Future Volume (veh/h)	0	495	305	232	158	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	0	538	332	252	172	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0
Cap, veh/h	0	0	713	748	0	0
Arrive On Green	0.00	0.00	0.40	0.40	0.40	0.00
Sat Flow, veh/h	0		1781	1870	0	0
Grp Volume(v), veh/h	0.0		332	252	0	0
Grp Sat Flow(s),veh/h/ln			1781	1870	0	0
Q Serve(g_s), s			6.2	4.2	0.0	0.0
Cycle Q Clear(g_c), s			6.2	4.2	0.0	0.0
Prop In Lane			1.00		0.00	0.00
Lane Grp Cap(c), veh/h			713	748	0	0
V/C Ratio(X)			0.47	0.34	0.00	0.00
Avail Cap(c_a), veh/h			713	748	0	0
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh			10.0	9.4	0.0	0.0
Incr Delay (d2), s/veh			2.2	1.2	0.0	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			2.3	1.6	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh			12.1	10.6	0.0	0.0
LnGrp LOS			B	B		
Approach Vol, veh/h				584	0	
Approach Delay, s/veh				11.5	0.0	
Approach LOS				B		

Timer - Assigned Phs	6	8
Phs Duration (G+Y+Rc), s	22.5	22.5
Change Period (Y+Rc), s	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0
Max Q Clear Time (g_c+I1), s	8.2	0.0
Green Ext Time (p_c), s	1.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	11.5
HCM 6th LOS	B

LANE SUMMARY

Site: 1 [OY WP 2035 Phase 2 PM_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	158	0.0	158	0.0	1380	0.114	100	3.2	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	158	0.0	158	0.0		0.114		3.2	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	537	0.0	537	0.0	1175	0.457	100	7.8	LOS A	3.1	76.7	Full	1600	0.0	0.0
Approach	537	0.0	537	0.0		0.457		7.8	LOS A	3.1	76.7				
West: Hancock Street															
Lane 1[d]	495	0.0	495	0.0	1011	0.490	100	9.3	LOS A	3.2	80.9	Full	1600	0.0	0.0
Approach	495	0.0	495	0.0		0.490		9.3	LOS A	3.2	80.9				
All Vehicles	1190	0.0	1190	0.0		0.490		7.8	LOS A	3.2	80.9				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	158	158	0.0	1380	0.114	100	NA	NA
Approach	158	158	0.0		0.114			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	305	232	537	0.0	1175	0.457	100	NA	NA
Approach	305	232	537	0.0		0.457			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	495	495	0.0	1011	0.490	100	NA	NA
Approach	495	495	0.0		0.490			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1190	0.0	0.490

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	20.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	404	0	0	0	0	0	0	5	167	54	212
Future Vol, veh/h	67	404	0	0	0	0	0	0	5	167	54	212
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	439	0	0	0	0	0	0	5	182	59	230
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	22.3	8.6	18.3
HCM LOS	C	A	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	14%	39%
Vol Thru, %	0%	86%	12%
Vol Right, %	100%	0%	49%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	5	471	433
LT Vol	0	67	167
Through Vol	0	404	54
RT Vol	5	0	212
Lane Flow Rate	5	512	471
Geometry Grp	1	1	1
Degree of Util (X)	0.008	0.749	0.676
Departure Headway (Hd)	5.525	5.268	5.17
Convergence, Y/N	Yes	Yes	Yes
Cap	646	686	701
Service Time	3.577	3.295	3.201
HCM Lane V/C Ratio	0.008	0.746	0.672
HCM Control Delay	8.6	22.3	18.3
HCM Lane LOS	A	C	C
HCM 95th-tile Q	0	6.8	5.3

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	542	0	0	51	0
Future Vol, veh/h	23	542	0	0	51	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	589	0	0	55	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	11.1	8.9
HCM LOS	B	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	11%	0%	100%
Vol Thru, %	89%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	204	361	51
LT Vol	23	0	51
Through Vol	181	361	0
RT Vol	0	0	0
Lane Flow Rate	221	393	55
Geometry Grp	7	7	2
Degree of Util (X)	0.288	0.505	0.083
Departure Headway (Hd)	4.687	4.631	5.393
Convergence, Y/N	Yes	Yes	Yes
Cap	759	774	669
Service Time	2.455	2.398	3.393
HCM Lane V/C Ratio	0.291	0.508	0.082
HCM Control Delay	9.4	12.1	8.9
HCM Lane LOS	A	B	A
HCM 95th-tile Q	1.2	2.9	0.3

Intersection	
Intersection Delay, s/veh	21.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	327	384	28	64	14	0	0	90	11
Future Vol, veh/h	0	0	0	327	384	28	64	14	0	0	90	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	355	417	30	70	15	0	0	98	12
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	24.5	10.1	10
HCM LOS	C	B	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	82%	63%	0%	0%
Vol Thru, %	18%	37%	87%	89%
Vol Right, %	0%	0%	13%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	519	220	101
LT Vol	64	327	0	0
Through Vol	14	192	192	90
RT Vol	0	0	28	11
Lane Flow Rate	85	564	239	110
Geometry Grp	2	7	7	2
Degree of Util (X)	0.141	0.845	0.331	0.174
Departure Headway (Hd)	5.991	5.394	4.988	5.722
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	595	671	717	624
Service Time	4.063	3.152	2.746	3.788
HCM Lane V/C Ratio	0.143	0.841	0.333	0.176
HCM Control Delay	10.1	30.6	10.2	10
HCM Lane LOS	B	D	B	A
HCM 95th-tile Q	0.5	9.4	1.4	0.6

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	22	597	40	19	6	0	0	25	115
Future Vol, veh/h	0	0	0	22	597	40	19	6	0	0	25	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	24	649	43	21	7	0	0	27	125
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	12.5	9	9.2
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	76%	7%	0%	0%
Vol Thru, %	24%	93%	88%	18%
Vol Right, %	0%	0%	12%	82%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	321	339	140
LT Vol	19	22	0	0
Through Vol	6	299	299	25
RT Vol	0	0	40	115
Lane Flow Rate	27	348	368	152
Geometry Grp	2	7	7	2
Degree of Util (X)	0.043	0.485	0.5	0.207
Departure Headway (Hd)	5.73	5.015	4.897	4.902
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	624	718	736	732
Service Time	3.777	2.753	2.636	2.932
HCM Lane V/C Ratio	0.043	0.485	0.5	0.208
HCM Control Delay	9	12.4	12.5	9.2
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.1	2.7	2.8	0.8

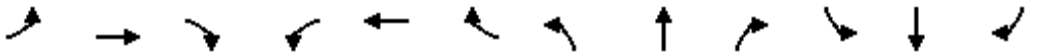
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	9	0	0	31	0	2203	11	0	2589	122
Future Vol, veh/h	0	0	9	0	0	31	0	2203	11	0	2589	122
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	5	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	10	0	0	34	0	2395	12	0	2814	133

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1481	-	-	1209	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	98	0	0	152	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	97	-	-	151	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46.2	35.6	0	0
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	97	151	-	-
HCM Lane V/C Ratio	-	-	0.101	0.223	-	-
HCM Control Delay (s)	-	-	46.2	35.6	-	-
HCM Lane LOS	-	-	E	E	-	-
HCM 95th %tile Q(veh)	-	-	0.3	0.8	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	69	183	72	130	2126	10	0	2209	367
Future Volume (veh/h)	0	0	0	69	183	72	130	2126	10	0	2209	367
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				75	199	78	141	2311	11	0	2401	399
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				91	248	101	159	4297	20	0	3597	1089
Arrive On Green				0.12	0.12	0.12	0.18	1.00	1.00	0.00	0.70	0.70
Sat Flow, veh/h				732	2001	815	1781	5245	25	0	5274	1545
Grp Volume(v), veh/h				188	0	164	141	1499	823	0	2401	399
Grp Sat Flow(s),veh/h/ln				1834	0	1714	1781	1702	1866	0	1702	1545
Q Serve(g_s), s				17.2	0.0	16.0	13.3	0.0	0.0	0.0	45.1	17.7
Cycle Q Clear(g_c), s				17.2	0.0	16.0	13.3	0.0	0.0	0.0	45.1	17.7
Prop In Lane				0.40		0.48	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				227	0	212	159	2789	1528	0	3597	1089
V/C Ratio(X)				0.83	0.00	0.77	0.89	0.54	0.54	0.00	0.67	0.37
Avail Cap(c_a), veh/h				374	0	350	275	2789	1528	0	3597	1089
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.67	0.67	0.67	0.00	1.00	1.00
Uniform Delay (d), s/veh				73.6	0.0	73.0	69.9	0.0	0.0	0.0	14.2	10.1
Incr Delay (d2), s/veh				3.1	0.0	2.3	5.6	0.5	0.9	0.0	1.0	1.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.3	0.0	7.2	5.8	0.2	0.4	0.0	16.6	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				76.6	0.0	75.3	75.4	0.5	0.9	0.0	15.2	11.1
LnGrp LOS				E	A	E	E	A	A	A	B	B
Approach Vol, veh/h					352			2463			2800	
Approach Delay, s/veh					76.0			4.9			14.6	
Approach LOS					E			A			B	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	145.8	26.2	19.7	126.1
Change Period (Y+Rc), s	4.9	4.9	4.4	4.9
Max Green Setting (Gmax), s	127.1	35.1	26.6	96.1
Max Q Clear Time (g_c+I1), s	2.0	19.2	15.3	47.1
Green Ext Time (p_c), s	8.7	0.7	0.0	10.8

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



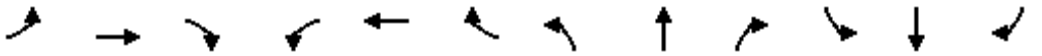
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	343	169	113	0	0	0	0	1923	33	54	2215	0
Future Volume (veh/h)	343	169	113	0	0	0	0	1923	33	54	2215	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	373	184	123				0	2090	36	59	2408	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	364	212	141				0	3473	60	74	4754	0
Arrive On Green	0.20	0.20	0.20				0.00	1.00	1.00	0.08	1.00	0.00
Sat Flow, veh/h	1781	1037	693				0	5338	89	1781	6696	0
Grp Volume(v), veh/h	373	0	307				0	1375	751	59	2408	0
Grp Sat Flow(s),veh/h/ln	1781	0	1730				0	1702	1854	1781	1609	0
Q Serve(g_s), s	35.1	0.0	29.5				0.0	0.0	0.0	5.6	0.0	0.0
Cycle Q Clear(g_c), s	35.1	0.0	29.5				0.0	0.0	0.0	5.6	0.0	0.0
Prop In Lane	1.00		0.40				0.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	364	0	353				0	2287	1246	74	4754	0
V/C Ratio(X)	1.03	0.00	0.87				0.00	0.60	0.60	0.80	0.51	0.00
Avail Cap(c_a), veh/h	364	0	353				0	2287	1246	162	4754	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.45	0.45	0.68	0.68	0.00
Uniform Delay (d), s/veh	68.4	0.0	66.2				0.0	0.0	0.0	78.1	0.0	0.0
Incr Delay (d2), s/veh	54.1	0.0	19.4				0.0	0.5	1.0	4.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.5	0.0	15.0				0.0	0.2	0.3	2.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	122.5	0.0	85.6				0.0	0.5	1.0	83.1	0.3	0.0
LnGrp LOS	F	A	F				A	A	A	F	A	A
Approach Vol, veh/h		680						2126			2467	
Approach Delay, s/veh		105.8						0.7			2.2	
Approach LOS		F						A			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	11.5	120.5		40.0		132.0						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	15.6	107.1		35.1		127.1						
Max Q Clear Time (g_c+I1), s	7.6	2.0		37.1		2.0						
Green Ext Time (p_c), s	0.0	6.6		0.0		10.6						

Intersection Summary	
HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	415	438	279	244	230	7	461	1550	498	0	1536	746
Future Volume (vph)	415	438	279	244	230	7	461	1550	498	0	1536	746
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.96			1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3350	1557	1610	3324		3662	4880			5085	1504
Flt Permitted	0.95	0.99	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3350	1557	1610	3324		3662	4880			5085	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	451	476	303	265	250	8	501	1685	541	0	1670	811
RTOR Reduction (vph)	0	0	201	0	1	0	0	30	0	0	0	300
Lane Group Flow (vph)	302	625	102	170	352	0	501	2196	0	0	1670	511
Confl. Peds. (#/hr)			1			45			3			21
Confl. Bikes (#/hr)			3			7						
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	37.5	37.5	37.5	22.4	22.4		28.9	94.4			60.1	60.1
Effective Green, g (s)	37.5	37.5	37.5	22.4	22.4		28.9	94.4			60.1	60.1
Actuated g/C Ratio	0.22	0.22	0.22	0.13	0.13		0.17	0.55			0.35	0.35
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	351	730	339	209	432		615	2678			1776	525
v/s Ratio Prot	c0.19	0.19		0.11	c0.11		0.14	c0.45			0.33	
v/s Ratio Perm			0.07									c0.34
v/c Ratio	0.86	0.86	0.30	0.81	0.82		0.81	0.82			0.94	0.97
Uniform Delay, d1	64.7	64.7	56.3	72.8	72.8		69.0	31.8			54.2	55.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.20	0.40			0.72	0.58
Incremental Delay, d2	18.3	9.4	0.2	20.0	10.7		4.2	1.6			10.0	30.5
Delay (s)	83.0	74.0	56.5	92.7	83.5		86.9	14.3			49.2	62.6
Level of Service	F	E	E	F	F		F	B			D	E
Approach Delay (s)		71.9			86.5			27.6			53.5	
Approach LOS		E			F			C			D	

Intersection Summary			
HCM 2000 Control Delay	49.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	87.8%	ICU Level of Service	E
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)	240	517	257	133	607	365	329	1826	93	358	1453	244
Future Volume (veh/h)	240	517	257	133	607	365	329	1826	93	358	1453	244
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.94	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	562	279	145	660	397	358	1985	101	389	1579	265
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	632	267	164	660	278	399	2081	105	665	2191	366
Arrive On Green	0.09	0.18	0.18	0.09	0.19	0.19	0.08	0.28	0.28	0.19	0.50	0.50
Sat Flow, veh/h	3456	3554	1504	1781	3554	1497	3456	4965	252	3456	4391	734
Grp Volume(v), veh/h	261	562	279	145	660	397	358	1359	727	389	1223	621
Grp Sat Flow(s),veh/h/ln	1728	1777	1504	1781	1777	1497	1728	1702	1812	1728	1702	1721
Q Serve(g_s), s	12.8	26.6	24.3	13.8	31.9	22.0	17.7	67.4	67.9	17.6	48.3	48.7
Cycle Q Clear(g_c), s	12.8	26.6	24.3	13.8	31.9	22.0	17.7	67.4	67.9	17.6	48.3	48.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.43
Lane Grp Cap(c), veh/h	300	632	267	164	660	278	399	1427	760	665	1698	858
V/C Ratio(X)	0.87	0.89	1.04	0.88	1.00	1.43	0.90	0.95	0.96	0.59	0.72	0.72
Avail Cap(c_a), veh/h	434	684	289	193	660	278	675	1427	760	665	1698	858
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	77.6	69.1	44.5	77.2	70.0	33.1	78.3	60.2	60.3	63.2	33.7	33.8
Incr Delay (d2), s/veh	8.2	11.1	61.8	29.2	34.9	212.1	3.4	11.2	18.5	0.9	1.3	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	13.1	13.7	7.7	17.7	24.5	8.2	32.0	35.9	7.8	19.9	20.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.7	80.2	106.3	106.4	104.9	245.2	81.7	71.4	78.8	64.1	35.0	36.4
LnGrp LOS	F	F	F	F	F	F	F	E	E	E	D	D
Approach Vol, veh/h		1102			1202			2444			2233	
Approach Delay, s/veh		88.1			151.4			75.1			40.5	
Approach LOS		F			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.8	77.0	20.7	35.5	24.3	91.5	19.4	36.9
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	19.6	69.9	15.8	28.6	19.7	50.7	14.8	33.9
Green Ext Time (p_c), s	0.2	1.4	0.0	0.9	0.2	4.7	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	79.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	11	6	101	17	106	9	2083	34	99	1589	37
Future Volume (veh/h)	45	11	6	101	17	106	9	2083	34	99	1589	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	12	7	110	18	115	10	2264	37	108	1727	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	37	18	145	21	122	20	3489	57	127	3770	87
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.01	0.67	0.67	0.07	0.73	0.73
Sat Flow, veh/h	727	223	109	687	128	732	1781	5173	84	1781	5131	119
Grp Volume(v), veh/h	68	0	0	243	0	0	10	1488	813	108	1146	621
Grp Sat Flow(s),veh/h/ln	1059	0	0	1547	0	0	1781	1702	1853	1781	1702	1845
Q Serve(g_s), s	0.0	0.0	0.0	17.0	0.0	0.0	1.0	43.5	43.7	10.3	23.1	23.2
Cycle Q Clear(g_c), s	9.7	0.0	0.0	26.6	0.0	0.0	1.0	43.5	43.7	10.3	23.1	23.2
Prop In Lane	0.72		0.10	0.45		0.47	1.00		0.05	1.00		0.06
Lane Grp Cap(c), veh/h	213	0	0	289	0	0	20	2296	1250	127	2501	1356
V/C Ratio(X)	0.32	0.00	0.00	0.84	0.00	0.00	0.51	0.65	0.65	0.85	0.46	0.46
Avail Cap(c_a), veh/h	224	0	0	301	0	0	162	2296	1250	369	2501	1356
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.46	0.46	0.46	0.53	0.53	0.53
Uniform Delay (d), s/veh	63.4	0.0	0.0	70.5	0.0	0.0	84.6	16.2	16.2	79.0	9.1	9.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	17.2	0.0	0.0	3.4	0.7	1.2	3.2	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	12.1	0.0	0.0	0.5	16.4	18.1	4.8	8.2	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.8	0.0	0.0	87.7	0.0	0.0	88.0	16.9	17.5	82.2	9.4	9.7
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		68			243			2311			1875	
Approach Delay, s/veh		63.8			87.7			17.4			13.7	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.7	121.7		33.6	6.3	132.1		33.6
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	12.3	45.7		11.7	3.0	25.2		28.6
Green Ext Time (p_c), s	0.0	7.6		0.1	0.0	4.8		0.1

Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	269	15	563	341	179	22	1739	767	144	1303	319
Future Volume (veh/h)	242	269	15	563	341	179	22	1739	767	144	1303	319
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.98
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	263	292	16	612	371	195	24	1890	834	157	1416	347
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	324	18	615	394	326	35	2392	729	195	1794	783
Arrive On Green	0.15	0.18	0.18	0.18	0.21	0.21	0.02	0.47	0.47	0.11	1.00	1.00
Sat Flow, veh/h	1781	1755	96	3456	1870	1549	1781	5106	1557	3456	3554	1551
Grp Volume(v), veh/h	263	0	308	612	371	195	24	1890	834	157	1416	347
Grp Sat Flow(s),veh/h/ln	1781	0	1851	1728	1870	1549	1781	1702	1557	1728	1777	1551
Q Serve(g_s), s	25.4	0.0	28.0	30.4	33.6	16.8	2.3	53.7	80.6	7.6	0.0	0.0
Cycle Q Clear(g_c), s	25.4	0.0	28.0	30.4	33.6	16.8	2.3	53.7	80.6	7.6	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	0	342	615	394	326	35	2392	729	195	1794	783
V/C Ratio(X)	0.99	0.00	0.90	1.00	0.94	0.60	0.68	0.79	1.14	0.81	0.79	0.44
Avail Cap(c_a), veh/h	265	0	442	615	501	415	120	2392	729	434	1794	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	73.1	0.0	68.6	70.6	66.8	45.3	83.8	38.6	45.7	75.4	0.0	0.0
Incr Delay (d2), s/veh	52.9	0.0	15.7	35.1	21.2	0.7	8.2	2.8	80.3	2.6	3.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	0.0	14.8	16.4	18.2	6.5	1.1	22.7	46.5	3.3	0.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	126.0	0.0	84.3	105.7	88.1	46.0	91.9	41.3	126.0	78.0	3.2	1.6
LnGrp LOS	F	A	F	F	F	D	F	D	F	E	A	A
Approach Vol, veh/h		571			1178			2748			1920	
Approach Delay, s/veh		103.5			90.3			67.5			9.0	
Approach LOS		F			F			E			A	

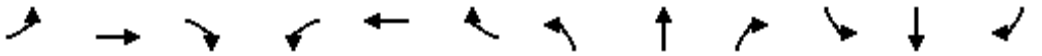
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	86.3	35.0	36.6	7.8	92.6	30.5	41.1
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	9.6	82.6	32.4	30.0	4.3	2.0	27.4	35.6
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	4.3	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	57.4
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	192	4	130	0	140	0	744	322	66	322	0
Future Volume (vph)	79	192	4	130	0	140	0	744	322	66	322	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.96		0.93		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	1.00		1.00		0.85		0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1857		1770		1512		3155		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.11	1.00	
Satd. Flow (perm)	1770	1857		1770		1512		3155		209	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	209	4	141	0	152	0	809	350	72	350	0
RTOR Reduction (vph)	0	1	0	0	0	132	0	42	0	0	0	0
Lane Group Flow (vph)	86	212	0	141	0	20	0	1117	0	72	350	0
Confl. Peds. (#/hr)			3			15			94			11
Confl. Bikes (#/hr)									12			9
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	14.0	14.0		12.3		12.3		41.8		51.0	51.0	
Effective Green, g (s)	14.0	14.0		12.3		12.3		41.8		51.0	51.0	
Actuated g/C Ratio	0.15	0.15		0.13		0.13		0.46		0.56	0.56	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	270	284		237		203		1441		198	1972	
v/s Ratio Prot	0.05	c0.11		c0.08				c0.35		c0.02	0.10	
v/s Ratio Perm						0.01				0.18		
v/c Ratio	0.32	0.75		0.59		0.10		0.78		0.36	0.18	
Uniform Delay, d1	34.5	37.1		37.3		34.7		20.9		13.4	9.9	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.2	9.0		2.7		0.1		4.1		0.4	0.2	
Delay (s)	34.8	46.1		39.9		34.8		25.0		13.8	10.1	
Level of Service	C	D		D		C		C		B	B	
Approach Delay (s)		42.8			37.3			25.0			10.8	
Approach LOS		D			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	23.1
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

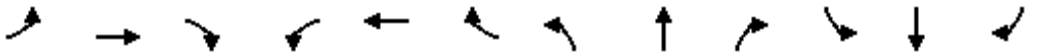
Intersection	
Int Delay, s/veh	1.2

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	178	764	404	106	0	0
Future Vol, veh/h	178	764	404	106	0	0
Conflicting Peds, #/hr	0	0	0	23	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	193	830	439	115	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	577	0	-	0	1321	300
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	801	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	993	-	-	-	148	696
Stage 1	-	-	-	-	561	-
Stage 2	-	-	-	-	402	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	971	-	-	-	113	681
Mov Cap-2 Maneuver	-	-	-	-	241	-
Stage 1	-	-	-	-	439	-
Stage 2	-	-	-	-	393	-

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

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	971	-	-	-	-
HCM Lane V/C Ratio	0.199	-	-	-	-
HCM Control Delay (s)	9.6	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	606	106	399	313	78	154	169	510	77	373	93
Future Volume (veh/h)	98	606	106	399	313	78	154	169	510	77	373	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.86	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	107	659	115	434	340	85	167	184	554	84	405	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1317	572	533	626	458	205	950	1146	146	691	291
Arrive On Green	0.08	0.26	0.26	0.15	0.33	0.33	0.12	0.27	0.27	0.04	0.19	0.19
Sat Flow, veh/h	1781	5106	1509	3456	1870	1369	1781	3554	2675	3456	3554	1499
Grp Volume(v), veh/h	107	659	115	434	340	85	167	184	554	84	405	101
Grp Sat Flow(s),veh/h/ln	1781	1702	1509	1728	1870	1369	1781	1777	1337	1728	1777	1499
Q Serve(g_s), s	5.0	9.2	4.3	10.2	12.4	3.7	7.7	3.4	12.7	2.0	8.7	4.9
Cycle Q Clear(g_c), s	5.0	9.2	4.3	10.2	12.4	3.7	7.7	3.4	12.7	2.0	8.7	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	1317	572	533	626	458	205	950	1146	146	691	291
V/C Ratio(X)	0.78	0.50	0.20	0.81	0.54	0.19	0.81	0.19	0.48	0.58	0.59	0.35
Avail Cap(c_a), veh/h	636	2429	900	1233	890	651	636	1691	1703	1233	1691	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	26.6	17.9	34.4	22.7	19.8	36.3	23.8	17.7	39.5	30.8	29.3
Incr Delay (d2), s/veh	3.5	0.4	0.2	1.2	0.4	0.1	3.0	0.1	0.3	1.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.7	1.4	4.2	5.2	1.1	3.3	1.3	3.5	0.8	3.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	26.9	18.1	35.5	23.1	19.9	39.3	23.9	18.0	40.9	31.1	29.5
LnGrp LOS	D	C	B	D	C	B	D	C	B	D	C	C
Approach Vol, veh/h		881			859			905			590	
Approach Delay, s/veh		27.6			29.1			23.2			32.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	27.6	15.1	23.0	11.9	34.1	8.9	29.2
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	12.2	11.2	9.7	10.7	7.0	14.4	4.0	14.7
Green Ext Time (p_c), s	0.8	6.6	0.2	1.7	0.1	1.6	0.1	3.5

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

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	44.4

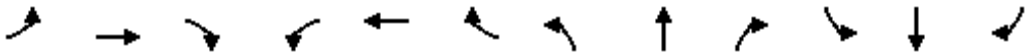
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	539	275	676	869	15
Future Vol, veh/h	0	539	275	676	869	15
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
Veh in Median Storage, #	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	0	586	299	735	945	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	485	965	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	~ 452	407	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	~ 450	405	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	177.4	10.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	405	-	450	-	-
HCM Lane V/C Ratio	0.738	-	1.302	-	-
HCM Control Delay (s)	35.1	-	177.4	-	-
HCM Lane LOS	E	-	F	-	-
HCM 95th %tile Q(veh)	5.9	-	25.6	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	7	75	42	21	65	234	1186	14	28	1320	108
Future Volume (veh/h)	63	7	75	42	21	65	234	1186	14	28	1320	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	8	82	46	23	71	254	1289	15	30	1435	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	462	371	59	452	383	262	1931	841	38	1388	113
Arrive On Green	0.05	0.25	0.25	0.03	0.24	0.24	0.15	0.54	0.54	0.02	0.42	0.42
Sat Flow, veh/h	1781	1870	1504	1781	1870	1585	1781	3554	1548	1781	3322	269
Grp Volume(v), veh/h	68	8	82	46	23	71	254	1289	15	30	764	788
Grp Sat Flow(s),veh/h/ln	1781	1870	1504	1781	1870	1585	1781	1777	1548	1781	1777	1814
Q Serve(g_s), s	5.7	0.5	6.6	3.9	1.4	5.4	21.4	39.2	0.7	2.5	63.1	63.1
Cycle Q Clear(g_c), s	5.7	0.5	6.6	3.9	1.4	5.4	21.4	39.2	0.7	2.5	63.1	63.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	80	462	371	59	452	383	262	1931	841	38	743	758
V/C Ratio(X)	0.85	0.02	0.22	0.78	0.05	0.19	0.97	0.67	0.02	0.78	1.03	1.04
Avail Cap(c_a), veh/h	80	462	371	113	452	383	262	1931	841	80	743	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.6	43.0	45.3	72.4	44.0	45.4	64.1	24.7	15.9	73.5	43.9	44.0
Incr Delay (d2), s/veh	54.8	0.1	1.4	7.8	0.2	1.1	46.9	0.7	0.0	12.1	40.6	43.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.2	2.5	1.9	0.7	2.2	12.8	15.5	0.2	1.3	35.0	36.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	126.4	43.1	46.7	80.3	44.2	46.5	111.0	25.4	15.9	85.7	84.5	87.4
LnGrp LOS	F	D	D	F	D	D	F	C	B	F	F	F
Approach Vol, veh/h		158			140			1558			1582	
Approach Delay, s/veh		80.8			57.2			39.3			86.0	
Approach LOS		F			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	46.0	26.6	68.0	11.2	45.2	7.6	87.0
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	9.6	31.7	22.2	63.1	6.8	* 37	6.8	78.5
Max Q Clear Time (g_c+I1), s	5.9	8.6	23.4	65.1	7.7	7.4	4.5	41.2
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	0.8	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	63.4
HCM 6th LOS	E

Notes

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

User approved ignoring U-Turning movement.

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

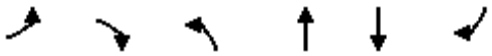
Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1107	1223	10	0	296
Future Vol, veh/h	0	1107	1223	10	0	296
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	1203	1329	11	0	322

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	668
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	401
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	400
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	42.1
HCM LOS			E

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	400
HCM Lane V/C Ratio	-	-	0.804
HCM Control Delay (s)	-	-	42.1
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	7.1



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	966	123	0	1375	1175	1233
Future Volume (vph)	966	123	0	1375	1175	1233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.95		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1501		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1501		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1050	134	0	1495	1277	1340
RTOR Reduction (vph)	0	53	0	0	0	0
Lane Group Flow (vph)	1050	81	0	1495	1277	1340
Confl. Peds. (#/hr)		32				2
Confl. Bikes (#/hr)		1				1
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	39.8	39.8		69.6	69.6	165.0
Effective Green, g (s)	39.8	39.8		69.6	69.6	154.2
Actuated g/C Ratio	0.24	0.24		0.42	0.42	0.93
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	828	362		1492	1492	1479
v/s Ratio Prot	c0.31			c0.42	0.36	c0.85
v/s Ratio Perm		0.05				
v/c Ratio	1.27	0.22		1.00	0.86	0.91
Uniform Delay, d1	62.6	50.2		47.7	43.2	2.3
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	130.2	0.2		23.8	5.0	8.2
Delay (s)	192.8	50.4		71.5	48.2	10.6
Level of Service	F	D		E	D	B
Approach Delay (s)	176.7			71.5	28.9	
Approach LOS	F			E	C	

Intersection Summary			
HCM 2000 Control Delay	74.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	165.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	1314	476	147	1514
Future Volume (veh/h)	0	1	1314	476	147	1514
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1428	517	160	1646
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	5	2389	1045	259	2889
Arrive On Green	0.00	0.00	0.67	0.67	0.07	0.81
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	1428	517	160	1646
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	14.7	10.9	3.0	10.8
Cycle Q Clear(g_c), s	0.0	0.0	14.7	10.9	3.0	10.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	5	2389	1045	259	2889
V/C Ratio(X)	0.00	0.21	0.60	0.49	0.62	0.57
Avail Cap(c_a), veh/h	1068	1900	3195	1397	1553	3195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	33.3	6.0	5.3	29.9	2.2
Incr Delay (d2), s/veh	0.0	7.9	0.3	0.5	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.9	2.6	1.2	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	41.2	6.3	5.9	30.8	2.6
LnGrp LOS	A	D	A	A	C	A
Approach Vol, veh/h	1		1945			1806
Approach Delay, s/veh	41.2		6.2			5.1
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.4	51.1			60.5	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	5.0	16.7			12.8	2.0
Green Ext Time (p_c), s	0.3	28.2			36.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	107	193	97	52	155	74	1076	174	215	1357	186
Future Volume (veh/h)	169	107	193	97	52	155	74	1076	174	215	1357	186
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	184	116	210	105	57	168	80	1170	189	234	1475	202
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	300	245	131	303	249	131	1603	816	264	1995	992
Arrive On Green	0.07	0.16	0.16	0.07	0.16	0.16	0.04	0.45	0.45	0.15	0.56	0.56
Sat Flow, veh/h	3456	1870	1526	1781	1870	1535	3456	3554	1550	1781	3554	1565
Grp Volume(v), veh/h	184	116	210	105	57	168	80	1170	189	234	1475	202
Grp Sat Flow(s),veh/h/ln	1728	1870	1526	1781	1870	1535	1728	1777	1550	1781	1777	1565
Q Serve(g_s), s	6.1	6.5	15.7	6.8	3.1	12.1	2.7	31.6	7.7	15.1	36.5	6.4
Cycle Q Clear(g_c), s	6.1	6.5	15.7	6.8	3.1	12.1	2.7	31.6	7.7	15.1	36.5	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	300	245	131	303	249	131	1603	816	264	1995	992
V/C Ratio(X)	0.74	0.39	0.86	0.80	0.19	0.68	0.61	0.73	0.23	0.89	0.74	0.20
Avail Cap(c_a), veh/h	883	478	390	455	478	392	883	2120	1041	455	2120	1047
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.4	44.1	48.0	53.5	42.5	46.3	55.6	26.4	15.1	49.0	19.3	9.1
Incr Delay (d2), s/veh	1.7	0.8	10.6	4.3	0.1	1.2	1.7	1.3	0.2	5.1	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	3.1	6.5	3.1	1.4	4.6	1.2	13.4	2.6	7.1	14.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	44.9	58.5	57.8	42.6	47.5	57.3	27.6	15.3	54.2	20.8	9.2
LnGrp LOS	E	D	E	E	D	D	E	C	B	D	C	A
Approach Vol, veh/h		510			330			1439			1911	
Approach Delay, s/veh		54.2			49.9			27.7			23.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.8	58.2	13.0	24.3	8.8	71.2	12.8	24.5
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	17.1	33.6	8.8	17.7	4.7	38.5	8.1	14.1
Green Ext Time (p_c), s	0.3	19.3	0.1	1.1	0.1	21.6	0.3	0.4

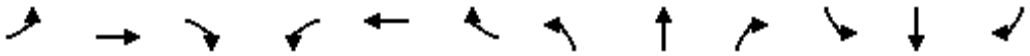
Intersection Summary	
HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1101	297	288	705	0	0	0	0	223	0	0
Future Volume (vph)	0	1101	297	288	705	0	0	0	0	223	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						5.1	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.98	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1553	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1553	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1197	323	313	766	0	0	0	0	242	0	0
RTOR Reduction (vph)	0	0	184	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1197	139	313	766	0	0	0	0	0	242	0
Confl. Peds. (#/hr)			4									
Confl. Bikes (#/hr)			3			2						
Turn Type		NA	Perm	Prot	NA					Split	NA	
Protected Phases		2 3		1	6 3					4	4	
Permitted Phases			2 3									
Actuated Green, G (s)		46.9	46.9	17.3	68.9						19.5	
Effective Green, g (s)		42.9	42.9	17.3	64.9						19.5	
Actuated g/C Ratio		0.43	0.43	0.17	0.65						0.20	
Clearance Time (s)				4.7							5.1	
Vehicle Extension (s)				2.0							2.0	
Lane Grp Cap (vph)		1518	666	593	2296						345	
v/s Ratio Prot		c0.34		c0.09	0.22						c0.14	
v/s Ratio Perm			0.09									
v/c Ratio		0.79	0.21	0.53	0.33						0.70	
Uniform Delay, d1		24.6	17.9	37.6	7.9						37.5	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		2.8	0.2	0.4	0.1						5.2	
Delay (s)		27.4	18.1	38.0	7.9						42.7	
Level of Service		C	B	D	A						D	
Approach Delay (s)		25.4			16.7			0.0			42.7	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	374	234	0	16	78	76
Future Vol, veh/h	374	234	0	16	78	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	407	254	0	17	85	83

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	661	0	551	534
Stage 1	-	-	-	-	534	-
Stage 2	-	-	-	-	17	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	927	-	495	546
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	1006	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	927	-	495	546
Mov Cap-2 Maneuver	-	-	-	-	495	-
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	1006	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	495	546	-	-	927	-
HCM Lane V/C Ratio	0.171	0.151	-	-	-	-
HCM Control Delay (s)	13.8	12.8	-	-	0	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	397	0	37	0	5	81
Future Vol, veh/h	397	0	37	0	5	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	432	0	40	0	5	88

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	432	0	512	432
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1128	-	522	624
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	943	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1128	-	504	624
Mov Cap-2 Maneuver	-	-	-	-	504	-
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	910	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.3	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	504	624	-	-	1128	-
HCM Lane V/C Ratio	0.011	0.141	-	-	0.036	-
HCM Control Delay (s)	12.2	11.7	-	-	8.3	0
HCM Lane LOS	B	B	-	-	A	A
HCM 95th %tile Q(veh)	0	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	472	44	74	137	0	0
Future Vol, veh/h	472	44	74	137	0	0
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	513	48	80	149	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	561	0	846	537
Stage 1	-	-	-	-	537	-
Stage 2	-	-	-	-	309	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1010	-	333	544
Stage 1	-	-	-	-	586	-
Stage 2	-	-	-	-	745	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1010	-	304	544
Mov Cap-2 Maneuver	-	-	-	-	304	-
Stage 1	-	-	-	-	586	-
Stage 2	-	-	-	-	681	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1010	-
HCM Lane V/C Ratio	-	-	-	0.08	-
HCM Control Delay (s)	0	-	-	8.9	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	350	123	0	5	11	12
Future Vol, veh/h	350	123	0	5	11	12
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	380	134	0	5	12	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	514	0	452	447
Stage 1	-	-	-	-	447	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1052	-	565	612
Stage 1	-	-	-	-	644	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1052	-	565	612
Mov Cap-2 Maneuver	-	-	-	-	565	-
Stage 1	-	-	-	-	644	-
Stage 2	-	-	-	-	1018	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	589	-	-	1052	-
HCM Lane V/C Ratio	0.042	-	-	-	-
HCM Control Delay (s)	11.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1090	897	200	0	38
Future Vol, veh/h	0	1090	897	200	0	38
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	0	1185	975	217	0	41

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	596
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	383
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	383
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	383
HCM Lane V/C Ratio	-	-	-	0.108
HCM Control Delay (s)	-	-	-	15.5
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	923	1016	99	0	23
Future Vol, veh/h	0	923	1016	99	0	23
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	0	1003	1104	108	0	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	606
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	377
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	377
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	377
HCM Lane V/C Ratio	-	-	-	0.066
HCM Control Delay (s)	-	-	-	15.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	609	180	0	94	77	0
Future Vol, veh/h	609	180	0	94	77	0
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	662	196	0	102	84	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	862	760
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	102	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	325	406
Stage 1	-	-	0	-	462	-
Stage 2	-	-	0	-	922	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	325	406
Mov Cap-2 Maneuver	-	-	-	-	325	-
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	922	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	325	-	-	-
HCM Lane V/C Ratio	0.258	-	-	-
HCM Control Delay (s)	19.9	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	1	-	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	477	0	100	37	0	39
Future Vol, veh/h	477	0	100	37	0	39
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	518	0	109	40	0	42

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	518	0	776	518
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	258	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1048	-	366	558
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	785	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1048	-	327	558
Mov Cap-2 Maneuver	-	-	-	-	327	-
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	702	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.4	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	558	-	-	1048	-
HCM Lane V/C Ratio	0.076	-	-	0.104	-
HCM Control Delay (s)	12	-	-	8.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1123	1342	513	0	0	2138
Future Volume (vph)	1123	1342	513	0	0	2138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1221	1459	558	0	0	2324
RTOR Reduction (vph)	0	145	0	0	0	0
Lane Group Flow (vph)	1221	1314	558	0	0	2324
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)				2		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.2	57.8	24.4			47.0
Effective Green, g (s)	35.2	57.8	24.4			47.0
Actuated g/C Ratio	0.36	0.59	0.25			0.48
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1243	1657	1276			3098
v/s Ratio Prot	c0.36	0.47	0.11			c0.36
v/s Ratio Perm						
v/c Ratio	0.98	0.79	0.44			0.75
Uniform Delay, d1	30.7	15.1	30.6			20.3
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	21.2	2.5	0.1			0.9
Delay (s)	51.9	17.6	30.7			21.3
Level of Service	D	B	C			C
Approach Delay (s)	33.2		30.7			21.3
Approach LOS	C		C			C

Intersection Summary			
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	97.2	Sum of lost time (s)	22.5
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
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)	297	510	235	26	354	519	242	454	22	965	466	227
Future Volume (veh/h)	297	510	235	26	354	519	242	454	22	965	466	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	323	554	255	28	385	0	252	508	0	1049	507	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	435	457	731	271	541		402	844		910	478	
Arrive On Green	0.24	0.24	0.24	0.15	0.15	0.00	0.07	0.07	0.00	0.26	0.26	0.00
Sat Flow, veh/h	1781	1870	1529	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	323	554	255	28	385	0	252	508	0	1049	507	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1529	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	26.8	39.1	17.0	2.2	16.5	0.0	22.0	21.1	0.0	40.8	40.8	0.0
Cycle Q Clear(g_c), s	26.8	39.1	17.0	2.2	16.5	0.0	22.0	21.1	0.0	40.8	40.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	435	457	731	271	541		402	844		910	478	
V/C Ratio(X)	0.74	1.21	0.35	0.10	0.71		0.63	0.60		1.15	1.06	
Avail Cap(c_a), veh/h	435	457	731	357	713		402	844		910	478	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.00	0.88	0.88	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.8	60.5	27.0	58.4	64.5	0.0	67.5	67.1	0.0	59.6	59.6	0.0
Incr Delay (d2), s/veh	8.8	114.2	0.8	0.5	5.3	0.0	6.4	2.8	0.0	81.6	58.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	32.8	9.4	1.0	7.9	0.0	11.3	11.0	0.0	28.8	27.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	174.7	27.8	58.9	69.8	0.0	73.9	69.9	0.0	141.2	118.1	0.0
LnGrp LOS	E	F	C	E	E		E	E		F	F	
Approach Vol, veh/h		1132			413			760			1556	
Approach Delay, s/veh		110.2			69.0			71.2			133.7	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	44.0	45.7	29.3	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	41.1	42.8	18.5	24.0
Green Ext Time (p_c), s	0.0	0.0	4.4	2.9

Intersection Summary	
HCM 6th Ctrl Delay	107.6
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	1119	3	0	669	178	0	0	0	74	1	231
Future Volume (veh/h)	374	1119	3	0	669	178	0	0	0	74	1	231
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.94				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	407	1216	3	0	727	193				80	1	251
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	437	1788	4	101	1221	319				556	7	494
Arrive On Green	0.25	0.49	0.49	0.00	0.61	0.61				0.32	0.32	0.32
Sat Flow, veh/h	1781	3636	9	1781	3975	1038				1760	22	1564
Grp Volume(v), veh/h	407	594	625	0	621	299				81	0	251
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1702	1609				1782	0	1564
Q Serve(g_s), s	24.1	27.6	27.6	0.0	12.0	12.3				3.5	0.0	14.1
Cycle Q Clear(g_c), s	24.1	27.6	27.6	0.0	12.0	12.3				3.5	0.0	14.1
Prop In Lane	1.00		0.00	1.00		0.65				0.99		1.00
Lane Grp Cap(c), veh/h	437	874	919	101	1046	494				563	0	494
V/C Ratio(X)	0.93	0.68	0.68	0.00	0.59	0.61				0.14	0.00	0.51
Avail Cap(c_a), veh/h	538	874	919	109	1046	494				563	0	494
HCM Platoon Ratio	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	0.00	0.85	0.85				1.00	0.00	1.00
Uniform Delay (d), s/veh	39.8	21.0	21.0	0.0	16.7	16.8				26.5	0.0	30.1
Incr Delay (d2), s/veh	2.5	0.4	0.4	0.0	2.1	4.6				0.5	0.0	3.7
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	10.6	10.9	11.5	0.0	3.7	3.9				1.6	0.0	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	21.4	21.3	0.0	18.8	21.4				27.0	0.0	33.8
LnGrp LOS	D	C	C	A	B	C				C	A	C
Approach Vol, veh/h		1626			920						332	
Approach Delay, s/veh		26.6			19.7						32.2	
Approach LOS		C			B						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	30.9	38.1
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I1), s	10.0	29.6		16.1	26.1	14.3
Green Ext Time (p_c), s	0.0	10.4		0.7	0.4	5.6

Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	760	109	109	647	3	147	200	122	88	38	50
Future Volume (veh/h)	320	760	109	109	647	3	147	200	122	88	38	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	1.00		0.84	1.00		0.75	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	348	826	118	118	703	3	160	217	133	96	41	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	1922	272	145	1797	8	414	222	136	135	56	73
Arrive On Green	0.17	0.43	0.43	0.08	0.34	0.34	0.23	0.23	0.23	0.08	0.08	0.08
Sat Flow, veh/h	1781	4435	627	1781	5243	22	1781	954	584	1781	732	964
Grp Volume(v), veh/h	348	632	312	118	456	250	160	0	350	96	0	95
Grp Sat Flow(s),veh/h/ln	1781	1702	1658	1781	1702	1861	1781	0	1538	1781	0	1697
Q Serve(g_s), s	18.6	13.9	14.2	7.0	11.0	11.0	8.2	0.0	24.4	5.7	0.0	5.9
Cycle Q Clear(g_c), s	18.6	13.9	14.2	7.0	11.0	11.0	8.2	0.0	24.4	5.7	0.0	5.9
Prop In Lane	1.00		0.38	1.00		0.01	1.00		0.38	1.00		0.57
Lane Grp Cap(c), veh/h	307	1475	719	145	1166	638	414	0	357	135	0	129
V/C Ratio(X)	1.13	0.43	0.43	0.81	0.39	0.39	0.39	0.00	0.98	0.71	0.00	0.74
Avail Cap(c_a), veh/h	307	1475	719	191	1166	638	414	0	357	282	0	269
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	1.00	0.77	0.00	0.77	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.7	21.3	21.4	48.8	26.9	26.9	35.0	0.0	41.2	48.7	0.0	48.9
Incr Delay (d2), s/veh	87.5	0.7	1.5	13.6	1.0	1.8	0.2	0.0	36.1	2.6	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	5.5	5.6	3.6	4.5	5.1	3.6	0.0	12.7	2.6	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	132.2	22.0	22.9	62.4	27.9	28.8	35.1	0.0	77.3	51.3	0.0	51.9
LnGrp LOS	F	C	C	E	C	C	D	A	E	D	A	D
Approach Vol, veh/h		1292			824			510			191	
Approach Delay, s/veh		51.9			33.1			64.1			51.6	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.0	41.9		30.0	13.2	51.7		13.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	18.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	20.6	13.0		26.4	9.0	16.2		7.9
Green Ext Time (p_c), s	0.0	6.2		0.0	0.0	9.7		0.3

Intersection Summary	
HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	598	83	85	711	149	107	44	77	21	36	170
Future Volume (veh/h)	311	598	83	85	711	149	107	44	77	21	36	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.56	1.00		0.88	1.00		0.82	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	338	650	90	92	773	162	116	48	84	23	39	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1030	134	116	1081	223	432	179	545	283	44	210
Arrive On Green	0.05	0.25	0.25	0.07	0.26	0.26	0.34	0.34	0.34	0.16	0.16	0.16
Sat Flow, veh/h	1781	4139	536	1781	4128	851	1278	529	1306	1781	278	1319
Grp Volume(v), veh/h	338	527	213	92	635	300	164	0	84	23	0	224
Grp Sat Flow(s),veh/h/ln	1781	1702	1272	1781	1702	1575	1806	0	1306	1781	0	1598
Q Serve(g_s), s	5.3	13.9	15.3	5.2	17.1	17.6	6.7	0.0	4.1	1.1	0.0	13.9
Cycle Q Clear(g_c), s	5.3	13.9	15.3	5.2	17.1	17.6	6.7	0.0	4.1	1.1	0.0	13.9
Prop In Lane	1.00		0.42	1.00		0.54	0.71		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	93	847	316	116	892	412	611	0	545	283	0	254
V/C Ratio(X)	3.62	0.62	0.67	0.79	0.71	0.73	0.27	0.00	0.15	0.08	0.00	0.88
Avail Cap(c_a), veh/h	93	847	316	134	892	412	643	0	568	319	0	286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.9	33.8	34.3	46.6	33.9	34.0	24.4	0.0	19.2	36.3	0.0	41.6
Incr Delay (d2), s/veh	1206.2	3.4	10.9	20.3	4.8	10.7	0.1	0.0	0.0	0.0	0.0	22.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.6	6.0	5.6	2.9	7.5	7.8	2.8	0.0	1.3	0.5	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1254.1	37.2	45.2	66.9	38.7	44.7	24.5	0.0	19.3	36.3	0.0	64.2
LnGrp LOS	F	D	D	E	D	D	C	A	B	D	A	E
Approach Vol, veh/h		1078			1027			248			247	
Approach Delay, s/veh		420.3			43.0			22.7			61.6	
Approach LOS		F			D			C			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	30.1		21.0	9.7	31.4		39.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	17.2	17.3		15.9	7.3	19.6		8.7
Green Ext Time (p_c), s	0.0	3.1		0.2	0.0	2.5		0.8

Intersection Summary	
HCM 6th Ctrl Delay	199.3
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	665	65	148	878	0	137
Future Vol, veh/h	665	65	148	878	0	137
Conflicting Peds, #/hr	0	80	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	723	71	161	954	0	149

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	874	0	-	480
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	450	-	0	455
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	416	-	-	419
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.7	18.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	419	-	-	416	-
HCM Lane V/C Ratio	0.355	-	-	0.387	-
HCM Control Delay (s)	18.3	-	-	19	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	1.6	-	-	1.8	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	789	32	202	1001	74	159
Future Volume (veh/h)	789	32	202	1001	74	159
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.88	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	858	35	220	1088	80	173
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2993	122	253	3989	228	203
Arrive On Green	0.60	0.60	0.14	0.78	0.13	0.13
Sat Flow, veh/h	5170	203	1781	5274	1781	1585
Grp Volume(v), veh/h	583	310	220	1088	80	173
Grp Sat Flow(s),veh/h/ln	1702	1801	1781	1702	1781	1585
Q Serve(g_s), s	9.0	9.0	13.1	6.4	4.4	11.5
Cycle Q Clear(g_c), s	9.0	9.0	13.1	6.4	4.4	11.5
Prop In Lane		0.11	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2037	1078	253	3989	228	203
V/C Ratio(X)	0.29	0.29	0.87	0.27	0.35	0.85
Avail Cap(c_a), veh/h	2037	1078	785	3989	397	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.52	0.52	0.99	0.99
Uniform Delay (d), s/veh	10.5	10.5	45.4	3.3	43.0	46.1
Incr Delay (d2), s/veh	0.4	0.7	1.9	0.1	0.3	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.5	5.8	1.6	2.0	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.9	11.2	47.3	3.4	43.3	49.9
LnGrp LOS	B	B	D	A	D	D
Approach Vol, veh/h	893			1308	253	
Approach Delay, s/veh	11.0			10.8	47.8	
Approach LOS	B			B	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	19.7	69.5				89.3	18.7
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	47.6	22.1				74.1	24.1
Max Q Clear Time (g_c+I1), s	15.1	11.0				8.4	13.5
Green Ext Time (p_c), s	0.3	6.4				14.6	0.3

Intersection Summary	
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	473	136	134	397	250	140	170	124	67	106	68
Future Volume (veh/h)	84	473	136	134	397	250	140	170	124	67	106	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.94	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	514	148	146	432	272	152	185	135	73	115	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	566	1948	852	189	578	360	268	281	312	227	238	191
Arrive On Green	0.64	1.00	1.00	0.11	0.56	0.56	0.15	0.15	0.15	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1555	3456	2052	1277	1781	1870	1499	1781	1870	1499
Grp Volume(v), veh/h	91	514	148	146	373	331	152	185	135	73	115	74
Grp Sat Flow(s),veh/h/ln	1781	1777	1555	1728	1777	1553	1781	1870	1499	1781	1870	1499
Q Serve(g_s), s	3.3	0.0	0.0	6.6	25.3	25.9	12.7	14.9	12.6	6.0	9.1	7.2
Cycle Q Clear(g_c), s	3.3	0.0	0.0	6.6	25.3	25.9	12.7	14.9	12.6	6.0	9.1	7.2
Prop In Lane	1.00		1.00	1.00		0.82	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	566	1948	852	189	501	438	268	281	312	227	238	191
V/C Ratio(X)	0.16	0.26	0.17	0.77	0.75	0.76	0.57	0.66	0.43	0.32	0.48	0.39
Avail Cap(c_a), veh/h	566	1948	852	467	501	438	391	410	416	391	410	329
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.63	0.63	0.63	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	20.5	0.0	0.0	70.3	30.6	30.7	63.1	64.1	55.6	63.5	64.9	64.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.6	6.3	7.5	0.7	1.0	0.4	0.2	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	2.8	9.6	8.7	5.8	7.2	4.8	2.7	4.4	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	0.0	71.9	36.9	38.2	63.8	65.1	55.9	63.8	65.4	64.5
LnGrp LOS	C	A	A	E	D	D	E	E	E	E	E	E
Approach Vol, veh/h		753			850			472			262	
Approach Delay, s/veh		2.5			43.4			62.1			64.7	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.2	92.6		25.3	55.8	50.0		29.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	5.3	2.0		11.1	5.3	27.9		16.9
Green Ext Time (p_c), s	0.2	6.7		0.6	0.1	6.6		1.1

Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	747	12	10	831	354	5	0	5	129	9	53
Future Volume (veh/h)	43	747	12	10	831	354	5	0	5	129	9	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	0.95		0.98	0.99		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	812	13	11	903	385	5	0	5	140	10	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	1960	31	384	1258	531	242	21	195	318	33	106
Arrive On Green	0.03	0.55	0.55	0.01	0.53	0.53	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3577	57	1781	2390	1008	660	80	740	920	123	403
Grp Volume(v), veh/h	47	403	422	11	669	619	10	0	0	208	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1857	1781	1777	1621	1481	0	0	1446	0	0
Q Serve(g_s), s	1.0	10.6	10.6	0.2	22.9	23.4	0.0	0.0	0.0	8.8	0.0	0.0
Cycle Q Clear(g_c), s	1.0	10.6	10.6	0.2	22.9	23.4	0.3	0.0	0.0	9.8	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.62	0.50		0.50	0.67		0.28
Lane Grp Cap(c), veh/h	248	974	1018	384	935	853	458	0	0	457	0	0
V/C Ratio(X)	0.19	0.41	0.41	0.03	0.72	0.73	0.02	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	382	974	1018	557	935	853	458	0	0	457	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.53	0.53	0.53	1.00	0.00	0.00	0.60	0.00	0.00
Uniform Delay (d), s/veh	11.8	10.6	10.6	9.1	14.4	14.5	21.8	0.0	0.0	25.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.3	1.2	0.0	2.5	2.9	0.0	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.1	4.2	0.1	8.8	8.3	0.1	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	11.8	11.8	9.1	16.9	17.4	21.8	0.0	0.0	27.2	0.0	0.0
LnGrp LOS	B	B	B	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		872			1299			10			208	
Approach Delay, s/veh		11.8			17.1			21.8			27.2	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.3	48.7		26.0	7.0	47.0		26.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.2	12.6		11.8	3.0	25.4		2.3
Green Ext Time (p_c), s	0.0	6.0		0.5	0.0	6.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	31	16	321	228	33
Future Vol, veh/h	9	31	16	321	228	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	34	17	349	248	36
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.3	11.6	9.9
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	23%	0%
Vol Thru, %	0%	100%	0%	87%
Vol Right, %	0%	0%	78%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	321	40	261
LT Vol	16	0	9	0
Through Vol	0	321	0	228
RT Vol	0	0	31	33
Lane Flow Rate	17	349	43	284
Geometry Grp	7	7	2	5
Degree of Util (X)	0.026	0.471	0.06	0.352
Departure Headway (Hd)	5.36	4.858	4.977	4.468
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	672	747	719	806
Service Time	3.06	2.558	3.015	2.488
HCM Lane V/C Ratio	0.025	0.467	0.06	0.352
HCM Control Delay	8.2	11.8	8.3	9.9
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.1	2.5	0.2	1.6

LANE SUMMARY

Site: 1 [OY WP 2035 Phase 2 Pre-Event 14,500_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	92	0.0	92	0.0	1380	0.067	100	2.9	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	92	0.0	92	0.0		0.067		2.9	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	639	0.0	639	0.0	1256	0.509	100	8.0	LOS A	3.9	98.0	Full	1600	0.0	0.0
Approach	639	0.0	639	0.0		0.509		8.0	LOS A	3.9	98.0				
West: Hancock Street															
Lane 1[d]	362	0.0	362	0.0	880	0.411	100	8.9	LOS A	2.3	57.6	Full	1600	0.0	0.0
Approach	362	0.0	362	0.0		0.411		8.9	LOS A	2.3	57.6				
All Vehicles	1093	0.0	1093	0.0		0.509		7.9	LOS A	3.9	98.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	92	92	0.0	1380	0.067	100	NA	NA
Approach	92	92	0.0		0.067			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	441	198	639	0.0	1256	0.509	100	NA	NA
Approach	441	198	639	0.0		0.509			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	362	362	0.0	880	0.411	100	NA	NA	
Approach	362	362	0.0		0.411				

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1093	0.0	0.509

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	17.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	77	301	0	0	0	0	0	0	4	182	94	190
Future Vol, veh/h	77	301	0	0	0	0	0	0	4	182	94	190
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	327	0	0	0	0	0	0	4	198	102	207
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	16.3	8.3	18.7
HCM LOS	C	A	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	20%	39%
Vol Thru, %	0%	80%	20%
Vol Right, %	100%	0%	41%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	4	378	466
LT Vol	0	77	182
Through Vol	0	301	94
RT Vol	4	0	190
Lane Flow Rate	4	411	507
Geometry Grp	1	1	1
Degree of Util (X)	0.006	0.607	0.699
Departure Headway (Hd)	5.241	5.322	4.97
Convergence, Y/N	Yes	Yes	Yes
Cap	681	678	734
Service Time	3.283	3.35	2.97
HCM Lane V/C Ratio	0.006	0.606	0.691
HCM Control Delay	8.3	16.3	18.7
HCM Lane LOS	A	C	C
HCM 95th-tile Q	0	4.1	5.8

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	381	0	0	56	0
Future Vol, veh/h	36	381	0	0	56	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	414	0	0	61	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.6	8.6
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	22%	0%	100%
Vol Thru, %	78%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	163	254	56
LT Vol	36	0	56
Through Vol	127	254	0
RT Vol	0	0	0
Lane Flow Rate	177	276	61
Geometry Grp	7	7	2
Degree of Util (X)	0.234	0.356	0.087
Departure Headway (Hd)	4.751	4.641	5.119
Convergence, Y/N	Yes	Yes	Yes
Cap	749	770	704
Service Time	2.517	2.406	3.119
HCM Lane V/C Ratio	0.236	0.358	0.087
HCM Control Delay	9	10	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	1.6	0.3

Intersection	
Intersection Delay, s/veh	42.6
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	424	424	21	65	18	0	0	41	11
Future Vol, veh/h	0	0	0	424	424	21	65	18	0	0	41	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	461	461	23	71	20	0	0	45	12
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	47.7	10.3	9.6
HCM LOS	E	B	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	78%	67%	0%	0%
Vol Thru, %	22%	33%	91%	79%
Vol Right, %	0%	0%	9%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	83	636	233	52
LT Vol	65	424	0	0
Through Vol	18	212	212	41
RT Vol	0	0	21	11
Lane Flow Rate	90	691	253	57
Geometry Grp	2	7	7	2
Degree of Util (X)	0.153	1.017	0.345	0.093
Departure Headway (Hd)	6.125	5.294	4.897	5.908
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	584	684	732	604
Service Time	4.183	3.042	2.644	3.972
HCM Lane V/C Ratio	0.154	1.01	0.346	0.094
HCM Control Delay	10.3	61.5	10.2	9.6
HCM Lane LOS	B	F	B	A
HCM 95th-tile Q	0.5	16.8	1.5	0.3

Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	32	678	17	31	3	0	0	29	158
Future Vol, veh/h	0	0	0	32	678	17	31	3	0	0	29	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	35	737	18	34	3	0	0	32	172
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	14.5	9.4	10.1
HCM LOS	B	A	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	91%	9%	0%	0%
Vol Thru, %	9%	91%	95%	16%
Vol Right, %	0%	0%	5%	84%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	371	356	187
LT Vol	31	32	0	0
Through Vol	3	339	339	29
RT Vol	0	0	17	158
Lane Flow Rate	37	403	387	203
Geometry Grp	2	7	7	2
Degree of Util (X)	0.061	0.581	0.549	0.284
Departure Headway (Hd)	5.971	5.186	5.109	5.03
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	596	694	704	713
Service Time	4.041	2.943	2.866	3.073
HCM Lane V/C Ratio	0.062	0.581	0.55	0.285
HCM Control Delay	9.4	15	14	10.1
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.2	3.8	3.4	1.2

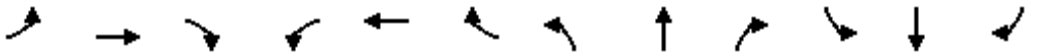
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	12	0	0	26	0	1989	13	0	2233	182
Future Vol, veh/h	0	0	12	0	0	26	0	1989	13	0	2233	182
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	4	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	13	0	0	28	0	2162	14	0	2427	198

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1319	-	-	1092	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	126	0	0	182	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	125	-	-	181	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	37.1	28.5	0	0
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	125	181	-	-
HCM Lane V/C Ratio	-	-	0.104	0.156	-	-
HCM Control Delay (s)	-	-	37.1	28.5	-	-
HCM Lane LOS	-	-	E	D	-	-
HCM 95th %tile Q(veh)	-	-	0.3	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	249	49	83	1950	14	0	1788	426
Future Volume (veh/h)	0	0	0	125	249	49	83	1950	14	0	1788	426
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				136	271	53	90	2120	15	0	1943	463
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				162	340	69	108	4104	29	0	3567	1098
Arrive On Green				0.16	0.16	0.16	0.12	1.00	1.00	0.00	0.70	0.70
Sat Flow, veh/h				1020	2147	434	1781	5231	37	0	5274	1571
Grp Volume(v), veh/h				243	0	217	90	1379	756	0	1943	463
Grp Sat Flow(s),veh/h/ln				1819	0	1782	1781	1702	1864	0	1702	1571
Q Serve(g_s), s				22.3	0.0	20.1	8.5	0.0	0.0	0.0	31.8	21.7
Cycle Q Clear(g_c), s				22.3	0.0	20.1	8.5	0.0	0.0	0.0	31.8	21.7
Prop In Lane				0.56		0.24	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				288	0	282	108	2671	1462	0	3567	1098
V/C Ratio(X)				0.84	0.00	0.77	0.84	0.52	0.52	0.00	0.54	0.42
Avail Cap(c_a), veh/h				371	0	364	275	2671	1462	0	3567	1098
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.75	0.75	0.75	0.00	1.00	1.00
Uniform Delay (d), s/veh				70.3	0.0	69.4	74.8	0.0	0.0	0.0	12.6	11.1
Incr Delay (d2), s/veh				10.5	0.0	5.3	4.8	0.5	1.0	0.0	0.6	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				11.3	0.0	9.7	3.8	0.2	0.4	0.0	11.8	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				80.7	0.0	74.7	79.6	0.5	1.0	0.0	13.2	12.3
LnGrp LOS				F	A	E	E	A	A	A	B	B
Approach Vol, veh/h					460			2225			2406	
Approach Delay, s/veh					77.9			3.9			13.0	
Approach LOS					E			A			B	

Timer - Assigned Phs	2		4	5	6							
Phs Duration (G+Y+Rc), s	139.8		32.2	14.8	125.1							
Change Period (Y+Rc), s	4.9		4.9	4.4	4.9							
Max Green Setting (Gmax), s	127.1		35.1	26.6	96.1							
Max Q Clear Time (g_c+I1), s	2.0		24.3	10.5	33.8							
Green Ext Time (p_c), s	7.3		0.8	0.0	7.2							

Intersection Summary		
HCM 6th Ctrl Delay		14.9
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



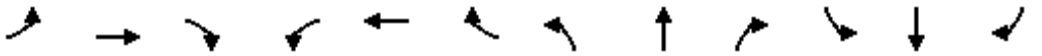
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	131	78	0	0	0	0	1757	23	59	1830	0
Future Volume (veh/h)	293	131	78	0	0	0	0	1757	23	59	1830	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	318	142	85				0	1910	25	64	1989	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	338	206	124				0	3549	46	80	4848	0
Arrive On Green	0.19	0.19	0.19				0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	1781	1089	652				0	5363	68	1781	6696	0
Grp Volume(v), veh/h	318	0	227				0	1251	684	64	1989	0
Grp Sat Flow(s),veh/h/ln	1781	0	1741				0	1702	1858	1781	1609	0
Q Serve(g_s), s	30.3	0.0	20.9				0.0	0.0	0.0	6.1	0.0	0.0
Cycle Q Clear(g_c), s	30.3	0.0	20.9				0.0	0.0	0.0	6.1	0.0	0.0
Prop In Lane	1.00		0.37				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	338	0	330				0	2326	1269	80	4848	0
V/C Ratio(X)	0.94	0.00	0.69				0.00	0.54	0.54	0.80	0.41	0.00
Avail Cap(c_a), veh/h	364	0	355				0	2326	1269	162	4848	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.71	0.71	0.82	0.82	0.00
Uniform Delay (d), s/veh	68.8	0.0	65.0				0.0	0.0	0.0	77.6	0.0	0.0
Incr Delay (d2), s/veh	30.6	0.0	3.9				0.0	0.6	1.2	5.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.7	0.0	9.7				0.0	0.2	0.4	2.8	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.4	0.0	68.9				0.0	0.6	1.2	83.3	0.2	0.0
LnGrp LOS	F	A	E				A	A	A	F	A	A
Approach Vol, veh/h		545						1935			2053	
Approach Delay, s/veh		86.7						0.8			2.8	
Approach LOS		F						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	12.1	122.4	37.5	134.5
Change Period (Y+Rc), s	4.4	4.9	4.9	4.9
Max Green Setting (Gmax), s	15.6	107.1	35.1	127.1
Max Q Clear Time (g_c+I1), s	8.1	2.0	32.3	2.0
Green Ext Time (p_c), s	0.0	5.5	0.2	7.1

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	403	342	235	234	149	10	387	1382	313	0	1249	638
Future Volume (vph)	403	342	235	234	149	10	387	1382	313	0	1249	638
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99			1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3337	1552	1610	3290		3662	4916			5085	1484
Flt Permitted	0.95	0.98	1.00	0.95	0.98		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3337	1552	1610	3290		3662	4916			5085	1484
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	438	372	255	254	162	11	421	1502	340	0	1358	693
RTOR Reduction (vph)	0	0	206	0	2	0	0	17	0	0	0	279
Lane Group Flow (vph)	263	547	49	140	285	0	421	1825	0	0	1358	414
Confl. Peds. (#/hr)			4			37			11			28
Confl. Bikes (#/hr)			2			3			1			1
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	33.3	33.3	33.3	19.0	19.0		23.6	102.0			73.0	73.0
Effective Green, g (s)	33.3	33.3	33.3	19.0	19.0		23.6	102.0			73.0	73.0
Actuated g/C Ratio	0.19	0.19	0.19	0.11	0.11		0.14	0.59			0.42	0.42
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	311	646	300	177	363		502	2915			2158	629
v/s Ratio Prot	0.16	c0.16		c0.09	0.09		c0.11	0.37			0.27	
v/s Ratio Perm			0.03									c0.28
v/c Ratio	0.85	0.85	0.16	0.79	0.79		0.84	0.63			0.63	0.66
Uniform Delay, d1	66.9	66.9	57.8	74.6	74.5		72.3	22.7			38.9	39.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.32	0.41			0.66	0.59
Incremental Delay, d2	17.9	9.6	0.1	19.7	9.9		8.0	0.7			1.3	4.9
Delay (s)	84.8	76.5	57.9	94.3	84.4		103.2	10.0			26.8	28.4
Level of Service	F	E	E	F	F		F	B			C	C
Approach Delay (s)		74.1			87.6			27.4			27.4	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	40.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
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)	210	437	243	92	633	318	275	1517	100	288	1109	306
Future Volume (veh/h)	210	437	243	92	633	318	275	1517	100	288	1109	306
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.93	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	475	264	100	688	346	299	1649	109	313	1205	333
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	592	254	148	622	258	342	2046	135	735	2116	585
Arrive On Green	0.08	0.17	0.17	0.08	0.17	0.17	0.03	0.14	0.14	0.21	0.54	0.54
Sat Flow, veh/h	3456	3554	1525	1781	3554	1472	3456	4881	322	3456	3949	1091
Grp Volume(v), veh/h	228	475	264	100	688	346	299	1149	609	313	1039	499
Grp Sat Flow(s),veh/h/ln	1728	1777	1525	1781	1777	1472	1728	1702	1800	1728	1702	1635
Q Serve(g_s), s	11.2	22.1	23.4	9.4	30.1	20.1	14.8	56.3	56.4	13.5	35.1	35.1
Cycle Q Clear(g_c), s	11.2	22.1	23.4	9.4	30.1	20.1	14.8	56.3	56.4	13.5	35.1	35.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.67
Lane Grp Cap(c), veh/h	268	592	254	148	622	258	342	1427	754	735	1824	876
V/C Ratio(X)	0.85	0.80	1.04	0.68	1.11	1.34	0.88	0.81	0.81	0.43	0.57	0.57
Avail Cap(c_a), veh/h	434	684	294	193	622	258	675	1427	754	735	1824	876
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	78.4	68.9	47.8	76.6	70.9	31.6	82.1	67.3	67.3	58.6	26.7	26.7
Incr Delay (d2), s/veh	4.2	4.7	59.2	2.9	68.8	178.3	2.4	4.1	7.6	0.1	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	10.5	13.1	4.4	19.6	20.0	7.1	26.7	29.0	5.9	14.1	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.6	73.6	107.0	79.5	139.7	209.9	84.5	71.4	75.0	58.8	26.9	27.2
LnGrp LOS	F	E	F	E	F	F	F	E	E	E	C	C
Approach Vol, veh/h		967			1134			2057			1851	
Approach Delay, s/veh		84.9			155.8			74.4			32.4	
Approach LOS		F			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	77.0	19.2	33.6	21.4	97.9	17.7	35.0
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	15.5	58.4	11.4	25.4	16.8	37.1	13.2	32.1
Green Ext Time (p_c), s	0.2	4.1	0.0	1.0	0.2	4.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	78.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	9	10	95	11	67	7	1708	16	95	1306	34
Future Volume (veh/h)	42	9	10	95	11	67	7	1708	16	95	1306	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	10	11	103	12	73	8	1857	17	103	1420	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	32	28	143	14	80	16	3698	34	122	3927	102
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.71	0.71	0.07	0.77	0.77
Sat Flow, veh/h	807	235	205	818	106	587	1781	5217	48	1781	5113	133
Grp Volume(v), veh/h	67	0	0	188	0	0	8	1211	663	103	945	512
Grp Sat Flow(s),veh/h/ln	1247	0	0	1512	0	0	1781	1702	1861	1781	1702	1842
Q Serve(g_s), s	0.0	0.0	0.0	12.8	0.0	0.0	0.8	27.7	27.7	9.8	15.3	15.3
Cycle Q Clear(g_c), s	8.3	0.0	0.0	21.1	0.0	0.0	0.8	27.7	27.7	9.8	15.3	15.3
Prop In Lane	0.69		0.16	0.55		0.39	1.00		0.03	1.00		0.07
Lane Grp Cap(c), veh/h	204	0	0	237	0	0	16	2413	1319	122	2615	1415
V/C Ratio(X)	0.33	0.00	0.00	0.79	0.00	0.00	0.49	0.50	0.50	0.84	0.36	0.36
Avail Cap(c_a), veh/h	260	0	0	296	0	0	162	2413	1319	369	2615	1415
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.78	0.78	0.78	0.69	0.69	0.69
Uniform Delay (d), s/veh	67.7	0.0	0.0	73.2	0.0	0.0	84.8	11.3	11.3	79.2	6.4	6.4
Incr Delay (d2), s/veh	0.3	0.0	0.0	8.7	0.0	0.0	6.3	0.6	1.1	4.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	8.9	0.0	0.0	0.4	10.1	11.3	4.6	5.2	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	0.0	0.0	82.0	0.0	0.0	91.1	11.9	12.4	83.4	6.7	6.9
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		67			188			1882			1560	
Approach Delay, s/veh		68.0			82.0			12.4			11.8	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.2	127.6		28.2	6.0	137.8		28.2
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	11.8	29.7		10.3	2.8	17.3		23.1
Green Ext Time (p_c), s	0.0	5.2		0.1	0.0	3.6		0.2

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	160	7	524	316	250	18	1296	548	81	1036	281
Future Volume (veh/h)	200	160	7	524	316	250	18	1296	548	81	1036	281
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.98	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	174	8	570	343	272	20	1409	596	88	1126	305
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	277	13	604	367	305	32	2654	813	125	1912	833
Arrive On Green	0.13	0.16	0.16	0.17	0.20	0.20	0.02	0.52	0.52	0.07	1.00	1.00
Sat Flow, veh/h	1781	1768	81	3456	1870	1555	1781	5106	1564	3456	3554	1548
Grp Volume(v), veh/h	217	0	182	570	343	272	20	1409	596	88	1126	305
Grp Sat Flow(s),veh/h/ln	1781	0	1849	1728	1870	1555	1781	1702	1564	1728	1777	1548
Q Serve(g_s), s	20.7	0.0	15.8	28.0	31.0	26.0	1.9	31.5	50.9	4.3	0.0	0.0
Cycle Q Clear(g_c), s	20.7	0.0	15.8	28.0	31.0	26.0	1.9	31.5	50.9	4.3	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	0	289	604	367	305	32	2654	813	125	1912	833
V/C Ratio(X)	0.92	0.00	0.63	0.94	0.93	0.89	0.63	0.53	0.73	0.70	0.59	0.37
Avail Cap(c_a), veh/h	265	0	442	615	501	417	120	2654	813	434	1912	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	73.7	0.0	67.9	70.1	68.0	53.1	83.9	27.4	32.1	78.9	0.0	0.0
Incr Delay (d2), s/veh	31.6	0.0	0.8	22.7	18.2	13.7	7.3	0.8	5.8	2.5	1.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	0.0	7.6	14.2	16.6	11.3	0.9	12.9	20.2	1.9	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	105.3	0.0	68.7	92.8	86.2	66.8	91.2	28.2	37.9	81.4	1.3	1.2
LnGrp LOS	F	A	E	F	F	E	F	C	D	F	A	A
Approach Vol, veh/h		399			1185			2025			1519	
Approach Delay, s/veh		88.6			84.9			31.6			5.9	
Approach LOS		F			F			C			A	

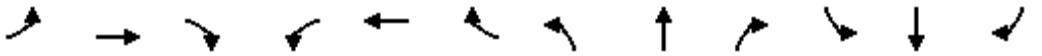
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	95.1	34.5	31.8	7.5	98.2	27.6	38.6
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	5.3	52.9	30.0	17.8	3.9	2.0	22.7	33.0
Green Ext Time (p_c), s	0.0	2.8	0.0	0.3	0.0	3.1	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	133	9	11	0	80	0	471	283	50	368	0
Future Volume (vph)	34	133	9	11	0	80	0	471	283	50	368	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.84		0.93		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.94		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1845		1770		1336		3115		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.27	1.00	
Satd. Flow (perm)	1770	1845		1770		1336		3115		512	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	145	10	12	0	87	0	512	308	54	400	0
RTOR Reduction (vph)	0	4	0	0	0	83	0	59	0	0	0	0
Lane Group Flow (vph)	37	151	0	12	0	4	0	761	0	54	400	0
Confl. Peds. (#/hr)						22			75			12
Confl. Bikes (#/hr)									12			6
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	11.0	11.0		4.1		4.1		53.6		62.2	62.2	
Effective Green, g (s)	11.0	11.0		4.1		4.1		53.6		62.2	62.2	
Actuated g/C Ratio	0.12	0.12		0.04		0.04		0.59		0.68	0.68	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	212	221		79		59		1824		405	2405	
v/s Ratio Prot	0.02	c0.08		c0.01				c0.24		0.01	c0.11	
v/s Ratio Perm						0.00				0.08		
v/c Ratio	0.17	0.69		0.15		0.07		0.42		0.13	0.17	
Uniform Delay, d1	36.2	38.6		42.0		41.9		10.4		5.6	5.3	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.1	6.8		0.3		0.2		0.7		0.1	0.1	
Delay (s)	36.3	45.4		42.4		42.0		11.1		5.7	5.4	
Level of Service	D	D		D		D		B		A	A	
Approach Delay (s)		43.7			42.1			11.1			5.5	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	23.1
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.9

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	117	461	434	271	0	0
Future Vol, veh/h	117	461	434	271	0	0
Conflicting Peds, #/hr	0	0	0	13	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	127	501	472	295	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	780	0	-	0	1138	397
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	505	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	833	-	-	-	195	602
Stage 1	-	-	-	-	491	-
Stage 2	-	-	-	-	571	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	823	-	-	-	161	595
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	410	-
Stage 2	-	-	-	-	564	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	823	-	-	-	-
HCM Lane V/C Ratio	0.155	-	-	-	-
HCM Control Delay (s)	10.2	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	336	93	359	406	62	331	154	260	53	233	117
Future Volume (veh/h)	69	336	93	359	406	62	331	154	260	53	233	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.89	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	365	101	390	441	67	360	167	283	58	253	127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	1141	689	483	577	434	399	1196	1293	119	523	226
Arrive On Green	0.05	0.22	0.22	0.14	0.31	0.31	0.22	0.34	0.34	0.03	0.15	0.15
Sat Flow, veh/h	1781	5106	1498	3456	1870	1407	1781	3554	2682	3456	3554	1537
Grp Volume(v), veh/h	75	365	101	390	441	67	360	167	283	58	253	127
Grp Sat Flow(s),veh/h/ln	1781	1702	1498	1728	1870	1407	1781	1777	1341	1728	1777	1537
Q Serve(g_s), s	3.7	5.3	3.5	9.6	18.8	3.0	17.3	2.9	5.4	1.5	5.8	6.8
Cycle Q Clear(g_c), s	3.7	5.3	3.5	9.6	18.8	3.0	17.3	2.9	5.4	1.5	5.8	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	1141	689	483	577	434	399	1196	1293	119	523	226
V/C Ratio(X)	0.77	0.32	0.15	0.81	0.76	0.15	0.90	0.14	0.22	0.49	0.48	0.56
Avail Cap(c_a), veh/h	607	2319	1035	1177	849	639	607	1614	1608	1177	1614	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	28.6	14.4	36.7	27.6	22.1	33.3	20.3	13.5	41.8	34.5	34.9
Incr Delay (d2), s/veh	4.7	0.2	0.1	1.2	1.5	0.1	8.8	0.1	0.1	1.1	0.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.1	1.1	4.0	8.2	1.0	7.9	1.1	1.5	0.6	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	28.8	14.5	38.0	29.1	22.2	42.1	20.4	13.6	42.9	34.7	35.7
LnGrp LOS	D	C	B	D	C	C	D	C	B	D	C	D
Approach Vol, veh/h		541			898			810			438	
Approach Delay, s/veh		28.5			32.4			27.7			36.1	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.7	25.6	25.1	19.7	10.2	33.1	8.4	36.4
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	11.6	7.3	19.3	8.8	5.7	20.8	3.5	7.4
Green Ext Time (p_c), s	0.7	3.7	0.4	1.1	0.1	1.9	0.1	2.2

Intersection Summary	
HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	31.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	556	194	679	683	14
Future Vol, veh/h	0	556	194	679	683	14
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	604	211	738	742	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	381	759	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	~ 527	511	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	~ 526	510	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	113.6	3.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	510	-	526	-	-
HCM Lane V/C Ratio	0.413	-	1.149	-	-
HCM Control Delay (s)	16.9	-	113.6	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	2	-	20.7	-	-

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	3	33	15	1	14	313	1159	11	24	1100	158
Future Volume (veh/h)	59	3	33	15	1	14	313	1159	11	24	1100	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	3	36	16	1	15	340	1260	12	26	1196	172
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	495	409	23	450	381	349	1951	850	33	1158	166
Arrive On Green	0.04	0.26	0.26	0.01	0.24	0.24	0.20	0.55	0.55	0.02	0.37	0.37
Sat Flow, veh/h	1781	1870	1548	1781	1870	1585	1781	3554	1547	1781	3118	447
Grp Volume(v), veh/h	64	3	36	16	1	15	340	1260	12	26	679	689
Grp Sat Flow(s),veh/h/ln	1781	1870	1548	1781	1870	1585	1781	1777	1547	1781	1777	1788
Q Serve(g_s), s	5.4	0.2	2.6	1.4	0.1	1.1	28.6	37.4	0.5	2.2	56.1	56.1
Cycle Q Clear(g_c), s	5.4	0.2	2.6	1.4	0.1	1.1	28.6	37.4	0.5	2.2	56.1	56.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	78	495	409	23	450	381	349	1951	850	33	660	664
V/C Ratio(X)	0.82	0.01	0.09	0.69	0.00	0.04	0.97	0.65	0.01	0.79	1.03	1.04
Avail Cap(c_a), veh/h	78	495	409	66	450	381	349	1951	850	75	660	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.6	40.9	41.8	74.2	43.6	44.0	60.3	23.8	15.5	73.8	47.5	47.5
Incr Delay (d2), s/veh	49.7	0.0	0.4	13.0	0.0	0.2	40.8	0.6	0.0	14.4	42.7	44.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.1	1.0	0.7	0.0	0.4	16.4	14.7	0.2	1.1	31.8	32.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	121.3	40.9	42.2	87.2	43.6	44.2	101.1	24.4	15.5	88.2	90.2	92.2
LnGrp LOS	F	D	D	F	D	D	F	C	B	F	F	F
Approach Vol, veh/h		103			32			1612			1394	
Approach Delay, s/veh		91.3			65.7			40.5			91.1	
Approach LOS		F			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	48.6	34.0	61.0	11.0	45.0	7.2	87.8
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	5.6	35.3	29.6	56.1	6.6	* 36	6.4	79.3
Max Q Clear Time (g_c+I1), s	3.4	4.6	30.6	58.1	7.4	3.1	4.2	39.4
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.1	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	64.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

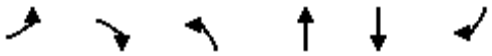
Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1014	1173	6	0	290
Future Vol, veh/h	0	1014	1173	6	0	290
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	1102	1275	7	0	315

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	638
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	419
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	419
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	35.4
HCM LOS			E

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	419
HCM Lane V/C Ratio	-	-	0.752
HCM Control Delay (s)	-	-	35.4
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	6.2



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	878	135	0	949	1162	1183
Future Volume (vph)	878	135	0	949	1162	1183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	954	147	0	1032	1263	1286
RTOR Reduction (vph)	0	62	0	0	0	0
Lane Group Flow (vph)	954	85	0	1032	1263	1286
Confl. Peds. (#/hr)						5
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	40.3	40.3		60.9	60.9	152.9
Effective Green, g (s)	40.3	40.3		60.9	60.9	142.1
Actuated g/C Ratio	0.26	0.26		0.40	0.40	0.93
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	904	417		1409	1409	1471
v/s Ratio Prot	c0.28			0.29	0.36	c0.81
v/s Ratio Perm		0.05				
v/c Ratio	1.06	0.20		0.73	0.90	0.87
Uniform Delay, d1	56.3	43.8		39.1	43.0	2.0
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	45.6	0.2		2.0	7.8	6.0
Delay (s)	101.9	44.0		41.1	50.8	8.1
Level of Service	F	D		D	D	A
Approach Delay (s)	94.2			41.1	29.3	
Approach LOS	F			D	C	

Intersection Summary			
HCM 2000 Control Delay	47.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	152.9	Sum of lost time (s)	19.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	837	176	121	1576
Future Volume (veh/h)	0	1	837	176	121	1576
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	910	191	132	1713
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	5	2368	1036	225	2849
Arrive On Green	0.00	0.00	0.67	0.67	0.07	0.80
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	910	191	132	1713
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	7.2	2.9	2.3	11.6
Cycle Q Clear(g_c), s	0.0	0.0	7.2	2.9	2.3	11.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	5	2368	1036	225	2849
V/C Ratio(X)	0.00	0.20	0.38	0.18	0.59	0.60
Avail Cap(c_a), veh/h	1134	2018	3393	1484	1650	3393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	31.3	4.7	4.0	28.6	2.4
Incr Delay (d2), s/veh	0.0	6.9	0.1	0.1	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.8	0.7	1.0	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	38.3	4.8	4.1	29.5	2.9
LnGrp LOS	A	D	A	A	C	A
Approach Vol, veh/h	1		1101			1845
Approach Delay, s/veh	38.3		4.7			4.8
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.5	48.1			56.6	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	4.3	9.2			13.6	2.0
Green Ext Time (p_c), s	0.2	14.0			36.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	64	134	83	40	102	50	705	82	194	1489	184
Future Volume (veh/h)	168	64	134	83	40	102	50	705	82	194	1489	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	70	146	90	43	111	54	766	89	211	1618	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	255	224	183	115	207	169	106	1734	858	245	2114	1059
Arrive On Green	0.07	0.12	0.12	0.06	0.11	0.11	0.03	0.49	0.49	0.14	0.59	0.59
Sat Flow, veh/h	3456	1870	1525	1781	1870	1522	3456	3554	1549	1781	3554	1584
Grp Volume(v), veh/h	183	70	146	90	43	111	54	766	89	211	1618	200
Grp Sat Flow(s),veh/h/ln	1728	1870	1525	1781	1870	1522	1728	1777	1549	1781	1777	1584
Q Serve(g_s), s	5.3	3.5	9.6	5.1	2.2	7.2	1.6	14.5	2.8	12.0	34.9	4.9
Cycle Q Clear(g_c), s	5.3	3.5	9.6	5.1	2.2	7.2	1.6	14.5	2.8	12.0	34.9	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	224	183	115	207	169	106	1734	858	245	2114	1059
V/C Ratio(X)	0.72	0.31	0.80	0.78	0.21	0.66	0.51	0.44	0.10	0.86	0.77	0.19
Avail Cap(c_a), veh/h	1005	544	444	518	544	443	1005	2412	1154	518	2412	1192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	41.5	44.2	47.5	41.7	44.0	49.2	17.2	10.9	43.5	15.5	6.5
Incr Delay (d2), s/veh	1.4	0.8	7.8	4.3	0.2	1.6	1.4	0.3	0.1	3.5	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.7	3.9	2.3	1.0	2.7	0.7	5.8	0.9	5.5	13.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	42.3	51.9	51.8	41.9	45.6	50.7	17.5	11.0	47.0	17.1	6.6
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	A
Approach Vol, veh/h		399			244			909			2029	
Approach Delay, s/veh		48.5			47.2			18.9			19.2	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	55.6	11.1	17.9	7.5	66.6	12.0	16.9
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	11.0	16.5	7.1	11.6	3.6	36.9	7.3	9.2
Green Ext Time (p_c), s	0.3	11.9	0.1	0.8	0.1	24.4	0.3	0.3

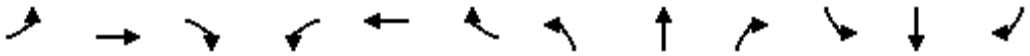
Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	797	176	303	587	0	0	0	0	205	0	0
Future Volume (vph)	0	797	176	303	587	0	0	0	0	205	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						4.0	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.97	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1542	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1542	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	866	191	329	638	0	0	0	0	223	0	0
RTOR Reduction (vph)	0	0	116	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	866	75	329	638	0	0	0	0	0	223	0
Confl. Peds. (#/hr)			9			1						
Confl. Bikes (#/hr)			3			1						
Turn Type		NA	Perm	Prot	NA					Prot	NA	
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		39.1	39.1	13.3	57.1						33.8	
Effective Green, g (s)		39.1	39.1	13.3	57.1						33.8	
Actuated g/C Ratio		0.39	0.39	0.13	0.57						0.34	
Clearance Time (s)				4.7								
Vehicle Extension (s)				2.0								
Lane Grp Cap (vph)		1383	602	456	2020						598	
v/s Ratio Prot		c0.24		c0.10	0.18						0.13	
v/s Ratio Perm			0.05									
v/c Ratio		0.63	0.12	0.72	0.32						0.37	
Uniform Delay, d1		24.6	19.5	41.6	11.2						25.1	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		0.9	0.1	4.7	0.1						0.1	
Delay (s)		25.4	19.6	46.3	11.3						25.2	
Level of Service		C	B	D	B						C	
Approach Delay (s)		24.4			23.2			0.0			25.2	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	264	251	0	0	76	113
Future Vol, veh/h	264	251	0	0	76	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	287	273	0	0	83	123

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	560	0	425	424
Stage 1	-	-	-	-	424	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1011	-	586	630
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1011	-	586	630
Mov Cap-2 Maneuver	-	-	-	-	586	-
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	586	630	-	-	1011	-
HCM Lane V/C Ratio	0.141	0.195	-	-	-	-
HCM Control Delay (s)	12.1	12.1	-	-	0	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	0.7	-	-	0	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	408	0	47	0	0	101
Future Vol, veh/h	408	0	47	0	0	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	443	0	51	0	0	110

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	443	0	545	443
Stage 1	-	-	-	-	443	-
Stage 2	-	-	-	-	102	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1117	-	499	615
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	922	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1117	-	476	615
Mov Cap-2 Maneuver	-	-	-	-	476	-
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	880	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.4	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	615	-	-	1117	-
HCM Lane V/C Ratio	-	0.179	-	-	0.046	-
HCM Control Delay (s)	0	12.1	-	-	8.4	0
HCM Lane LOS	A	B	-	-	A	A
HCM 95th %tile Q(veh)	-	0.6	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	388	87	119	71	0	0
Future Vol, veh/h	388	87	119	71	0	0
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	422	95	129	77	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	517	0	805	470
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1049	-	352	594
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1049	-	307	594
Mov Cap-2 Maneuver	-	-	-	-	307	-
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	632	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.6	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1049	-
HCM Lane V/C Ratio	-	-	-	0.123	-
HCM Control Delay (s)	0	-	-	8.9	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0.4	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	292	123	0	0	2	0
Future Vol, veh/h	292	123	0	0	2	0
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	317	134	0	0	2	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	451	0	385	384
Stage 1	-	-	-	-	384	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1109	-	618	664
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1109	-	618	664
Mov Cap-2 Maneuver	-	-	-	-	618	-
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	618	-	-	1109	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	10.8	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	970	740	242	0	18
Future Vol, veh/h	0	970	740	242	0	18
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	0	1054	804	263	0	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	534
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	420
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	420
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	420
HCM Lane V/C Ratio	-	-	-	0.047
HCM Control Delay (s)	-	-	-	14
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	701	940	0	0	5
Future Vol, veh/h	0	701	940	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	762	1022	0	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	511
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	435
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	435
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	435
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	13.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	536	157	0	26	67	0
Future Vol, veh/h	536	157	0	26	67	0
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	583	171	0	28	73	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	697	669
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	407	458
Stage 1	-	-	0	-	509	-
Stage 2	-	-	0	-	995	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	407	458
Mov Cap-2 Maneuver	-	-	-	-	407	-
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	995	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	407	-	-	-
HCM Lane V/C Ratio	0.179	-	-	-
HCM Control Delay (s)	15.8	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	467	0	24	47	0	8
Future Vol, veh/h	467	0	24	47	0	8
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	508	0	26	51	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	508	0	611	508
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	103	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1057	-	457	565
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	921	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1057	-	446	565
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	898	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	565	-	-	1057	-
HCM Lane V/C Ratio	0.015	-	-	0.025	-
HCM Control Delay (s)	11.5	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	772	1822	648	0	0	1822
Future Volume (vph)	772	1822	648	0	0	1822
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	10.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	839	1980	704	0	0	1980
RTOR Reduction (vph)	0	22	0	0	0	0
Lane Group Flow (vph)	839	1958	704	0	0	1980
Confl. Bikes (#/hr)				13		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.0	82.5	21.1			68.6
Effective Green, g (s)	35.0	82.5	18.1			68.6
Actuated g/C Ratio	0.30	0.70	0.15			0.58
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1013	1938	776			3706
v/s Ratio Prot	0.24	c0.70	c0.14			0.31
v/s Ratio Perm						
v/c Ratio	0.83	1.01	0.91			0.53
Uniform Delay, d1	39.0	18.0	49.4			15.3
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	5.4	23.0	13.9			0.1
Delay (s)	44.4	41.0	63.4			15.3
Level of Service	D	D	E			B
Approach Delay (s)	42.0		63.4			15.3
Approach LOS	D		E			B

Intersection Summary			
HCM 2000 Control Delay	35.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	118.6	Sum of lost time (s)	25.5
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	393	552	350	34	381	737	287	505	21	762	442	211
Future Volume (veh/h)	393	552	350	34	381	737	287	505	21	762	442	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	427	600	380	37	414	0	287	584	0	828	480	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	452	475	697	348	693		342	717		775	407	
Arrive On Green	0.25	0.25	0.25	0.20	0.20	0.00	0.19	0.19	0.00	0.22	0.22	0.00
Sat Flow, veh/h	1781	1870	1549	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	427	600	380	37	414	0	287	584	0	828	480	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1549	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	32.5	35.1	24.9	2.4	14.7	0.0	21.5	20.7	0.0	30.1	30.1	0.0
Cycle Q Clear(g_c), s	32.5	35.1	24.9	2.4	14.7	0.0	21.5	20.7	0.0	30.1	30.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	452	475	697	348	693		342	717		775	407	
V/C Ratio(X)	0.94	1.26	0.55	0.11	0.60		0.84	0.81		1.07	1.18	
Avail Cap(c_a), veh/h	452	475	697	645	1287		388	814		775	407	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.7	51.6	28.2	45.8	50.7	0.0	53.8	53.5	0.0	54.1	54.1	0.0
Incr Delay (d2), s/veh	29.6	134.8	1.9	0.5	3.1	0.0	13.3	5.5	0.0	52.0	103.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.9	33.9	13.1	1.1	6.8	0.0	10.9	10.3	0.0	19.1	25.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.3	186.4	30.1	46.3	53.9	0.0	67.2	59.0	0.0	106.1	157.5	0.0
LnGrp LOS	F	F	C	D	D		E	E		F	F	
Approach Vol, veh/h		1407			451			871			1308	
Approach Delay, s/veh		112.0			53.2			61.7			125.0	
Approach LOS		F			D			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	35.0	31.9	31.4
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	35.1	30.1	50.1	30.1
Max Q Clear Time (g_c+I1), s	37.1	32.1	16.7	23.5
Green Ext Time (p_c), s	0.0	0.0	7.5	2.4

Intersection Summary	
HCM 6th Ctrl Delay	98.8
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	442	881	16	28	1114	2	0	0	0	63	1	183
Future Volume (veh/h)	442	881	16	28	1114	2	0	0	0	63	1	183
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97				1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	480	958	17	30	1211	2				68	1	199
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	518	2253	40	43	1916	3				310	5	276
Arrive On Green	0.29	0.63	0.63	0.02	0.36	0.36				0.18	0.18	0.18
Sat Flow, veh/h	1781	3570	63	1781	5264	9				1757	26	1561
Grp Volume(v), veh/h	480	477	498	30	783	430				69	0	199
Grp Sat Flow(s),veh/h/ln	1781	1777	1857	1781	1702	1868				1783	0	1561
Q Serve(g_s), s	22.0	11.4	11.4	1.4	16.0	16.0				2.8	0.0	10.1
Cycle Q Clear(g_c), s	22.0	11.4	11.4	1.4	16.0	16.0				2.8	0.0	10.1
Prop In Lane	1.00		0.03	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	518	1121	1172	43	1239	680				315	0	276
V/C Ratio(X)	0.93	0.43	0.43	0.70	0.63	0.63				0.22	0.00	0.72
Avail Cap(c_a), veh/h	647	1267	1323	647	2427	1332				848	0	742
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	1.00	1.00	1.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	29.0	7.8	7.8	40.8	22.1	22.1				29.7	0.0	32.8
Incr Delay (d2), s/veh	15.6	0.3	0.3	7.6	0.6	1.2				0.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	3.7	3.9	0.7	6.1	6.8				1.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	8.2	8.1	48.4	22.8	23.3				29.9	0.0	34.1
LnGrp LOS	D	A	A	D	C	C				C	A	C
Approach Vol, veh/h		1455			1243						268	
Approach Delay, s/veh		20.2			23.6						33.0	
Approach LOS		C			C						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	6.4	58.1		19.8	28.9	35.6
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1
Max Q Clear Time (g_c+I1), s	3.4	13.4		12.1	24.0	18.0
Green Ext Time (p_c), s	0.0	9.4		0.6	0.5	12.7

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	661	116	158	903	104	140	146	187	47	62	142
Future Volume (veh/h)	200	661	116	158	903	104	140	146	187	47	62	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.93	0.98		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	718	126	172	982	113	152	159	203	51	67	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	1786	309	210	1778	204	318	222	284	194	156	359
Arrive On Green	0.14	0.41	0.41	0.12	0.39	0.39	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	4342	752	1781	4616	529	1158	715	913	996	503	1156
Grp Volume(v), veh/h	217	561	283	172	723	372	152	0	362	51	0	221
Grp Sat Flow(s),veh/h/ln	1781	1702	1690	1781	1702	1741	1158	0	1628	996	0	1658
Q Serve(g_s), s	10.5	10.3	10.5	8.4	14.7	14.8	10.6	0.0	17.5	4.2	0.0	9.4
Cycle Q Clear(g_c), s	10.5	10.3	10.5	8.4	14.7	14.8	20.0	0.0	17.5	21.7	0.0	9.4
Prop In Lane	1.00		0.44	1.00		0.30	1.00		0.56	1.00		0.70
Lane Grp Cap(c), veh/h	256	1400	695	210	1311	671	318	0	506	194	0	515
V/C Ratio(X)	0.85	0.40	0.41	0.82	0.55	0.55	0.48	0.00	0.72	0.26	0.00	0.43
Avail Cap(c_a), veh/h	716	2310	1146	1219	2310	1182	483	0	737	786	0	1500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.0	18.4	18.4	38.2	21.3	21.3	32.2	0.0	27.1	36.7	0.0	24.3
Incr Delay (d2), s/veh	3.0	0.4	0.7	3.0	0.7	1.4	0.4	0.0	0.7	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	3.9	4.0	3.7	5.6	5.9	3.0	0.0	6.6	1.0	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	18.7	19.2	41.2	22.0	22.7	32.7	0.0	27.8	36.9	0.0	24.5
LnGrp LOS	D	B	B	D	C	C	C	A	C	D	A	C
Approach Vol, veh/h		1061			1267			514			272	
Approach Delay, s/veh		23.2			24.8			29.2			26.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.1	39.0		32.4	14.8	41.3		32.4
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	35.6	60.1		40.1	60.6	60.1		80.1
Max Q Clear Time (g_c+I1), s	12.5	16.8		22.0	10.4	12.5		23.7
Green Ext Time (p_c), s	0.3	17.3		1.8	0.2	12.7		1.1

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	567	115	157	742	325	138	51	122	153	74	365
Future Volume (veh/h)	275	567	115	157	742	325	138	51	122	153	74	365
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.92	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	299	616	125	171	807	353	150	55	133	166	80	397
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	984	195	207	978	419	262	96	486	391	60	297
Arrive On Green	0.06	0.23	0.23	0.12	0.29	0.29	0.20	0.20	0.20	0.22	0.22	0.22
Sat Flow, veh/h	1781	4218	836	1781	3404	1459	1320	484	1518	1781	273	1354
Grp Volume(v), veh/h	299	494	247	171	807	353	205	0	133	166	0	477
Grp Sat Flow(s),veh/h/ln	1781	1702	1650	1781	1702	1459	1804	0	1518	1781	0	1627
Q Serve(g_s), s	5.1	10.7	11.1	7.7	18.2	18.7	8.4	0.0	5.4	6.6	0.0	18.0
Cycle Q Clear(g_c), s	5.1	10.7	11.1	7.7	18.2	18.7	8.4	0.0	5.4	6.6	0.0	18.0
Prop In Lane	1.00		0.51	1.00		1.00	0.73		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	111	794	385	207	978	419	358	0	486	391	0	357
V/C Ratio(X)	2.70	0.62	0.64	0.83	0.83	0.84	0.57	0.00	0.27	0.43	0.00	1.34
Avail Cap(c_a), veh/h	111	883	428	230	1111	476	791	0	850	391	0	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.5	28.2	28.4	35.5	27.3	27.5	29.7	0.0	21.1	27.6	0.0	32.0
Incr Delay (d2), s/veh	790.8	1.3	3.1	17.9	4.1	10.5	0.5	0.0	0.1	0.3	0.0	169.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.5	4.3	4.5	4.3	7.5	7.3	3.6	0.0	1.9	2.8	0.0	23.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	829.3	29.5	31.5	53.3	31.4	38.0	30.3	0.0	21.2	27.9	0.0	201.7
LnGrp LOS	F	C	C	D	C	D	C	A	C	C	A	F
Approach Vol, veh/h		1040			1331			338			643	
Approach Delay, s/veh		259.9			36.0			26.7			156.9	
Approach LOS		F			D			C			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.9	24.1		22.9	9.5	28.5		21.2
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	10.6	21.3		18.0	5.1	26.8		36.0
Max Q Clear Time (g_c+I1), s	9.7	13.1		20.0	7.1	20.7		10.4
Green Ext Time (p_c), s	0.0	3.4		0.0	0.0	2.9		1.0

Intersection Summary	
HCM 6th Ctrl Delay	127.7
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	5.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	860	43	277	1290	0	209
Future Vol, veh/h	860	43	277	1290	0	209
Conflicting Peds, #/hr	0	14	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	935	47	301	1402	0	227

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	996	0	-	505
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	393	-	0	439
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	388	-	-	433
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.1	22.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	433	-	-	388	-
HCM Lane V/C Ratio	0.525	-	-	0.776	-
HCM Control Delay (s)	22.1	-	-	39.9	-
HCM Lane LOS	C	-	-	E	-
HCM 95th %tile Q(veh)	3	-	-	6.5	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1051	45	266	1443	50	203
Future Volume (veh/h)	1051	45	266	1443	50	203
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1142	49	289	1568	54	221
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2288	98	335	3589	298	265
Arrive On Green	0.46	0.46	0.19	0.70	0.17	0.17
Sat Flow, veh/h	5185	215	1781	5274	1781	1585
Grp Volume(v), veh/h	775	416	289	1568	54	221
Grp Sat Flow(s),veh/h/ln	1702	1827	1781	1702	1781	1585
Q Serve(g_s), s	12.1	12.1	11.8	9.9	2.0	10.2
Cycle Q Clear(g_c), s	12.1	12.1	11.8	9.9	2.0	10.2
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1553	834	335	3589	298	265
V/C Ratio(X)	0.50	0.50	0.86	0.44	0.18	0.83
Avail Cap(c_a), veh/h	2718	1459	724	4076	949	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	14.4	29.6	4.8	26.9	30.3
Incr Delay (d2), s/veh	0.5	0.9	2.6	0.1	0.1	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	4.7	5.0	2.4	0.8	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.9	15.4	32.2	4.9	27.0	33.0
LnGrp LOS	B	B	C	A	C	C
Approach Vol, veh/h	1191			1857	275	
Approach Delay, s/veh	15.1			9.2	31.8	
Approach LOS	B			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	18.6	39.2				57.8	17.5
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	30.6	60.1				60.1	40.1
Max Q Clear Time (g_c+I1), s	13.8	14.1				11.9	12.2
Green Ext Time (p_c), s	0.4	20.3				23.7	0.5

Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	551	111	190	472	119	162	298	184	85	169	109
Future Volume (veh/h)	167	551	111	190	472	119	162	298	184	85	169	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	182	599	121	207	513	129	176	324	200	92	184	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1112	486	288	762	190	422	444	494	289	304	251
Arrive On Green	0.12	0.31	0.31	0.08	0.27	0.27	0.24	0.24	0.24	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1553	3456	2785	696	1781	1870	1527	1781	1870	1544
Grp Volume(v), veh/h	182	599	121	207	326	316	176	324	200	92	184	118
Grp Sat Flow(s),veh/h/ln	1781	1777	1553	1728	1777	1704	1781	1870	1527	1781	1870	1544
Q Serve(g_s), s	9.3	13.0	5.4	5.5	15.3	15.5	7.8	14.9	9.6	4.3	8.5	6.5
Cycle Q Clear(g_c), s	9.3	13.0	5.4	5.5	15.3	15.5	7.8	14.9	9.6	4.3	8.5	6.5
Prop In Lane	1.00		1.00	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	1112	486	288	486	466	422	444	494	289	304	251
V/C Ratio(X)	0.83	0.54	0.25	0.72	0.67	0.68	0.42	0.73	0.40	0.32	0.61	0.47
Avail Cap(c_a), veh/h	564	2285	998	1094	1142	1096	764	802	787	764	802	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	26.5	23.9	41.8	30.2	30.3	30.2	32.9	24.8	34.6	36.4	35.5
Incr Delay (d2), s/veh	3.2	0.6	0.4	1.3	2.7	2.9	0.2	0.9	0.2	0.2	0.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.5	2.0	2.4	6.8	6.6	3.3	6.7	3.4	1.9	3.9	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	27.1	24.3	43.1	32.9	33.2	30.4	33.8	25.0	34.8	37.1	36.0
LnGrp LOS	D	C	C	D	C	C	C	C	C	C	D	D
Approach Vol, veh/h		902			849			700			394	
Approach Delay, s/veh		30.0			35.5			30.4			36.3	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.2	34.2		20.1	15.9	30.5		27.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	29.6	60.1		40.1	29.6	60.1		40.1
Max Q Clear Time (g_c+I1), s	7.5	15.0		10.5	11.3	17.5		16.9
Green Ext Time (p_c), s	0.4	7.7		1.0	0.2	8.1		1.8

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	824	16	36	852	368	13	0	14	192	12	98
Future Volume (veh/h)	73	824	16	36	852	368	13	0	14	192	12	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	0.98		0.99	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	896	17	39	926	400	14	0	15	209	13	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	1875	36	369	1230	525	233	23	200	316	18	124
Arrive On Green	0.04	0.53	0.53	0.03	0.51	0.51	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3566	68	1781	2398	1024	626	87	763	918	69	476
Grp Volume(v), veh/h	79	446	467	39	683	643	29	0	0	329	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1856	1781	1777	1644	1476	0	0	1463	0	0
Q Serve(g_s), s	1.6	12.3	12.3	0.8	23.6	24.2	0.0	0.0	0.0	15.6	0.0	0.0
Cycle Q Clear(g_c), s	1.6	12.3	12.3	0.8	23.6	24.2	1.0	0.0	0.0	16.6	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.62	0.48		0.52	0.64		0.33
Lane Grp Cap(c), veh/h	251	934	976	369	912	844	455	0	0	459	0	0
V/C Ratio(X)	0.31	0.48	0.48	0.11	0.75	0.76	0.06	0.00	0.00	0.72	0.00	0.00
Avail Cap(c_a), veh/h	879	1377	1439	1020	1377	1275	812	0	0	828	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.7	11.6	11.6	9.2	14.9	15.1	21.5	0.0	0.0	27.1	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.4	0.4	0.0	1.4	1.6	0.0	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.5	4.7	0.3	8.8	8.4	0.4	0.0	0.0	5.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	12.1	12.0	9.2	16.3	16.7	21.5	0.0	0.0	27.9	0.0	0.0
LnGrp LOS	B	B	B	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		992			1365			29			329	
Approach Delay, s/veh		12.1			16.3			21.5			27.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	45.7		25.2	7.7	44.7		25.2				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	30.6	60.1		40.1	30.6	60.1		40.1				
Max Q Clear Time (g_c+I1), s	2.8	14.3		18.6	3.6	26.2		3.0				
Green Ext Time (p_c), s	0.0	7.9		1.3	0.1	13.6		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	20	13	441	196	31
Future Vol, veh/h	16	20	13	441	196	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	22	14	479	213	34
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.8	15.6	9.7
HCM LOS	A	C	A

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	44%	0%
Vol Thru, %	0%	100%	0%	86%
Vol Right, %	0%	0%	56%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	441	36	227
LT Vol	13	0	16	0
Through Vol	0	441	0	196
RT Vol	0	0	20	31
Lane Flow Rate	14	479	39	247
Geometry Grp	7	7	2	5
Degree of Util (X)	0.021	0.643	0.058	0.315
Departure Headway (Hd)	5.334	4.832	5.373	4.594
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	675	753	665	785
Service Time	3.034	2.532	3.419	2.617
HCM Lane V/C Ratio	0.021	0.636	0.059	0.315
HCM Control Delay	8.1	15.8	8.8	9.7
HCM Lane LOS	A	C	A	A
HCM 95th-tile Q	0.1	4.7	0.2	1.4

LANE SUMMARY

Site: 1 [OY WP 2035 Phase 2 Weekend_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	41	0.0	41	0.0	1380	0.030	100	2.8	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	41	0.0	41	0.0		0.030		2.8	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	385	0.0	385	0.0	1323	0.291	100	5.0	LOS A	1.7	42.1	Full	1600	0.0	0.0
Approach	385	0.0	385	0.0		0.291		5.0	LOS A	1.7	42.1				
West: Hancock Street															
Lane 1[d]	460	0.0	460	0.0	1115	0.413	100	7.4	LOS A	2.5	62.9	Full	1600	0.0	0.0
Approach	460	0.0	460	0.0		0.413		7.4	LOS A	2.5	62.9				
All Vehicles	886	0.0	886	0.0		0.413		6.2	LOS A	2.5	62.9				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	41	41	0.0	1380	0.030	100	NA	NA
Approach	41	41	0.0		0.030			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	209	176	385	0.0	1323	0.291	100	NA	NA
Approach	209	176	385	0.0		0.291			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	460	460	0.0	1115	0.413	100	NA	NA
Approach	460	460	0.0		0.413			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	886	0.0	0.413

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	342	0	0	0	0	0	0	5	89	12	132
Future Vol, veh/h	75	342	0	0	0	0	0	0	5	89	12	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	82	372	0	0	0	0	0	0	5	97	13	143
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	13.8	7.9	10.2
HCM LOS	B	A	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	18%	38%
Vol Thru, %	0%	82%	5%
Vol Right, %	100%	0%	57%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	5	417	233
LT Vol	0	75	89
Through Vol	0	342	12
RT Vol	5	0	132
Lane Flow Rate	5	453	253
Geometry Grp	1	1	1
Degree of Util (X)	0.007	0.579	0.336
Departure Headway (Hd)	4.758	4.596	4.772
Convergence, Y/N	Yes	Yes	Yes
Cap	745	784	752
Service Time	2.83	2.639	2.817
HCM Lane V/C Ratio	0.007	0.578	0.336
HCM Control Delay	7.9	13.8	10.2
HCM Lane LOS	A	B	B
HCM 95th-tile Q	0	3.8	1.5

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	431	0	0	53	0
Future Vol, veh/h	10	431	0	0	53	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	468	0	0	58	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.9	8.6
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	7%	0%	100%
Vol Thru, %	93%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	154	287	53
LT Vol	10	0	53
Through Vol	144	287	0
RT Vol	0	0	0
Lane Flow Rate	167	312	58
Geometry Grp	7	7	2
Degree of Util (X)	0.217	0.402	0.083
Departure Headway (Hd)	4.667	4.635	5.168
Convergence, Y/N	Yes	Yes	Yes
Cap	763	771	698
Service Time	2.431	2.398	3.168
HCM Lane V/C Ratio	0.219	0.405	0.083
HCM Control Delay	8.7	10.5	8.6
HCM Lane LOS	A	B	A
HCM 95th-tile Q	0.8	2	0.3

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	167	281	28	49	16	0	0	46	4
Future Vol, veh/h	0	0	0	167	281	28	49	16	0	0	46	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	182	305	30	53	17	0	0	50	4
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	11.3	9	8.6
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	75%	54%	0%	0%
Vol Thru, %	25%	46%	83%	92%
Vol Right, %	0%	0%	17%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	308	169	50
LT Vol	49	167	0	0
Through Vol	16	141	141	46
RT Vol	0	0	28	4
Lane Flow Rate	71	334	183	54
Geometry Grp	2	7	7	2
Degree of Util (X)	0.104	0.477	0.241	0.078
Departure Headway (Hd)	5.319	5.133	4.744	5.146
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	674	702	758	696
Service Time	3.347	2.858	2.469	3.175
HCM Lane V/C Ratio	0.105	0.476	0.241	0.078
HCM Control Delay	9	12.5	9	8.6
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.3	2.6	0.9	0.3

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	23	368	26	6	6	0	0	51	91
Future Vol, veh/h	0	0	0	23	368	26	6	6	0	0	51	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	25	400	28	7	7	0	0	55	99
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.8	8.4	8.7
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	50%	11%	0%	0%
Vol Thru, %	50%	89%	88%	36%
Vol Right, %	0%	0%	12%	64%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	207	210	142
LT Vol	6	23	0	0
Through Vol	6	184	184	51
RT Vol	0	0	26	91
Lane Flow Rate	13	225	228	154
Geometry Grp	2	7	7	2
Degree of Util (X)	0.019	0.311	0.307	0.196
Departure Headway (Hd)	5.23	4.982	4.839	4.566
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	684	722	744	787
Service Time	3.263	2.709	2.567	2.585
HCM Lane V/C Ratio	0.019	0.312	0.306	0.196
HCM Control Delay	8.4	10	9.7	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.3	1.3	0.7

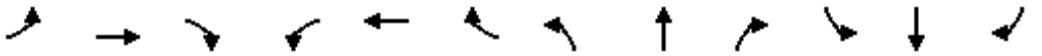
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	0	0	46	0	2453	11	0	2782	10
Future Vol, veh/h	0	0	10	0	0	46	0	2453	11	0	2782	10
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	5	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	11	0	0	50	0	2666	12	0	3024	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1521	-	-	1344	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	98	0	0	122	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	98	-	-	121	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46.3	54.3	0	0
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	98	121	-	-
HCM Lane V/C Ratio	-	-	0.111	0.413	-	-
HCM Control Delay (s)	-	-	46.3	54.3	-	-
HCM Lane LOS	-	-	E	F	-	-
HCM 95th %tile Q(veh)	-	-	0.4	1.8	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	38	64	134	113	2349	9	0	2559	271
Future Volume (veh/h)	0	0	0	38	64	134	113	2349	9	0	2559	271
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				41	70	146	123	2553	10	0	2782	295
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				97	165	220	448	4133	16	0	2557	791
Arrive On Green				0.14	0.14	0.14	0.50	1.00	1.00	0.00	0.50	0.50
Sat Flow, veh/h				678	1158	1538	1781	5250	21	0	5274	1580
Grp Volume(v), veh/h				111	0	146	123	1655	908	0	2782	295
Grp Sat Flow(s),veh/h/ln				1836	0	1538	1781	1702	1867	0	1702	1580
Q Serve(g_s), s				7.7	0.0	12.6	5.6	0.0	0.0	0.0	70.1	16.0
Cycle Q Clear(g_c), s				7.7	0.0	12.6	5.6	0.0	0.0	0.0	70.1	16.0
Prop In Lane				0.37		1.00	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				262	0	220	448	2680	1470	0	2557	791
V/C Ratio(X)				0.42	0.00	0.66	0.27	0.62	0.62	0.00	1.09	0.37
Avail Cap(c_a), veh/h				460	0	386	448	2680	1470	0	2557	791
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.44	0.44	0.44	0.00	1.00	1.00
Uniform Delay (d), s/veh				54.8	0.0	56.8	27.4	0.0	0.0	0.0	35.0	21.5
Incr Delay (d2), s/veh				0.4	0.0	1.3	0.1	0.5	0.9	0.0	47.0	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				3.6	0.0	5.0	2.2	0.2	0.4	0.0	38.5	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				55.2	0.0	58.1	27.5	0.5	0.9	0.0	81.9	22.8
LnGrp LOS				E	A	E	C	A	A	A	F	C
Approach Vol, veh/h					257			2686			3077	
Approach Delay, s/veh					56.8			1.8			76.3	
Approach LOS					E			A			E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	115.1	24.9	40.1	75.0
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	95.1	35.1	20.6	* 70
Max Q Clear Time (g_c+I1), s	2.0	14.6	7.6	72.1
Green Ext Time (p_c), s	10.7	0.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



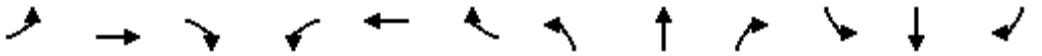
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	140	86	0	0	0	0	2125	45	140	2449	0
Future Volume (veh/h)	330	140	86	0	0	0	0	2125	45	140	2449	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	359	152	93				0	2310	49	152	2662	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	419	251	154				0	2913	62	173	4470	0
Arrive On Green	0.24	0.24	0.24				0.00	1.00	1.00	0.19	1.00	0.00
Sat Flow, veh/h	1781	1068	654				0	5313	109	1781	6696	0
Grp Volume(v), veh/h	359	0	245				0	1526	833	152	2662	0
Grp Sat Flow(s),veh/h/ln	1781	0	1722				0	1702	1850	1781	1609	0
Q Serve(g_s), s	27.0	0.0	17.8				0.0	0.0	0.0	11.6	0.0	0.0
Cycle Q Clear(g_c), s	27.0	0.0	17.8				0.0	0.0	0.0	11.6	0.0	0.0
Prop In Lane	1.00		0.38				0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	419	0	405				0	1927	1047	173	4470	0
V/C Ratio(X)	0.86	0.00	0.60				0.00	0.79	0.80	0.88	0.60	0.00
Avail Cap(c_a), veh/h	472	0	456				0	1927	1047	364	4470	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.47	0.47	0.18	0.18	0.00
Uniform Delay (d), s/veh	51.3	0.0	47.7				0.0	0.0	0.0	55.6	0.0	0.0
Incr Delay (d2), s/veh	12.1	0.0	1.0				0.0	1.6	3.0	1.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	0.0	7.8				0.0	0.4	0.9	4.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.4	0.0	48.7				0.0	1.6	3.0	56.6	0.1	0.0
LnGrp LOS	E	A	D				A	A	A	E	A	A
Approach Vol, veh/h		604						2359			2814	
Approach Delay, s/veh		57.4						2.1			3.2	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2		4		6			
Phs Duration (G+Y+Rc), s	18.0	84.2		37.8		102.2			
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9			
Max Green Setting (Gmax), s	24.6	60.1		37.1		93.1			
Max Q Clear Time (g_c+I1), s	13.6	2.0		29.0		2.0			
Green Ext Time (p_c), s	0.0	8.0		0.5		13.5			

Intersection Summary	
HCM 6th Ctrl Delay	8.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	568	370	238	209	296	21	489	1497	344	0	1543	973
Future Volume (vph)	568	370	238	209	296	21	489	1497	344	0	1543	973
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	1.00			1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3321	1492	1610	3338		3662	4927			5085	1506
Flt Permitted	0.95	0.98	1.00	0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3321	1492	1610	3338		3662	4927			5085	1506
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	617	402	259	227	322	23	532	1627	374	0	1677	1058
RTOR Reduction (vph)	0	0	199	0	3	0	0	25	0	0	0	342
Lane Group Flow (vph)	333	686	60	186	383	0	532	1976	0	0	1677	716
Confl. Peds. (#/hr)			40			5			4			25
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	32.4	32.4	32.4	19.8	19.8		20.6	70.1			44.1	44.1
Effective Green, g (s)	32.4	32.4	32.4	19.8	19.8		20.6	70.1			44.1	44.1
Actuated g/C Ratio	0.23	0.23	0.23	0.14	0.14		0.15	0.50			0.32	0.32
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	372	768	345	227	472		538	2467			1601	474
v/s Ratio Prot	c0.21	0.21		c0.12	0.11		c0.15	0.40			0.33	
v/s Ratio Perm			0.04									c0.48
v/c Ratio	0.90	0.89	0.17	0.82	0.81		0.99	0.80			1.05	1.51
Uniform Delay, d1	52.2	52.1	43.1	58.4	58.3		59.6	29.1			48.0	48.0
Progression Factor	1.00	1.00	1.00	0.70	0.70		1.27	0.21			0.48	1.42
Incremental Delay, d2	22.5	12.5	0.1	18.9	9.5		22.6	1.3			34.0	238.7
Delay (s)	74.6	64.6	43.2	59.8	50.4		98.4	7.4			57.2	306.9
Level of Service	E	E	D	E	D		F	A			E	F
Approach Delay (s)		62.9			53.5			26.6			153.8	
Approach LOS		E			D			C			F	

Intersection Summary			
HCM 2000 Control Delay	84.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	100.8%	ICU Level of Service	G
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)	303	536	242	147	616	410	409	1654	134	425	1393	307
Future Volume (veh/h)	303	536	242	147	616	410	409	1654	134	425	1393	307
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.97	1.00		0.98
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	329	583	263	160	670	446	445	1798	146	462	1514	334
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	691	296	183	637	274	495	1719	139	701	1756	385
Arrive On Green	0.11	0.19	0.19	0.10	0.18	0.18	0.10	0.24	0.24	0.20	0.42	0.42
Sat Flow, veh/h	3456	3554	1521	1781	3554	1529	3456	4803	389	3456	4170	915
Grp Volume(v), veh/h	329	583	263	160	670	446	445	1273	671	462	1234	614
Grp Sat Flow(s),veh/h/ln	1728	1777	1521	1781	1777	1529	1728	1702	1787	1728	1702	1681
Q Serve(g_s), s	13.0	22.1	23.6	12.4	25.1	25.1	17.8	50.1	50.1	17.2	46.1	46.6
Cycle Q Clear(g_c), s	13.0	22.1	23.6	12.4	25.1	25.1	17.8	50.1	50.1	17.2	46.1	46.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.54
Lane Grp Cap(c), veh/h	395	691	296	183	637	274	495	1218	640	701	1433	708
V/C Ratio(X)	0.83	0.84	0.89	0.87	1.05	1.63	0.90	1.04	1.05	0.66	0.86	0.87
Avail Cap(c_a), veh/h	533	713	305	237	637	274	632	1218	640	701	1433	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	0.57	0.57	0.57	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.7	54.3	54.9	61.9	57.5	57.5	62.3	53.2	53.2	51.4	36.8	37.0
Incr Delay (d2), s/veh	5.3	7.2	21.6	20.2	50.0	298.1	7.3	32.3	40.9	1.8	5.3	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	10.6	10.7	6.6	15.6	32.3	8.5	27.3	30.2	7.6	19.6	20.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	61.5	76.5	82.2	107.4	355.5	69.6	85.6	94.2	53.2	42.2	47.6
LnGrp LOS	E	E	E	F	F	F	E	F	F	D	D	D
Approach Vol, veh/h		1175			1276			2389			2310	
Approach Delay, s/veh		66.1			191.0			85.0			45.8	
Approach LOS		E			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.1	55.0	18.8	32.1	24.4	64.6	20.9	30.0
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 50	18.6	28.1	25.6	48.3	21.6	* 25
Max Q Clear Time (g_c+I1), s	19.2	52.1	14.4	25.6	19.8	48.6	15.0	27.1
Green Ext Time (p_c), s	0.2	0.0	0.0	0.6	0.2	0.0	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	88.2
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	5	4	104	11	97	22	1987	34	192	1626	48
Future Volume (veh/h)	38	5	4	104	11	97	22	1987	34	192	1626	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	5	4	113	12	105	24	2160	37	209	1767	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	23	14	162	17	118	39	3084	53	232	3593	106
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.02	0.60	0.60	0.13	0.71	0.71
Sat Flow, veh/h	865	138	87	746	104	714	1781	5168	88	1781	5093	150
Grp Volume(v), veh/h	50	0	0	230	0	0	24	1421	776	209	1181	638
Grp Sat Flow(s),veh/h/ln	1090	0	0	1564	0	0	1781	1702	1853	1781	1702	1839
Q Serve(g_s), s	0.0	0.0	0.0	14.4	0.0	0.0	1.9	40.5	40.6	16.2	21.9	21.9
Cycle Q Clear(g_c), s	5.6	0.0	0.0	20.0	0.0	0.0	1.9	40.5	40.6	16.2	21.9	21.9
Prop In Lane	0.82		0.08	0.49		0.46	1.00		0.05	1.00		0.08
Lane Grp Cap(c), veh/h	227	0	0	298	0	0	39	2031	1106	232	2401	1297
V/C Ratio(X)	0.22	0.00	0.00	0.77	0.00	0.00	0.62	0.70	0.70	0.90	0.49	0.49
Avail Cap(c_a), veh/h	322	0	0	404	0	0	211	2031	1106	377	2401	1297
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.48	0.48	0.48	0.38	0.38	0.38
Uniform Delay (d), s/veh	50.9	0.0	0.0	56.7	0.0	0.0	67.9	19.5	19.6	60.0	9.3	9.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	4.1	0.0	0.0	2.9	1.0	1.8	4.4	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	8.4	0.0	0.0	0.9	15.4	17.0	7.5	7.4	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	0.0	0.0	60.8	0.0	0.0	70.8	20.5	21.4	64.4	9.6	9.8
LnGrp LOS	D	A	A	E	A	A	E	C	C	E	A	A
Approach Vol, veh/h		50			230			2221			2028	
Approach Delay, s/veh		51.1			60.8			21.4			15.3	
Approach LOS		D			E			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	22.6	89.2		28.1	7.4	104.5		28.1
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	29.6	* 63		33.1	16.6	75.3		33.1
Max Q Clear Time (g_c+I1), s	18.2	42.6		7.6	3.9	23.9		22.0
Green Ext Time (p_c), s	0.1	6.2		0.1	0.0	5.0		0.4

Intersection Summary		
HCM 6th Ctrl Delay	21.0	
HCM 6th LOS	C	

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



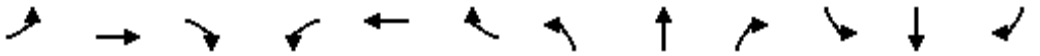
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	156	19	381	204	234	20	1568	454	246	1166	297
Future Volume (veh/h)	262	156	19	381	204	234	20	1568	454	246	1166	297
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	285	170	21	414	222	254	22	1704	493	267	1267	323
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	350	43	463	323	266	37	2305	713	212	1749	763
Arrive On Green	0.17	0.21	0.21	0.13	0.17	0.17	0.02	0.45	0.45	0.12	0.98	0.98
Sat Flow, veh/h	1781	1629	201	3456	1870	1543	1781	5106	1580	3456	3554	1551
Grp Volume(v), veh/h	285	0	191	414	222	254	22	1704	493	267	1267	323
Grp Sat Flow(s),veh/h/ln	1781	0	1830	1728	1870	1543	1781	1702	1580	1728	1777	1551
Q Serve(g_s), s	22.1	0.0	12.8	16.5	15.6	19.3	1.7	38.5	34.8	8.6	2.7	0.4
Cycle Q Clear(g_c), s	22.1	0.0	12.8	16.5	15.6	19.3	1.7	38.5	34.8	8.6	2.7	0.4
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	307	0	393	463	323	266	37	2305	713	212	1749	763
V/C Ratio(X)	0.93	0.00	0.49	0.89	0.69	0.95	0.60	0.74	0.69	1.26	0.72	0.42
Avail Cap(c_a), veh/h	415	0	446	805	456	376	211	2305	713	212	1749	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	57.1	0.0	48.2	59.6	54.4	41.0	68.0	31.6	30.6	61.4	0.6	0.1
Incr Delay (d2), s/veh	19.7	0.0	0.3	3.3	1.0	25.4	5.8	2.2	5.4	144.3	2.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	0.0	5.9	7.3	7.3	9.1	0.8	15.8	14.0	7.7	0.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.8	0.0	48.5	62.9	55.4	66.4	73.8	33.8	36.1	205.7	2.8	1.6
LnGrp LOS	E	A	D	E	E	E	E	C	D	F	A	A
Approach Vol, veh/h		476			890			2219			1857	
Approach Delay, s/veh		65.5			62.0			34.7			31.8	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	68.9	23.2	35.0	7.3	74.6	29.1	29.1
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	8.6	* 46	32.6	34.1	16.6	37.3	32.6	* 34
Max Q Clear Time (g_c+I1), s	10.6	40.5	18.5	14.8	3.7	4.7	24.1	21.3
Green Ext Time (p_c), s	0.0	2.8	0.3	0.3	0.0	3.6	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	201	12	155	0	123	0	549	210	44	337	0
Future Volume (vph)	50	201	12	155	0	123	0	549	210	44	337	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		0.93		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.96		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1843		1770		1550		3164		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.26	1.00	
Satd. Flow (perm)	1770	1843		1770		1550		3164		492	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	218	13	168	0	134	0	597	228	48	366	0
RTOR Reduction (vph)	0	2	0	0	0	88	0	19	0	0	0	0
Lane Group Flow (vph)	54	229	0	168	0	46	0	806	0	48	366	0
Confl. Peds. (#/hr)			19			3			70			16
Confl. Bikes (#/hr)						1			10			12
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	20.9	20.9		16.8		16.8		79.1		88.1	88.1	
Effective Green, g (s)	20.9	20.9		16.8		16.8		79.1		88.1	88.1	
Actuated g/C Ratio	0.15	0.15		0.12		0.12		0.56		0.63	0.63	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	264	275		212		186		1787		351	2227	
v/s Ratio Prot	0.03	c0.12		c0.09				c0.25		0.00	c0.10	
v/s Ratio Perm						0.03				0.08		
v/c Ratio	0.20	0.83		0.79		0.25		0.45		0.14	0.16	
Uniform Delay, d1	52.3	57.9		59.9		55.9		17.8		11.3	10.7	
Progression Factor	0.81	0.84		1.00		1.00		0.87		1.00	1.00	
Incremental Delay, d2	0.1	16.2		17.0		0.3		0.6		0.1	0.2	
Delay (s)	42.3	64.5		76.9		56.1		16.0		11.3	10.9	
Level of Service	D	E		E		E		B		B	B	
Approach Delay (s)		60.3			67.7			16.0			10.9	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

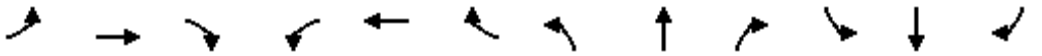
Intersection	
Int Delay, s/veh	1.4

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	171	567	345	47	0	0
Future Vol, veh/h	171	567	345	47	0	0
Conflicting Peds, #/hr	0	0	0	12	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	186	616	375	51	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	438	0	-	0	1093	225
Stage 1	-	-	-	-	413	-
Stage 2	-	-	-	-	680	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1118	-	-	-	209	778
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	465	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1105	-	-	-	170	769
Mov Cap-2 Maneuver	-	-	-	-	300	-
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	460	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1105	-	-	-	-
HCM Lane V/C Ratio	0.168	-	-	-	-
HCM Control Delay (s)	8.9	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	316	100	153	257	62	107	97	150	65	95	94
Future Volume (veh/h)	50	316	100	153	257	62	107	97	150	65	95	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.97	1.00		0.95	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	343	109	166	279	67	116	105	163	71	103	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	1850	650	258	745	609	150	742	764	143	590	245
Arrive On Green	0.04	0.36	0.36	0.07	0.40	0.40	0.08	0.21	0.21	0.04	0.17	0.17
Sat Flow, veh/h	1781	5106	1428	3456	1870	1530	1781	3554	2660	3456	3554	1477
Grp Volume(v), veh/h	54	343	109	166	279	67	116	105	163	71	103	102
Grp Sat Flow(s),veh/h/ln	1781	1702	1428	1728	1870	1530	1781	1777	1330	1728	1777	1477
Q Serve(g_s), s	2.2	3.4	3.4	3.5	7.9	2.1	4.8	1.8	3.5	1.5	1.9	4.6
Cycle Q Clear(g_c), s	2.2	3.4	3.4	3.5	7.9	2.1	4.8	1.8	3.5	1.5	1.9	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	1850	650	258	745	609	150	742	764	143	590	245
V/C Ratio(X)	0.78	0.19	0.17	0.64	0.37	0.11	0.78	0.14	0.21	0.50	0.17	0.42
Avail Cap(c_a), veh/h	715	2732	897	1387	1001	819	715	1902	1632	1387	1902	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	16.3	12.4	33.6	15.9	14.2	33.5	24.1	20.4	35.1	26.8	27.9
Incr Delay (d2), s/veh	7.0	0.1	0.1	1.0	0.2	0.0	3.2	0.1	0.1	1.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.3	1.0	1.4	3.1	0.6	2.0	0.7	1.0	0.6	0.7	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	16.4	12.6	34.6	16.1	14.2	36.8	24.2	20.6	36.1	26.8	28.3
LnGrp LOS	D	B	B	C	B	B	D	C	C	D	C	C
Approach Vol, veh/h		506			512			384			276	
Approach Delay, s/veh		18.3			21.8			26.5			29.8	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	33.0	11.7	19.1	8.3	35.7	8.5	22.3
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	5.5	5.4	6.8	6.6	4.2	9.9	3.5	5.5
Green Ext Time (p_c), s	0.3	3.6	0.1	0.5	0.1	1.3	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

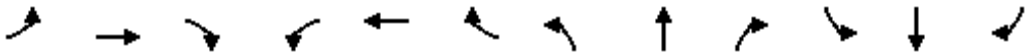
Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	354	215	331	295	13
Future Vol, veh/h	0	354	215	331	295	13
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	385	234	360	321	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	171	338	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	717	806	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	715	804	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.7	4.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	804	-	715	-	-
HCM Lane V/C Ratio	0.291	-	0.538	-	-
HCM Control Delay (s)	11.3	-	15.7	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	1.2	-	3.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	3	18	2	2	3	193	511	3	7	657	84
Future Volume (veh/h)	18	3	18	2	2	3	193	511	3	7	657	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	3	20	2	2	3	210	555	3	8	714	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	322	273	4	322	272	260	1502	650	15	899	115
Arrive On Green	0.02	0.17	0.17	0.00	0.17	0.17	0.15	0.42	0.42	0.01	0.28	0.28
Sat Flow, veh/h	1781	1870	1585	1781	1870	1582	1781	3554	1537	1781	3156	402
Grp Volume(v), veh/h	20	3	20	2	2	3	210	555	3	8	402	403
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1582	1781	1777	1537	1781	1777	1781
Q Serve(g_s), s	0.7	0.1	0.6	0.1	0.1	0.1	6.8	6.3	0.1	0.3	12.4	12.4
Cycle Q Clear(g_c), s	0.7	0.1	0.6	0.1	0.1	0.1	6.8	6.3	0.1	0.3	12.4	12.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	34	322	273	4	322	272	260	1502	650	15	506	508
V/C Ratio(X)	0.59	0.01	0.07	0.51	0.01	0.01	0.81	0.37	0.00	0.54	0.79	0.79
Avail Cap(c_a), veh/h	123	1048	888	120	1108	937	502	2423	1048	120	831	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	20.3	20.6	29.5	20.3	20.3	24.5	11.7	9.9	29.3	19.6	19.6
Incr Delay (d2), s/veh	21.4	0.0	0.1	33.9	0.0	0.0	2.3	0.1	0.0	10.8	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.2	0.1	0.0	0.0	2.6	1.8	0.0	0.1	4.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	20.4	20.7	63.4	20.3	20.4	26.8	11.8	9.9	40.1	20.7	20.7
LnGrp LOS	D	C	C	E	C	C	C	B	A	D	C	C
Approach Vol, veh/h		43			7			768			813	
Approach Delay, s/veh		34.4			32.7			15.9			20.9	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	18.9	13.0	21.8	5.5	18.9	4.9	29.9
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	4.0	33.2	16.7	27.7	4.1	* 35	4.0	40.4
Max Q Clear Time (g_c+I1), s	2.1	2.6	8.8	14.4	2.7	2.1	2.3	8.3
Green Ext Time (p_c), s	0.0	0.1	0.2	2.5	0.0	0.0	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

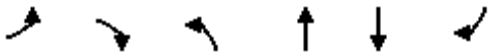
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	767	911	12	0	157
Future Vol, veh/h	0	767	911	12	0	157
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	834	990	13	0	171

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	498
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	518
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	517
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	517
HCM Lane V/C Ratio	-	-	0.33
HCM Control Delay (s)	-	-	15.4
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.4



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	660	108	0	834	904	923
Future Volume (vph)	660	108	0	834	904	923
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	717	117	0	907	983	1003
RTOR Reduction (vph)	0	70	0	0	0	0
Lane Group Flow (vph)	717	47	0	907	983	1003
Confl. Peds. (#/hr)						7
Confl. Bikes (#/hr)						2
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	29.2	29.2		38.4	38.4	97.2
Effective Green, g (s)	29.2	29.2		38.4	38.4	91.8
Actuated g/C Ratio	0.27	0.27		0.36	0.36	0.86
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	935	431		1268	1268	1356
v/s Ratio Prot	0.21			0.26	0.28	c0.63
v/s Ratio Perm		0.03				
v/c Ratio	0.77	0.11		0.72	0.78	0.74
Uniform Delay, d1	35.8	29.2		29.6	30.5	3.0
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.6	0.1		1.9	3.0	2.0
Delay (s)	39.5	29.3		31.6	33.5	5.0
Level of Service	D	C		C	C	A
Approach Delay (s)	38.0			31.6	19.1	
Approach LOS	D			C	B	

Intersection Summary			
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	107.1	Sum of lost time (s)	19.0
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	926	213	108	1410
Future Volume (veh/h)	0	1	926	213	108	1410
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1007	232	117	1533
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	6	2283	996	208	2772
Arrive On Green	0.00	0.00	0.64	0.64	0.06	0.78
Sat Flow, veh/h	1781	3170	3647	1547	3456	3647
Grp Volume(v), veh/h	0	1	1007	232	117	1533
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1547	1728	1777
Q Serve(g_s), s	0.0	0.0	8.0	3.6	1.9	9.5
Cycle Q Clear(g_c), s	0.0	0.0	8.0	3.6	1.9	9.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	6	2283	996	208	2772
V/C Ratio(X)	0.00	0.18	0.44	0.23	0.56	0.55
Avail Cap(c_a), veh/h	1257	2238	3763	1640	1830	3763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.3	5.1	4.2	25.9	2.4
Incr Delay (d2), s/veh	0.0	5.5	0.2	0.2	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.7	0.7	0.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	33.8	5.2	4.4	26.8	2.8
LnGrp LOS	A	C	A	A	C	A
Approach Vol, veh/h	1		1239			1650
Approach Delay, s/veh	33.8		5.1			4.5
Approach LOS	C		A			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.8	42.6				50.4	6.3
Change Period (Y+Rc), s	4.4	6.2				* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0				* 60	40.0
Max Q Clear Time (g_c+I1), s	3.9	10.0				11.5	2.0
Green Ext Time (p_c), s	0.2	15.3				32.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	60	158	35	38	81	80	829	25	91	1335	255
Future Volume (veh/h)	270	60	158	35	38	81	80	829	25	91	1335	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.92	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	293	65	172	38	41	88	87	901	27	99	1451	277
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	374	301	239	48	149	116	145	1921	899	127	2023	1074
Arrive On Green	0.11	0.16	0.16	0.03	0.08	0.08	0.04	0.54	0.54	0.07	0.57	0.57
Sat Flow, veh/h	3456	1870	1486	1781	1870	1451	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	293	65	172	38	41	88	87	901	27	99	1451	277
Grp Sat Flow(s),veh/h/ln	1728	1870	1486	1781	1870	1451	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.1	3.0	10.7	2.1	2.0	5.8	2.4	15.3	0.7	5.3	29.1	6.7
Cycle Q Clear(g_c), s	8.1	3.0	10.7	2.1	2.0	5.8	2.4	15.3	0.7	5.3	29.1	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	301	239	48	149	116	145	1921	899	127	2023	1074
V/C Ratio(X)	0.78	0.22	0.72	0.79	0.27	0.76	0.60	0.47	0.03	0.78	0.72	0.26
Avail Cap(c_a), veh/h	1060	574	456	546	574	445	1060	2543	1177	546	2543	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	35.7	38.9	47.3	42.3	44.1	46.0	13.8	9.3	44.7	15.3	6.2
Incr Delay (d2), s/veh	1.4	0.4	4.0	10.2	0.4	3.8	1.5	0.3	0.0	3.9	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	1.4	4.0	1.0	0.9	2.1	1.0	5.6	0.2	2.5	10.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	36.0	42.9	57.5	42.7	47.9	47.5	14.1	9.3	48.6	16.3	6.3
LnGrp LOS	D	D	D	E	D	D	D	B	A	D	B	A
Approach Vol, veh/h		530			167			1015			1827	
Approach Delay, s/veh		42.6			48.8			16.9			16.5	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	58.2	7.0	21.3	8.5	61.0	15.0	13.3
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	7.3	17.3	4.1	12.7	4.4	31.1	10.1	7.8
Green Ext Time (p_c), s	0.1	13.0	0.0	0.8	0.1	24.6	0.5	0.2

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

Notes

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

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

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	947	268	278	633	0	0	0	0	205	0	0
Future Volume (vph)	0	947	268	278	633	0	0	0	0	205	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						4.0	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.99	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1561	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1561	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1029	291	302	688	0	0	0	0	223	0	0
RTOR Reduction (vph)	0	0	140	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1029	151	302	688	0	0	0	0	0	223	0
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			5			2						
Turn Type		NA	Perm	Prot	NA					Prot	NA	
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		46.7	46.7	12.3	63.7						14.7	
Effective Green, g (s)		46.7	46.7	12.3	63.7						14.7	
Actuated g/C Ratio		0.52	0.52	0.14	0.71						0.16	
Clearance Time (s)				4.7								
Vehicle Extension (s)				2.0								
Lane Grp Cap (vph)		1836	809	469	2504						289	
v/s Ratio Prot		c0.29		c0.09	0.19						0.13	
v/s Ratio Perm			0.10									
v/c Ratio		0.56	0.19	0.64	0.27						0.77	
Uniform Delay, d1		14.7	11.5	36.8	4.8						36.0	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		0.4	0.1	2.3	0.1						11.0	
Delay (s)		15.1	11.6	39.0	4.8						47.0	
Level of Service		B	B	D	A						D	
Approach Delay (s)		14.3			15.3			0.0			47.0	
Approach LOS		B			B			A			D	

Intersection Summary					
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B		
HCM 2000 Volume to Capacity ratio	0.65				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.3		
Intersection Capacity Utilization	58.1%	ICU Level of Service	B		
Analysis Period (min)	15				

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	345	144	0	0	62	0
Future Vol, veh/h	345	144	0	0	62	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	375	157	0	0	67	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	532	0	455	454
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1036	-	563	606
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1036	-	563	606
Mov Cap-2 Maneuver	-	-	-	-	563	-
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	563	-	-	-	1036	-
HCM Lane V/C Ratio	0.12	-	-	-	-	-
HCM Control Delay (s)	12.3	0	-	-	0	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	319	0	24	0	0	15
Future Vol, veh/h	319	0	24	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	347	0	26	0	0	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	347	0	399	347
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	52	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1212	-	607	696
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1212	-	594	696
Mov Cap-2 Maneuver	-	-	-	-	594	-
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	950	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	696	-	-	1212	-
HCM Lane V/C Ratio	-	0.023	-	-	0.022	-
HCM Control Delay (s)	0	10.3	-	-	8	0
HCM Lane LOS	A	B	-	-	A	A
HCM 95th %tile Q(veh)	-	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	348	0	5	127	0	0
Future Vol, veh/h	348	0	5	127	0	0
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	378	0	5	138	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	378	0	526	378
Stage 1	-	-	-	-	378	-
Stage 2	-	-	-	-	148	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1180	-	512	669
Stage 1	-	-	-	-	693	-
Stage 2	-	-	-	-	880	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1180	-	509	669
Mov Cap-2 Maneuver	-	-	-	-	509	-
Stage 1	-	-	-	-	693	-
Stage 2	-	-	-	-	876	-

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)	-	-	-	1180	-
HCM Lane V/C Ratio	-	-	-	0.005	-
HCM Control Delay (s)	0	-	-	8.1	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	298	72	0	0	2	0
Future Vol, veh/h	298	72	0	0	2	0
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	324	78	0	0	2	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	402	0	364	363
Stage 1	-	-	-	-	363	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1157	-	635	682
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1157	-	635	682
Mov Cap-2 Maneuver	-	-	-	-	635	-
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	635	-	-	1157	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	10.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	896	1144	110	0	19
Future Vol, veh/h	0	896	1144	110	0	19
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	0	974	1243	120	0	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	682
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	336
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	336
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	336
HCM Lane V/C Ratio	-	-	-	0.061
HCM Control Delay (s)	-	-	-	16.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	846	1219	103	0	4
Future Vol, veh/h	0	846	1219	103	0	4
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	0	920	1325	112	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	719
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	318
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	318
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	318
HCM Lane V/C Ratio	-	-	-	0.014
HCM Control Delay (s)	-	-	-	16.5
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	490	180	0	0	77	0
Future Vol, veh/h	490	180	0	0	77	0
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	533	196	0	0	84	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	632	631
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	444	481
Stage 1	-	-	0	-	530	-
Stage 2	-	-	0	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	444	481
Mov Cap-2 Maneuver	-	-	-	-	444	-
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	444	-	-	-
HCM Lane V/C Ratio	0.189	-	-	-
HCM Control Delay (s)	15	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	340	0	103	24	0	7
Future Vol, veh/h	340	0	103	24	0	7
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	370	0	112	26	0	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	370	0	620	370
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	250	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1189	-	452	676
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1189	-	409	676
Mov Cap-2 Maneuver	-	-	-	-	409	-
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	716	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.8	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	676	-	-	1189	-
HCM Lane V/C Ratio	0.011	-	-	0.094	-
HCM Control Delay (s)	10.4	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	-

Appendix AA

Opening Year (2035) Plus Project Phase 2 Buildout (14,500-spectator) Conditions 95th Percentile Queue Worksheets

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	1215	1252	478	470	139	147	156	210	242	263	216
Average Queue (ft)	756	813	195	196	80	92	89	83	152	183	118
95th Queue (ft)	1378	1399	471	452	126	144	143	168	229	251	223
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1358	1158	71	224	237	144	202	265	100	185	224
Average Queue (ft)	350	863	564	3	104	117	28	104	142	21	89	124
95th Queue (ft)	564	1770	1657	36	193	212	85	185	227	87	157	191
Link Distance (ft)		1940	1940		629	629		1525	1525		189	189
Upstream Blk Time (%)		6	2								0	1
Queuing Penalty (veh)		0	0								1	3
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	2	57			4			0	77			
Queuing Penalty (veh)	9	93			1			0	12			

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B57	B57
Directions Served	T	R	T	T
Maximum Queue (ft)	229	175	8	16
Average Queue (ft)	108	21	0	1
95th Queue (ft)	181	114	6	12
Link Distance (ft)	189		368	368
Upstream Blk Time (%)	1	0		
Queuing Penalty (veh)	2	0		
Storage Bay Dist (ft)		100		
Storage Blk Time (%)	12	0		
Queuing Penalty (veh)	19	0		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	149	126	172	25	158	335	401	60	215
Average Queue (ft)	67	50	73	3	60	115	198	22	120
95th Queue (ft)	117	103	143	16	119	255	352	53	192
Link Distance (ft)		629	629		962	962	962	863	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	0	0			1				0
Queuing Penalty (veh)	1	0			0				0

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	103	149	174	222	175	157	168	210	127	122	92	227
Average Queue (ft)	37	57	63	108	86	40	80	103	55	50	20	94
95th Queue (ft)	80	109	128	191	142	102	136	171	99	101	62	167
Link Distance (ft)		962	962	962		285	285	285		702		1252
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)					0				1	1		2
Queuing Penalty (veh)					0				2	2		0

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	142	83	153	202	185	131	132	156	86	82	158	147
Average Queue (ft)	64	31	54	87	92	40	41	62	43	25	76	56
95th Queue (ft)	114	75	110	158	159	99	100	135	83	58	134	103
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)					0	0		0				
Queuing Penalty (veh)					0	0		0				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)					1	0			11	1	1	0
Queuing Penalty (veh)					1	0			5	0	1	0

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	WB
Directions Served	T	TR	L
Maximum Queue (ft)	8	36	117
Average Queue (ft)	0	2	42
95th Queue (ft)	6	18	87
Link Distance (ft)	194	194	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			125
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	113	152	247	199	408	307	133	28	73
Average Queue (ft)	49	64	103	81	113	49	60	2	34
95th Queue (ft)	92	119	195	154	319	199	110	12	61
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)						0			
Queuing Penalty (veh)						0			
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				1	4				
Queuing Penalty (veh)				2	6				

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	L
Maximum Queue (ft)	112	164	176	76	98	63	150	178	137	197	59	135
Average Queue (ft)	46	87	91	25	41	6	71	91	41	91	24	41
95th Queue (ft)	94	145	152	54	77	27	130	156	95	159	50	101
Link Distance (ft)		1525	1525				1839	1839		355	355	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	320			150	250	250			90			100
Storage Blk Time (%)			1						0	12		0
Queuing Penalty (veh)			1						0	7		0

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	225	78
Average Queue (ft)	93	24
95th Queue (ft)	172	58
Link Distance (ft)	702	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		115
Storage Blk Time (%)	7	
Queuing Penalty (veh)	9	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	72	183	228	67	236	256	32	87
Average Queue (ft)	14	72	101	11	100	127	7	31
95th Queue (ft)	43	150	190	48	197	222	22	65
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		4			5			
Queuing Penalty (veh)		1			1			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	60	54	86	158
Average Queue (ft)	24	18	50	93
95th Queue (ft)	53	46	75	136
Link Distance (ft)	241		863	917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	2	
Queuing Penalty (veh)		0	1	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	138	100	99	117
Average Queue (ft)	38	42	41	91
95th Queue (ft)	80	78	80	128
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)				7
Queuing Penalty (veh)				29
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	272	41	204
Average Queue (ft)	208	11	65
95th Queue (ft)	349	36	145
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	39		
Queuing Penalty (veh)	216		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	476	479	108
Average Queue (ft)	372	349	37
95th Queue (ft)	626	626	85
Link Distance (ft)	461	461	321
Upstream Blk Time (%)	36	23	
Queuing Penalty (veh)	106	68	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	72	83	38	50
Average Queue (ft)	37	38	21	24
95th Queue (ft)	57	61	45	47
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	76	88	31	71
Average Queue (ft)	43	42	7	36
95th Queue (ft)	68	66	27	54
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	42	42	128	101	105	850	937	970
Average Queue (ft)	10	11	8	8	7	274	299	341
95th Queue (ft)	40	31	59	50	49	1087	1124	1169
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)			0					
Queuing Penalty (veh)			0					
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	137	159	105	228	251	256	411	409	436	205
Average Queue (ft)	46	53	16	76	84	90	290	293	323	75
95th Queue (ft)	98	122	57	183	198	213	482	492	518	220
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)				0	0	0	25	24	28	
Queuing Penalty (veh)				0	0	1	193	180	213	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)				5					35	
Queuing Penalty (veh)				2					35	

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	554	555	331	346	334	174	322	321	320	265
Average Queue (ft)	524	349	120	133	139	128	167	119	107	47
95th Queue (ft)	630	680	281	296	302	205	357	305	276	178
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	64	24	0	0	0		8	1	1	0
Queuing Penalty (veh)	190	73	1	1	1		44	8	7	1
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						42	9			
Queuing Penalty (veh)						219	11			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	228	254	199	292	178	179	152	160	169	240	274	308
Average Queue (ft)	107	127	90	138	105	143	86	96	71	85	114	138
95th Queue (ft)	182	204	162	238	173	194	142	156	140	192	220	249
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)					20	42	15			0	0	0
Queuing Penalty (veh)					28	59	21			0	0	1
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)				0						0		
Queuing Penalty (veh)				0						0		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	405	403	420	254
Average Queue (ft)	273	275	285	28
95th Queue (ft)	443	445	461	195
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	11	11	12	1
Queuing Penalty (veh)	60	61	67	5
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	133	166	199	182	204	265	271	280	245	185	324	414
Average Queue (ft)	52	79	70	84	85	123	137	151	108	96	127	192
95th Queue (ft)	110	136	140	150	159	209	221	237	205	158	247	346
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	0	6	4	0	0	0	0	5	3			2
Queuing Penalty (veh)	0	6	7	0	0	1	1	12	5			6

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	468	496	180	263	342	352	351
Average Queue (ft)	237	271	89	148	235	249	248
95th Queue (ft)	409	435	156	270	358	373	371
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)				0	9	13	14
Queuing Penalty (veh)				0	61	90	93
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	9		
Queuing Penalty (veh)				1	25		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	211	230	60	183	172	194	384	934	984	963
Average Queue (ft)	106	111	16	65	58	67	184	295	319	278
95th Queue (ft)	177	204	43	141	134	148	406	846	893	825
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				0			0	25		
Queuing Penalty (veh)				0			0	32		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	457	384	282	320	707	96	143	489	472	458	320	140
Average Queue (ft)	250	219	209	242	279	40	14	287	280	255	132	69
95th Queue (ft)	403	339	290	335	528	80	72	439	433	409	263	126
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			1	7	12			46		0	0	
Queuing Penalty (veh)			4	21	69			5		2	1	

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	545	1391	1382	1377
Average Queue (ft)	327	976	985	684
95th Queue (ft)	714	1657	1659	1654
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)		7	11	3
Queuing Penalty (veh)		49	73	22
Storage Bay Dist (ft)	470			
Storage Blk Time (%)		43		
Queuing Penalty (veh)		72		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	113	247	323	145	148	208	81	143	76
Average Queue (ft)	35	105	147	85	63	83	20	48	18
95th Queue (ft)	88	219	268	169	130	157	56	112	52
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		1			0	2			
Queuing Penalty (veh)		1			1	4			
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			38	2				2	
Queuing Penalty (veh)			54	4				1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB
Directions Served	L	T	T	T	TR
Maximum Queue (ft)	87	78	93	98	78
Average Queue (ft)	43	45	46	55	39
95th Queue (ft)	70	69	72	83	62
Link Distance (ft)		271	271	640	640
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	120				
Storage Blk Time (%)	0				
Queuing Penalty (veh)	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	95	50	87	107	54	100	100	117	36	128	82	84
Average Queue (ft)	29	7	34	59	20	87	63	76	8	42	20	27
95th Queue (ft)	71	28	71	97	46	111	119	122	25	97	59	67
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)	0		0	1				0		0		
Queuing Penalty (veh)	0		0	1				0		0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	80	76	28	56	77	62	37
Average Queue (ft)	16	18	4	16	31	8	4
95th Queue (ft)	52	57	17	43	68	30	18
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						0	0
Queuing Penalty (veh)						0	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB
Directions Served	R	L	T	T
Maximum Queue (ft)	114	203	22	17
Average Queue (ft)	29	84	2	1
95th Queue (ft)	77	167	13	9
Link Distance (ft)	1384		1876	1876
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		200		
Storage Blk Time (%)		0		
Queuing Penalty (veh)		1		

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	56	48	31	55	32	30	347	344	230	49	225	308
Average Queue (ft)	12	9	7	15	2	3	201	156	96	3	69	180
95th Queue (ft)	39	35	28	45	16	17	321	277	181	21	152	282
Link Distance (ft)		692		222	222	222		1615	1615			706
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280			300	200	
Storage Blk Time (%)							4	0			0	6
Queuing Penalty (veh)							15	1			0	6

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB
Directions Served	TR
Maximum Queue (ft)	323
Average Queue (ft)	202
95th Queue (ft)	301
Link Distance (ft)	706
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	567	578	6	9	124
Average Queue (ft)	290	278	0	0	59
95th Queue (ft)	742	754	4	7	104
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	205	193	112	2898	2875	360	462	15	437	422
Average Queue (ft)	185	169	9	1776	1767	356	433	1	400	371
95th Queue (ft)	203	204	65	3206	3160	373	450	11	500	553
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	66	58	0	3	1	3	27		37	14
Queuing Penalty (veh)	170	151	1	0	0	0	0		0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						3	27			
Queuing Penalty (veh)						21	186			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	T	T	R	L	L	T	T
Maximum Queue (ft)	9	12	128	101	62	45	60	74	90
Average Queue (ft)	1	0	67	39	28	7	36	12	20
95th Queue (ft)	7	5	118	76	59	31	58	52	66
Link Distance (ft)	899	899	980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)					185	300	300		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	10	68	55	32	68	45	70	55	32	205	221	119
Average Queue (ft)	1	20	9	4	22	12	13	17	2	103	112	17
95th Queue (ft)	7	47	31	18	48	34	43	42	16	176	186	66
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											9	
Queuing Penalty (veh)											4	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	91	174	176	158
Average Queue (ft)	35	79	88	27
95th Queue (ft)	73	145	149	105
Link Distance (ft)		511	511	511
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	129	134	50	157	194	248	94	145
Average Queue (ft)	93	101	14	119	167	111	28	122
95th Queue (ft)	136	140	41	183	217	274	72	151
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	7	10						68
Queuing Penalty (veh)	26	36						161
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	36	0		
Queuing Penalty (veh)				3	66	0		

Intersection: 33: Kemper St & Kurtz St

Movement	EB	NB
Directions Served	TR	L
Maximum Queue (ft)	84	114
Average Queue (ft)	8	49
95th Queue (ft)	59	86
Link Distance (ft)	139	
Upstream Blk Time (%)	4	
Queuing Penalty (veh)	7	
Storage Bay Dist (ft)		150
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	R
Maximum Queue (ft)	159	31	615
Average Queue (ft)	67	2	211
95th Queue (ft)	181	13	609
Link Distance (ft)	143	300	949
Upstream Blk Time (%)	24		1
Queuing Penalty (veh)	53		1
Storage Bay Dist (ft)			
Storage Blk Time (%)			38
Queuing Penalty (veh)			0

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	191	91
Average Queue (ft)	122	29
95th Queue (ft)	264	78
Link Distance (ft)	182	283
Upstream Blk Time (%)	38	
Queuing Penalty (veh)	203	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: E2 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	336	296
Average Queue (ft)	78	89
95th Queue (ft)	321	267
Link Distance (ft)	464	365
Upstream Blk Time (%)	6	9
Queuing Penalty (veh)	9	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	WB	SB
Directions Served	T	R
Maximum Queue (ft)	4	84
Average Queue (ft)	0	43
95th Queue (ft)	3	68
Link Distance (ft)	313	536
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	SB
Directions Served	R
Maximum Queue (ft)	64
Average Queue (ft)	34
95th Queue (ft)	58
Link Distance (ft)	355
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	T	LR
Maximum Queue (ft)	51	84	159
Average Queue (ft)	4	10	64
95th Queue (ft)	36	44	128
Link Distance (ft)	101	139	321
Upstream Blk Time (%)	3	0	
Queuing Penalty (veh)	8	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 40: X Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	314	43	319
Average Queue (ft)	178	5	183
95th Queue (ft)	414	25	382
Link Distance (ft)	300	182	297
Upstream Blk Time (%)	34		39
Queuing Penalty (veh)	129		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	4	62	91	42	39
Average Queue (ft)	0	5	17	3	7
95th Queue (ft)	3	41	79	34	29
Link Distance (ft)	96		146	146	294
Upstream Blk Time (%)		0	0	0	
Queuing Penalty (veh)		0	1	0	
Storage Bay Dist (ft)		75			
Storage Blk Time (%)		1	2		
Queuing Penalty (veh)		1	3		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	SB	SB	SB
Directions Served	TR	T	T	T
Maximum Queue (ft)	8	332	336	342
Average Queue (ft)	0	36	42	39
95th Queue (ft)	5	182	192	189
Link Distance (ft)	263	311	311	311
Upstream Blk Time (%)		0	1	0
Queuing Penalty (veh)		3	4	3
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 46: Sea World Dr

Movement	EB	EB	WB
Directions Served	T	T	T
Maximum Queue (ft)	149	181	6
Average Queue (ft)	42	64	0
95th Queue (ft)	118	151	4
Link Distance (ft)	511	511	100
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	205	57
Average Queue (ft)	57	3
95th Queue (ft)	163	32
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB
Directions Served	T	T		TR
Maximum Queue (ft)	86	257	180	10
Average Queue (ft)	5	42	11	0
95th Queue (ft)	57	183	89	7
Link Distance (ft)	189	189	189	756
Upstream Blk Time (%)	0	2	0	
Queuing Penalty (veh)	0	8	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	416	423
Average Queue (ft)	377	367
95th Queue (ft)	418	460
Link Distance (ft)	360	360
Upstream Blk Time (%)	11	5
Queuing Penalty (veh)	94	42
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 4226

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2558	2560	2562	2564	130	151	162	1759	1759	1750	1760
Average Queue (ft)	2393	2416	2436	2416	51	69	89	790	813	821	773
95th Queue (ft)	2879	2851	2795	2803	117	134	149	1956	1946	1924	1895
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)	57	73	73	52				26	27	25	22
Queuing Penalty (veh)	0	0	0	0				0	0	0	0
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1974	1983	150	360	378	207	304	305	100	285	281
Average Queue (ft)	228	1950	1951	21	178	186	85	146	165	17	258	248
95th Queue (ft)	549	1967	1973	115	316	329	181	270	276	75	277	320
Link Distance (ft)		1940	1940		629	629		1525	1525		189	189
Upstream Blk Time (%)		100	99								85	69
Queuing Penalty (veh)		0	0								504	406
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	0	96			25		0	1	68	0		
Queuing Penalty (veh)	0	154			7		0	2	23	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B57	B57	B57
Directions Served	T	R	T	T	T
Maximum Queue (ft)	292	175	460	456	461
Average Queue (ft)	211	117	391	365	267
95th Queue (ft)	359	249	556	562	555
Link Distance (ft)	189		368	368	368
Upstream Blk Time (%)	32	1	71	49	20
Queuing Penalty (veh)	188	0	416	287	120
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	39	8			
Queuing Penalty (veh)	138	21			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	235	668	673	25	164	397	513	319	203
Average Queue (ft)	181	483	407	4	36	91	217	73	78
95th Queue (ft)	318	840	818	17	102	259	439	202	158
Link Distance (ft)		629	629		962	962	962	863	
Upstream Blk Time (%)		40	21						
Queuing Penalty (veh)		304	161						
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	16	63			1			5	0
Queuing Penalty (veh)	86	321			0			15	0

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	515	992	983	961	250	366	274	285	175	726	213	439
Average Queue (ft)	286	804	407	144	211	250	124	145	94	662	123	148
95th Queue (ft)	656	1307	1060	556	307	468	254	281	226	891	243	416
Link Distance (ft)		962	962	962		285	285	285		702		1252
Upstream Blk Time (%)		58	6	0		49	0	0		66		
Queuing Penalty (veh)		217	21	0		153	0	1		291		
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)		81			68	1			5	91	38	3
Queuing Penalty (veh)		156			164	1			18	110	36	2

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	313	408	215	254	190	250	305	318	232	123	216	270
Average Queue (ft)	310	387	85	113	82	140	196	245	84	37	110	107
95th Queue (ft)	315	397	172	213	170	260	316	351	165	89	194	271
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	79	94		0	0	4	8	27				
Queuing Penalty (veh)	0	341		0	0	14	27	93				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	79	94			3	7			27	2	3	6
Queuing Penalty (veh)	175	331			7	7			21	2	7	10

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB
Directions Served	T	T	TR	L	T	T	T
Maximum Queue (ft)	30	23	34	116	39	87	98
Average Queue (ft)	1	1	3	38	3	5	13
95th Queue (ft)	14	12	19	87	28	52	82
Link Distance (ft)	194	194	194		370	370	370
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				125			
Storage Blk Time (%)				0	0		
Queuing Penalty (veh)				1	0		

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	201	220	242	200	1012	1016	801	256	163
Average Queue (ft)	65	84	102	180	493	301	200	106	67
95th Queue (ft)	159	186	213	236	1053	946	723	215	146
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)					2	2	1		
Queuing Penalty (veh)					10	10	3		
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				59	0			21	1
Queuing Penalty (veh)				227	0			34	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	305	377	309	67	231	325	1429	1427	165	454	83	732
Average Queue (ft)	157	100	73	14	116	174	669	681	81	395	20	527
95th Queue (ft)	368	328	206	43	209	417	1440	1433	209	516	62	1004
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)							1	1		78		64
Queuing Penalty (veh)							4	3		0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	17	0	0		2	1	49		4	90		
Queuing Penalty (veh)	42	0	0		5	1	78		12	75		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	734	133	252	162
Average Queue (ft)	499	40	109	35
95th Queue (ft)	1004	93	212	101
Link Distance (ft)	701		702	
Upstream Blk Time (%)	55			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		0	20	0
Queuing Penalty (veh)		0	24	0

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	70	174	174	116	395	410	40	366
Average Queue (ft)	13	64	67	10	180	212	8	176
95th Queue (ft)	44	143	151	58	336	374	27	335
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		4			12			
Queuing Penalty (veh)		2			2			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	40	132	158	97
Average Queue (ft)	22	13	67	60
95th Queue (ft)	45	57	124	87
Link Distance (ft)	241		863	917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)		0	8	
Queuing Penalty (veh)		0	2	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	106	187	131	78
Average Queue (ft)	53	104	61	33
95th Queue (ft)	92	165	106	66
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	145	28	152
Average Queue (ft)	64	5	60
95th Queue (ft)	126	22	132
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	2		2
Queuing Penalty (veh)	8		8
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	243	220	76
Average Queue (ft)	64	63	27
95th Queue (ft)	209	199	57
Link Distance (ft)	461	461	321
Upstream Blk Time (%)	3	2	
Queuing Penalty (veh)	9	4	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	206	104	54	85
Average Queue (ft)	66	47	26	36
95th Queue (ft)	144	77	50	62
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	2			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	137	117	35	68
Average Queue (ft)	64	55	15	35
95th Queue (ft)	115	100	41	56
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	137	59	27	22	6	1475	1781	1861
Average Queue (ft)	53	13	1	1	0	387	583	729
95th Queue (ft)	138	38	18	12	4	1601	1829	1916
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						0		0
Queuing Penalty (veh)						0		0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	378	384	174	340	334	292	388	399	430	205
Average Queue (ft)	213	202	133	167	117	77	180	183	253	87
95th Queue (ft)	376	374	217	380	327	230	437	434	551	240
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	0	0		9	1	0	14	11	19	
Queuing Penalty (veh)	0	0		71	9	1	120	97	165	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			52	1					21	1
Queuing Penalty (veh)			370	2					77	11

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	506	510	215	208	226	152	310	273	266	346
Average Queue (ft)	308	278	86	90	86	53	103	81	75	131
95th Queue (ft)	539	526	188	200	189	138	257	207	188	302
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	4	10					8	1	0	2
Queuing Penalty (veh)	11	30					43	4	1	10
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						13	7			
Queuing Penalty (veh)						69	4			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	396	437	442	318	179	184	183	288	302	379	319	317
Average Queue (ft)	163	205	200	115	101	149	117	216	225	193	132	179
95th Queue (ft)	295	347	350	258	178	194	181	310	326	428	299	345
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)					18	39	29	0	13	18	3	9
Queuing Penalty (veh)					27	58	44	0	0	144	25	72
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			4	1				18	23	5		
Queuing Penalty (veh)			12	1				94	117	25		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	404	412	427	111
Average Queue (ft)	244	240	245	14
95th Queue (ft)	437	432	450	111
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	9	8	9	0
Queuing Penalty (veh)	52	48	53	2
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	548	537	312	324	1062	1137	255	261	355	907
Average Queue (ft)	82	121	242	233	89	127	480	547	233	145	218	466
95th Queue (ft)	148	209	557	546	232	273	1458	1571	309	239	390	1076
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)			2	2			1	6				7
Queuing Penalty (veh)			11	12			8	45				53
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	12	24	38	13		0	15	31	40	1	1	21
Queuing Penalty (veh)	32	62	90	34		1	20	114	120	4	9	69

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	916	950	242	263	344	341	338
Average Queue (ft)	488	529	128	159	204	220	227
95th Queue (ft)	1065	1081	226	266	319	345	350
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	6	6	0	1	5	8	10
Queuing Penalty (veh)	44	41	0	0	32	53	69
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	1	5		
Queuing Penalty (veh)			0	5	18		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	133	494	45	707	883	470	184	316	535	313
Average Queue (ft)	54	256	9	200	196	186	64	120	149	95
95th Queue (ft)	111	465	30	832	854	800	144	271	378	236
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)				4	3	3			0	
Queuing Penalty (veh)				27	21	19			0	
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				11				0		
Queuing Penalty (veh)				1				0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	452	468	282	320	2362	2342	148	957	953	936	521	124
Average Queue (ft)	229	269	227	312	2191	1988	22	476	459	446	283	65
95th Queue (ft)	409	438	325	358	2730	3193	78	1237	1225	1238	532	114
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)					70	27		3	3	4		
Queuing Penalty (veh)					0	0		0	0	0		
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			18	34	55			45		7	2	
Queuing Penalty (veh)			61	116	311			10		52	10	

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	129	242	256	80
Average Queue (ft)	70	98	104	24
95th Queue (ft)	119	194	203	60
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	129	263	221	145	218	252	94	188	103
Average Queue (ft)	46	142	89	67	120	163	48	62	19
95th Queue (ft)	104	275	174	136	217	268	114	159	56
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		9			5	21		1	
Queuing Penalty (veh)		11			23	92		3	
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			24	4			10	2	
Queuing Penalty (veh)			34	5			15	1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	SB	SB
Directions Served	L	T	T	TR
Maximum Queue (ft)	91	70	44	50
Average Queue (ft)	33	3	2	2
95th Queue (ft)	71	51	30	25
Link Distance (ft)		271	640	640
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	120			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	119	163	202	242	155	126	109	114	77	193	98	73
Average Queue (ft)	35	61	102	122	40	97	90	91	18	81	20	22
95th Queue (ft)	90	134	173	200	113	113	125	129	53	164	63	59
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)			0	0								
Queuing Penalty (veh)			0	1								
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)	0	1	5	18	0	0				3		
Queuing Penalty (veh)	0	2	15	20	0	0				3		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	184	196	69	104	190	187	120
Average Queue (ft)	61	61	12	35	102	80	19
95th Queue (ft)	144	149	40	78	166	156	70
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						15	0
Queuing Penalty (veh)						14	0

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	458	238	65	217	243	193
Average Queue (ft)	257	112	4	86	95	80
95th Queue (ft)	1000	219	61	434	461	415
Link Distance (ft)	1384		357	1876	1876	1876
Upstream Blk Time (%)	9					
Queuing Penalty (veh)	51					
Storage Bay Dist (ft)		200				
Storage Blk Time (%)		3				
Queuing Penalty (veh)		7				

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	159	48	98	85	84	122	354	1008	980	274	794	804
Average Queue (ft)	67	6	35	39	30	48	266	518	483	66	592	607
95th Queue (ft)	129	29	72	76	86	97	404	1323	1294	222	899	904
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)								13	4		26	29
Queuing Penalty (veh)								0	0		180	203
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)	0						33	2	1		49	
Queuing Penalty (veh)	0						197	5	0		14	

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87	B87	B87
Directions Served	T	T	
Maximum Queue (ft)	269	298	240
Average Queue (ft)	100	107	61
95th Queue (ft)	351	364	289
Link Distance (ft)	357	357	357
Upstream Blk Time (%)	7	11	7
Queuing Penalty (veh)	34	53	32
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	2318	2313	39	89	694
Average Queue (ft)	1702	1718	6	20	396
95th Queue (ft)	2725	2738	47	115	774
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)	2	2	0	6	16
Queuing Penalty (veh)	8	9	1	34	57
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	208	206	122	3167	3175	360	448	353	420	418
Average Queue (ft)	187	180	11	3025	3019	331	403	57	290	193
95th Queue (ft)	199	203	77	3512	3518	451	542	290	533	526
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	85	81	1	81	80	2	19	6	11	9
Queuing Penalty (veh)	315	298	3	0	0	0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						2	19			
Queuing Penalty (veh)						12	112			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	4	16	9	258	278	193	61	71	230	237
Average Queue (ft)	0	1	0	115	124	61	17	42	60	80
95th Queue (ft)	3	8	4	210	229	134	49	65	174	204
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					2					
Queuing Penalty (veh)					8					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	113	149	122	104	109	66	81	88	400	970	973	175
Average Queue (ft)	22	66	43	36	47	17	33	32	134	498	537	152
95th Queue (ft)	77	122	93	82	93	47	71	72	440	944	971	238
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)										0	0	
Queuing Penalty (veh)										0	2	
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0					34	60	0
Queuing Penalty (veh)					1					25	105	0

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	527	553	764
Average Queue (ft)	177	331	334	173
95th Queue (ft)	336	537	540	635
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		1	4	4
Queuing Penalty (veh)		9	23	25
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	26		
Queuing Penalty (veh)	3	56		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	129	142	140	156	194	241	145	148
Average Queue (ft)	94	105	58	92	148	104	48	127
95th Queue (ft)	142	145	118	176	208	238	115	150
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	14	18	2					69
Queuing Penalty (veh)	64	82	7					154
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	22	1		
Queuing Penalty (veh)				3	76	3		

Intersection: 33: Kemper St & Kurtz St

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	55	58
Average Queue (ft)	22	21
95th Queue (ft)	48	49
Link Distance (ft)		1252
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	34	46	30	50
Average Queue (ft)	0	8	2	24
95th Queue (ft)	6	33	13	49
Link Distance (ft)	143	300		949
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	37	56
Average Queue (ft)	3	17
95th Queue (ft)	40	47
Link Distance (ft)	182	259
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	7	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: E2 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	6	34
Average Queue (ft)	0	16
95th Queue (ft)	0	41
Link Distance (ft)	464	365
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	T	T	T	T	T	TR	R
Maximum Queue (ft)	311	124	62	292	259	199	223
Average Queue (ft)	289	9	4	105	53	10	65
95th Queue (ft)	347	91	62	307	216	93	172
Link Distance (ft)	285	285	285	313	313	313	536
Upstream Blk Time (%)	76	0	0	6	0	0	
Queuing Penalty (veh)	276	0	0	23	0	0	
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	70	153	228	86
Average Queue (ft)	10	27	53	27
95th Queue (ft)	83	131	196	74
Link Distance (ft)	194	194	194	355
Upstream Blk Time (%)	2	1	5	
Queuing Penalty (veh)	6	3	18	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 39: A3 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	65
Average Queue (ft)	26
95th Queue (ft)	51
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: X Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	62	56	48
Average Queue (ft)	3	19	23
95th Queue (ft)	50	48	49
Link Distance (ft)	300	182	297
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB	NB
Directions Served	R	TR
Maximum Queue (ft)	53	26
Average Queue (ft)	14	5
95th Queue (ft)	106	44
Link Distance (ft)	258	269
Upstream Blk Time (%)	4	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	37	123	126	136	74	122
Average Queue (ft)	9	27	7	15	8	52
95th Queue (ft)	56	133	51	67	42	200
Link Distance (ft)	96	96		146	146	294
Upstream Blk Time (%)	0	10	0	1	0	8
Queuing Penalty (veh)	1	46	0	1	0	6
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			0	2		
Queuing Penalty (veh)			1	4		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	194	144	143	173	174	164
Average Queue (ft)	62	43	38	14	11	12
95th Queue (ft)	258	211	201	101	84	83
Link Distance (ft)	263	263	263	311	311	311
Upstream Blk Time (%)	11	2	6	0	0	0
Queuing Penalty (veh)	85	15	47	1	1	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	305	342	75	108	101
Average Queue (ft)	122	148	10	11	18
95th Queue (ft)	267	297	56	59	122
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			0	1	2
Queuing Penalty (veh)			1	2	18
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	297	381
Average Queue (ft)	78	122
95th Queue (ft)	202	394
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB	SB
Directions Served	T	T		T	T	TR	R
Maximum Queue (ft)	180	260	121	782	800	811	819
Average Queue (ft)	12	32	11	473	474	475	443
95th Queue (ft)	86	166	98	1021	1035	1051	1039
Link Distance (ft)	189	189	189	756	756	756	756
Upstream Blk Time (%)	0	1	0	38	33	28	24
Queuing Penalty (veh)	0	5	1	310	265	224	194
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	410	420
Average Queue (ft)	375	349
95th Queue (ft)	450	523
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	5
Queuing Penalty (veh)	139	62
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 13638

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2565	2554	2561	2551	134	128	147	1753	1752	1756	1755
Average Queue (ft)	2319	2327	2167	1924	37	55	73	954	965	966	916
95th Queue (ft)	2978	2966	3372	3376	103	117	137	2021	2011	1986	1952
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)	65	70	63	28				27	29	24	22
Queuing Penalty (veh)	0	0	0	0				0	0	0	0
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	T	T	R	L	LT	T	R	L
Maximum Queue (ft)	435	1988	1990	112	308	304	8	226	353	364	98	293
Average Queue (ft)	300	1955	1956	9	122	132	0	54	124	151	7	260
95th Queue (ft)	568	1974	1976	56	243	255	6	157	261	293	48	278
Link Distance (ft)		1940	1940		629	629	629		1525	1525		189
Upstream Blk Time (%)		100	98									87
Queuing Penalty (veh)		0	0									478
Storage Bay Dist (ft)	360			150				230			25	
Storage Blk Time (%)	0	88			14			0	2	58		
Queuing Penalty (veh)	1	131			4			0	2	13		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	B57	B57	B57
Directions Served	LT	T	R	T	T	T
Maximum Queue (ft)	280	280	175	472	470	456
Average Queue (ft)	256	210	87	429	426	347
95th Queue (ft)	300	341	229	538	548	592
Link Distance (ft)	189	189		368	368	368
Upstream Blk Time (%)	82	37	1	89	84	38
Queuing Penalty (veh)	455	208	0	493	467	212
Storage Bay Dist (ft)			100			
Storage Blk Time (%)		51	4			
Queuing Penalty (veh)		115	9			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	TR	LT	R
Maximum Queue (ft)	235	658	648	233	416	499	244	146
Average Queue (ft)	164	316	230	38	94	233	77	61
95th Queue (ft)	287	715	602	122	278	441	195	120
Link Distance (ft)		629	629	962	962	962	863	
Upstream Blk Time (%)		16	5					
Queuing Penalty (veh)		114	37					
Storage Bay Dist (ft)	160							210
Storage Blk Time (%)	11	39		0			3	
Queuing Penalty (veh)	59	145		0			7	

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	515	991	971	887	248	317	275	256	175	726	224	1020
Average Queue (ft)	364	631	254	133	165	127	110	129	103	660	147	395
95th Queue (ft)	634	1295	812	471	267	324	232	248	229	881	263	1115
Link Distance (ft)		962	962	962		285	285	285		702		1252
Upstream Blk Time (%)		39	0	0		12	0	0		65		7
Queuing Penalty (veh)		154	1	0		30	0	0		329		17
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)	11	57			33	0			9	92	50	3
Queuing Penalty (veh)	28	182			72	0			28	135	43	2

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	313	402	214	243	149	222	267	311	170	124	90	242
Average Queue (ft)	308	379	85	121	57	103	170	232	76	41	20	91
95th Queue (ft)	331	461	165	215	116	203	281	343	141	98	64	177
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	80	91				0	2	17				
Queuing Penalty (veh)	0	294				0	6	55				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	80	91			0	0			24	2		4
Queuing Penalty (veh)	159	282			0	0			19	3		1

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	T	T	TR	L	T	T	T	R
Maximum Queue (ft)	12	22	52	124	12	23	31	17
Average Queue (ft)	0	1	4	37	1	0	0	1
95th Queue (ft)	6	12	24	97	9	6	7	13
Link Distance (ft)	194	194	194		370	370	370	468
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				125				
Storage Blk Time (%)				0				
Queuing Penalty (veh)				1				

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	170	185	246	200	799	1001	958	207	159
Average Queue (ft)	57	80	96	172	331	161	109	60	48
95th Queue (ft)	147	179	211	239	752	661	489	144	110
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)					0	0	0		
Queuing Penalty (veh)					0	2	1		
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				51	0			9	1
Queuing Penalty (veh)				170	1			14	0

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	372	533	454	128	166	325	1878	1886	165	438	138	734
Average Queue (ft)	207	178	126	16	72	64	1059	1109	89	367	29	440
95th Queue (ft)	439	596	472	64	153	242	2274	2278	209	534	89	972
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)							29	32		68		48
Queuing Penalty (veh)							127	139		0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	33		1				15		5	86		
Queuing Penalty (veh)	76		1				20		12	60		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	728	154	214	135
Average Queue (ft)	419	45	71	31
95th Queue (ft)	962	112	157	87
Link Distance (ft)	701		702	
Upstream Blk Time (%)	41			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		2	9	
Queuing Penalty (veh)		3	11	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	56	183	168	143	984	993	27	689
Average Queue (ft)	10	52	67	9	437	475	5	247
95th Queue (ft)	32	121	135	68	1057	1057	19	647
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)					16	22		2
Queuing Penalty (veh)					97	128		4
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	1			40			
Queuing Penalty (veh)	0	1			4			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	53	31	94	93
Average Queue (ft)	25	5	53	54
95th Queue (ft)	48	24	83	79
Link Distance (ft)	241		863	917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)			3	
Queuing Penalty (veh)			0	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	236	509	257	70
Average Queue (ft)	76	224	85	25
95th Queue (ft)	298	448	296	60
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)		4	4	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	97	28	132
Average Queue (ft)	53	3	55
95th Queue (ft)	82	17	101
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	70	77	40
Average Queue (ft)	36	35	26
95th Queue (ft)	55	62	45
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	143	101	58	56
Average Queue (ft)	72	50	26	27
95th Queue (ft)	119	83	48	49
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	211	198	40	82
Average Queue (ft)	72	59	20	44
95th Queue (ft)	138	122	45	72
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	132	39	10	25	34	1137	1397	1482
Average Queue (ft)	61	11	0	1	2	126	302	453
95th Queue (ft)	174	29	6	10	15	770	1066	1236
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	545	550	168	292	267	228	343	379	409	205
Average Queue (ft)	482	468	85	78	67	58	114	126	211	91
95th Queue (ft)	611	626	175	231	205	175	312	341	522	243
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	36	34		1	0		5	6	17	
Queuing Penalty (veh)	70	66		4	1		38	43	125	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			25	3					20	5
Queuing Penalty (veh)			165	2					85	28

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	418	367	192	191	221	136	232	217	218	282
Average Queue (ft)	229	159	52	61	68	32	58	60	57	92
95th Queue (ft)	377	325	143	153	169	89	165	182	189	210
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)		2					1	4	5	0
Queuing Penalty (veh)		4					5	16	22	1
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						2	4			
Queuing Penalty (veh)						12	2			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	482	545	551	336	179	181	166	274	273	273	238	203
Average Queue (ft)	164	206	206	115	94	137	88	152	156	89	71	85
95th Queue (ft)	312	411	473	273	166	198	162	246	254	233	184	178
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)					17	41	16			0	0	
Queuing Penalty (veh)					23	54	21			0	0	
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			3	6				0	1	0		
Queuing Penalty (veh)			7	11				2	6	2		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	368	360	394	77
Average Queue (ft)	179	183	194	5
95th Queue (ft)	348	360	368	41
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	3	7	10	
Queuing Penalty (veh)	16	30	45	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	136	175	301	291	269	324	2164	2183	255	277	354	1104
Average Queue (ft)	65	102	147	146	72	102	672	710	201	156	202	403
95th Queue (ft)	131	190	274	252	166	261	1987	2028	342	285	373	985
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)							9	10				8
Queuing Penalty (veh)							63	71				45
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	4	13	23	3	0	0	33	53	7	9	18	6
Queuing Penalty (veh)	9	29	49	6	0	0	30	167	23	42	89	15

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1012	985	205	261	326	339	366
Average Queue (ft)	382	393	99	128	163	182	240
95th Queue (ft)	819	754	185	224	269	296	374
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	0	0		0	2	3	28
Queuing Penalty (veh)	0	0		0	10	14	146
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	2		
Queuing Penalty (veh)				0	5		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	141	355	37	531	526	517	159	258	260	200
Average Queue (ft)	56	162	7	77	75	72	64	70	81	53
95th Queue (ft)	113	287	28	359	395	356	138	197	214	160
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				7						
Queuing Penalty (veh)				0						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	298	268	282	320	2360	2351	148	342	301	281	261	106
Average Queue (ft)	174	143	236	312	1898	1506	25	218	199	173	105	38
95th Queue (ft)	281	238	329	361	2858	3068	101	312	298	270	193	85
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)					32	11						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			20	35	51		0	30				
Queuing Penalty (veh)			64	111	269		0	5				

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	113	182	182	74
Average Queue (ft)	47	65	73	21
95th Queue (ft)	93	145	160	55
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	73	212	52	83	142	201	55	184	98
Average Queue (ft)	20	104	10	40	49	87	18	41	11
95th Queue (ft)	57	197	35	72	116	177	43	136	55
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)					0	2		2	0
Queuing Penalty (veh)					0	5		4	0
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			0	1				3	
Queuing Penalty (veh)			0	0				1	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73
Directions Served	L	T	T	T	TR	T
Maximum Queue (ft)	182	189	119	637	659	223
Average Queue (ft)	68	53	48	184	314	36
95th Queue (ft)	142	120	89	516	703	195
Link Distance (ft)		271	271	640	640	242
Upstream Blk Time (%)		0	0	1	9	6
Queuing Penalty (veh)		1	0	5	38	53
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	8	0				
Queuing Penalty (veh)	19	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	95	97	114	129	97	118	112	118	72	225	637	368
Average Queue (ft)	30	26	60	77	26	94	91	93	12	192	228	46
95th Queue (ft)	77	75	108	123	63	121	126	133	41	265	675	170
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)	0	0	0	4	0	0	0	0		36	0	
Queuing Penalty (veh)	0	0	0	4	0	0	0	0		27	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	94	106	33	82	154	145	122
Average Queue (ft)	24	24	6	27	73	47	38
95th Queue (ft)	66	72	23	64	129	116	95
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						7	6
Queuing Penalty (veh)						8	7

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	213	182	17	38	11
Average Queue (ft)	64	63	1	3	0
95th Queue (ft)	148	136	7	20	0
Link Distance (ft)	1384		1876	1876	1876
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	118	31	50	66	10	58	355	1409	1380	73	274	724
Average Queue (ft)	56	3	18	18	1	14	311	753	690	3	43	500
95th Queue (ft)	105	17	46	50	7	43	421	1643	1600	54	177	786
Link Distance (ft)		692		222	222	222		1615	1615			706
Upstream Blk Time (%)								9	4			7
Queuing Penalty (veh)								0	0			41
Storage Bay Dist (ft)	200		200				280			300	200	
Storage Blk Time (%)							48	2	1			48
Queuing Penalty (veh)							281	5	0			11

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB	B87	B87
Directions Served	TR	T	T
Maximum Queue (ft)	739	124	134
Average Queue (ft)	521	16	19
95th Queue (ft)	804	96	109
Link Distance (ft)	706	357	357
Upstream Blk Time (%)	9		0
Queuing Penalty (veh)	54		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	1937	1970	86	180	660
Average Queue (ft)	1499	1521	11	24	386
95th Queue (ft)	2131	2152	62	136	747
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)			1	7	9
Queuing Penalty (veh)			5	41	42
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	222	196	110	2616	2580	359	466	412	419	421
Average Queue (ft)	188	175	11	1621	1611	329	404	101	264	212
95th Queue (ft)	204	205	74	2797	2761	447	538	382	528	543
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	86	81	1			1	19	9	11	10
Queuing Penalty (veh)	290	273	2			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						1	19			
Queuing Penalty (veh)						8	111			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	14	12	13	124	144	74	45	63	161	322
Average Queue (ft)	0	1	1	62	57	29	7	40	21	39
95th Queue (ft)	6	6	6	109	109	62	31	60	91	189
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	99	121	72	95	108	71	57	61	36	227	288	174
Average Queue (ft)	16	53	20	28	35	15	15	18	3	118	147	45
95th Queue (ft)	62	100	55	68	74	43	42	45	19	192	233	131
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0						20	
Queuing Penalty (veh)					0						16	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	542	574	819
Average Queue (ft)	200	392	407	357
95th Queue (ft)	378	610	648	967
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		4	14	12
Queuing Penalty (veh)		25	77	68
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	38		
Queuing Penalty (veh)	3	74		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	136	151	98	157	194	244	215	134
Average Queue (ft)	94	107	39	100	156	132	80	100
95th Queue (ft)	134	142	79	183	218	260	169	157
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	15	22	0					39
Queuing Penalty (veh)	45	69	0					80
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	27	4		
Queuing Penalty (veh)				4	79	12		

Intersection: 33: Kemper St & Kurtz St

Movement	EB	NB	NB
Directions Served	TR	L	R
Maximum Queue (ft)	84	65	68
Average Queue (ft)	12	23	25
95th Queue (ft)	75	56	56
Link Distance (ft)	139		1252
Upstream Blk Time (%)	5		
Queuing Penalty (veh)	29		
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	R
Maximum Queue (ft)	20	44	58
Average Queue (ft)	0	8	28
95th Queue (ft)	6	32	51
Link Distance (ft)	143	300	949
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	WB
Directions Served	LT
Maximum Queue (ft)	57
Average Queue (ft)	23
95th Queue (ft)	52
Link Distance (ft)	259
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 36: E2 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	24
Average Queue (ft)	2
95th Queue (ft)	15
Link Distance (ft)	365
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	308	233	39	31	31
Average Queue (ft)	267	14	14	5	14
95th Queue (ft)	392	104	82	41	38
Link Distance (ft)	285	285	313	313	536
Upstream Blk Time (%)	62	0			
Queuing Penalty (veh)	200	0			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	17	44	148	36
Average Queue (ft)	1	2	18	6
95th Queue (ft)	12	32	88	26
Link Distance (ft)	194	194	194	355
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	62	54
Average Queue (ft)	8	24
95th Queue (ft)	52	43
Link Distance (ft)	101	321
Upstream Blk Time (%)	5	
Queuing Penalty (veh)	41	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	35	31
Average Queue (ft)	7	7
95th Queue (ft)	28	29
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	WB	WB	WB	NB
Directions Served	T	T	T	R
Maximum Queue (ft)	73	116	36	56
Average Queue (ft)	4	23	2	18
95th Queue (ft)	39	97	20	50
Link Distance (ft)		146	146	294
Upstream Blk Time (%)	0	2		
Queuing Penalty (veh)	0	5		
Storage Bay Dist (ft)	75			
Storage Blk Time (%)	0	7		
Queuing Penalty (veh)	0	8		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	SB	SB	SB
Directions Served	TR	T	T	T
Maximum Queue (ft)	34	219	348	356
Average Queue (ft)	1	10	48	72
95th Queue (ft)	20	89	229	279
Link Distance (ft)	263	311	311	311
Upstream Blk Time (%)		0	3	13
Queuing Penalty (veh)		0	18	70
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	251	266	128	152	240
Average Queue (ft)	81	114	29	43	77
95th Queue (ft)	204	234	100	133	283
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			2	5	10
Queuing Penalty (veh)			5	14	111
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	781	858
Average Queue (ft)	195	347
95th Queue (ft)	876	1095
Link Distance (ft)	1472	1472
Upstream Blk Time (%)	3	6
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB	SB
Directions Served	T	T		T	T	TR	R
Maximum Queue (ft)	75	319	104	788	804	814	823
Average Queue (ft)	4	35	4	664	668	670	641
95th Queue (ft)	49	188	50	1026	1037	1051	1076
Link Distance (ft)	189	189	189	756	756	756	756
Upstream Blk Time (%)	0	2	0	40	33	30	24
Queuing Penalty (veh)	0	8	0	324	272	248	195
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	412	426
Average Queue (ft)	375	348
95th Queue (ft)	438	518
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	5
Queuing Penalty (veh)	111	48
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 11435

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2547	2559	2558	2557	141	152	164	1745	1746	1756	1753
Average Queue (ft)	2282	2292	2195	1961	40	57	78	928	942	945	899
95th Queue (ft)	2956	2957	3151	3217	107	119	142	2077	2070	2052	2026
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)	62	68	63	28				33	34	33	29
Queuing Penalty (veh)	0	0	0	0				0	0	0	0
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1979	1983	117	263	274	252	310	312	90	293	293
Average Queue (ft)	255	1952	1953	8	102	112	52	116	137	7	261	259
95th Queue (ft)	554	1970	1974	55	210	220	156	243	274	47	279	293
Link Distance (ft)		1940	1940		629	629		1525	1525		189	189
Upstream Blk Time (%)		99	96								90	85
Queuing Penalty (veh)		0	0								508	484
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	1	91			6		0	1	61	0		
Queuing Penalty (veh)	7	135			2		0	1	13	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B57	B57	B57
Directions Served	T	R	T	T	T
Maximum Queue (ft)	261	175	485	465	467
Average Queue (ft)	196	63	439	436	328
95th Queue (ft)	343	201	500	502	592
Link Distance (ft)	189		368	368	368
Upstream Blk Time (%)	33	0	91	82	34
Queuing Penalty (veh)	190	0	519	464	192
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	40	1			
Queuing Penalty (veh)	91	2			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	TR	LT	R
Maximum Queue (ft)	235	663	664	206	445	543	218	160
Average Queue (ft)	173	436	343	44	110	263	83	66
95th Queue (ft)	310	799	742	125	313	493	186	125
Link Distance (ft)		629	629	962	962	962	863	
Upstream Blk Time (%)		25	11					
Queuing Penalty (veh)		188	81					
Storage Bay Dist (ft)	160							210
Storage Blk Time (%)	10	62		1			3	0
Queuing Penalty (veh)	59	230		0			9	0

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	515	992	987	971	243	315	263	268	175	723	224	1264
Average Queue (ft)	458	842	288	110	173	149	105	135	106	692	193	672
95th Queue (ft)	655	1321	908	471	281	374	219	249	227	828	264	1453
Link Distance (ft)		962	962	962		285	285	285		702		1252
Upstream Blk Time (%)		55	2	0		20	0	0		71		13
Queuing Penalty (veh)		226	10	0		53	0	0		361		39
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)	50	49			45	0			6	94	77	7
Queuing Penalty (veh)	135	158			97	0			20	138	74	8

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	313	420	180	206	168	222	298	325	184	123	73	190
Average Queue (ft)	310	387	70	108	68	110	185	245	79	40	21	87
95th Queue (ft)	315	399	144	188	139	215	310	357	151	92	52	153
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	78	93				0	4	28				
Queuing Penalty (veh)	0	323				0	14	90				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	78	93			1	1			23	2		2
Queuing Penalty (veh)	165	325			2	1			17	3		0

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	WB	WB	WB	WB	NB
Directions Served	TR	L	T	T	T	R
Maximum Queue (ft)	30	105	6	19	55	19
Average Queue (ft)	1	33	0	1	5	1
95th Queue (ft)	14	77	4	16	43	16
Link Distance (ft)	194		370	370	370	468
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		125				
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	202	225	232	199	878	1004	727	162	160
Average Queue (ft)	51	80	91	169	337	185	97	53	43
95th Queue (ft)	145	183	198	239	827	720	430	133	103
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)					0	0	0		
Queuing Penalty (veh)					0	1	0		
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				50	0			7	1
Queuing Penalty (veh)				171	1			12	0

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	283	178	162	91	185	324	1874	1889	165	440	122	726
Average Queue (ft)	143	45	53	15	67	62	1243	1284	80	392	23	510
95th Queue (ft)	299	125	131	55	149	242	2353	2335	205	518	76	985
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)							36	37		77		59
Queuing Penalty (veh)							156	162		0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	2		0				13		7	91		
Queuing Penalty (veh)	6		1				17		16	64		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	727	137	195	101
Average Queue (ft)	459	38	64	25
95th Queue (ft)	956	96	137	69
Link Distance (ft)	701		702	
Upstream Blk Time (%)	37			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		2	5	0
Queuing Penalty (veh)		3	7	0

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	40	139	180	117	980	983	45	680
Average Queue (ft)	9	47	61	14	491	529	8	266
95th Queue (ft)	30	104	134	84	1115	1114	36	647
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)					20	26		0
Queuing Penalty (veh)					119	156		1
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		1			45			
Queuing Penalty (veh)		0			5			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	52	31	92	102
Average Queue (ft)	21	8	49	57
95th Queue (ft)	48	29	81	87
Link Distance (ft)	241		863	917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)			2	
Queuing Penalty (veh)			0	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	302	652	588	88
Average Queue (ft)	71	370	191	33
95th Queue (ft)	212	692	589	74
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)		18	14	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	113	22	106
Average Queue (ft)	55	3	54
95th Queue (ft)	85	16	89
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	69	70	43
Average Queue (ft)	38	33	26
95th Queue (ft)	60	56	47
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	155	110	54	59
Average Queue (ft)	73	50	28	30
95th Queue (ft)	126	86	48	54
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	162	176	46	93
Average Queue (ft)	69	60	17	46
95th Queue (ft)	121	113	43	77
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	91	54	19	10	18	1366	1544	1580
Average Queue (ft)	28	10	1	1	1	190	502	623
95th Queue (ft)	73	33	10	11	13	859	1361	1458
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	546	542	173	271	278	224	397	392	420	205
Average Queue (ft)	484	469	90	85	77	65	123	132	226	108
95th Queue (ft)	625	636	175	231	222	183	329	348	527	262
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	41	35		0	0	0	5	6	18	
Queuing Penalty (veh)	81	69		2	1	0	38	47	136	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			26	2					22	6
Queuing Penalty (veh)			173	2					102	34

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	491	467	194	213	204	146	304	305	306	272
Average Queue (ft)	273	187	63	71	70	40	83	80	79	87
95th Queue (ft)	448	360	161	175	182	107	232	235	235	227
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	1	2					5	7	7	0
Queuing Penalty (veh)	1	4					21	31	32	2
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						3	9			
Queuing Penalty (veh)						15	5			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	417	456	471	308	174	174	167	279	292	319	254	198
Average Queue (ft)	153	184	167	118	86	131	82	164	166	88	63	75
95th Queue (ft)	290	339	354	259	164	201	159	272	280	255	179	171
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)					14	38	12	0	0	1	0	
Queuing Penalty (veh)					18	50	17	0	0	5	0	
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			2	4				2	3	1		
Queuing Penalty (veh)			4	7				8	15	4		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	403	403	408	19
Average Queue (ft)	197	195	209	1
95th Queue (ft)	397	399	415	10
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	8	11	15	
Queuing Penalty (veh)	39	52	68	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	174	412	413	212	324	2180	2198	255	315	354	1093
Average Queue (ft)	66	98	144	147	65	102	864	902	190	158	203	484
95th Queue (ft)	132	185	324	327	172	263	2443	2461	354	307	387	1169
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)							17	18				14
Queuing Penalty (veh)							121	131				83
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	5	12	23	3	1		39	57	7	19	21	10
Queuing Penalty (veh)	11	27	49	8	1		35	188	22	95	104	28

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1052	1005	214	250	310	327	352
Average Queue (ft)	470	448	104	130	158	176	234
95th Queue (ft)	1043	903	190	224	269	300	380
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	4	0		0	1	3	33
Queuing Penalty (veh)	24	2		0	6	15	175
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				0	3		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	137	306	41	985	955	931	154	214	234	186
Average Queue (ft)	65	157	6	202	179	182	64	61	68	43
95th Queue (ft)	124	268	26	814	792	779	137	170	180	132
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)				3	3	3				
Queuing Penalty (veh)				16	15	16				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				16						
Queuing Penalty (veh)				1						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	432	266	282	320	2341	2328	174	506	474	437	329	90
Average Queue (ft)	200	140	240	315	1779	1310	21	247	228	200	107	35
95th Queue (ft)	350	243	329	348	2902	2963	92	429	411	386	237	76
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)					23	8						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			21	35	49		0	33		2		
Queuing Penalty (veh)			68	111	258		0	6		9		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	105	214	222	86
Average Queue (ft)	42	64	76	21
95th Queue (ft)	89	161	176	58
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	78	256	42	91	128	199	57	117	51
Average Queue (ft)	22	104	10	33	42	78	18	31	9
95th Queue (ft)	58	210	33	69	107	160	45	85	33
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		1			0	1			
Queuing Penalty (veh)		1			0	4			
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)				1				0	
Queuing Penalty (veh)				0				0	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73
Directions Served	L	T	T	T	TR	T
Maximum Queue (ft)	148	160	149	593	612	262
Average Queue (ft)	74	56	49	256	385	89
95th Queue (ft)	160	138	97	679	847	311
Link Distance (ft)		271	271	640	640	242
Upstream Blk Time (%)		0	0	4	21	12
Queuing Penalty (veh)		1	0	15	91	102
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	12	0				
Queuing Penalty (veh)	29	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	83	95	114	126	95	115	104	123	68	225	868	502
Average Queue (ft)	25	18	53	71	25	91	86	90	13	183	378	49
95th Queue (ft)	65	58	98	118	67	127	132	134	44	272	1175	334
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)		0	0	3	0	0		0		42	0	
Queuing Penalty (veh)		0	0	3	0	0		0		32	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	84	79	41	117	186	187	118
Average Queue (ft)	20	24	7	33	80	56	40
95th Queue (ft)	60	65	26	76	141	136	96
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)				0	0	9	8
Queuing Penalty (veh)				0	0	10	9

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	179	171	31	54	15
Average Queue (ft)	67	58	1	4	1
95th Queue (ft)	142	135	19	26	8
Link Distance (ft)	1384		1876	1876	1876
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	171	25	56	56	16	52	355	1470	1464	241	782	779
Average Queue (ft)	68	2	18	14	1	11	296	500	449	38	455	476
95th Queue (ft)	135	13	45	40	7	38	401	1172	1124	155	752	767
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)								6	5		8	11
Queuing Penalty (veh)								0	0		51	66
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)	0						37	2	1		39	
Queuing Penalty (veh)	0						214	6	0		9	

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87	B87	B87
Directions Served	T	T	
Maximum Queue (ft)	267	305	150
Average Queue (ft)	16	22	5
95th Queue (ft)	127	142	78
Link Distance (ft)	357	357	357
Upstream Blk Time (%)	0	1	0
Queuing Penalty (veh)	1	6	1
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	1958	1979	96	192	703
Average Queue (ft)	1441	1459	16	41	372
95th Queue (ft)	2172	2204	77	182	730
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)			3	14	17
Queuing Penalty (veh)			18	84	77
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	202	185	168	2617	2603	360	440	444	430	412
Average Queue (ft)	186	177	12	1650	1645	305	367	121	264	207
95th Queue (ft)	200	199	80	2878	2853	486	580	426	543	537
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	85	82	1	5	5	2	16	17	10	15
Queuing Penalty (veh)	290	278	3	0	0	0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						2	16			
Queuing Penalty (veh)						9	95			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	12	3	121	119	70	49	75	169	178
Average Queue (ft)	0	1	0	57	50	23	7	39	23	33
95th Queue (ft)	5	7	2	103	99	56	31	65	91	105
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	103	128	66	108	100	72	70	54	35	200	231	174
Average Queue (ft)	23	65	19	31	36	17	14	18	2	113	140	48
95th Queue (ft)	75	117	51	76	79	48	44	44	17	177	212	146
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0						19	
Queuing Penalty (veh)					0						16	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	563	578	853
Average Queue (ft)	260	508	536	739
95th Queue (ft)	381	592	625	1099
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		12	37	35
Queuing Penalty (veh)		75	222	209
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	58		
Queuing Penalty (veh)	4	112		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	123	133	100	157	194	245	224	130
Average Queue (ft)	96	107	43	105	162	157	110	95
95th Queue (ft)	130	136	86	175	214	268	208	151
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	16	24	0					33
Queuing Penalty (veh)	51	74	1					67
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	29	9		
Queuing Penalty (veh)				4	98	26		

Intersection: 33: Kemper St & Kurtz St

Movement	EB	NB	NB
Directions Served	TR	L	R
Maximum Queue (ft)	142	55	326
Average Queue (ft)	27	21	37
95th Queue (ft)	115	49	224
Link Distance (ft)	139		1252
Upstream Blk Time (%)	10		0
Queuing Penalty (veh)	57		0
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	R
Maximum Queue (ft)	22	44	53
Average Queue (ft)	1	10	29
95th Queue (ft)	9	35	50
Link Distance (ft)	143	300	949
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	WB
Directions Served	LT
Maximum Queue (ft)	68
Average Queue (ft)	26
95th Queue (ft)	53
Link Distance (ft)	259
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 36: E2 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	3
95th Queue (ft)	19
Link Distance (ft)	365
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB	WB	SB
Directions Served	T	T	T	T	TR	R
Maximum Queue (ft)	313	211	112	100	48	87
Average Queue (ft)	289	8	41	21	3	29
95th Queue (ft)	344	80	199	137	47	111
Link Distance (ft)	285	285	313	313	313	536
Upstream Blk Time (%)	72	0	2	0		
Queuing Penalty (veh)	250	0	5	0		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	39	128	193	31
Average Queue (ft)	2	22	46	4
95th Queue (ft)	34	111	172	20
Link Distance (ft)	194	194	194	355
Upstream Blk Time (%)	0	0	3	
Queuing Penalty (veh)	0	1	8	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	T	LR
Maximum Queue (ft)	117	11	56
Average Queue (ft)	17	0	24
95th Queue (ft)	78	8	44
Link Distance (ft)	101	139	321
Upstream Blk Time (%)	9		
Queuing Penalty (veh)	72		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	35
Average Queue (ft)	7	7
95th Queue (ft)	28	29
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	WB	WB	WB	NB
Directions Served	T	T	T	R
Maximum Queue (ft)	78	146	76	57
Average Queue (ft)	4	20	5	16
95th Queue (ft)	40	84	38	45
Link Distance (ft)		146	146	294
Upstream Blk Time (%)	0	2	1	
Queuing Penalty (veh)	0	4	1	
Storage Bay Dist (ft)	75			
Storage Blk Time (%)	0	6		
Queuing Penalty (veh)	0	8		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	SB	SB	SB
Directions Served	T	T	T	T	T
Maximum Queue (ft)	62	39	155	272	350
Average Queue (ft)	2	1	9	46	102
95th Queue (ft)	33	29	88	221	352
Link Distance (ft)	263	263	311	311	311
Upstream Blk Time (%)			0	0	19
Queuing Penalty (veh)			0	1	105
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	259	268	148	163	344
Average Queue (ft)	90	116	79	97	239
95th Queue (ft)	216	238	157	179	444
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			7	18	43
Queuing Penalty (veh)			26	61	477
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	1517	1529
Average Queue (ft)	910	1038
95th Queue (ft)	2039	2018
Link Distance (ft)	1472	1472
Upstream Blk Time (%)	35	52
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB	SB
Directions Served	T	T		T	T	TR	R
Maximum Queue (ft)	113	308	122	785	803	804	804
Average Queue (ft)	5	21	2	651	648	646	605
95th Queue (ft)	56	140	43	1022	1042	1078	1085
Link Distance (ft)	189	189	189	756	756	756	756
Upstream Blk Time (%)	0	1	0	43	37	37	28
Queuing Penalty (veh)	0	6	0	353	305	299	227
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	412	423
Average Queue (ft)	373	363
95th Queue (ft)	455	479
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	5
Queuing Penalty (veh)	113	46
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 13939

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	1182	1201	1051	946	163	164	172	705	686	693	644
Average Queue (ft)	542	598	369	343	88	97	95	239	267	283	230
95th Queue (ft)	1204	1228	959	758	150	158	158	758	772	775	732
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)	0	1	0					2	2	2	2
Queuing Penalty (veh)	0	0	0					0	0	0	0
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1980	1994	30	142	156	281	339	856	100	296	286
Average Queue (ft)	364	1955	1957	3	47	54	85	158	221	19	263	263
95th Queue (ft)	591	1969	1978	16	112	123	215	289	587	84	280	280
Link Distance (ft)		1940	1940		629	629		1525	1525		189	189
Upstream Blk Time (%)		100	98						0		87	80
Queuing Penalty (veh)		0	0						0		410	379
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	0	94			0		0	3	76			
Queuing Penalty (veh)	4	185			0		1	5	16			

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B57	B57	B57
Directions Served	T	R	T	T	T
Maximum Queue (ft)	276	175	466	469	445
Average Queue (ft)	223	107	394	380	272
95th Queue (ft)	333	246	550	566	550
Link Distance (ft)	189		368	368	368
Upstream Blk Time (%)	29	1	69	53	13
Queuing Penalty (veh)	137	0	325	248	62
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	43	3			
Queuing Penalty (veh)	91	6			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	TR	LT	R
Maximum Queue (ft)	234	652	530	41	189	340	413	149	146
Average Queue (ft)	146	223	164	12	66	113	204	47	59
95th Queue (ft)	261	630	481	33	155	262	370	110	110
Link Distance (ft)		629	629		962	962	962	863	
Upstream Blk Time (%)		13	2						
Queuing Penalty (veh)		85	11						
Storage Bay Dist (ft)	160			100					210
Storage Blk Time (%)	6	27			3			0	
Queuing Penalty (veh)	26	118			1			0	

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	515	997	979	894	198	219	262	298	175	721	144	178
Average Queue (ft)	225	562	287	181	85	86	122	158	113	392	42	73
95th Queue (ft)	572	1192	839	527	166	182	226	267	218	823	101	141
Link Distance (ft)		962	962	962		285	285	285		702		1252
Upstream Blk Time (%)		29	1	0		0	0	1		12		
Queuing Penalty (veh)		90	2	0		0	0	3		68		
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)		53			1	1			4	58	2	1
Queuing Penalty (veh)		104			3	1			15	81	4	1

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	313	415	244	295	160	215	252	309	292	125	225	515
Average Queue (ft)	310	381	96	136	55	62	96	167	116	61	158	327
95th Queue (ft)	320	453	211	262	126	153	224	316	255	125	281	576
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	78	91	2	3		0	0	8	3			
Queuing Penalty (veh)	0	273	5	9		0	1	34	0			
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	78	91			1	0			35	6	7	44
Queuing Penalty (veh)	147	251			1	0			42	11	29	68

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB
Directions Served	T	T	TR	L	T	T	T	R
Maximum Queue (ft)	167	191	195	193	286	148	93	409
Average Queue (ft)	39	48	61	96	82	13	8	155
95th Queue (ft)	169	193	222	203	320	111	86	503
Link Distance (ft)	194	194	194		370	370	370	468
Upstream Blk Time (%)	7	9	13		13			25
Queuing Penalty (veh)	18	24	36		63			0
Storage Bay Dist (ft)				125				
Storage Blk Time (%)				21	0			
Queuing Penalty (veh)				90	0			

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	394	408	421	190	758	850	642	199	150
Average Queue (ft)	227	256	278	87	188	153	110	43	57
95th Queue (ft)	480	499	524	180	602	629	363	155	124
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)	18	24	39		3	3	0		
Queuing Penalty (veh)	63	83	139		15	16	0		
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				5	15			2	5
Queuing Penalty (veh)				23	38			4	3

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	272	245	250	161	134	92	248	284	165	440	167	447
Average Queue (ft)	94	112	111	22	60	17	99	121	114	267	49	132
95th Queue (ft)	209	221	215	51	116	59	215	255	214	464	114	551
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)										20		9
Queuing Penalty (veh)										0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	1	0	7				1		3	52		
Queuing Penalty (veh)	1	0	8				1		11	42		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	390	145	222	145
Average Queue (ft)	103	45	85	40
95th Queue (ft)	501	111	172	87
Link Distance (ft)	701		702	
Upstream Blk Time (%)	4			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		2	9	
Queuing Penalty (veh)		5	18	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	164	1159	1149	94	289	297	92	530
Average Queue (ft)	33	341	335	10	91	126	17	126
95th Queue (ft)	120	1100	1097	48	228	267	68	395
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)		2	2					
Queuing Penalty (veh)		7	9					
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		40			6			
Queuing Penalty (veh)		29			2			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	57	52	233	122
Average Queue (ft)	22	8	88	55
95th Queue (ft)	48	36	188	90
Link Distance (ft)	241		863	917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)			13	
Queuing Penalty (veh)			2	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	375	343	308	53
Average Queue (ft)	95	118	73	16
95th Queue (ft)	378	337	268	45
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)	2	4	3	
Queuing Penalty (veh)	11	0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	218	32	195
Average Queue (ft)	129	7	78
95th Queue (ft)	283	26	217
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	24		8
Queuing Penalty (veh)	81		17
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	445	442	204
Average Queue (ft)	271	261	72
95th Queue (ft)	551	548	187
Link Distance (ft)	461	461	321
Upstream Blk Time (%)	17	24	2
Queuing Penalty (veh)	37	52	1
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	107	84	40	128
Average Queue (ft)	41	36	21	35
95th Queue (ft)	84	55	45	91
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	84	74	31	96
Average Queue (ft)	35	33	7	40
95th Queue (ft)	68	64	28	72
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	109	138	61	88	119	3972	3988	3981
Average Queue (ft)	41	46	6	12	18	2668	2749	2792
95th Queue (ft)	108	198	50	80	95	5058	4982	4938
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)		3				42	46	46
Queuing Penalty (veh)		0				0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	392	426	161	200	208	210	403	404	434	205
Average Queue (ft)	173	180	51	64	64	63	367	197	240	78
95th Queue (ft)	414	456	131	178	177	177	486	455	554	235
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	5	8					79	14	23	
Queuing Penalty (veh)	5	9					733	130	220	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			9	5					22	0
Queuing Penalty (veh)			70	5					60	0

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	549	540	307	343	338	174	342	282	221	354
Average Queue (ft)	424	435	107	140	195	163	305	61	34	47
95th Queue (ft)	720	678	289	329	384	179	385	238	152	215
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	33	48	0	1	17		75	1	0	2
Queuing Penalty (veh)	81	116	2	4	116		488	7	1	14
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						90	2			
Queuing Penalty (veh)						549	2			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	1094	1112	1110	375	182	192	181	297	311	407	298	310
Average Queue (ft)	953	965	937	171	139	156	166	278	299	388	58	107
95th Queue (ft)	1283	1284	1330	410	230	229	193	310	324	404	205	323
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)	31	32	31		68	81	89	5	50	85	0	15
Queuing Penalty (veh)	129	135	128		119	143	156	0	0	659	2	112
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			38	1				76	88	5		
Queuing Penalty (veh)			90	3				381	439	24		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	373	287	306	97
Average Queue (ft)	90	75	86	10
95th Queue (ft)	307	263	282	68
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	3	1	1	
Queuing Penalty (veh)	18	8	9	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	999	994	282	324	2349	2443	255	245	355	1267
Average Queue (ft)	109	162	742	503	78	126	1536	1762	247	88	258	1163
95th Queue (ft)	168	197	1255	1107	224	310	3211	3157	283	201	493	1548
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)			36	9			35	39				68
Queuing Penalty (veh)			182	45			183	204				487
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	68	36	17	12		3	19	29	90	1	1	86
Queuing Penalty (veh)	184	94	51	30		10	29	119	278	3	3	352

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1274	1281	246	261	344	339	342
Average Queue (ft)	1032	855	102	136	181	168	174
95th Queue (ft)	1542	1552	224	265	352	336	354
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	20	8	0	2	9	8	10
Queuing Penalty (veh)	143	59	0	0	65	53	69
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	2	9		
Queuing Penalty (veh)			0	7	39		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	450	1244	213	1382	1382	1388	240	339	456	341
Average Queue (ft)	176	537	24	1059	1015	898	90	79	95	63
95th Queue (ft)	446	1205	132	1870	1850	1789	207	294	360	276
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)		6		53	23	12			0	
Queuing Penalty (veh)		0		365	161	83			0	
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				77				3		
Queuing Penalty (veh)				17				6		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	1427	1419	259	296	607	1109	174	2484	2493	2487	565	150
Average Queue (ft)	670	407	145	169	203	422	15	1521	1525	1492	282	70
95th Queue (ft)	1530	1297	238	271	552	1070	79	3172	3188	3169	696	147
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)	18	14						44	44	44		
Queuing Penalty (veh)	0	0						0	0	0		
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			1	1	4			79		55		
Queuing Penalty (veh)			2	3	16			16		249		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	236	809	435	209
Average Queue (ft)	84	243	154	59
95th Queue (ft)	179	801	360	156
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		1		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	103	277	1406	145	219	254	175	354	321
Average Queue (ft)	34	223	1003	47	102	145	38	226	144
95th Queue (ft)	86	350	1814	151	214	275	130	400	319
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		54	44		10	21		25	8
Queuing Penalty (veh)		88	99		37	80		43	13
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)			90	2			0	56	
Queuing Penalty (veh)			110	4			0	25	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73
Directions Served	L	T	T	T	TR	T
Maximum Queue (ft)	152	202	189	424	436	119
Average Queue (ft)	58	63	56	140	120	17
95th Queue (ft)	143	170	119	462	417	127
Link Distance (ft)		271	271	640	640	242
Upstream Blk Time (%)		3	0	7	3	4
Queuing Penalty (veh)		10	0	16	7	20
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	11	0				
Queuing Penalty (veh)	30	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	49	58	88	120	82	100	89	117	30	167	68	54
Average Queue (ft)	10	7	24	46	22	64	20	78	7	51	11	12
95th Queue (ft)	36	34	66	98	59	104	64	129	22	126	43	40
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)			0	1				0		1		
Queuing Penalty (veh)			0	1				0		0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	58	60	28	89	83	96	67
Average Queue (ft)	9	10	6	28	25	10	13
95th Queue (ft)	35	39	22	67	62	51	48
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)						0	2
Queuing Penalty (veh)						0	1

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	B87	B87	B87	SB	SB	SB
Directions Served	R	L	T	T	T	T	T	T	TR
Maximum Queue (ft)	379	254	314	433	420	245	18	14	76
Average Queue (ft)	55	134	144	166	67	26	1	1	15
95th Queue (ft)	405	308	459	636	344	184	8	9	62
Link Distance (ft)	1384		357	706	706	706	1876	1876	1876
Upstream Blk Time (%)	0		28	16	0				
Queuing Penalty (veh)	1		50	27	0				
Storage Bay Dist (ft)		200							
Storage Blk Time (%)		38	7						
Queuing Penalty (veh)		41	15						

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	74	19	39	15	17	30	326	1356	1321	75	24	336
Average Queue (ft)	22	2	9	1	1	3	150	391	342	3	3	141
95th Queue (ft)	64	13	32	9	10	17	327	1260	1199	55	16	301
Link Distance (ft)		692		222	222	222		1615	1615			706
Upstream Blk Time (%)								9	3			
Queuing Penalty (veh)								0	0			
Storage Bay Dist (ft)	200		200				280			300	200	
Storage Blk Time (%)							15	12	10			6
Queuing Penalty (veh)							37	23	0			0

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB
Directions Served	TR
Maximum Queue (ft)	392
Average Queue (ft)	159
95th Queue (ft)	332
Link Distance (ft)	706
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	218	212	104	189	579
Average Queue (ft)	62	53	34	87	244
95th Queue (ft)	182	163	109	260	681
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)			5	31	17
Queuing Penalty (veh)			21	139	46
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	196	212	82	1261	1278	354	433	444	415	422
Average Queue (ft)	138	120	5	932	944	192	229	240	201	197
95th Queue (ft)	242	223	49	1539	1540	430	503	586	508	509
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	31	26	0			0	5	45	25	28
Queuing Penalty (veh)	81	67	1			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						0	5			
Queuing Penalty (veh)						1	21			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	4	19	6	184	172	75	35	63	192	206
Average Queue (ft)	0	1	0	62	51	23	7	36	20	33
95th Queue (ft)	3	8	3	133	113	56	28	57	97	115
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					0				0	
Queuing Penalty (veh)					0				0	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	150	168	65	93	51	54	55	88	46	282	284	149
Average Queue (ft)	41	92	14	30	15	13	13	29	7	127	144	18
95th Queue (ft)	113	159	46	74	40	37	38	64	32	213	235	81
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)										0	16	
Queuing Penalty (veh)										0	4	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	530	561	715
Average Queue (ft)	116	350	362	228
95th Queue (ft)	316	554	589	748
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		2	6	6
Queuing Penalty (veh)		8	32	30
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		36		
Queuing Penalty (veh)		33		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	122	142	105	157	194	237	144	142
Average Queue (ft)	91	101	46	90	148	92	50	113
95th Queue (ft)	132	140	90	171	200	210	107	154
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	7	10	0					56
Queuing Penalty (veh)	27	43	2					115
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	23	0		
Queuing Penalty (veh)				2	72	1		

Intersection: 33: Kemper St & Kurtz St

Movement	EB	NB
Directions Served	TR	L
Maximum Queue (ft)	56	53
Average Queue (ft)	13	24
95th Queue (ft)	80	48
Link Distance (ft)	139	
Upstream Blk Time (%)	9	
Queuing Penalty (veh)	44	
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	R
Maximum Queue (ft)	79	31	42
Average Queue (ft)	21	4	12
95th Queue (ft)	104	20	38
Link Distance (ft)	143	300	949
Upstream Blk Time (%)	13		
Queuing Penalty (veh)	37		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	115	24
Average Queue (ft)	51	1
95th Queue (ft)	181	10
Link Distance (ft)	182	259
Upstream Blk Time (%)	20	
Queuing Penalty (veh)	68	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: E2 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	187	30
Average Queue (ft)	54	2
95th Queue (ft)	292	13
Link Distance (ft)	464	365
Upstream Blk Time (%)	10	
Queuing Penalty (veh)	32	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	EB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	309	271	202	9	40
Average Queue (ft)	269	26	10	0	14
95th Queue (ft)	391	150	88	7	39
Link Distance (ft)	285	285	285	313	536
Upstream Blk Time (%)	60	0	0		
Queuing Penalty (veh)	180	0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	EB	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	TR	R
Maximum Queue (ft)	50	100	114	39	104	31
Average Queue (ft)	14	21	24	2	10	4
95th Queue (ft)	107	126	133	23	65	20
Link Distance (ft)	234	234	234	194	194	355
Upstream Blk Time (%)	4	4	4	0	0	
Queuing Penalty (veh)	10	11	12	0	1	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	44	60
Average Queue (ft)	10	27
95th Queue (ft)	59	48
Link Distance (ft)	101	321
Upstream Blk Time (%)	9	
Queuing Penalty (veh)	58	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: X Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	187	48	61
Average Queue (ft)	60	13	12
95th Queue (ft)	248	40	45
Link Distance (ft)	300	182	297
Upstream Blk Time (%)	15		
Queuing Penalty (veh)	47		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement	WB
Directions Served	R
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	67	102	146	229	218	130
Average Queue (ft)	3	9	68	181	153	33
95th Queue (ft)	25	47	172	244	234	99
Link Distance (ft)	96	96		146	146	294
Upstream Blk Time (%)	0	1	0	67	48	
Queuing Penalty (veh)	0	2	0	169	120	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			12	70		
Queuing Penalty (veh)			22	123		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	NB	SB	SB	SB
Directions Served	T	T	TR	T	T	T
Maximum Queue (ft)	381	378	296	287	237	255
Average Queue (ft)	287	107	65	40	25	31
95th Queue (ft)	370	356	251	190	142	165
Link Distance (ft)	263	263	263	311	311	311
Upstream Blk Time (%)	66	10	10	1	0	1
Queuing Penalty (veh)	522	81	79	5	3	4
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	212	268	67	108	182
Average Queue (ft)	50	84	8	19	36
95th Queue (ft)	149	201	50	85	193
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			0	2	5
Queuing Penalty (veh)			1	6	46
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	180	298
Average Queue (ft)	30	33
95th Queue (ft)	102	197
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB	SB
Directions Served	T	T		T	T	TR	R
Maximum Queue (ft)	161	289	252	720	734	738	732
Average Queue (ft)	11	52	13	327	314	276	198
95th Queue (ft)	86	220	105	811	807	775	694
Link Distance (ft)	189	189	189	756	756	756	756
Upstream Blk Time (%)	0	3	0	12	8	7	4
Queuing Penalty (veh)	0	14	1	78	49	45	28
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	406	415
Average Queue (ft)	336	301
95th Queue (ft)	505	537
Link Distance (ft)	360	360
Upstream Blk Time (%)	8	3
Queuing Penalty (veh)	59	25
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 16591

Appendix AB

Opening Year (2035) Plus Project Phase 2 Buildout (20,000-spectator) Conditions Intersection LOS Worksheets



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1131	1599	550	0	0	2175
Future Volume (vph)	1131	1599	550	0	0	2175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5			7.5
Lane Util. Factor	0.97	0.88	0.91			0.86
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	5085			6408
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	5085			6408
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1229	1738	598	0	0	2364
RTOR Reduction (vph)	0	130	0	0	0	0
Lane Group Flow (vph)	1229	1608	598	0	0	2364
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)				2		
Turn Type	Prot	custom	NA			NA
Protected Phases	8	1 8	2			6
Permitted Phases						
Actuated Green, G (s)	35.2	57.8	25.3			47.9
Effective Green, g (s)	35.2	57.8	25.3			47.9
Actuated g/C Ratio	0.36	0.59	0.26			0.49
Clearance Time (s)	7.5		7.5			7.5
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	1231	1642	1311			3128
v/s Ratio Prot	0.36	c0.58	0.12			c0.37
v/s Ratio Perm						
v/c Ratio	1.00	0.98	0.46			0.76
Uniform Delay, d1	31.4	19.6	30.6			20.4
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	25.0	17.2	0.1			1.0
Delay (s)	56.5	36.8	30.7			21.3
Level of Service	E	D	C			C
Approach Delay (s)	44.9		30.7			21.3
Approach LOS	D		C			C

Intersection Summary			
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	98.1	Sum of lost time (s)	22.5
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
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)	297	514	235	26	358	565	242	454	22	1011	466	227
Future Volume (veh/h)	297	514	235	26	358	565	242	454	22	1011	466	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	323	559	255	28	389	0	252	508	0	1099	507	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	435	457	731	273	544		402	844		906	476	
Arrive On Green	0.24	0.24	0.24	0.15	0.15	0.00	0.07	0.07	0.00	0.25	0.25	0.00
Sat Flow, veh/h	1781	1870	1529	1781	3554	1585	1781	3741	1585	3563	1870	1585
Grp Volume(v), veh/h	323	559	255	28	389	0	252	508	0	1099	507	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1529	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	26.8	39.1	17.0	2.2	16.7	0.0	22.0	21.1	0.0	40.7	40.7	0.0
Cycle Q Clear(g_c), s	26.8	39.1	17.0	2.2	16.7	0.0	22.0	21.1	0.0	40.7	40.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	435	457	731	273	544		402	844		906	476	
V/C Ratio(X)	0.74	1.22	0.35	0.10	0.71		0.63	0.60		1.21	1.07	
Avail Cap(c_a), veh/h	435	457	731	357	713		402	844		906	476	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.00	0.88	0.88	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.8	60.5	27.0	58.3	64.4	0.0	67.5	67.1	0.0	59.6	59.6	0.0
Incr Delay (d2), s/veh	8.8	118.6	0.8	0.5	5.3	0.0	6.4	2.8	0.0	105.9	59.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	33.4	9.4	1.0	7.9	0.0	11.3	11.0	0.0	31.7	27.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	179.1	27.8	58.8	69.7	0.0	73.9	69.9	0.0	165.6	119.5	0.0
LnGrp LOS	E	F	C	E	E		E	E		F	F	
Approach Vol, veh/h		1137			417			760			1606	
Approach Delay, s/veh		112.6			69.0			71.2			151.0	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	44.0	45.6	29.4	41.0
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	33.1	32.1	36.1
Max Q Clear Time (g_c+I1), s	41.1	42.7	18.7	24.0
Green Ext Time (p_c), s	0.0	0.0	4.4	2.9

Intersection Summary	
HCM 6th Ctrl Delay	115.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	1169	3	0	673	178	0	0	0	74	1	277
Future Volume (veh/h)	374	1169	3	0	673	178	0	0	0	74	1	277
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.94				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	407	1271	3	0	732	193				80	1	301
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	437	1788	4	101	1223	317				556	7	494
Arrive On Green	0.25	0.49	0.49	0.00	0.61	0.61				0.32	0.32	0.32
Sat Flow, veh/h	1781	3637	9	1781	3982	1033				1760	22	1564
Grp Volume(v), veh/h	407	621	653	0	624	301				81	0	301
Grp Sat Flow(s),veh/h/ln	1781	1777	1868	1781	1702	1611				1782	0	1564
Q Serve(g_s), s	24.1	29.5	29.5	0.0	12.1	12.4				3.5	0.0	17.6
Cycle Q Clear(g_c), s	24.1	29.5	29.5	0.0	12.1	12.4				3.5	0.0	17.6
Prop In Lane	1.00		0.00	1.00		0.64				0.99		1.00
Lane Grp Cap(c), veh/h	437	874	919	101	1046	495				563	0	494
V/C Ratio(X)	0.93	0.71	0.71	0.00	0.60	0.61				0.14	0.00	0.61
Avail Cap(c_a), veh/h	538	874	919	109	1046	495				563	0	494
HCM Platoon Ratio	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	0.00	0.84	0.84				1.00	0.00	1.00
Uniform Delay (d), s/veh	39.8	21.5	21.5	0.0	16.7	16.8				26.5	0.0	31.3
Incr Delay (d2), s/veh	2.5	0.5	0.4	0.0	2.1	4.6				0.5	0.0	5.5
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	10.6	11.7	12.3	0.0	3.7	3.9				1.6	0.0	16.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	21.9	21.9	0.0	18.9	21.4				27.0	0.0	36.8
LnGrp LOS	D	C	C	A	B	C				C	A	D
Approach Vol, veh/h		1681			925						382	
Approach Delay, s/veh		26.9			19.7						34.7	
Approach LOS		C			B						C	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	11.0	58.0		39.0	30.9	38.1
Change Period (Y+Rc), s	4.9	* 4.9		4.9	4.4	4.9
Max Green Setting (Gmax), s	6.6	* 53		34.1	32.6	27.1
Max Q Clear Time (g_c+I1), s	10.0	31.5		19.6	26.1	14.4
Green Ext Time (p_c), s	0.0	10.5		0.8	0.4	5.6

Intersection Summary	
HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	332	798	109	109	647	21	147	204	122	121	42	54
Future Volume (veh/h)	332	798	109	109	647	21	147	204	122	121	42	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	1.00		0.83	1.00		0.75	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	361	867	118	118	703	23	160	222	133	132	46	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	1854	250	145	1636	53	414	224	134	167	70	90
Arrive On Green	0.17	0.42	0.42	0.08	0.32	0.32	0.23	0.23	0.23	0.09	0.09	0.09
Sat Flow, veh/h	1781	4464	602	1781	5041	164	1781	964	578	1781	744	954
Grp Volume(v), veh/h	361	659	326	118	473	253	160	0	355	132	0	105
Grp Sat Flow(s),veh/h/ln	1781	1702	1663	1781	1702	1800	1781	0	1542	1781	0	1699
Q Serve(g_s), s	18.6	15.2	15.4	7.0	11.8	11.9	8.2	0.0	24.8	7.8	0.0	6.4
Cycle Q Clear(g_c), s	18.6	15.2	15.4	7.0	11.8	11.9	8.2	0.0	24.8	7.8	0.0	6.4
Prop In Lane	1.00		0.36	1.00		0.09	1.00		0.37	1.00		0.56
Lane Grp Cap(c), veh/h	307	1413	690	145	1105	584	414	0	358	167	0	160
V/C Ratio(X)	1.18	0.47	0.47	0.81	0.43	0.43	0.39	0.00	0.99	0.79	0.00	0.66
Avail Cap(c_a), veh/h	307	1413	690	191	1105	584	414	0	358	282	0	269
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	1.00	1.00	1.00	0.77	0.00	0.77	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.7	22.9	23.0	48.8	28.6	28.7	35.0	0.0	41.3	47.9	0.0	47.2
Incr Delay (d2), s/veh	102.6	0.8	1.8	13.6	1.2	2.3	0.2	0.0	39.1	3.1	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.8	6.1	6.2	3.6	4.9	5.4	3.6	0.0	13.2	3.6	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	147.3	23.7	24.7	62.4	29.8	31.0	35.1	0.0	80.5	51.0	0.0	49.0
LnGrp LOS	F	C	C	E	C	C	D	A	F	D	A	D
Approach Vol, veh/h		1346			844			515			237	
Approach Delay, s/veh		57.1			34.7			66.4			50.1	
Approach LOS		E			C			E			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.0	39.9		30.0	13.2	49.7		15.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	18.6	28.1		25.1	11.6	35.1		17.1
Max Q Clear Time (g_c+I1), s	20.6	13.9		26.8	9.0	17.4		9.8
Green Ext Time (p_c), s	0.0	6.2		0.0	0.0	9.7		0.3

Intersection Summary	
HCM 6th Ctrl Delay	51.7
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	349	631	83	85	729	149	107	44	77	21	36	170
Future Volume (veh/h)	349	631	83	85	729	149	107	44	77	21	36	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.56	1.00		0.88	1.00		0.82	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	379	686	90	92	792	162	116	48	84	23	39	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1040	129	116	1087	219	432	179	545	283	44	210
Arrive On Green	0.05	0.25	0.25	0.07	0.26	0.26	0.34	0.34	0.34	0.16	0.16	0.16
Sat Flow, veh/h	1781	4178	518	1781	4149	836	1278	529	1306	1781	278	1319
Grp Volume(v), veh/h	379	551	225	92	648	306	164	0	84	23	0	224
Grp Sat Flow(s),veh/h/ln	1781	1702	1292	1781	1702	1580	1806	0	1306	1781	0	1598
Q Serve(g_s), s	5.3	14.7	16.0	5.2	17.5	18.0	6.7	0.0	4.1	1.1	0.0	13.9
Cycle Q Clear(g_c), s	5.3	14.7	16.0	5.2	17.5	18.0	6.7	0.0	4.1	1.1	0.0	13.9
Prop In Lane	1.00		0.40	1.00		0.53	0.71		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	93	847	322	116	892	414	611	0	545	283	0	254
V/C Ratio(X)	4.06	0.65	0.70	0.79	0.73	0.74	0.27	0.00	0.15	0.08	0.00	0.88
Avail Cap(c_a), veh/h	93	847	322	134	892	414	643	0	568	319	0	286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.9	34.1	34.5	46.6	34.0	34.2	24.4	0.0	19.2	36.3	0.0	41.6
Incr Delay (d2), s/veh	1403.0	3.9	11.9	20.3	5.1	11.3	0.1	0.0	0.0	0.0	0.0	22.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	38.7	6.4	6.0	2.9	7.7	8.0	2.8	0.0	1.3	0.5	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1450.9	37.9	46.4	66.9	39.2	45.5	24.5	0.0	19.3	36.3	0.0	64.2
LnGrp LOS	F	D	D	E	D	D	C	A	B	D	A	E
Approach Vol, veh/h		1155			1046			248			247	
Approach Delay, s/veh		503.2			43.5			22.7			61.6	
Approach LOS		F			D			C			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	30.1		21.0	9.7	31.4		39.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	24.2		18.1	5.3	26.5		36.0
Max Q Clear Time (g_c+I1), s	17.2	18.0		15.9	7.3	20.0		8.7
Green Ext Time (p_c), s	0.0	3.0		0.2	0.0	2.5		0.8

Intersection Summary		
HCM 6th Ctrl Delay	240.2	
HCM 6th LOS	F	

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	698	65	148	896	0	137
Future Vol, veh/h	698	65	148	896	0	137
Conflicting Peds, #/hr	0	80	0	0	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	125	-	-	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	759	71	161	974	0	149

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	910	0	-	498
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	432	-	0	443
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	399	-	-	408
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	18.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	408	-	-	399	-
HCM Lane V/C Ratio	0.365	-	-	0.403	-
HCM Control Delay (s)	18.8	-	-	20	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	1.6	-	-	1.9	-



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	822	32	202	1019	74	159
Future Volume (veh/h)	822	32	202	1019	74	159
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.88	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	893	35	220	1108	80	173
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2999	117	253	3989	228	203
Arrive On Green	0.60	0.60	0.14	0.78	0.13	0.13
Sat Flow, veh/h	5180	196	1781	5274	1781	1585
Grp Volume(v), veh/h	606	322	220	1108	80	173
Grp Sat Flow(s),veh/h/ln	1702	1804	1781	1702	1781	1585
Q Serve(g_s), s	9.4	9.4	13.1	6.6	4.4	11.5
Cycle Q Clear(g_c), s	9.4	9.4	13.1	6.6	4.4	11.5
Prop In Lane		0.11	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2037	1079	253	3989	228	203
V/C Ratio(X)	0.30	0.30	0.87	0.28	0.35	0.85
Avail Cap(c_a), veh/h	2037	1079	785	3989	397	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.51	0.51	0.99	0.99
Uniform Delay (d), s/veh	10.6	10.6	45.4	3.3	43.0	46.1
Incr Delay (d2), s/veh	0.4	0.7	1.9	0.1	0.3	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.7	5.8	1.7	2.0	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.0	11.3	47.2	3.4	43.3	49.9
LnGrp LOS	B	B	D	A	D	D
Approach Vol, veh/h	928			1328	253	
Approach Delay, s/veh	11.1			10.7	47.8	
Approach LOS	B			B	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	19.7	69.5				89.3	18.7
Change Period (Y+Rc), s	4.4	4.9				4.9	4.9
Max Green Setting (Gmax), s	47.6	22.1				74.1	24.1
Max Q Clear Time (g_c+I1), s	15.1	11.4				8.6	13.5
Green Ext Time (p_c), s	0.3	6.4				15.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	473	136	134	397	254	140	170	124	71	106	68
Future Volume (veh/h)	84	473	136	134	397	254	140	170	124	71	106	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.94	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	514	148	146	432	276	152	185	135	77	115	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	566	1948	852	189	575	363	268	281	312	227	238	191
Arrive On Green	0.64	1.00	1.00	0.11	0.56	0.56	0.15	0.15	0.15	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1555	3456	2039	1288	1781	1870	1499	1781	1870	1499
Grp Volume(v), veh/h	91	514	148	146	376	332	152	185	135	77	115	74
Grp Sat Flow(s),veh/h/ln	1781	1777	1555	1728	1777	1550	1781	1870	1499	1781	1870	1499
Q Serve(g_s), s	3.3	0.0	0.0	6.6	25.6	26.2	12.7	14.9	12.6	6.3	9.1	7.2
Cycle Q Clear(g_c), s	3.3	0.0	0.0	6.6	25.6	26.2	12.7	14.9	12.6	6.3	9.1	7.2
Prop In Lane	1.00		1.00	1.00		0.83	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	566	1948	852	189	501	437	268	281	312	227	238	191
V/C Ratio(X)	0.16	0.26	0.17	0.77	0.75	0.76	0.57	0.66	0.43	0.34	0.48	0.39
Avail Cap(c_a), veh/h	566	1948	852	467	501	437	391	410	416	391	410	329
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.63	0.63	0.63	1.00	1.00	1.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	20.5	0.0	0.0	70.3	30.6	30.8	63.1	64.1	55.6	63.7	64.9	64.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.6	6.4	7.7	0.7	1.0	0.4	0.3	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	2.8	9.8	8.8	5.8	7.2	4.8	2.9	4.4	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	0.0	71.9	37.1	38.5	63.8	65.1	55.9	63.9	65.3	64.5
LnGrp LOS	C	A	A	E	D	D	E	E	E	E	E	E
Approach Vol, veh/h		753			854			472			266	
Approach Delay, s/veh		2.5			43.6			62.1			64.7	
Approach LOS		A			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.2	92.6		25.3	55.8	50.0		29.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 4.9		4.9
Max Green Setting (Gmax), s	20.6	49.1		35.1	25.6	* 45		35.1
Max Q Clear Time (g_c+I1), s	8.6	2.0		11.1	5.3	28.2		16.9
Green Ext Time (p_c), s	0.2	6.7		0.6	0.1	6.6		1.1

Intersection Summary	
HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	751	12	10	835	354	5	0	5	129	9	53
Future Volume (veh/h)	43	751	12	10	835	354	5	0	5	129	9	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	0.95		0.98	0.99		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	816	13	11	908	385	5	0	5	140	10	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1960	31	383	1260	529	242	21	195	318	33	106
Arrive On Green	0.03	0.55	0.55	0.01	0.53	0.53	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3577	57	1781	2395	1005	660	80	740	920	123	403
Grp Volume(v), veh/h	47	405	424	11	671	622	10	0	0	208	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1857	1781	1777	1622	1481	0	0	1446	0	0
Q Serve(g_s), s	1.0	10.7	10.7	0.2	23.0	23.5	0.0	0.0	0.0	8.8	0.0	0.0
Cycle Q Clear(g_c), s	1.0	10.7	10.7	0.2	23.0	23.5	0.3	0.0	0.0	9.8	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.62	0.50		0.50	0.67		0.28
Lane Grp Cap(c), veh/h	247	974	1018	383	935	854	458	0	0	457	0	0
V/C Ratio(X)	0.19	0.42	0.42	0.03	0.72	0.73	0.02	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	380	974	1018	555	935	854	458	0	0	457	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.53	0.53	0.53	1.00	0.00	0.00	0.60	0.00	0.00
Uniform Delay (d), s/veh	11.9	10.6	10.6	9.1	14.4	14.6	21.8	0.0	0.0	25.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.3	1.2	0.0	2.5	2.9	0.0	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.1	4.3	0.1	8.9	8.4	0.1	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	11.9	11.8	9.1	17.0	17.5	21.8	0.0	0.0	27.2	0.0	0.0
LnGrp LOS	B	B	B	A	B	B	C	A	A	C	A	A
Approach Vol, veh/h		876			1304			10			208	
Approach Delay, s/veh		11.8			17.1			21.8			27.2	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.3	48.7		26.0	7.0	47.0		26.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	36.1		21.1	8.6	36.1		21.1
Max Q Clear Time (g_c+I1), s	2.2	12.7		11.8	3.0	25.5		2.3
Green Ext Time (p_c), s	0.0	6.0		0.5	0.0	6.6		0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	31	16	321	274	33
Future Vol, veh/h	9	31	16	321	274	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	34	17	349	298	36
Number of Lanes	1	0	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	1
HCM Control Delay	8.5	11.7	10.7
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	SBLn1
Vol Left, %	100%	0%	23%	0%
Vol Thru, %	0%	100%	0%	89%
Vol Right, %	0%	0%	78%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	321	40	307
LT Vol	16	0	9	0
Through Vol	0	321	0	274
RT Vol	0	0	31	33
Lane Flow Rate	17	349	43	334
Geometry Grp	7	7	2	5
Degree of Util (X)	0.026	0.475	0.061	0.416
Departure Headway (Hd)	5.4	4.897	5.08	4.484
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	667	740	703	804
Service Time	3.1	2.597	3.125	2.504
HCM Lane V/C Ratio	0.025	0.472	0.061	0.415
HCM Control Delay	8.2	11.9	8.5	10.7
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	0.1	2.6	0.2	2.1

LANE SUMMARY

Site: 1 [OY WP 2035 Phase 2 Pre-Event 20,000_Kurtz Street at Hancock Street: Roundabout (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Kurtz Street															
Lane 1[d]	138	0.0	138	0.0	1380	0.100	100	3.1	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	138	0.0	138	0.0		0.100		3.1	LOS A	0.0	0.0				
East: Hancock Street															
Lane 1[d]	687	0.0	687	0.0	1199	0.573	100	9.5	LOS A	4.7	117.3	Full	1600	0.0	0.0
Approach	687	0.0	687	0.0		0.573		9.5	LOS A	4.7	117.3				
West: Hancock Street															
Lane 1[d]	362	0.0	362	0.0	838	0.432	100	9.6	LOS A	2.6	64.7	Full	1600	0.0	0.0
Approach	362	0.0	362	0.0		0.432		9.6	LOS A	2.6	64.7				
All Vehicles	1187	0.0	1187	0.0		0.573		8.8	LOS A	4.7	117.3				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Kurtz Street

Mov. From S To Exit:	L2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	138	138	0.0	1380	0.100	100	NA	NA
Approach	138	138	0.0		0.100			

East: Hancock Street

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	489	198	687	0.0	1199	0.573	100	NA	NA
Approach	489	198	687	0.0		0.573			

West: Hancock Street

Mov. From W To Exit:	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	362	362	0.0	838	0.432	100	NA	NA
Approach	362	362	0.0		0.432			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1187	0.0	0.573

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Kurtz Street				
Lane 1	0.0	0.0	0.0	0.0
East: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0
West: Hancock Street				
Lane 1	0.0	0.0	0.0	0.0

Intersection	
Intersection Delay, s/veh	19
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	77	334	0	0	0	0	0	0	4	182	94	190
Future Vol, veh/h	77	334	0	0	0	0	0	0	4	182	94	190
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	363	0	0	0	0	0	0	4	198	102	207
Number of Lanes	0	1	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	18.3	8.5	19.8
HCM LOS	C	A	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	19%	39%
Vol Thru, %	0%	81%	20%
Vol Right, %	100%	0%	41%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	4	411	466
LT Vol	0	77	182
Through Vol	0	334	94
RT Vol	4	0	190
Lane Flow Rate	4	447	507
Geometry Grp	1	1	1
Degree of Util (X)	0.006	0.663	0.715
Departure Headway (Hd)	5.377	5.344	5.08
Convergence, Y/N	Yes	Yes	Yes
Cap	663	675	714
Service Time	3.427	3.378	3.08
HCM Lane V/C Ratio	0.006	0.662	0.71
HCM Control Delay	8.5	18.3	19.8
HCM Lane LOS	A	C	C
HCM 95th-tile Q	0	5	6.1

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	414	0	0	56	0
Future Vol, veh/h	36	414	0	0	56	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	450	0	0	61	0
Number of Lanes	0	2	0	0	1	0

Approach	EB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left	SB	
Conflicting Lanes Left	1	0
Conflicting Approach Right		EB
Conflicting Lanes Right	0	2
HCM Control Delay	9.8	8.7
HCM LOS	A	A

Lane	EBLn1	EBLn2	SBLn1
Vol Left, %	21%	0%	100%
Vol Thru, %	79%	100%	0%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	174	276	56
LT Vol	36	0	56
Through Vol	138	276	0
RT Vol	0	0	0
Lane Flow Rate	189	300	61
Geometry Grp	7	7	2
Degree of Util (X)	0.249	0.387	0.088
Departure Headway (Hd)	4.744	4.641	5.183
Convergence, Y/N	Yes	Yes	Yes
Cap	751	768	696
Service Time	2.512	2.408	3.183
HCM Lane V/C Ratio	0.252	0.391	0.088
HCM Control Delay	9.1	10.3	8.7
HCM Lane LOS	A	B	A
HCM 95th-tile Q	1	1.8	0.3

Intersection	
Intersection Delay, s/veh	48.8
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	424	472	21	65	18	0	0	41	11
Future Vol, veh/h	0	0	0	424	472	21	65	18	0	0	41	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	461	513	23	71	20	0	0	45	12
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	54.5	10.3	9.6
HCM LOS	F	B	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	78%	64%	0%	0%
Vol Thru, %	22%	36%	92%	79%
Vol Right, %	0%	0%	8%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	83	660	257	52
LT Vol	65	424	0	0
Through Vol	18	236	236	41
RT Vol	0	0	21	11
Lane Flow Rate	90	717	279	57
Geometry Grp	2	7	7	2
Degree of Util (X)	0.152	1.053	0.381	0.092
Departure Headway (Hd)	6.225	5.286	4.906	6.015
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	580	689	732	599
Service Time	4.225	3.026	2.646	4.015
HCM Lane V/C Ratio	0.155	1.041	0.381	0.095
HCM Control Delay	10.3	71.6	10.7	9.6
HCM Lane LOS	B	F	B	A
HCM 95th-tile Q	0.5	18.7	1.8	0.3

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	32	721	17	31	3	0	0	29	162
Future Vol, veh/h	0	0	0	32	721	17	31	3	0	0	29	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	35	784	18	34	3	0	0	32	176
Number of Lanes	0	0	0	0	2	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	15.5	9.5	10.2
HCM LOS	C	A	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	91%	8%	0%	0%
Vol Thru, %	9%	92%	95%	15%
Vol Right, %	0%	0%	5%	85%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	393	378	191
LT Vol	31	32	0	0
Through Vol	3	361	361	29
RT Vol	0	0	17	162
Lane Flow Rate	37	427	410	208
Geometry Grp	2	7	7	2
Degree of Util (X)	0.062	0.616	0.584	0.293
Departure Headway (Hd)	6.04	5.199	5.126	5.085
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	589	691	702	706
Service Time	4.112	2.959	2.887	3.13
HCM Lane V/C Ratio	0.063	0.618	0.584	0.295
HCM Control Delay	9.5	16	14.9	10.2
HCM Lane LOS	A	C	B	B
HCM 95th-tile Q	0.2	4.3	3.8	1.2

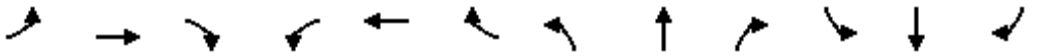
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	12	0	0	26	0	2034	13	0	2274	186
Future Vol, veh/h	0	0	12	0	0	26	0	2034	13	0	2274	186
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	4	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	13	0	0	28	0	2211	14	0	2472	202

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	1343	-	-	1117	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.1	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	122	0	0	175	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	121	-	-	174	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	38.3	29.7	0	0
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	121	174	-	-
HCM Lane V/C Ratio	-	-	0.108	0.162	-	-
HCM Control Delay (s)	-	-	38.3	29.7	-	-
HCM Lane LOS	-	-	E	D	-	-
HCM 95th %tile Q(veh)	-	-	0.4	0.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	252	49	83	1995	14	0	1788	467
Future Volume (veh/h)	0	0	0	125	252	49	83	1995	14	0	1788	467
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				136	274	53	90	2168	15	0	1943	508
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				161	343	69	108	4101	28	0	3564	1097
Arrive On Green				0.16	0.16	0.16	0.12	1.00	1.00	0.00	0.70	0.70
Sat Flow, veh/h				1014	2157	432	1781	5232	36	0	5274	1571
Grp Volume(v), veh/h				244	0	219	90	1410	773	0	1943	508
Grp Sat Flow(s),veh/h/ln				1820	0	1783	1781	1702	1864	0	1702	1571
Q Serve(g_s), s				22.4	0.0	20.2	8.5	0.0	0.0	0.0	31.9	24.8
Cycle Q Clear(g_c), s				22.4	0.0	20.2	8.5	0.0	0.0	0.0	31.9	24.8
Prop In Lane				0.56		0.24	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				290	0	284	108	2669	1461	0	3564	1097
V/C Ratio(X)				0.84	0.00	0.77	0.84	0.53	0.53	0.00	0.55	0.46
Avail Cap(c_a), veh/h				371	0	364	275	2669	1461	0	3564	1097
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.72	0.00	1.00	1.00
Uniform Delay (d), s/veh				70.2	0.0	69.3	74.8	0.0	0.0	0.0	12.7	11.6
Incr Delay (d2), s/veh				10.7	0.0	5.4	4.7	0.5	1.0	0.0	0.6	1.4
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				11.4	0.0	9.7	3.8	0.2	0.4	0.0	11.8	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				81.0	0.0	74.8	79.4	0.5	1.0	0.0	13.3	13.0
LnGrp LOS				F	A	E	E	A	A	A	B	B
Approach Vol, veh/h					463			2273			2451	
Approach Delay, s/veh					78.0			3.8			13.2	
Approach LOS					E			A			B	

Timer - Assigned Phs	2		4	5	6							
Phs Duration (G+Y+Rc), s	139.7		32.3	14.8	125.0							
Change Period (Y+Rc), s	4.9		4.9	4.4	4.9							
Max Green Setting (Gmax), s	127.1		35.1	26.6	96.1							
Max Q Clear Time (g_c+I1), s	2.0		24.4	10.5	33.9							
Green Ext Time (p_c), s	7.7		0.8	0.0	7.2							

Intersection Summary		
HCM 6th Ctrl Delay		14.9
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



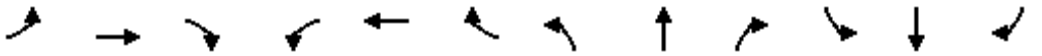
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	317	139	78	0	0	0	0	1778	23	59	1830	0
Future Volume (veh/h)	317	139	78	0	0	0	0	1778	23	59	1830	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	345	151	85				0	1933	25	64	1989	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	362	227	128				0	3478	45	80	4760	0
Arrive On Green	0.20	0.20	0.20				0.00	1.00	1.00	0.09	1.00	0.00
Sat Flow, veh/h	1781	1117	629				0	5364	67	1781	6696	0
Grp Volume(v), veh/h	345	0	236				0	1266	692	64	1989	0
Grp Sat Flow(s),veh/h/ln	1781	0	1745				0	1702	1858	1781	1609	0
Q Serve(g_s), s	32.9	0.0	21.4				0.0	0.0	0.0	6.1	0.0	0.0
Cycle Q Clear(g_c), s	32.9	0.0	21.4				0.0	0.0	0.0	6.1	0.0	0.0
Prop In Lane	1.00		0.36				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	362	0	355				0	2279	1244	80	4760	0
V/C Ratio(X)	0.95	0.00	0.67				0.00	0.56	0.56	0.80	0.42	0.00
Avail Cap(c_a), veh/h	364	0	356				0	2279	1244	162	4760	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.70	0.70	0.82	0.82	0.00
Uniform Delay (d), s/veh	67.7	0.0	63.1				0.0	0.0	0.0	77.6	0.0	0.0
Incr Delay (d2), s/veh	34.7	0.0	3.7				0.0	0.7	1.3	5.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.5	0.0	10.0				0.0	0.2	0.4	2.8	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.4	0.0	66.9				0.0	0.7	1.3	83.3	0.2	0.0
LnGrp LOS	F	A	E				A	A	A	F	A	A
Approach Vol, veh/h		581						1958			2053	
Approach Delay, s/veh		88.0						0.9			2.8	
Approach LOS		F						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.1	120.1		39.8		132.2
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9
Max Green Setting (Gmax), s	15.6	107.1		35.1		127.1
Max Q Clear Time (g_c+I1), s	8.1	2.0		34.9		2.0
Green Ext Time (p_c), s	0.0	5.7		0.0		7.1

Intersection Summary	
HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	424	346	243	234	151	10	403	1382	313	0	1249	638
Future Volume (vph)	424	346	243	234	151	10	403	1382	313	0	1249	638
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	14	12	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91		0.97	0.91			0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99			1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.97			1.00	0.85
Flt Protected	0.95	0.98	1.00	0.95	0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1610	3334	1552	1610	3291		3662	4916			5085	1483
Flt Permitted	0.95	0.98	1.00	0.95	0.98		0.95	1.00			1.00	1.00
Satd. Flow (perm)	1610	3334	1552	1610	3291		3662	4916			5085	1483
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	461	376	264	254	164	11	438	1502	340	0	1358	693
RTOR Reduction (vph)	0	0	209	0	2	0	0	17	0	0	0	287
Lane Group Flow (vph)	272	565	55	140	287	0	438	1825	0	0	1358	406
Confl. Peds. (#/hr)			4			37			11			28
Confl. Bikes (#/hr)			2			3			1			1
Turn Type	Split	NA	Perm	Split	NA		Prot	NA			NA	Perm
Protected Phases	4	4		8	8		5	2			6	
Permitted Phases			4									6
Actuated Green, G (s)	34.6	34.6	34.6	19.1	19.1		25.0	100.6			70.2	70.2
Effective Green, g (s)	34.6	34.6	34.6	19.1	19.1		25.0	100.6			70.2	70.2
Actuated g/C Ratio	0.20	0.20	0.20	0.11	0.11		0.15	0.58			0.41	0.41
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9		5.4	5.9			5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0			1.0	1.0
Lane Grp Cap (vph)	323	670	312	178	365		532	2875			2075	605
v/s Ratio Prot	0.17	c0.17		0.09	c0.09		c0.12	0.37			0.27	
v/s Ratio Perm			0.04									c0.27
v/c Ratio	0.84	0.84	0.18	0.79	0.79		0.82	0.63			0.65	0.67
Uniform Delay, d1	66.1	66.1	56.9	74.5	74.5		71.4	23.6			41.1	41.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.30	0.42			0.67	0.64
Incremental Delay, d2	17.1	9.1	0.1	18.7	9.9		6.7	0.7			1.5	5.4
Delay (s)	83.1	75.2	57.0	93.2	84.4		99.6	10.6			28.9	32.1
Level of Service	F	E	E	F	F		F	B			C	C
Approach Delay (s)		72.8			87.2			27.7			30.0	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	41.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	172.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
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)	210	437	247	92	633	335	279	1517	100	296	1109	306
Future Volume (veh/h)	210	437	247	92	633	335	279	1517	100	296	1109	306
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.93	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	475	268	100	688	364	303	1649	109	322	1205	333
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	592	254	148	622	258	346	2046	135	735	2112	583
Arrive On Green	0.08	0.17	0.17	0.08	0.17	0.17	0.03	0.14	0.14	0.21	0.53	0.53
Sat Flow, veh/h	3456	3554	1525	1781	3554	1472	3456	4881	322	3456	3949	1091
Grp Volume(v), veh/h	228	475	268	100	688	364	303	1149	609	322	1039	499
Grp Sat Flow(s),veh/h/ln	1728	1777	1525	1781	1777	1472	1728	1702	1800	1728	1702	1635
Q Serve(g_s), s	11.2	22.1	23.3	9.4	30.1	20.1	15.0	56.3	56.4	13.9	35.1	35.2
Cycle Q Clear(g_c), s	11.2	22.1	23.3	9.4	30.1	20.1	15.0	56.3	56.4	13.9	35.1	35.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.67
Lane Grp Cap(c), veh/h	268	592	254	148	622	258	346	1427	754	735	1820	875
V/C Ratio(X)	0.85	0.80	1.06	0.68	1.11	1.41	0.88	0.81	0.81	0.44	0.57	0.57
Avail Cap(c_a), veh/h	434	684	293	193	622	258	675	1427	754	735	1820	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	78.4	69.0	47.6	76.6	70.9	31.6	82.1	67.3	67.3	58.8	26.8	26.8
Incr Delay (d2), s/veh	4.2	4.7	65.1	2.9	68.8	207.4	2.4	4.1	7.6	0.2	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	10.5	13.5	4.4	19.6	22.1	7.1	26.7	29.0	6.1	14.2	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.6	73.7	112.7	79.5	139.7	239.1	84.5	71.4	75.0	58.9	27.1	27.4
LnGrp LOS	F	E	F	E	F	F	F	E	E	E	C	C
Approach Vol, veh/h		971			1152			2061			1860	
Approach Delay, s/veh		86.6			165.9			74.4			32.7	
Approach LOS		F			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	77.0	19.2	33.5	21.6	97.7	17.7	35.0
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	29.6	* 72	18.6	* 33	33.6	67.3	21.6	30.1
Max Q Clear Time (g_c+I1), s	15.9	58.4	11.4	25.3	17.0	37.2	13.2	32.1
Green Ext Time (p_c), s	0.2	4.1	0.0	1.0	0.2	4.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	80.9
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	9	10	95	11	67	7	1712	16	95	1310	34
Future Volume (veh/h)	42	9	10	95	11	67	7	1712	16	95	1310	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	10	11	103	12	73	8	1861	17	103	1424	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	32	28	143	14	80	16	3698	34	122	3927	102
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.71	0.71	0.07	0.77	0.77
Sat Flow, veh/h	807	235	205	818	106	587	1781	5217	48	1781	5113	133
Grp Volume(v), veh/h	67	0	0	188	0	0	8	1214	664	103	948	513
Grp Sat Flow(s),veh/h/ln	1247	0	0	1512	0	0	1781	1702	1861	1781	1702	1842
Q Serve(g_s), s	0.0	0.0	0.0	12.8	0.0	0.0	0.8	27.8	27.8	9.8	15.4	15.4
Cycle Q Clear(g_c), s	8.3	0.0	0.0	21.1	0.0	0.0	0.8	27.8	27.8	9.8	15.4	15.4
Prop In Lane	0.69		0.16	0.55		0.39	1.00		0.03	1.00		0.07
Lane Grp Cap(c), veh/h	204	0	0	237	0	0	16	2413	1319	122	2615	1415
V/C Ratio(X)	0.33	0.00	0.00	0.79	0.00	0.00	0.49	0.50	0.50	0.84	0.36	0.36
Avail Cap(c_a), veh/h	260	0	0	296	0	0	162	2413	1319	369	2615	1415
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.78	0.78	0.78	0.69	0.69	0.69
Uniform Delay (d), s/veh	67.7	0.0	0.0	73.2	0.0	0.0	84.8	11.3	11.3	79.2	6.4	6.4
Incr Delay (d2), s/veh	0.3	0.0	0.0	8.7	0.0	0.0	6.3	0.6	1.1	4.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	8.9	0.0	0.0	0.4	10.2	11.3	4.6	5.2	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	0.0	0.0	82.0	0.0	0.0	91.1	11.9	12.4	83.4	6.7	6.9
LnGrp LOS	E	A	A	F	A	A	F	B	B	F	A	A
Approach Vol, veh/h		67			188			1886			1564	
Approach Delay, s/veh		68.0			82.0			12.4			11.8	
Approach LOS		E			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.2	127.6		28.2	6.0	137.8		28.2
Change Period (Y+Rc), s	4.4	* 5.7		4.9	4.4	5.7		4.9
Max Green Setting (Gmax), s	35.6	* 92		30.1	15.6	111.3		30.1
Max Q Clear Time (g_c+I1), s	11.8	29.8		10.3	2.8	17.4		23.1
Green Ext Time (p_c), s	0.0	5.3		0.1	0.0	3.6		0.2

Intersection Summary		
HCM 6th Ctrl Delay	16.7	
HCM 6th LOS	B	

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	160	7	524	316	250	18	1300	548	81	1040	281
Future Volume (veh/h)	200	160	7	524	316	250	18	1300	548	81	1040	281
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.98	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	174	8	570	343	272	20	1413	596	88	1130	305
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	277	13	604	367	305	32	2654	813	125	1912	833
Arrive On Green	0.13	0.16	0.16	0.17	0.20	0.20	0.02	0.52	0.52	0.07	1.00	1.00
Sat Flow, veh/h	1781	1768	81	3456	1870	1555	1781	5106	1564	3456	3554	1548
Grp Volume(v), veh/h	217	0	182	570	343	272	20	1413	596	88	1130	305
Grp Sat Flow(s),veh/h/ln	1781	0	1849	1728	1870	1555	1781	1702	1564	1728	1777	1548
Q Serve(g_s), s	20.7	0.0	15.8	28.0	31.0	26.0	1.9	31.6	50.9	4.3	0.0	0.0
Cycle Q Clear(g_c), s	20.7	0.0	15.8	28.0	31.0	26.0	1.9	31.6	50.9	4.3	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	0	289	604	367	305	32	2654	813	125	1912	833
V/C Ratio(X)	0.92	0.00	0.63	0.94	0.93	0.89	0.63	0.53	0.73	0.70	0.59	0.37
Avail Cap(c_a), veh/h	265	0	442	615	501	417	120	2654	813	434	1912	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	73.7	0.0	67.9	70.1	68.0	53.1	83.9	27.4	32.1	78.9	0.0	0.0
Incr Delay (d2), s/veh	31.6	0.0	0.8	22.7	18.2	13.7	7.3	0.8	5.8	2.5	1.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	0.0	7.6	14.2	16.6	11.3	0.9	13.0	20.2	1.9	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	105.3	0.0	68.7	92.8	86.2	66.8	91.2	28.2	37.9	81.4	1.3	1.2
LnGrp LOS	F	A	E	F	F	E	F	C	D	F	A	A
Approach Vol, veh/h		399			1185			2029			1523	
Approach Delay, s/veh		88.6			84.9			31.7			5.9	
Approach LOS		F			F			C			A	

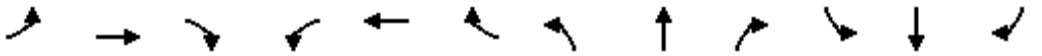
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	95.1	34.5	31.8	7.5	98.2	27.6	38.6
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	24.6	* 60	30.6	41.1	11.6	69.3	25.6	* 46
Max Q Clear Time (g_c+I1), s	5.3	52.9	30.0	17.8	3.9	2.0	22.7	33.0
Green Ext Time (p_c), s	0.0	2.9	0.0	0.3	0.0	3.1	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	141	9	11	0	80	0	475	283	50	370	0
Future Volume (vph)	34	141	9	11	0	80	0	475	283	50	370	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Lane Util. Factor	1.00	1.00		1.00		1.00		0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00		0.84		0.93		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00		0.85		0.94		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	1846		1770		1336		3117		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.27	1.00	
Satd. Flow (perm)	1770	1846		1770		1336		3117		507	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	153	10	12	0	87	0	516	308	54	402	0
RTOR Reduction (vph)	0	4	0	0	0	83	0	59	0	0	0	0
Lane Group Flow (vph)	37	159	0	12	0	4	0	765	0	54	402	0
Confl. Peds. (#/hr)						22			75			12
Confl. Bikes (#/hr)									12			6
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		3				2		1	6	
Permitted Phases						3				6		
Actuated Green, G (s)	11.4	11.4		4.1		4.1		53.2		61.8	61.8	
Effective Green, g (s)	11.4	11.4		4.1		4.1		53.2		61.8	61.8	
Actuated g/C Ratio	0.12	0.12		0.04		0.04		0.58		0.68	0.68	
Clearance Time (s)	4.9	4.9		4.4		4.4		4.9		4.4	4.9	
Vehicle Extension (s)	1.0	1.0		1.0		1.0		1.0		1.0	1.0	
Lane Grp Cap (vph)	220	229		79		59		1812		400	2390	
v/s Ratio Prot	0.02	c0.09		c0.01				c0.25		0.01	c0.11	
v/s Ratio Perm						0.00				0.08		
v/c Ratio	0.17	0.70		0.15		0.07		0.42		0.14	0.17	
Uniform Delay, d1	35.8	38.4		42.0		41.9		10.6		5.8	5.4	
Progression Factor	1.00	1.00		1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.1	7.2		0.3		0.2		0.7		0.1	0.2	
Delay (s)	35.9	45.6		42.4		42.0		11.3		5.8	5.6	
Level of Service	D	D		D		D		B		A	A	
Approach Delay (s)		43.8			42.1			11.3			5.6	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	23.1
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

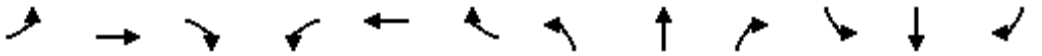
Intersection	
Int Delay, s/veh	0.9

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	117	465	436	274	0	0
Future Vol, veh/h	117	465	436	274	0	0
Conflicting Peds, #/hr	0	0	0	13	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	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	127	505	474	298	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	785	0	-	0	1143	399
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	507	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	829	-	-	-	194	601
Stage 1	-	-	-	-	489	-
Stage 2	-	-	-	-	570	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	819	-	-	-	160	594
Mov Cap-2 Maneuver	-	-	-	-	286	-
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	563	-

Approach	NB	SB	SE
HCM Control Delay, s	2.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	819	-	-	-	-
HCM Lane V/C Ratio	0.155	-	-	-	-
HCM Control Delay (s)	10.2	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	340	93	359	410	62	331	154	260	53	233	117
Future Volume (veh/h)	69	340	93	359	410	62	331	154	260	53	233	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.89	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	370	101	390	446	67	360	167	283	58	253	127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	1144	690	483	578	435	399	1196	1292	119	523	226
Arrive On Green	0.05	0.22	0.22	0.14	0.31	0.31	0.22	0.34	0.34	0.03	0.15	0.15
Sat Flow, veh/h	1781	5106	1498	3456	1870	1407	1781	3554	2682	3456	3554	1537
Grp Volume(v), veh/h	75	370	101	390	446	67	360	167	283	58	253	127
Grp Sat Flow(s),veh/h/ln	1781	1702	1498	1728	1870	1407	1781	1777	1341	1728	1777	1537
Q Serve(g_s), s	3.7	5.3	3.5	9.7	19.1	3.0	17.3	2.9	5.5	1.5	5.8	6.8
Cycle Q Clear(g_c), s	3.7	5.3	3.5	9.7	19.1	3.0	17.3	2.9	5.5	1.5	5.8	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	1144	690	483	578	435	399	1196	1292	119	523	226
V/C Ratio(X)	0.77	0.32	0.15	0.81	0.77	0.15	0.90	0.14	0.22	0.49	0.48	0.56
Avail Cap(c_a), veh/h	606	2315	1034	1175	848	638	606	1611	1606	1175	1611	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	28.6	14.4	36.8	27.6	22.1	33.3	20.4	13.5	41.8	34.5	35.0
Incr Delay (d2), s/veh	4.7	0.2	0.1	1.2	1.7	0.1	8.9	0.1	0.1	1.2	0.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.2	1.1	4.0	8.4	1.0	8.0	1.1	1.5	0.6	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	28.8	14.5	38.0	29.3	22.2	42.2	20.4	13.6	43.0	34.8	35.8
LnGrp LOS	D	C	B	D	C	C	D	C	B	D	C	D
Approach Vol, veh/h		546			903			810			438	
Approach Delay, s/veh		28.5			32.5			27.7			36.2	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.7	25.7	25.1	19.7	10.2	33.2	8.4	36.4
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0
Max Q Clear Time (g_c+I1), s	11.7	7.3	19.3	8.8	5.7	21.1	3.5	7.5
Green Ext Time (p_c), s	0.7	3.7	0.4	1.1	0.1	2.0	0.1	2.2

Intersection Summary	
HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	33.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	564	194	679	683	14
Future Vol, veh/h	0	564	194	679	683	14
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	200	-	-	-
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	0	613	211	738	742	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	381	759	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	5.34	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	0	~ 527	511	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	~ 526	510	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	119.6	3.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	510	-	526	-	-
HCM Lane V/C Ratio	0.413	-	1.165	-	-
HCM Control Delay (s)	16.9	-	119.6	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	2	-	21.5	-	-

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	3	33	15	1	14	313	1159	11	24	1108	158
Future Volume (veh/h)	59	3	33	15	1	14	313	1159	11	24	1108	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	3	36	16	1	15	340	1260	12	26	1204	172
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	482	399	23	437	371	349	1975	860	33	1180	168
Arrive On Green	0.04	0.26	0.26	0.01	0.23	0.23	0.20	0.56	0.56	0.02	0.38	0.38
Sat Flow, veh/h	1781	1870	1547	1781	1870	1585	1781	3554	1547	1781	3121	444
Grp Volume(v), veh/h	64	3	36	16	1	15	340	1260	12	26	683	693
Grp Sat Flow(s),veh/h/ln	1781	1870	1547	1781	1870	1585	1781	1777	1547	1781	1777	1788
Q Serve(g_s), s	5.4	0.2	2.7	1.4	0.1	1.1	28.6	36.9	0.5	2.2	57.1	57.1
Cycle Q Clear(g_c), s	5.4	0.2	2.7	1.4	0.1	1.1	28.6	36.9	0.5	2.2	57.1	57.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	78	482	399	23	437	371	349	1975	860	33	672	676
V/C Ratio(X)	0.82	0.01	0.09	0.69	0.00	0.04	0.97	0.64	0.01	0.79	1.02	1.02
Avail Cap(c_a), veh/h	78	482	399	66	437	371	349	1975	860	75	672	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.6	41.6	42.6	74.2	44.3	44.7	60.3	23.1	15.0	73.8	47.0	47.0
Incr Delay (d2), s/veh	49.7	0.0	0.4	13.0	0.0	0.2	40.8	0.5	0.0	14.4	39.0	41.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.1	1.0	0.7	0.0	0.4	16.4	14.4	0.2	1.1	31.6	32.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	121.3	41.7	43.0	87.2	44.4	45.0	101.1	23.6	15.0	88.2	85.9	87.9
LnGrp LOS	F	D	D	F	D	D	F	C	B	F	F	F
Approach Vol, veh/h		103			32			1612			1402	
Approach Delay, s/veh		91.6			66.0			39.9			87.0	
Approach LOS		F			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	47.6	34.0	62.0	11.0	44.0	7.2	88.8
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9
Max Green Setting (Gmax), s	5.6	34.3	29.6	57.1	6.6	* 35	6.4	80.3
Max Q Clear Time (g_c+I1), s	3.4	4.7	30.6	59.1	7.4	3.1	4.2	38.9
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.1	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	62.8
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

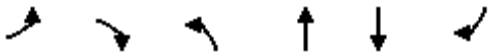
Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1022	1190	6	0	290
Future Vol, veh/h	0	1022	1190	6	0	290
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	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	0	1111	1293	7	0	315

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	647
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	414
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	414
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	36.6
HCM LOS			E

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	414
HCM Lane V/C Ratio	-	-	0.761
HCM Control Delay (s)	-	-	36.6
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	6.3



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	886	135	0	949	1162	1200
Future Volume (vph)	886	135	0	949	1162	1200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	963	147	0	1032	1263	1304
RTOR Reduction (vph)	0	62	0	0	0	0
Lane Group Flow (vph)	963	85	0	1032	1263	1304
Confl. Peds. (#/hr)						5
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	40.1	40.1		61.8	61.8	155.6
Effective Green, g (s)	40.1	40.1		61.8	61.8	144.8
Actuated g/C Ratio	0.26	0.26		0.40	0.40	0.93
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	884	407		1405	1405	1473
v/s Ratio Prot	c0.28			0.29	0.36	c0.82
v/s Ratio Perm		0.05				
v/c Ratio	1.09	0.21		0.73	0.90	0.89
Uniform Delay, d1	57.8	45.3		39.9	44.0	2.1
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	57.6	0.2		2.0	8.0	6.7
Delay (s)	115.3	45.5		41.9	52.0	8.8
Level of Service	F	D		D	D	A
Approach Delay (s)	106.1			41.9	30.1	
Approach LOS	F			D	C	

Intersection Summary			
HCM 2000 Control Delay	50.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	155.6	Sum of lost time (s)	19.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	837	176	121	1715
Future Volume (veh/h)	0	1	837	176	121	1715
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	910	191	132	1864
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	3	5	2416	1057	223	2882
Arrive On Green	0.00	0.00	0.68	0.68	0.06	0.81
Sat Flow, veh/h	1781	3170	3647	1552	3456	3647
Grp Volume(v), veh/h	0	1	910	191	132	1864
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1552	1728	1777
Q Serve(g_s), s	0.0	0.0	7.3	3.0	2.5	13.8
Cycle Q Clear(g_c), s	0.0	0.0	7.3	3.0	2.5	13.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	3	5	2416	1057	223	2882
V/C Ratio(X)	0.00	0.21	0.38	0.18	0.59	0.65
Avail Cap(c_a), veh/h	1080	1921	3231	1413	1571	3231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	32.9	4.5	3.8	30.0	2.5
Incr Delay (d2), s/veh	0.0	7.7	0.1	0.1	0.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.9	0.7	1.0	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	40.7	4.7	3.9	31.0	3.1
LnGrp LOS	A	D	A	A	C	A
Approach Vol, veh/h	1		1101			1996
Approach Delay, s/veh	40.7		4.6			5.0
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.7	51.1			59.7	6.3
Change Period (Y+Rc), s	4.4	6.2			* 6.2	6.2
Max Green Setting (Gmax), s	30.0	60.0			* 60	40.0
Max Q Clear Time (g_c+I1), s	4.5	9.3			15.8	2.0
Green Ext Time (p_c), s	0.2	14.0			37.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	64	134	83	40	102	50	705	82	194	1628	184
Future Volume (veh/h)	168	64	134	83	40	102	50	705	82	194	1628	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	70	146	90	43	111	54	766	89	211	1770	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	222	181	115	206	168	102	1774	876	243	2154	1076
Arrive On Green	0.07	0.12	0.12	0.06	0.11	0.11	0.03	0.50	0.50	0.14	0.61	0.61
Sat Flow, veh/h	3456	1870	1524	1781	1870	1522	3456	3554	1549	1781	3554	1584
Grp Volume(v), veh/h	183	70	146	90	43	111	54	766	89	211	1770	200
Grp Sat Flow(s),veh/h/ln	1728	1870	1524	1781	1870	1522	1728	1777	1549	1781	1777	1584
Q Serve(g_s), s	5.6	3.7	10.1	5.4	2.3	7.6	1.7	14.9	2.9	12.6	42.3	5.0
Cycle Q Clear(g_c), s	5.6	3.7	10.1	5.4	2.3	7.6	1.7	14.9	2.9	12.6	42.3	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	222	181	115	206	168	102	1774	876	243	2154	1076
V/C Ratio(X)	0.73	0.32	0.81	0.78	0.21	0.66	0.53	0.43	0.10	0.87	0.82	0.19
Avail Cap(c_a), veh/h	957	518	422	493	518	422	957	2297	1104	493	2297	1140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	43.7	46.5	49.9	43.9	46.2	51.8	17.3	10.9	45.8	16.7	6.4
Incr Delay (d2), s/veh	1.5	0.8	8.2	4.4	0.2	1.7	1.6	0.3	0.1	3.7	2.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.8	4.1	2.5	1.0	2.9	0.7	6.0	0.9	5.8	16.6	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	44.5	54.7	54.3	44.0	47.9	53.3	17.6	11.0	49.4	19.3	6.5
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	A
Approach Vol, veh/h		399			244			909			2181	
Approach Delay, s/veh		51.1			49.6			19.1			21.1	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	59.4	11.4	18.4	7.6	70.9	12.3	17.4
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.5	4.4	* 5.3	4.4	5.5
Max Green Setting (Gmax), s	30.0	70.0	30.0	* 30	30.0	* 70	30.0	30.0
Max Q Clear Time (g_c+I1), s	11.6	16.9	7.4	12.1	3.7	44.3	7.6	9.6
Green Ext Time (p_c), s	0.3	11.9	0.1	0.8	0.1	21.3	0.3	0.3

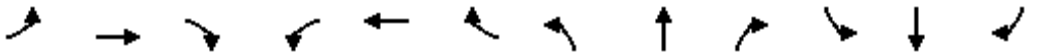
Intersection Summary	
HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

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

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

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	797	176	303	680	0	0	0	0	205	0	0
Future Volume (vph)	0	797	176	303	680	0	0	0	0	205	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5	6.5	4.7	6.5						4.0	
Lane Util. Factor		0.95	1.00	0.97	0.95						1.00	
Frpb, ped/bikes		1.00	0.97	1.00	1.00						1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00						1.00	
Frt		1.00	0.85	1.00	1.00						1.00	
Flt Protected		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (prot)		3539	1542	3433	3539						1770	
Flt Permitted		1.00	1.00	0.95	1.00						0.95	
Satd. Flow (perm)		3539	1542	3433	3539						1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	866	191	329	739	0	0	0	0	223	0	0
RTOR Reduction (vph)	0	0	119	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	866	72	329	739	0	0	0	0	0	223	0
Confl. Peds. (#/hr)			9			1						
Confl. Bikes (#/hr)			3			1						
Turn Type		NA	Perm	Prot	NA					Prot	NA	
Protected Phases		2 3		1	6 3					4		
Permitted Phases			2 3									
Actuated Green, G (s)		37.7	37.7	13.3	55.7						35.2	
Effective Green, g (s)		37.7	37.7	13.3	55.7						35.2	
Actuated g/C Ratio		0.38	0.38	0.13	0.56						0.35	
Clearance Time (s)				4.7								
Vehicle Extension (s)				2.0								
Lane Grp Cap (vph)		1334	581	456	1971						623	
v/s Ratio Prot		c0.24		c0.10	0.21						0.13	
v/s Ratio Perm			0.05									
v/c Ratio		0.65	0.12	0.72	0.37						0.36	
Uniform Delay, d1		25.7	20.4	41.6	12.4						24.0	
Progression Factor		1.00	1.00	1.00	1.00						1.00	
Incremental Delay, d2		1.1	0.1	4.7	0.1						0.1	
Delay (s)		26.8	20.5	46.3	12.5						24.2	
Level of Service		C	C	D	B						C	
Approach Delay (s)		25.6			22.9			0.0			24.2	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.3
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	264	299	0	0	84	146
Future Vol, veh/h	264	299	0	0	84	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	287	325	0	0	91	159

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	612	0	451	450
Stage 1	-	-	-	-	450	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	967	-	566	609
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	967	-	566	609
Mov Cap-2 Maneuver	-	-	-	-	566	-
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	566	609	-	-	967	-
HCM Lane V/C Ratio	0.161	0.261	-	-	-	-
HCM Control Delay (s)	12.6	13	-	-	0	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	1	-	-	0	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	441	0	47	0	0	101
Future Vol, veh/h	441	0	47	0	0	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	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	479	0	51	0	0	110

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	479	0	581	479
Stage 1	-	-	-	-	479	-
Stage 2	-	-	-	-	102	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1083	-	476	587
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	922	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1083	-	454	587
Mov Cap-2 Maneuver	-	-	-	-	454	-
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	879	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.5	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	587	-	-	1083	-
HCM Lane V/C Ratio	-	0.187	-	-	0.047	-
HCM Control Delay (s)	0	12.5	-	-	8.5	0
HCM Lane LOS	A	B	-	-	A	A
HCM 95th %tile Q(veh)	-	0.7	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	421	87	119	71	0	0
Future Vol, veh/h	421	87	119	71	0	0
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	458	95	129	77	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	553	0	841	506
Stage 1	-	-	-	-	506	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1017	-	335	566
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1017	-	290	566
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	629	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.7	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1017	-
HCM Lane V/C Ratio	-	-	-	0.127	-
HCM Control Delay (s)	0	-	-	9.1	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0.4	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	325	123	0	0	2	0
Future Vol, veh/h	325	123	0	0	2	0
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	353	134	0	0	2	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	487	0	421	420
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1076	-	589	633
Stage 1	-	-	-	-	663	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1076	-	589	633
Mov Cap-2 Maneuver	-	-	-	-	589	-
Stage 1	-	-	-	-	663	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	589	-	-	1076	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	11.1	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1040	758	242	0	18
Future Vol, veh/h	0	1040	758	242	0	18
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	0	1130	824	263	0	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	544
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	414
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	414
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	414
HCM Lane V/C Ratio	-	-	-	0.047
HCM Control Delay (s)	-	-	-	14.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	734	958	0	0	5
Future Vol, veh/h	0	734	958	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	798	1041	0	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	521
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	428
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	428
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	428
HCM Lane V/C Ratio	-	-	-	0.013
HCM Control Delay (s)	-	-	-	13.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	584	157	0	72	67	0
Future Vol, veh/h	584	157	0	72	67	0
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	635	171	0	78	73	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	799	721
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	78	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	355	427
Stage 1	-	-	0	-	482	-
Stage 2	-	-	0	-	945	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	355	427
Mov Cap-2 Maneuver	-	-	-	-	355	-
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	945	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	355	-	-	-
HCM Lane V/C Ratio	0.205	-	-	-
HCM Control Delay (s)	17.7	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.8	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	500	0	24	47	0	8
Future Vol, veh/h	500	0	24	47	0	8
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	543	0	26	51	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	543	0	646	543
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	103	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1026	-	436	540
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	921	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1026	-	425	540
Mov Cap-2 Maneuver	-	-	-	-	425	-
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	897	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	540	-	-	1026	-
HCM Lane V/C Ratio	0.016	-	-	0.025	-
HCM Control Delay (s)	11.8	-	-	8.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Appendix AC

Opening Year (2035) Plus Project Phase 2 Buildout (20,000-spectator) Conditions 95th Percentile Queue Worksheets

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2547	2559	2558	2557	141	152	164	1745	1746	1756	1753
Average Queue (ft)	2282	2292	2195	1961	40	57	78	928	942	945	899
95th Queue (ft)	2956	2957	3151	3217	107	119	142	2077	2070	2052	2026
Link Distance (ft)	2519	2519	2519	2519		756	756	1722	1722	1722	1722
Upstream Blk Time (%)	62	68	63	28				33	34	33	29
Queuing Penalty (veh)	0	0	0	0				0	0	0	0
Storage Bay Dist (ft)					400						
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	R	L	T	T	L	LT	T	R	L	LT
Maximum Queue (ft)	435	1979	1983	117	263	274	252	310	312	90	293	293
Average Queue (ft)	255	1952	1953	8	102	112	52	116	137	7	261	259
95th Queue (ft)	554	1970	1974	55	210	220	156	243	274	47	279	293
Link Distance (ft)		1940	1940		629	629		1525	1525		189	189
Upstream Blk Time (%)		99	96								90	85
Queuing Penalty (veh)		0	0								508	484
Storage Bay Dist (ft)	360			150			230			25		
Storage Blk Time (%)	1	91			6		0	1	61	0		
Queuing Penalty (veh)	7	135			2		0	1	13	0		

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	B57	B57	B57
Directions Served	T	R	T	T	T
Maximum Queue (ft)	261	175	485	465	467
Average Queue (ft)	196	63	439	436	328
95th Queue (ft)	343	201	500	502	592
Link Distance (ft)	189		368	368	368
Upstream Blk Time (%)	33	0	91	82	34
Queuing Penalty (veh)	190	0	519	464	192
Storage Bay Dist (ft)		100			
Storage Blk Time (%)	40	1			
Queuing Penalty (veh)	91	2			

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	TR	LT	R
Maximum Queue (ft)	235	663	664	206	445	543	218	160
Average Queue (ft)	173	436	343	44	110	263	83	66
95th Queue (ft)	310	799	742	125	313	493	186	125
Link Distance (ft)		629	629	962	962	962	863	
Upstream Blk Time (%)		25	11					
Queuing Penalty (veh)		188	81					
Storage Bay Dist (ft)	160							210
Storage Blk Time (%)	10	62		1			3	0
Queuing Penalty (veh)	59	230		0			9	0

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	515	992	987	971	243	315	263	268	175	723	224	1264
Average Queue (ft)	458	842	288	110	173	149	105	135	106	692	193	672
95th Queue (ft)	655	1321	908	471	281	374	219	249	227	828	264	1453
Link Distance (ft)		962	962	962		285	285	285		702		1252
Upstream Blk Time (%)		55	2	0		20	0	0		71		13
Queuing Penalty (veh)		226	10	0		53	0	0		361		39
Storage Bay Dist (ft)	440				175				100		150	
Storage Blk Time (%)	50	49			45	0			6	94	77	7
Queuing Penalty (veh)	135	158			97	0			20	138	74	8

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	L	TR
Maximum Queue (ft)	313	420	180	206	168	222	298	325	184	123	73	190
Average Queue (ft)	310	387	70	108	68	110	185	245	79	40	21	87
95th Queue (ft)	315	399	144	188	139	215	310	357	151	92	52	153
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	78	93				0	4	28				
Queuing Penalty (veh)	0	323				0	14	90				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	78	93			1	1			23	2		2
Queuing Penalty (veh)	165	325			2	1			17	3		0

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	WB	WB	WB	WB	NB
Directions Served	TR	L	T	T	T	R
Maximum Queue (ft)	30	105	6	19	55	19
Average Queue (ft)	1	33	0	1	5	1
95th Queue (ft)	14	77	4	16	43	16
Link Distance (ft)	194		370	370	370	468
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		125				
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	L	T	T	T	L	R
Maximum Queue (ft)	202	225	232	199	878	1004	727	162	160
Average Queue (ft)	51	80	91	169	337	185	97	53	43
95th Queue (ft)	145	183	198	239	827	720	430	133	103
Link Distance (ft)	370	370	370		1086	1086	1086	920	
Upstream Blk Time (%)					0	0	0		
Queuing Penalty (veh)					0	1	0		
Storage Bay Dist (ft)				125					100
Storage Blk Time (%)				50	0			7	1
Queuing Penalty (veh)				171	1			12	0

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	283	178	162	91	185	324	1874	1889	165	440	122	726
Average Queue (ft)	143	45	53	15	67	62	1243	1284	80	392	23	510
95th Queue (ft)	299	125	131	55	149	242	2353	2335	205	518	76	985
Link Distance (ft)		1525	1525				1839	1839		355	355	701
Upstream Blk Time (%)							36	37		77		59
Queuing Penalty (veh)							156	162		0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	2		0				13		7	91		
Queuing Penalty (veh)	6		1				17		16	64		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	727	137	195	101
Average Queue (ft)	459	38	64	25
95th Queue (ft)	956	96	137	69
Link Distance (ft)	701		702	
Upstream Blk Time (%)	37			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		2	5	0
Queuing Penalty (veh)		3	7	0

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	40	139	180	117	980	983	45	680
Average Queue (ft)	9	47	61	14	491	529	8	266
95th Queue (ft)	30	104	134	84	1115	1114	36	647
Link Distance (ft)		1839	1839		968	968	270	920
Upstream Blk Time (%)					20	26		0
Queuing Penalty (veh)					119	156		1
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		1			45			
Queuing Penalty (veh)		0			5			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	52	31	92	102
Average Queue (ft)	21	8	49	57
95th Queue (ft)	48	29	81	87
Link Distance (ft)	241		863	917
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		60		
Storage Blk Time (%)			2	
Queuing Penalty (veh)			0	

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	302	652	588	88
Average Queue (ft)	71	370	191	33
95th Queue (ft)	212	692	589	74
Link Distance (ft)	917	631	631	101
Upstream Blk Time (%)		18	14	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	113	22	106
Average Queue (ft)	55	3	54
95th Queue (ft)	85	16	89
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	69	70	43
Average Queue (ft)	38	33	26
95th Queue (ft)	60	56	47
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	155	110	54	59
Average Queue (ft)	73	50	28	30
95th Queue (ft)	126	86	48	54
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	162	176	46	93
Average Queue (ft)	69	60	17	46
95th Queue (ft)	121	113	43	77
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	91	54	19	10	18	1366	1544	1580
Average Queue (ft)	28	10	1	1	1	190	502	623
95th Queue (ft)	73	33	10	11	13	859	1361	1458
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	546	542	173	271	278	224	397	392	420	205
Average Queue (ft)	484	469	90	85	77	65	123	132	226	108
95th Queue (ft)	625	636	175	231	222	183	329	348	527	262
Link Distance (ft)	527	527		289	289	289	254	254	254	
Upstream Blk Time (%)	41	35		0	0	0	5	6	18	
Queuing Penalty (veh)	81	69		2	1	0	38	47	136	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			26	2					22	6
Queuing Penalty (veh)			173	2					102	34

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	491	467	194	213	204	146	304	305	306	272
Average Queue (ft)	273	187	63	71	70	40	83	80	79	87
95th Queue (ft)	448	360	161	175	182	107	232	235	235	227
Link Distance (ft)	535	535	342	342	342		289	289	289	289
Upstream Blk Time (%)	1	2					5	7	7	0
Queuing Penalty (veh)	1	4					21	31	32	2
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						3	9			
Queuing Penalty (veh)						15	5			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	417	456	471	308	174	174	167	279	292	319	254	198
Average Queue (ft)	153	184	167	118	86	131	82	164	166	88	63	75
95th Queue (ft)	290	339	354	259	164	201	159	272	280	255	179	171
Link Distance (ft)	1086	1086	1086		96	96	96			311	311	311
Upstream Blk Time (%)					14	38	12	0	0	1	0	
Queuing Penalty (veh)					18	50	17	0	0	5	0	
Storage Bay Dist (ft)				300				260	260			
Storage Blk Time (%)			2	4				2	3	1		
Queuing Penalty (veh)			4	7				8	15	4		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	403	403	408	19
Average Queue (ft)	197	195	209	1
95th Queue (ft)	397	399	415	10
Link Distance (ft)	342	342	342	342
Upstream Blk Time (%)	8	11	15	
Queuing Penalty (veh)	39	52	68	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	174	412	413	212	324	2180	2198	255	315	354	1093
Average Queue (ft)	66	98	144	147	65	102	864	902	190	158	203	484
95th Queue (ft)	132	185	324	327	172	263	2443	2461	354	307	387	1169
Link Distance (ft)			968	968			2538	2538				1229
Upstream Blk Time (%)							17	18				14
Queuing Penalty (veh)							121	131				83
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	5	12	23	3	1		39	57	7	19	21	10
Queuing Penalty (veh)	11	27	49	8	1		35	188	22	95	104	28

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1052	1005	214	250	310	327	352
Average Queue (ft)	470	448	104	130	158	176	234
95th Queue (ft)	1043	903	190	224	269	300	380
Link Distance (ft)	1229	1229			263	263	263
Upstream Blk Time (%)	4	0		0	1	3	33
Queuing Penalty (veh)	24	2		0	6	15	175
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				0	3		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	137	306	41	985	955	931	154	214	234	186
Average Queue (ft)	65	157	6	202	179	182	64	61	68	43
95th Queue (ft)	124	268	26	814	792	779	137	170	180	132
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)				3	3	3				
Queuing Penalty (veh)				16	15	16				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				16						
Queuing Penalty (veh)				1						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	T	R	L
Maximum Queue (ft)	432	266	282	320	2341	2328	174	506	474	437	329	90
Average Queue (ft)	200	140	240	315	1779	1310	21	247	228	200	107	35
95th Queue (ft)	350	243	329	348	2902	2963	92	429	411	386	237	76
Link Distance (ft)	1405	1405			2313	2313		2446	2446	2446		
Upstream Blk Time (%)					23	8						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)			245	245			100				490	470
Storage Blk Time (%)			21	35	49		0	33		2		
Queuing Penalty (veh)			68	111	258		0	6		9		

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	105	214	222	86
Average Queue (ft)	42	64	76	21
95th Queue (ft)	89	161	176	58
Link Distance (ft)		1347	1347	1347
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	470			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	R	T	TR	L	T	T
Maximum Queue (ft)	78	256	42	91	128	199	57	117	51
Average Queue (ft)	22	104	10	33	42	78	18	31	9
95th Queue (ft)	58	210	33	69	107	160	45	85	33
Link Distance (ft)	261	261	1384		146	146		271	271
Upstream Blk Time (%)		1			0	1			
Queuing Penalty (veh)		1			0	4			
Storage Bay Dist (ft)				70			100		
Storage Blk Time (%)				1				0	
Queuing Penalty (veh)				0				0	

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	NB	SB	SB	B73
Directions Served	L	T	T	T	TR	T
Maximum Queue (ft)	148	160	149	593	612	262
Average Queue (ft)	74	56	49	256	385	89
95th Queue (ft)	160	138	97	679	847	311
Link Distance (ft)		271	271	640	640	242
Upstream Blk Time (%)		0	0	4	21	12
Queuing Penalty (veh)		1	0	15	91	102
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	12	0				
Queuing Penalty (veh)	29	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	R	L	L	T	R	L	T	T
Maximum Queue (ft)	83	95	114	126	95	115	104	123	68	225	868	502
Average Queue (ft)	25	18	53	71	25	91	86	90	13	183	378	49
95th Queue (ft)	65	58	98	118	67	127	132	134	44	272	1175	334
Link Distance (ft)			242	242							1876	1876
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120			100	150	150			150		
Storage Blk Time (%)		0	0	3	0	0		0		42	0	
Queuing Penalty (veh)		0	0	3	0	0		0		32	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	84	79	41	117	186	187	118
Average Queue (ft)	20	24	7	33	80	56	40
95th Queue (ft)	60	65	26	76	141	136	96
Link Distance (ft)	1876				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)				0	0	9	8
Queuing Penalty (veh)				0	0	10	9

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	179	171	31	54	15
Average Queue (ft)	67	58	1	4	1
95th Queue (ft)	142	135	19	26	8
Link Distance (ft)	1384		1876	1876	1876
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	L	T	TR
Maximum Queue (ft)	171	25	56	56	16	52	355	1470	1464	241	782	779
Average Queue (ft)	68	2	18	14	1	11	296	500	449	38	455	476
95th Queue (ft)	135	13	45	40	7	38	401	1172	1124	155	752	767
Link Distance (ft)		692		222	222	222		1615	1615		706	706
Upstream Blk Time (%)								6	5		8	11
Queuing Penalty (veh)								0	0		51	66
Storage Bay Dist (ft)	200		200				280			200		
Storage Blk Time (%)	0						37	2	1		39	
Queuing Penalty (veh)	0						214	6	0		9	

Intersection: 27: Pacific Hwy & Enterprise St

Movement	B87	B87	B87
Directions Served	T	T	
Maximum Queue (ft)	267	305	150
Average Queue (ft)	16	22	5
95th Queue (ft)	127	142	78
Link Distance (ft)	357	357	357
Upstream Blk Time (%)	0	1	0
Queuing Penalty (veh)	1	6	1
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	TR	R
Maximum Queue (ft)	1958	1979	96	192	703
Average Queue (ft)	1441	1459	16	41	372
95th Queue (ft)	2172	2204	77	182	730
Link Distance (ft)	2538	2538	112	112	692
Upstream Blk Time (%)			3	14	17
Queuing Penalty (veh)			18	84	77
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	202	185	168	2617	2603	360	440	444	430	412
Average Queue (ft)	186	177	12	1650	1645	305	367	121	264	207
95th Queue (ft)	200	199	80	2878	2853	486	580	426	543	537
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	85	82	1	5	5	2	16	17	10	15
Queuing Penalty (veh)	290	278	3	0	0	0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						2	16			
Queuing Penalty (veh)						9	95			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	12	3	121	119	70	49	75	169	178
Average Queue (ft)	0	1	0	57	50	23	7	39	23	33
95th Queue (ft)	5	7	2	103	99	56	31	65	91	105
Link Distance (ft)	899	899		980	980				1274	1274
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			300			185	300	300		
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	103	128	66	108	100	72	70	54	35	200	231	174
Average Queue (ft)	23	65	19	31	36	17	14	18	2	113	140	48
95th Queue (ft)	75	117	51	76	79	48	44	44	17	177	212	146
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0						19	
Queuing Penalty (veh)					0						16	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	563	578	853
Average Queue (ft)	260	508	536	739
95th Queue (ft)	381	592	625	1099
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		12	37	35
Queuing Penalty (veh)		75	222	209
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	58		
Queuing Penalty (veh)	4	112		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	123	133	100	157	194	245	224	130
Average Queue (ft)	96	107	43	105	162	157	110	95
95th Queue (ft)	130	136	86	175	214	268	208	151
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	16	24	0					33
Queuing Penalty (veh)	51	74	1					67
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	29	9		
Queuing Penalty (veh)				4	98	26		

Intersection: 33: Kemper St & Kurtz St

Movement	EB	NB	NB
Directions Served	TR	L	R
Maximum Queue (ft)	142	55	326
Average Queue (ft)	27	21	37
95th Queue (ft)	115	49	224
Link Distance (ft)	139		1252
Upstream Blk Time (%)	10		0
Queuing Penalty (veh)	57		0
Storage Bay Dist (ft)		150	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	R
Maximum Queue (ft)	22	44	53
Average Queue (ft)	1	10	29
95th Queue (ft)	9	35	50
Link Distance (ft)	143	300	949
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	WB
Directions Served	LT
Maximum Queue (ft)	68
Average Queue (ft)	26
95th Queue (ft)	53
Link Distance (ft)	259
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 36: E2 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	3
95th Queue (ft)	19
Link Distance (ft)	365
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB	WB	SB
Directions Served	T	T	T	T	TR	R
Maximum Queue (ft)	313	211	112	100	48	87
Average Queue (ft)	289	8	41	21	3	29
95th Queue (ft)	344	80	199	137	47	111
Link Distance (ft)	285	285	313	313	313	536
Upstream Blk Time (%)	72	0	2	0		
Queuing Penalty (veh)	250	0	5	0		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	WB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	39	128	193	31
Average Queue (ft)	2	22	46	4
95th Queue (ft)	34	111	172	20
Link Distance (ft)	194	194	194	355
Upstream Blk Time (%)	0	0	3	
Queuing Penalty (veh)	0	1	8	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 39: A3 Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	T	LR
Maximum Queue (ft)	117	11	56
Average Queue (ft)	17	0	24
95th Queue (ft)	78	8	44
Link Distance (ft)	101	139	321
Upstream Blk Time (%)	9		
Queuing Penalty (veh)	72		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	35
Average Queue (ft)	7	7
95th Queue (ft)	28	29
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 43: Rosecrans St Connector & Sports Arena Blvd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 44: Rosecrans St Connector & Rosecrans St

Movement	WB	WB	WB	NB
Directions Served	T	T	T	R
Maximum Queue (ft)	78	146	76	57
Average Queue (ft)	4	20	5	16
95th Queue (ft)	40	84	38	45
Link Distance (ft)		146	146	294
Upstream Blk Time (%)	0	2	1	
Queuing Penalty (veh)	0	4	1	
Storage Bay Dist (ft)	75			
Storage Blk Time (%)	0	6		
Queuing Penalty (veh)	0	8		

Intersection: 45: Rosecrans St & Rosecrans St Connector

Movement	NB	NB	SB	SB	SB
Directions Served	T	T	T	T	T
Maximum Queue (ft)	62	39	155	272	350
Average Queue (ft)	2	1	9	46	102
95th Queue (ft)	33	29	88	221	352
Link Distance (ft)	263	263	311	311	311
Upstream Blk Time (%)			0	0	19
Queuing Penalty (veh)			0	1	105
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	259	268	148	163	344
Average Queue (ft)	90	116	79	97	239
95th Queue (ft)	216	238	157	179	444
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			7	18	43
Queuing Penalty (veh)			26	61	477
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	1517	1529
Average Queue (ft)	910	1038
95th Queue (ft)	2039	2018
Link Distance (ft)	1472	1472
Upstream Blk Time (%)	35	52
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	B57	B57	B57	SB	SB	SB	SB
Directions Served	T	T		T	T	TR	R
Maximum Queue (ft)	113	308	122	785	803	804	804
Average Queue (ft)	5	21	2	651	648	646	605
95th Queue (ft)	56	140	43	1022	1042	1078	1085
Link Distance (ft)	189	189	189	756	756	756	756
Upstream Blk Time (%)	0	1	0	43	37	37	28
Queuing Penalty (veh)	0	6	0	353	305	299	227
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	412	423
Average Queue (ft)	373	363
95th Queue (ft)	455	479
Link Distance (ft)	360	360
Upstream Blk Time (%)	12	5
Queuing Penalty (veh)	113	46
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 13939

Appendix AD

Opening Year (2035) Plus Project Phase 2 Plus Improvements Intersection LOS Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	292	193	16	529	726	154	298	16	326	300	156
Future Volume (veh/h)	326	292	193	16	529	726	154	298	16	326	300	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	374	289	210	17	575	789	167	324	17	354	326	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1595	837	791	345	689	491	217	398	21	415	391	199
Arrive On Green	0.45	0.45	0.45	0.32	0.32	0.32	0.06	0.12	0.12	0.12	0.17	0.17
Sat Flow, veh/h	3563	1870	1546	1781	3554	1550	3456	3432	179	3456	2258	1149
Grp Volume(v), veh/h	374	289	210	17	575	789	167	167	174	354	255	241
Grp Sat Flow(s),veh/h/ln	1781	1870	1546	1781	1777	1550	1728	1777	1835	1728	1777	1630
Q Serve(g_s), s	10.4	16.1	12.3	1.0	24.0	31.0	7.6	14.7	14.8	16.1	22.1	23.0
Cycle Q Clear(g_c), s	10.4	16.1	12.3	1.0	24.0	31.0	7.6	14.7	14.8	16.1	22.1	23.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.70
Lane Grp Cap(c), veh/h	1595	837	791	345	689	491	217	206	213	415	308	282
V/C Ratio(X)	0.23	0.35	0.27	0.05	0.84	1.61	0.77	0.81	0.82	0.85	0.83	0.85
Avail Cap(c_a), veh/h	1595	837	791	345	689	491	713	389	401	758	412	378
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.63	0.63	0.63	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	28.9	22.2	44.0	51.7	44.4	73.8	69.0	69.1	69.0	63.8	64.2
Incr Delay (d2), s/veh	0.3	1.1	0.8	0.1	7.2	279.5	4.3	4.3	4.4	3.2	9.2	12.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	7.5	4.8	0.5	10.5	46.4	3.5	7.0	7.3	7.3	10.9	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	30.0	23.0	44.1	58.9	323.9	78.1	73.4	73.5	72.2	73.1	76.7
LnGrp LOS	C	C	C	D	E	F	E	E	E	E	E	E
Approach Vol, veh/h		873			1381			508			850	
Approach Delay, s/veh		27.3			210.1			75.0			73.7	
Approach LOS		C			F			E			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	76.5	24.1	23.4	35.9	14.9	32.6
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.3	35.1	35.0	31.0	33.0	37.1
Max Q Clear Time (g_c+I1), s	18.1	18.1	16.8	33.0	9.6	25.0
Green Ext Time (p_c), s	8.7	0.8	1.4	0.0	0.4	2.1

Intersection Summary	
HCM 6th Ctrl Delay	114.8
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.



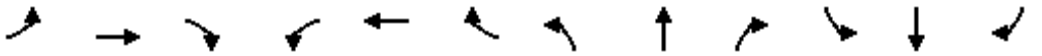
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	402	53	168	447	37	53	9	45	151	9	166
Future Volume (veh/h)	90	402	53	168	447	37	53	9	45	151	9	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	437	58	183	486	40	58	10	49	164	10	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	1802	773	183	1922	1053	106	18	271	248	12	210
Arrive On Green	0.07	0.51	0.51	0.10	0.54	0.54	0.07	0.07	0.07	0.14	0.14	0.14
Sat Flow, veh/h	1781	3554	1525	1781	3554	1539	1530	264	1564	1781	84	1514
Grp Volume(v), veh/h	98	437	58	183	486	40	68	0	49	164	0	190
Grp Sat Flow(s),veh/h/ln	1781	1777	1525	1781	1777	1539	1794	0	1564	1781	0	1598
Q Serve(g_s), s	5.7	7.3	2.0	10.8	7.6	0.9	3.9	0.0	2.8	9.2	0.0	12.2
Cycle Q Clear(g_c), s	5.7	7.3	2.0	10.8	7.6	0.9	3.9	0.0	2.8	9.2	0.0	12.2
Prop In Lane	1.00		1.00	1.00		1.00	0.85		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	123	1802	773	183	1922	1053	124	0	271	248	0	222
V/C Ratio(X)	0.80	0.24	0.08	1.00	0.25	0.04	0.55	0.00	0.18	0.66	0.00	0.86
Avail Cap(c_a), veh/h	149	1802	773	183	1922	1053	615	0	699	305	0	274
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.1	14.5	13.3	47.1	12.8	5.5	47.3	0.0	37.2	42.9	0.0	44.2
Incr Delay (d2), s/veh	17.6	0.3	0.2	66.1	0.3	0.1	1.4	0.0	0.1	2.1	0.0	16.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.9	0.7	8.1	3.0	0.4	1.8	0.0	1.1	4.2	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	14.9	13.5	113.2	13.1	5.6	48.7	0.0	37.3	44.9	0.0	60.8
LnGrp LOS	E	B	B	F	B	A	D	A	D	D	A	E
Approach Vol, veh/h		593			709			117			354	
Approach Delay, s/veh		23.1			38.5			43.9			53.5	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.2	58.1		19.5	11.7	61.7		12.2				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	10.8	21.1		18.0	8.8	23.1		36.0				
Max Q Clear Time (g_c+I1), s	12.8	9.3		14.2	7.7	9.6		5.9				
Green Ext Time (p_c), s	0.0	2.4		0.4	0.0	1.6		0.3				

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

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	25	115	78	47	2010	46	0	2186	101
Future Volume (veh/h)	0	0	0	25	115	78	47	2010	46	0	2186	101
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				27	125	85	51	2185	50	0	2376	110
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				43	200	138	526	4153	95	0	2413	744
Arrive On Green				0.11	0.11	0.11	0.59	1.00	1.00	0.00	0.47	0.47
Sat Flow, veh/h				392	1822	1260	1781	5136	117	0	5274	1575
Grp Volume(v), veh/h				128	0	109	51	1447	788	0	2376	110
Grp Sat Flow(s),veh/h/ln				1851	0	1623	1781	1702	1849	0	1702	1575
Q Serve(g_s), s				7.9	0.0	7.7	1.5	0.0	0.0	0.0	55.1	4.8
Cycle Q Clear(g_c), s				7.9	0.0	7.7	1.5	0.0	0.0	0.0	55.1	4.8
Prop In Lane				0.21		0.78	1.00		0.06	0.00		1.00
Lane Grp Cap(c), veh/h				203	0	178	526	2753	1495	0	2413	744
V/C Ratio(X)				0.63	0.00	0.62	0.10	0.53	0.53	0.00	0.98	0.15
Avail Cap(c_a), veh/h				679	0	595	526	2753	1495	0	2413	744
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.59	0.59	0.59	0.00	1.00	1.00
Uniform Delay (d), s/veh				51.1	0.0	51.0	17.6	0.0	0.0	0.0	31.2	17.9
Incr Delay (d2), s/veh				1.2	0.0	1.3	0.0	0.4	0.8	0.0	15.1	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.7	0.0	3.2	0.6	0.2	0.3	0.0	24.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				52.3	0.0	52.3	17.6	0.4	0.8	0.0	46.3	18.4
LnGrp LOS				D	A	D	B	A	A	A	D	B
Approach Vol, veh/h					237			2286			2486	
Approach Delay, s/veh					52.3			0.9			45.1	
Approach LOS					D			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	101.9	18.1	40.3	61.6
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	66.2	44.0	5.1	* 57
Max Q Clear Time (g_c+I1), s	2.0	9.9	3.5	57.1
Green Ext Time (p_c), s	8.0	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	253	82	114	274	258	238	11	216	1503	317	1613	385
Future Volume (vph)	253	82	114	274	258	238	11	216	1503	317	1613	385
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	14	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9	5.9		5.4	5.9		5.9	5.9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.91	0.91		0.97	0.91		0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	0.85	1.00	1.00		1.00	0.97		1.00	0.85
Flt Protected	0.95	0.97	1.00	1.00	0.95	0.99		0.95	1.00		1.00	1.00
Satd. Flow (prot)	1681	1725	1583	1550	1610	3321		3662	4942		5085	1536
Flt Permitted	0.95	0.97	1.00	1.00	0.95	0.99		0.95	1.00		1.00	1.00
Satd. Flow (perm)	1681	1725	1583	1550	1610	3321		3662	4942		5085	1536
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	275	89	124	298	280	259	12	235	1634	345	1753	418
RTOR Reduction (vph)	0	0	0	127	0	2	0	0	0	0	0	178
Lane Group Flow (vph)	179	185	124	171	179	370	0	235	1979	0	1753	240
Confl. Peds. (#/hr)				3			20					13
Confl. Bikes (#/hr)				4			4			1		3
Turn Type	Split	NA	Perm	Perm	Split	NA		Prot	NA		NA	Perm
Protected Phases	4	4			8	8		5	2		6	
Permitted Phases			4	4								6
Actuated Green, G (s)	17.8	17.8	17.8	17.8	13.1	13.1		12.5	71.4		53.5	53.5
Effective Green, g (s)	17.8	17.8	17.8	17.8	13.1	13.1		12.5	71.4		53.5	53.5
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.11	0.11		0.10	0.60		0.45	0.45
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9	5.9		5.4	5.9		5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0
Lane Grp Cap (vph)	249	255	234	229	175	362		381	2940		2267	684
v/s Ratio Prot	0.11	0.11			0.11	c0.11		0.06	c0.40		c0.34	
v/s Ratio Perm			0.08	c0.11								0.16
v/c Ratio	0.72	0.73	0.53	0.75	1.02	1.02		0.62	0.67		0.77	0.35
Uniform Delay, d1	48.7	48.8	47.2	48.9	53.5	53.5		51.5	16.4		28.1	21.8
Progression Factor	1.00	1.00	1.00	1.00	1.22	1.22		1.00	1.00		0.68	0.82
Incremental Delay, d2	8.0	8.4	1.0	11.0	72.6	52.1		2.1	1.3		2.3	1.2
Delay (s)	56.7	57.2	48.2	60.0	137.6	117.1		53.5	17.7		21.4	19.2
Level of Service	E	E	D	E	F	F		D	B		C	B
Approach Delay (s)		56.7				123.8			21.5		21.0	
Approach LOS		E				F			C		C	

Intersection Summary			
HCM 2000 Control Delay	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NWR2
Lane Configurations	
Traffic Volume (vph)	29
Future Volume (vph)	29
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	5.9
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1611
Flt Permitted	1.00
Satd. Flow (perm)	1611
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	32
RTOR Reduction (vph)	29
Lane Group Flow (vph)	3
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	13.1
Effective Green, g (s)	13.1
Actuated g/C Ratio	0.11
Clearance Time (s)	5.9
Vehicle Extension (s)	1.0
Lane Grp Cap (vph)	175
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.02
Uniform Delay, d1	47.7
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	47.7
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	225	199	138	392	252	294	1573	73	289	1741	200
Future Volume (veh/h)	163	225	199	138	392	252	294	1573	73	289	1741	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	245	216	150	426	274	320	1710	79	314	1892	217
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	621	272	171	705	304	615	2182	101	583	1960	223
Arrive On Green	0.07	0.17	0.17	0.10	0.20	0.20	0.18	0.44	0.44	0.17	0.42	0.42
Sat Flow, veh/h	3456	3554	1558	1781	3554	1534	3456	4997	231	3456	4646	529
Grp Volume(v), veh/h	177	245	216	150	426	274	320	1165	624	314	1382	727
Grp Sat Flow(s),veh/h/ln	1728	1777	1558	1781	1777	1534	1728	1702	1823	1728	1702	1771
Q Serve(g_s), s	7.5	9.2	19.9	12.5	16.4	26.1	12.6	43.9	44.0	12.5	59.3	60.3
Cycle Q Clear(g_c), s	7.5	9.2	19.9	12.5	16.4	26.1	12.6	43.9	44.0	12.5	59.3	60.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.30
Lane Grp Cap(c), veh/h	249	621	272	171	705	304	615	1486	796	583	1436	747
V/C Ratio(X)	0.71	0.39	0.79	0.88	0.60	0.90	0.52	0.78	0.78	0.54	0.96	0.97
Avail Cap(c_a), veh/h	304	808	354	171	836	361	615	1486	796	583	1446	752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	1.00	0.60	0.60	0.60	0.50	0.50	0.50
Uniform Delay (d), s/veh	68.0	54.9	59.3	66.9	54.7	58.7	55.8	36.2	36.2	57.0	42.2	42.5
Incr Delay (d2), s/veh	3.9	0.1	6.6	35.4	0.4	20.4	0.2	2.6	4.7	0.3	9.5	16.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.2	8.3	7.3	7.4	11.8	5.5	18.3	20.2	5.4	26.1	29.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.9	55.0	65.9	102.4	55.1	79.1	56.1	38.7	40.9	57.3	51.7	59.4
LnGrp LOS	E	E	E	F	E	E	E	D	D	E	D	E
Approach Vol, veh/h		638			850			2109			2423	
Approach Delay, s/veh		63.4			71.2			42.0			54.7	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.7	70.4	18.8	31.1	31.1	69.0	15.2	34.7
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	17.4	65.5	14.4	34.1	18.4	63.7	13.2	35.3
Max Q Clear Time (g_c+I1), s	14.5	46.0	14.5	21.9	14.6	62.3	9.5	28.1
Green Ext Time (p_c), s	0.1	4.6	0.0	0.6	0.1	0.9	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	53.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



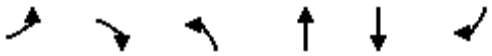
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	293	13	584	299	123	10	1327	501	168	1578	294
Future Volume (veh/h)	369	293	13	584	299	123	10	1327	501	168	1578	294
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	401	318	14	635	325	134	11	1442	545	183	1715	320
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	610	350	15	599	362	300	22	1985	615	376	1746	778
Arrive On Green	0.17	0.19	0.19	0.17	0.19	0.19	0.01	0.39	0.39	0.11	0.49	0.49
Sat Flow, veh/h	3510	1804	79	3456	1870	1549	1781	5106	1583	3456	3554	1583
Grp Volume(v), veh/h	401	0	332	635	325	134	11	1442	545	183	1715	320
Grp Sat Flow(s),veh/h/ln	1755	0	1884	1728	1870	1549	1781	1702	1583	1728	1777	1583
Q Serve(g_s), s	16.0	0.0	25.9	26.0	25.4	11.5	0.9	36.1	48.2	7.5	71.2	10.2
Cycle Q Clear(g_c), s	16.0	0.0	25.9	26.0	25.4	11.5	0.9	36.1	48.2	7.5	71.2	10.2
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	610	0	365	599	362	300	22	1985	615	376	1746	778
V/C Ratio(X)	0.66	0.00	0.91	1.06	0.90	0.45	0.50	0.73	0.89	0.49	0.98	0.41
Avail Cap(c_a), veh/h	610	0	414	599	478	395	59	1985	615	376	1746	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	57.8	0.0	59.2	62.0	59.0	53.4	73.6	39.1	42.8	62.9	37.5	6.7
Incr Delay (d2), s/veh	2.1	0.0	20.8	53.7	13.9	0.4	6.5	2.4	17.1	0.2	14.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	14.5	15.7	13.3	4.5	0.5	15.2	21.3	3.3	33.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	0.0	80.0	115.7	72.9	53.8	80.1	41.4	59.8	63.1	51.7	7.8
LnGrp LOS	E	A	F	F	E	D	F	D	E	E	D	A
Approach Vol, veh/h		733			1094			1998			2218	
Approach Delay, s/veh		69.0			95.4			46.7			46.3	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	63.6	30.4	34.0	6.2	79.4	30.4	33.9
Change Period (Y+Rc), s	5.7	* 5.3	4.4	4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	13.3	* 58	26.0	33.0	5.0	66.6	20.7	38.3
Max Q Clear Time (g_c+I1), s	9.5	50.2	28.0	27.9	2.9	73.2	18.0	27.4
Green Ext Time (p_c), s	0.0	3.2	0.0	0.4	0.0	0.0	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	58.1
HCM 6th LOS	E

Notes

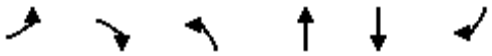
User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	162	326	416	504	8
Future Volume (vph)	0	162	326	416	504	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	0.91	0.91	
Frpb, ped/bikes		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	
Frt		0.86	1.00	1.00	1.00	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1611	1770	5085	5070	
Flt Permitted		1.00	0.30	1.00	1.00	
Satd. Flow (perm)		1611	556	5085	5070	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	176	354	452	548	9
RTOR Reduction (vph)	0	117	0	0	5	0
Lane Group Flow (vph)	0	59	354	452	552	0
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						13
Turn Type		Perm	pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases		5	2			
Actuated Green, G (s)		9.6	24.1	28.6	10.0	
Effective Green, g (s)		9.6	24.1	28.6	10.0	
Actuated g/C Ratio		0.34	0.84	1.00	0.35	
Clearance Time (s)		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		540	876	5085	1772	
v/s Ratio Prot			c0.14	0.09	0.11	
v/s Ratio Perm		0.04	c0.20			
v/c Ratio		0.11	0.40	0.09	0.31	
Uniform Delay, d1		6.6	1.1	0.0	6.8	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.3	0.0	0.1	
Delay (s)		6.6	1.4	0.0	6.9	
Level of Service		A	A	A	A	
Approach Delay (s)	6.6			0.6	6.9	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	28.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	631	86	0	1006	1359	625
Future Volume (vph)	631	86	0	1006	1359	625
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	686	93	0	1093	1477	679
RTOR Reduction (vph)	0	71	0	0	0	0
Lane Group Flow (vph)	686	22	0	1093	1477	679
Confl. Peds. (#/hr)						3
Confl. Bikes (#/hr)						4
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	22.0	22.0		46.0	46.0	94.4
Effective Green, g (s)	22.0	22.0		46.0	46.0	83.6
Actuated g/C Ratio	0.23	0.23		0.49	0.49	0.89
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	800	368		1724	1724	1401
v/s Ratio Prot	c0.20			0.31	c0.42	c0.43
v/s Ratio Perm		0.01				
v/c Ratio	0.86	0.06		0.63	0.86	0.48
Uniform Delay, d1	34.7	28.1		18.0	21.3	1.1
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.9	0.0		0.8	4.4	0.2
Delay (s)	43.6	28.2		18.7	25.7	1.3
Level of Service	D	C		B	C	A
Approach Delay (s)	41.8			18.7	18.0	
Approach LOS	D			B	B	

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	94.4	Sum of lost time (s)	19.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
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)	323	576	293	28	440	609	305	443	34	922	502	350
Future Volume (veh/h)	323	576	293	28	440	609	305	443	34	922	502	350
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	326	661	318	30	478	662	332	482	37	1002	546	380
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	378	794	637	299	596	792	672	548	42	1167	611	425
Arrive On Green	0.21	0.21	0.21	0.17	0.17	0.17	0.19	0.16	0.16	0.34	0.31	0.31
Sat Flow, veh/h	1781	3741	1551	1781	3554	1531	3456	3339	255	3456	1989	1384
Grp Volume(v), veh/h	326	661	318	30	478	662	332	256	263	1002	488	438
Grp Sat Flow(s),veh/h/ln	1781	1870	1551	1781	1777	1531	1728	1777	1818	1728	1777	1595
Q Serve(g_s), s	31.8	30.4	27.5	2.6	23.3	3.3	15.4	25.3	25.5	48.7	47.2	47.2
Cycle Q Clear(g_c), s	31.8	30.4	27.5	2.6	23.3	3.3	15.4	25.3	25.5	48.7	47.2	47.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.87
Lane Grp Cap(c), veh/h	378	794	637	299	596	792	672	291	298	1167	546	490
V/C Ratio(X)	0.86	0.83	0.50	0.10	0.80	0.84	0.49	0.88	0.88	0.86	0.89	0.89
Avail Cap(c_a), veh/h	387	813	645	307	612	799	672	357	366	1167	546	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.62	0.62	0.62	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.4	67.8	39.8	63.4	72.0	37.8	64.6	73.5	73.6	55.6	59.5	59.5
Incr Delay (d2), s/veh	19.7	8.6	1.7	0.3	6.6	6.2	2.3	15.6	16.0	6.4	19.6	21.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	15.4	11.0	1.2	11.2	26.2	7.1	12.9	13.3	22.4	24.3	22.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.1	76.4	41.5	63.8	78.6	44.1	66.9	89.0	89.5	62.0	79.2	80.9
LnGrp LOS	F	E	D	E	E	D	E	F	F	E	E	F
Approach Vol, veh/h		1305			1170			851			1928	
Approach Delay, s/veh		70.8			58.7			80.6			70.7	
Approach LOS		E			E			F			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	43.1	65.7	34.4	35.1	39.9	60.2
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.1	54.1	36.2	31.0	35.0	55.3
Max Q Clear Time (g_c+I1), s	33.8	50.7	27.5	25.3	17.4	49.2
Green Ext Time (p_c), s	4.3	1.1	1.6	4.7	0.9	2.8

Intersection Summary	
HCM 6th Ctrl Delay	69.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved changes to right turn type.



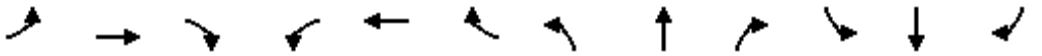
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	664	72	100	794	145	120	32	75	162	27	184
Future Volume (veh/h)	352	664	72	100	794	145	120	32	75	162	27	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.90	1.00		0.88	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	383	722	78	109	863	158	130	35	82	176	29	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	466	1407	561	250	976	584	306	82	525	215	24	168
Arrive On Green	0.26	0.40	0.40	0.14	0.27	0.27	0.22	0.22	0.22	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1417	1781	3554	1431	1418	382	1402	1781	202	1393
Grp Volume(v), veh/h	383	722	78	109	863	158	165	0	82	176	0	229
Grp Sat Flow(s),veh/h/ln	1781	1777	1417	1781	1777	1431	1799	0	1402	1781	0	1595
Q Serve(g_s), s	30.3	23.1	5.3	8.4	34.9	11.3	11.9	0.0	0.0	14.5	0.0	18.1
Cycle Q Clear(g_c), s	30.3	23.1	5.3	8.4	34.9	11.3	11.9	0.0	0.0	14.5	0.0	18.1
Prop In Lane	1.00		1.00	1.00		1.00	0.79		1.00	1.00		0.87
Lane Grp Cap(c), veh/h	466	1407	561	250	976	584	388	0	525	215	0	192
V/C Ratio(X)	0.82	0.51	0.14	0.44	0.88	0.27	0.43	0.00	0.16	0.82	0.00	1.19
Avail Cap(c_a), veh/h	466	1407	561	250	976	584	432	0	559	215	0	192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.1	34.3	29.0	59.0	52.1	30.8	50.8	0.0	32.8	64.4	0.0	66.0
Incr Delay (d2), s/veh	10.5	1.3	0.5	0.4	11.5	1.1	0.3	0.0	0.1	20.2	0.0	125.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	10.2	1.9	3.8	17.0	5.0	5.4	0.0	2.1	7.8	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	35.7	29.5	59.5	63.6	32.0	51.1	0.0	32.9	84.6	0.0	191.4
LnGrp LOS	E	D	C	E	E	C	D	A	C	F	A	F
Approach Vol, veh/h		1183			1130			247			405	
Approach Delay, s/veh		44.0			58.8			45.0			145.0	
Approach LOS		D			E			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.5	64.3		23.0	43.7	46.1		37.2
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	17.1	59.4		18.1	35.6	41.2		36.0
Max Q Clear Time (g_c+I1), s	10.4	25.1		20.1	32.3	36.9		13.9
Green Ext Time (p_c), s	0.1	6.2		0.0	0.2	1.6		0.7

Intersection Summary	
HCM 6th Ctrl Delay	63.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	69	183	72	130	2126	10	0	2209	367
Future Volume (veh/h)	0	0	0	69	183	72	130	2126	10	0	2209	367
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				75	199	78	141	2311	11	0	2401	399
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				97	265	108	465	4195	20	0	2578	778
Arrive On Green				0.13	0.13	0.13	0.52	1.00	1.00	0.00	0.50	0.50
Sat Flow, veh/h				732	2002	815	1781	5245	25	0	5274	1542
Grp Volume(v), veh/h				188	0	164	141	1499	823	0	2401	399
Grp Sat Flow(s),veh/h/ln				1834	0	1715	1781	1702	1866	0	1702	1542
Q Serve(g_s), s				14.4	0.0	13.3	6.5	0.0	0.0	0.0	63.7	25.1
Cycle Q Clear(g_c), s				14.4	0.0	13.3	6.5	0.0	0.0	0.0	63.7	25.1
Prop In Lane				0.40		0.48	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				243	0	227	465	2723	1492	0	2578	778
V/C Ratio(X)				0.77	0.00	0.72	0.30	0.55	0.55	0.00	0.93	0.51
Avail Cap(c_a), veh/h				556	0	520	465	2723	1492	0	2578	778
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.63	0.63	0.63	0.00	1.00	1.00
Uniform Delay (d), s/veh				60.8	0.0	60.3	27.1	0.0	0.0	0.0	33.6	24.0
Incr Delay (d2), s/veh				2.0	0.0	1.6	0.1	0.5	0.9	0.0	7.6	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				6.8	0.0	5.9	2.6	0.2	0.4	0.0	26.9	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				62.7	0.0	61.9	27.2	0.5	0.9	0.0	41.2	26.4
LnGrp LOS				E	A	E	C	A	A	A	D	C
Approach Vol, veh/h					352			2463			2800	
Approach Delay, s/veh					62.4			2.2			39.1	
Approach LOS					E			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	120.9	24.1	42.8	78.1
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	91.2	44.0	13.6	* 73
Max Q Clear Time (g_c+I1), s	2.0	16.4	8.5	65.7
Green Ext Time (p_c), s	8.7	0.8	0.0	4.9

Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	415	196	241	279	244	230	7	461	1550	573	1536	746
Future Volume (vph)	415	196	241	279	244	230	7	461	1550	573	1536	746
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	14	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9	5.9		5.4	5.9		5.9	5.9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.91	0.91		0.97	0.91		0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	0.96
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	0.85	1.00	1.00		1.00	0.96		1.00	0.85
Flt Protected	0.95	0.98	1.00	1.00	0.95	0.99		0.95	1.00		1.00	1.00
Satd. Flow (prot)	1681	1737	1583	1558	1610	3323		3662	4858		5085	1514
Flt Permitted	0.95	0.98	1.00	1.00	0.95	0.99		0.95	1.00		1.00	1.00
Satd. Flow (perm)	1681	1737	1583	1558	1610	3323		3662	4858		5085	1514
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	451	213	262	303	265	250	8	501	1685	623	1670	811
RTOR Reduction (vph)	0	0	0	214	0	1	0	0	0	0	0	347
Lane Group Flow (vph)	325	339	262	89	170	352	0	501	2308	0	1670	464
Confl. Peds. (#/hr)				1			45			3		21
Confl. Bikes (#/hr)				3			7					
Turn Type	Split	NA	Perm	Perm	Split	NA		Prot	NA		NA	Perm
Protected Phases	4	4			8	8		5	2		6	
Permitted Phases			4	4								6
Actuated Green, G (s)	31.5	31.5	31.5	31.5	16.2	16.2		21.6	79.6		52.6	52.6
Effective Green, g (s)	31.5	31.5	31.5	31.5	16.2	16.2		21.6	79.6		52.6	52.6
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.11	0.11		0.15	0.55		0.36	0.36
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9	5.9		5.4	5.9		5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0
Lane Grp Cap (vph)	365	377	343	338	179	371		545	2666		1844	549
v/s Ratio Prot	0.19	c0.20			0.11	c0.11		0.14	c0.48		0.33	
v/s Ratio Perm			0.17	0.06								0.31
v/c Ratio	0.89	0.90	0.76	0.26	0.95	0.95		0.92	0.87		0.91	0.85
Uniform Delay, d1	55.1	55.2	53.3	47.1	64.0	64.0		60.8	28.1		43.8	42.5
Progression Factor	1.00	1.00	1.00	1.00	1.12	1.12		1.34	0.58		0.68	1.42
Incremental Delay, d2	22.2	22.7	8.8	0.2	50.5	32.3		12.3	2.2		6.8	12.9
Delay (s)	77.2	78.0	62.0	47.3	122.2	104.1		93.8	18.5		36.8	73.3
Level of Service	E	E	E	D	F	F		F	B		D	E
Approach Delay (s)		66.8				110.0			31.9		48.8	
Approach LOS		E				F			C		D	

Intersection Summary			
HCM 2000 Control Delay	49.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NWR2
Lane Configurations	
Traffic Volume (vph)	68
Future Volume (vph)	68
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	5.9
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1611
Flt Permitted	1.00
Satd. Flow (perm)	1611
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	74
RTOR Reduction (vph)	66
Lane Group Flow (vph)	8
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	16.2
Effective Green, g (s)	16.2
Actuated g/C Ratio	0.11
Clearance Time (s)	5.9
Vehicle Extension (s)	1.0
Lane Grp Cap (vph)	179
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.05
Uniform Delay, d1	57.5
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	57.5
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	517	257	133	607	365	329	1826	93	358	1453	244
Future Volume (veh/h)	240	517	257	133	607	365	329	1826	93	358	1453	244
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.96	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	562	279	145	660	397	358	1985	101	389	1579	265
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	305	737	314	165	739	313	659	2228	113	426	1634	273
Arrive On Green	0.09	0.21	0.21	0.09	0.21	0.21	0.19	0.45	0.45	0.25	0.74	0.74
Sat Flow, veh/h	3456	3554	1513	1781	3554	1504	3456	4965	252	3456	4389	733
Grp Volume(v), veh/h	261	562	279	145	660	397	358	1358	728	389	1223	621
Grp Sat Flow(s),veh/h/ln	1728	1777	1513	1781	1777	1504	1728	1702	1813	1728	1702	1718
Q Serve(g_s), s	10.8	21.6	17.5	11.7	26.2	23.0	13.6	53.1	53.6	15.9	47.3	48.3
Cycle Q Clear(g_c), s	10.8	21.6	17.5	11.7	26.2	23.0	13.6	53.1	53.6	15.9	47.3	48.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.43
Lane Grp Cap(c), veh/h	305	737	314	165	739	313	659	1528	813	426	1267	640
V/C Ratio(X)	0.86	0.76	0.89	0.88	0.89	1.27	0.54	0.89	0.89	0.91	0.97	0.97
Avail Cap(c_a), veh/h	307	836	356	165	848	359	659	1528	813	429	1394	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	0.49	0.49	0.49	0.39	0.39	0.39
Uniform Delay (d), s/veh	65.2	54.1	25.4	65.0	55.9	33.5	53.0	36.7	36.8	53.9	17.7	17.8
Incr Delay (d2), s/veh	16.8	2.6	17.4	37.2	10.0	144.0	0.3	4.3	7.9	11.2	7.9	13.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	10.0	7.8	7.0	12.7	20.9	5.9	22.2	24.7	6.6	9.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.0	56.7	42.8	102.3	65.8	177.5	53.2	40.9	44.7	65.0	25.6	31.7
LnGrp LOS	F	E	D	F	E	F	D	D	D	E	C	C
Approach Vol, veh/h		1102			1202			2444			2233	
Approach Delay, s/veh		59.2			107.1			43.8			34.1	
Approach LOS		E			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	70.0	17.8	35.0	32.6	59.7	17.7	35.1
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.9	* 5.7	4.9	* 4.9
Max Green Setting (Gmax), s	18.6	60.9	13.4	34.1	18.7	* 59	12.9	* 35
Max Q Clear Time (g_c+I1), s	17.9	55.6	13.7	23.6	15.6	50.3	12.8	28.2
Green Ext Time (p_c), s	0.0	2.9	0.0	1.4	0.1	3.7	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	54.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	269	15	563	341	179	22	1739	767	144	1303	319
Future Volume (veh/h)	242	269	15	563	341	179	22	1739	767	144	1303	319
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.98
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	1900	1900	1900	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	263	292	16	612	371	195	24	1890	834	157	1416	347
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	510	320	18	632	405	336	39	2279	695	183	1697	740
Arrive On Green	0.15	0.18	0.18	0.18	0.22	0.22	0.02	0.45	0.45	0.11	0.96	0.96
Sat Flow, veh/h	3510	1783	98	3456	1870	1549	1781	5106	1557	3456	3554	1550
Grp Volume(v), veh/h	263	0	308	612	371	195	24	1890	834	157	1416	347
Grp Sat Flow(s),veh/h/ln	1755	0	1881	1728	1870	1549	1781	1702	1557	1728	1777	1550
Q Serve(g_s), s	9.7	0.0	22.5	24.6	27.1	13.4	1.9	45.5	33.7	6.3	12.3	1.5
Cycle Q Clear(g_c), s	9.7	0.0	22.5	24.6	27.1	13.4	1.9	45.5	33.7	6.3	12.3	1.5
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	510	0	337	632	405	336	39	2279	695	183	1697	740
V/C Ratio(X)	0.52	0.00	0.91	0.97	0.92	0.58	0.62	0.83	1.20	0.86	0.83	0.47
Avail Cap(c_a), veh/h	510	0	443	632	558	463	64	2279	695	183	1697	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	55.3	0.0	56.4	56.8	53.6	35.3	67.9	34.1	11.3	62.1	1.9	0.6
Incr Delay (d2), s/veh	0.4	0.0	17.1	27.8	13.5	0.6	5.9	3.7	103.5	26.5	4.2	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	12.3	13.0	14.1	5.1	0.9	19.0	30.4	3.3	2.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	0.0	73.5	84.6	67.1	35.9	73.8	37.7	114.8	88.6	6.2	2.4
LnGrp LOS	E	A	E	F	E	D	E	D	F	F	A	A
Approach Vol, veh/h		571			1178			2748			1920	
Approach Delay, s/veh		65.3			71.0			61.4			12.2	
Approach LOS		E			E			E			B	

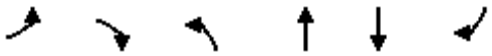
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	68.2	30.0	30.0	7.4	72.6	24.8	35.2
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	7.4	* 55	25.6	33.0	5.0	57.0	16.8	41.8
Max Q Clear Time (g_c+I1), s	9.3	47.5	26.6	24.5	3.9	14.3	11.7	29.1
Green Ext Time (p_c), s	0.0	4.1	0.0	0.4	0.0	4.3	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	48.8
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

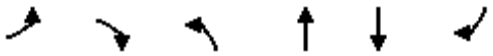
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	297	275	676	869	15
Future Volume (vph)	0	297	275	676	869	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	0.91	0.91	
Frpb, ped/bikes		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	
Frt		0.86	1.00	1.00	1.00	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1611	1770	5085	5070	
Flt Permitted		1.00	0.23	1.00	1.00	
Satd. Flow (perm)		1611	431	5085	5070	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	323	299	735	945	16
RTOR Reduction (vph)	0	60	0	0	4	0
Lane Group Flow (vph)	0	263	299	735	957	0
Confl. Peds. (#/hr)						4
Confl. Bikes (#/hr)						7
Turn Type		Perm	pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases		5	2			
Actuated Green, G (s)		10.5	35.5	40.0	20.5	
Effective Green, g (s)		10.5	35.5	40.0	20.5	
Actuated g/C Ratio		0.26	0.89	1.00	0.51	
Clearance Time (s)		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		422	734	5085	2598	
v/s Ratio Prot			0.11	0.14	0.19	
v/s Ratio Perm		c0.16	c0.25			
v/c Ratio		0.62	0.41	0.14	0.37	
Uniform Delay, d1		13.0	0.9	0.0	5.9	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.9	0.4	0.1	0.4	
Delay (s)		15.9	1.3	0.1	6.3	
Level of Service		B	A	A	A	
Approach Delay (s)	15.9			0.4	6.3	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	5.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	966	123	0	1375	1175	1233
Future Volume (vph)	966	123	0	1375	1175	1233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.96		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1527		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1527		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1050	134	0	1495	1277	1340
RTOR Reduction (vph)	0	57	0	0	0	0
Lane Group Flow (vph)	1050	77	0	1495	1277	1340
Confl. Peds. (#/hr)		32				2
Confl. Bikes (#/hr)		1				1
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	60.4	60.4		63.6	63.6	150.0
Effective Green, g (s)	60.4	60.4		63.6	63.6	139.2
Actuated g/C Ratio	0.40	0.40		0.42	0.42	0.93
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1382	614		1500	1500	1469
v/s Ratio Prot	0.31			c0.42	0.36	c0.85
v/s Ratio Perm		0.05				
v/c Ratio	0.76	0.13		1.00	0.85	0.91
Uniform Delay, d1	38.6	28.2		43.1	38.9	2.5
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.3	0.1		22.5	6.3	8.9
Delay (s)	40.9	28.3		65.6	45.2	11.4
Level of Service	D	C		E	D	B
Approach Delay (s)	39.5			65.6	27.9	
Approach LOS	D			E	C	

Intersection Summary			
HCM 2000 Control Delay	41.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
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)	297	510	235	26	354	519	242	454	22	965	466	227
Future Volume (veh/h)	297	510	235	26	354	519	242	454	22	965	466	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	597	255	28	385	564	263	493	24	1049	507	247
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	369	776	624	280	559	779	672	562	27	1172	708	343
Arrive On Green	0.21	0.21	0.21	0.16	0.16	0.16	0.19	0.16	0.16	0.34	0.31	0.31
Sat Flow, veh/h	1781	3741	1522	1781	3554	1533	3456	3446	167	3456	2300	1115
Grp Volume(v), veh/h	292	597	255	28	385	564	263	254	263	1049	391	363
Grp Sat Flow(s),veh/h/ln	1781	1870	1522	1781	1777	1533	1728	1777	1836	1728	1777	1638
Q Serve(g_s), s	28.0	27.1	21.7	2.4	18.4	0.0	11.9	25.1	25.2	51.8	35.2	35.5
Cycle Q Clear(g_c), s	28.0	27.1	21.7	2.4	18.4	0.0	11.9	25.1	25.2	51.8	35.2	35.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.68
Lane Grp Cap(c), veh/h	369	776	624	280	559	779	672	290	299	1172	547	504
V/C Ratio(X)	0.79	0.77	0.41	0.10	0.69	0.72	0.39	0.88	0.88	0.89	0.72	0.72
Avail Cap(c_a), veh/h	386	810	638	307	612	802	672	348	360	1172	547	504
HCM Platoon Ratio	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	0.71	0.71	0.71	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.6	67.3	38.7	64.9	71.7	35.4	63.2	73.6	73.6	56.4	55.3	55.4
Incr Delay (d2), s/veh	13.0	5.8	1.2	0.4	4.3	3.8	1.6	16.3	16.4	9.0	7.8	8.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.0	13.5	8.5	1.1	8.8	20.3	5.5	12.8	13.3	24.2	17.1	16.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.6	73.1	39.9	65.4	76.0	39.2	64.8	89.9	90.0	65.4	63.1	64.0
LnGrp LOS	F	E	D	E	E	D	E	F	F	E	E	E
Approach Vol, veh/h		1144			977			780			1803	
Approach Delay, s/veh		67.6			54.4			81.4			64.6	
Approach LOS		E			D			F			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	42.2	66.0	34.2	33.2	39.9	60.3
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.0	55.1	35.3	31.0	35.0	55.4
Max Q Clear Time (g_c+I1), s	30.0	53.8	27.2	20.4	13.9	37.5
Green Ext Time (p_c), s	6.4	0.5	1.5	7.2	0.7	4.1

Intersection Summary	
HCM 6th Ctrl Delay	66.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



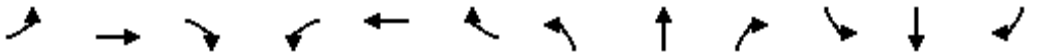
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	598	83	85	711	149	107	44	77	21	36	170
Future Volume (veh/h)	311	598	83	85	711	149	107	44	77	21	36	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.79	1.00		0.88	1.00		0.75	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	338	650	90	92	773	162	116	48	84	23	39	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	428	1457	512	186	976	575	303	125	450	215	33	159
Arrive On Green	0.24	0.41	0.41	0.14	0.37	0.37	0.24	0.24	0.24	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1248	1781	3554	1396	1278	529	1196	1781	277	1316
Grp Volume(v), veh/h	338	650	90	92	773	162	164	0	84	23	0	224
Grp Sat Flow(s),veh/h/ln	1781	1777	1248	1781	1777	1396	1806	0	1196	1781	0	1593
Q Serve(g_s), s	26.7	19.8	6.9	7.2	29.1	10.9	11.4	0.0	0.0	1.7	0.0	18.1
Cycle Q Clear(g_c), s	26.7	19.8	6.9	7.2	29.1	10.9	11.4	0.0	0.0	1.7	0.0	18.1
Prop In Lane	1.00		1.00	1.00		1.00	0.71		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	428	1457	512	186	976	575	429	0	450	215	0	192
V/C Ratio(X)	0.79	0.45	0.18	0.49	0.79	0.28	0.38	0.00	0.19	0.11	0.00	1.17
Avail Cap(c_a), veh/h	428	1457	512	186	976	575	434	0	453	215	0	192
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.5	32.0	28.1	60.9	43.8	26.9	48.0	0.0	34.3	58.8	0.0	66.0
Incr Delay (d2), s/veh	8.9	1.0	0.7	0.8	6.6	1.2	0.2	0.0	0.1	0.1	0.0	116.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	8.7	2.2	3.2	13.0	4.5	5.2	0.0	2.2	0.8	0.0	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.4	32.9	28.9	61.6	50.3	28.1	48.2	0.0	34.4	58.8	0.0	182.4
LnGrp LOS	E	C	C	E	D	C	D	A	C	E	A	F
Approach Vol, veh/h		1078			1027			248			247	
Approach Delay, s/veh		41.8			47.8			43.5			170.9	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.1	66.4		23.0	40.4	46.1		40.5
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	15.3	61.5		18.1	35.6	41.2		36.0
Max Q Clear Time (g_c+I1), s	19.2	21.8		20.1	28.7	31.1		13.4
Green Ext Time (p_c), s	0.0	5.4		0.0	0.3	2.3		0.8

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

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	249	49	83	1950	14	0	1788	426
Future Volume (veh/h)	0	0	0	125	249	49	83	1950	14	0	1788	426
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				136	271	53	90	2120	15	0	1943	463
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				192	404	82	477	3782	27	0	2098	642
Arrive On Green				0.19	0.19	0.19	0.54	1.00	1.00	0.00	0.41	0.41
Sat Flow, veh/h				1020	2148	435	1781	5231	37	0	5274	1562
Grp Volume(v), veh/h				242	0	218	90	1379	756	0	1943	463
Grp Sat Flow(s),veh/h/ln				1819	0	1784	1781	1702	1864	0	1702	1562
Q Serve(g_s), s				13.7	0.0	12.4	2.9	0.0	0.0	0.0	39.8	27.3
Cycle Q Clear(g_c), s				13.7	0.0	12.4	2.9	0.0	0.0	0.0	39.8	27.3
Prop In Lane				0.56		0.24	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				342	0	335	477	2461	1347	0	2098	642
V/C Ratio(X)				0.71	0.00	0.65	0.19	0.56	0.56	0.00	0.93	0.72
Avail Cap(c_a), veh/h				728	0	714	477	2461	1347	0	2098	642
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.72	0.00	1.00	1.00
Uniform Delay (d), s/veh				41.9	0.0	41.3	19.4	0.0	0.0	0.0	30.8	27.1
Incr Delay (d2), s/veh				1.0	0.0	0.8	0.1	0.7	1.2	0.0	8.5	6.9
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				6.2	0.0	5.5	1.1	0.2	0.5	0.0	17.0	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				42.9	0.0	42.1	19.4	0.7	1.2	0.0	39.4	34.0
LnGrp LOS				D	A	D	B	A	A	A	D	C
Approach Vol, veh/h					460			2225			2406	
Approach Delay, s/veh					42.5			1.6			38.3	
Approach LOS					D			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	84.4	25.6	34.3	50.1
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	56.2	44.0	6.6	* 45
Max Q Clear Time (g_c+I1), s	2.0	15.7	4.9	41.8
Green Ext Time (p_c), s	7.3	1.0	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	403	129	212	235	234	149	10	387	1382	361	1249	638
Future Volume (vph)	403	129	212	235	234	149	10	387	1382	361	1249	638
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	14	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9	5.9		5.4	5.9		5.9	5.9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.91	0.91		0.97	0.91		0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	0.99		1.00	0.99		1.00	0.96
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	0.85	1.00	0.99		1.00	0.97		1.00	0.85
Flt Protected	0.95	0.97	1.00	1.00	0.95	0.98		0.95	1.00		1.00	1.00
Satd. Flow (prot)	1681	1725	1583	1555	1610	3287		3662	4903		5085	1512
Flt Permitted	0.95	0.97	1.00	1.00	0.95	0.98		0.95	1.00		1.00	1.00
Satd. Flow (perm)	1681	1725	1583	1555	1610	3287		3662	4903		5085	1512
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	438	140	230	255	254	162	11	421	1502	392	1358	693
RTOR Reduction (vph)	0	0	0	200	0	3	0	0	0	0	0	454
Lane Group Flow (vph)	285	293	230	55	140	284	0	421	1894	0	1358	239
Confl. Peds. (#/hr)				4			37			11		28
Confl. Bikes (#/hr)				2			3			1		1
Turn Type	Split	NA	Perm	Perm	Split	NA		Prot	NA		NA	Perm
Protected Phases	4	4			8	8		5	2		6	
Permitted Phases			4	4								6
Actuated Green, G (s)	23.6	23.6	23.6	23.6	9.6	9.6		17.3	59.1		36.4	36.4
Effective Green, g (s)	23.6	23.6	23.6	23.6	9.6	9.6		17.3	59.1		36.4	36.4
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.09	0.09		0.16	0.54		0.33	0.33
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9	5.9		5.4	5.9		5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0
Lane Grp Cap (vph)	360	370	339	333	140	286		575	2634		1682	500
v/s Ratio Prot	0.17	c0.17			c0.09	0.09		0.11	c0.39		c0.27	
v/s Ratio Perm			0.15	0.04								0.16
v/c Ratio	0.79	0.79	0.68	0.16	1.00	0.99		0.73	0.72		0.81	0.48
Uniform Delay, d1	40.9	40.9	39.7	35.2	50.2	50.2		44.1	19.2		33.6	29.2
Progression Factor	1.00	1.00	1.00	1.00	0.91	0.92		1.34	0.63		0.71	3.36
Incremental Delay, d2	10.6	10.3	4.2	0.1	75.0	50.5		2.6	1.1		3.9	3.0
Delay (s)	51.5	51.2	43.9	35.3	120.9	96.5		61.6	13.3		27.7	101.2
Level of Service	D	D	D	D	F	F		E	B		C	F
Approach Delay (s)		45.9				104.5			22.1		52.5	
Approach LOS		D				F			C		D	

Intersection Summary			
HCM 2000 Control Delay	43.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NWR2
Lane Configurations	
Traffic Volume (vph)	63
Future Volume (vph)	63
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	5.9
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1611
Flt Permitted	1.00
Satd. Flow (perm)	1611
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	68
RTOR Reduction (vph)	62
Lane Group Flow (vph)	6
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	9.6
Effective Green, g (s)	9.6
Actuated g/C Ratio	0.09
Clearance Time (s)	5.9
Vehicle Extension (s)	1.0
Lane Grp Cap (vph)	140
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.04
Uniform Delay, d1	46.0
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	46.0
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	437	243	92	633	318	275	1517	100	288	1109	306
Future Volume (veh/h)	210	437	243	92	633	318	275	1517	100	288	1109	306
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	475	264	100	688	346	299	1649	109	313	1205	333
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	694	299	202	859	362	360	1752	116	507	1601	442
Arrive On Green	0.07	0.20	0.20	0.11	0.24	0.24	0.10	0.36	0.36	0.15	0.41	0.41
Sat Flow, veh/h	3456	3554	1534	1781	3554	1498	3456	4880	322	3456	3943	1089
Grp Volume(v), veh/h	228	475	264	100	688	346	299	1150	608	313	1040	498
Grp Sat Flow(s),veh/h/ln	1728	1777	1534	1781	1777	1498	1728	1702	1798	1728	1702	1628
Q Serve(g_s), s	7.2	13.7	14.1	5.8	20.0	17.0	9.3	36.0	36.0	9.3	28.8	28.8
Cycle Q Clear(g_c), s	7.2	13.7	14.1	5.8	20.0	17.0	9.3	36.0	36.0	9.3	28.8	28.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.67
Lane Grp Cap(c), veh/h	248	694	299	202	859	362	360	1222	646	507	1382	661
V/C Ratio(X)	0.92	0.68	0.88	0.49	0.80	0.96	0.83	0.94	0.94	0.62	0.75	0.75
Avail Cap(c_a), veh/h	248	1102	476	202	1069	451	569	1222	646	507	1382	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	0.73	0.73	0.73	0.54	0.54	0.54
Uniform Delay (d), s/veh	50.7	41.1	25.2	45.8	39.2	19.0	48.3	34.1	34.1	44.0	27.9	28.0
Incr Delay (d2), s/veh	31.7	0.4	6.2	0.7	2.8	26.5	2.2	11.8	19.1	0.9	1.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	6.0	5.5	2.6	8.9	8.3	4.0	16.1	18.4	4.0	11.3	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.5	41.5	31.4	46.5	42.0	45.5	50.5	45.9	53.2	45.0	29.1	30.3
LnGrp LOS	F	D	C	D	D	D	D	D	D	D	C	C
Approach Vol, veh/h		967			1134			2057			1851	
Approach Delay, s/veh		48.4			43.5			48.8			32.1	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.8	44.4	17.4	26.4	15.9	50.4	12.3	31.5
Change Period (Y+Rc), s	5.7	* 4.9	4.9	* 4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	10.3	* 40	6.9	* 34	18.1	31.5	7.9	33.1
Max Q Clear Time (g_c+I1), s	11.3	38.0	7.8	16.1	11.3	30.8	9.2	22.0
Green Ext Time (p_c), s	0.0	0.9	0.0	1.3	0.1	0.4	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	42.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	160	7	524	316	250	18	1296	548	81	1036	281
Future Volume (veh/h)	200	160	7	524	316	250	18	1296	548	81	1036	281
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.98	1.00		0.99	1.00		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	1900	1900	1900	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	174	8	570	343	272	20	1409	596	88	1126	305
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	318	203	9	614	374	311	34	2772	849	129	1994	869
Arrive On Green	0.09	0.11	0.11	0.18	0.20	0.20	0.02	0.54	0.54	0.07	1.00	1.00
Sat Flow, veh/h	3510	1794	82	3456	1870	1555	1781	5106	1564	3456	3554	1548
Grp Volume(v), veh/h	217	0	182	570	343	272	20	1409	596	88	1126	305
Grp Sat Flow(s),veh/h/ln	1755	0	1877	1728	1870	1555	1781	1702	1564	1728	1777	1548
Q Serve(g_s), s	9.0	0.0	14.3	24.4	26.9	22.3	1.7	26.1	19.6	3.7	0.0	0.0
Cycle Q Clear(g_c), s	9.0	0.0	14.3	24.4	26.9	22.3	1.7	26.1	19.6	3.7	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	318	0	212	614	374	311	34	2772	849	129	1994	869
V/C Ratio(X)	0.68	0.00	0.86	0.93	0.92	0.87	0.60	0.51	0.70	0.68	0.56	0.35
Avail Cap(c_a), veh/h	356	0	413	751	628	522	67	2772	849	189	1994	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	66.1	0.0	65.4	60.7	58.8	44.6	73.0	21.7	5.5	68.5	0.0	0.0
Incr Delay (d2), s/veh	3.4	0.0	3.9	14.5	7.3	4.4	6.1	0.7	4.8	2.2	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	7.1	11.8	13.4	8.9	0.8	10.3	6.4	1.6	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.5	0.0	69.3	75.3	66.0	49.0	79.1	22.3	10.3	70.7	1.1	1.0
LnGrp LOS	E	A	E	E	E	D	E	C	B	E	A	A
Approach Vol, veh/h		399			1185			2025			1519	
Approach Delay, s/veh		69.4			66.6			19.3			5.1	
Approach LOS		E			E			B			A	

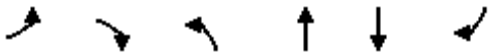
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	87.1	31.1	21.8	7.2	89.9	18.0	34.9
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	8.3	* 57	32.6	33.0	5.6	59.4	15.2	50.4
Max Q Clear Time (g_c+I1), s	15.7	28.1	26.4	16.3	3.7	2.0	11.0	28.9
Green Ext Time (p_c), s	0.0	4.4	0.3	0.3	0.0	3.1	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

Notes

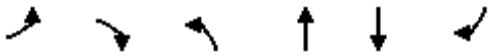
User approved ignoring U-Turning movement.

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	343	194	679	683	14
Future Volume (vph)	0	343	194	679	683	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	0.91	0.91	
Frpb, ped/bikes		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	
Frt		0.86	1.00	1.00	1.00	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1611	1770	5085	5068	
Flt Permitted		1.00	0.35	1.00	1.00	
Satd. Flow (perm)		1611	657	5085	5068	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	373	211	738	742	15
RTOR Reduction (vph)	0	94	0	0	5	0
Lane Group Flow (vph)	0	279	211	738	752	0
Confl. Peds. (#/hr)						2
Turn Type		Over	pm+pt	NA	NA	
Protected Phases		5	5	2	6	
Permitted Phases			2			
Actuated Green, G (s)		11.1	35.5	40.0	19.9	
Effective Green, g (s)		11.1	35.5	40.0	19.9	
Actuated g/C Ratio		0.28	0.89	1.00	0.50	
Clearance Time (s)		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		447	891	5085	2521	
v/s Ratio Prot		c0.17	0.07	0.15	c0.15	
v/s Ratio Perm			0.14			
v/c Ratio		0.62	0.24	0.15	0.30	
Uniform Delay, d1		12.6	0.4	0.0	5.9	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.7	0.1	0.1	0.3	
Delay (s)		15.3	0.5	0.1	6.2	
Level of Service		B	A	A	A	
Approach Delay (s)	15.3			0.2	6.2	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	878	135	0	949	1162	1183
Future Volume (vph)	878	135	0	949	1162	1183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	954	147	0	1032	1263	1286
RTOR Reduction (vph)	0	67	0	0	0	0
Lane Group Flow (vph)	954	80	0	1032	1263	1286
Confl. Peds. (#/hr)						5
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	55.4	55.4		64.8	64.8	146.4
Effective Green, g (s)	55.4	55.4		64.8	64.8	135.6
Actuated g/C Ratio	0.38	0.38		0.44	0.44	0.93
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1299	599		1566	1566	1466
v/s Ratio Prot	0.28			0.29	0.36	c0.81
v/s Ratio Perm		0.05				
v/c Ratio	0.73	0.13		0.66	0.81	0.88
Uniform Delay, d1	39.2	29.8		32.1	35.4	2.1
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.1	0.1		1.0	3.1	6.2
Delay (s)	41.2	29.9		33.1	38.5	8.3
Level of Service	D	C		C	D	A
Approach Delay (s)	39.7			33.1	23.3	
Approach LOS	D			C	C	

Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	146.4	Sum of lost time (s)	19.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
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)	297	514	235	26	358	565	242	454	22	1011	466	227
Future Volume (veh/h)	297	514	235	26	358	565	242	454	22	1011	466	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	294	600	255	28	389	614	263	493	24	1099	507	247
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	370	777	635	308	614	265	695	693	34	1070	712	345
Arrive On Green	0.21	0.21	0.21	0.06	0.06	0.06	0.20	0.20	0.20	0.31	0.31	0.31
Sat Flow, veh/h	1781	3741	1522	1781	3554	1536	3456	3446	167	3456	2300	1115
Grp Volume(v), veh/h	294	600	255	28	389	614	263	254	263	1099	391	363
Grp Sat Flow(s),veh/h/ln	1781	1870	1522	1781	1777	1536	1728	1777	1836	1728	1777	1638
Q Serve(g_s), s	28.2	27.2	21.4	2.7	19.3	31.1	11.8	24.0	24.1	55.7	35.1	35.4
Cycle Q Clear(g_c), s	28.2	27.2	21.4	2.7	19.3	31.1	11.8	24.0	24.1	55.7	35.1	35.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.68
Lane Grp Cap(c), veh/h	370	777	635	308	614	265	695	357	369	1070	550	507
V/C Ratio(X)	0.79	0.77	0.40	0.09	0.63	2.31	0.38	0.71	0.71	1.03	0.71	0.72
Avail Cap(c_a), veh/h	386	810	649	308	614	265	695	357	369	1070	550	507
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.7	67.3	37.8	71.5	79.3	84.9	62.2	67.0	67.1	62.1	55.0	55.1
Incr Delay (d2), s/veh	13.3	5.9	1.1	0.4	3.3	600.1	1.4	10.4	10.2	34.8	3.9	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.1	13.6	11.3	1.3	9.6	57.2	5.4	12.0	12.4	29.7	16.5	15.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.0	73.2	38.9	71.8	82.6	685.0	63.6	77.4	77.3	96.9	58.9	59.5
LnGrp LOS	F	E	D	E	F	F	E	E	E	F	E	E
Approach Vol, veh/h		1149			1031			780			1853	
Approach Delay, s/veh		67.6			441.0			72.7			81.6	
Approach LOS		E			F			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	42.3	60.6	36.0	41.1
Change Period (Y+Rc), s	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	39.0	54.1	31.1	36.2
Max Q Clear Time (g_c+I1), s	30.2	57.7	33.1	26.1
Green Ext Time (p_c), s	6.3	0.0	0.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	153.8
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



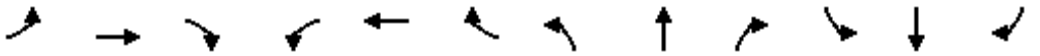
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	349	631	83	85	729	149	107	44	77	21	36	170
Future Volume (veh/h)	349	631	83	85	729	149	107	44	77	21	36	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.81	1.00		0.89	1.00		0.75	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	379	686	90	92	792	162	116	48	84	23	39	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	400	1606	577	112	1030	598	303	125	383	215	33	159
Arrive On Green	0.22	0.45	0.45	0.13	0.58	0.58	0.24	0.24	0.24	0.12	0.12	0.12
Sat Flow, veh/h	1781	3554	1276	1781	3554	1404	1278	529	1196	1781	277	1316
Grp Volume(v), veh/h	379	686	90	92	792	162	164	0	84	23	0	224
Grp Sat Flow(s),veh/h/ln	1781	1777	1276	1781	1777	1404	1806	0	1196	1781	0	1593
Q Serve(g_s), s	31.4	19.7	6.2	7.6	25.3	7.8	11.4	0.0	7.9	1.7	0.0	18.1
Cycle Q Clear(g_c), s	31.4	19.7	6.2	7.6	25.3	7.8	11.4	0.0	7.9	1.7	0.0	18.1
Prop In Lane	1.00		1.00	1.00		1.00	0.71		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	400	1606	577	112	1030	598	429	0	383	215	0	192
V/C Ratio(X)	0.95	0.43	0.16	0.82	0.77	0.27	0.38	0.00	0.22	0.11	0.00	1.17
Avail Cap(c_a), veh/h	451	1606	577	182	1030	598	434	0	386	215	0	192
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.3	27.9	24.2	64.8	27.7	16.8	48.0	0.0	39.5	58.8	0.0	66.0
Incr Delay (d2), s/veh	26.7	0.8	0.6	6.5	5.5	1.1	0.2	0.0	0.1	0.1	0.0	116.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.0	8.6	2.0	3.4	8.9	2.9	5.2	0.0	2.4	0.8	0.0	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.9	28.7	24.8	71.3	33.2	17.9	48.2	0.0	39.6	58.8	0.0	182.4
LnGrp LOS	F	C	C	E	C	B	D	A	D	E	A	F
Approach Vol, veh/h		1155			1046			248			247	
Approach Delay, s/veh		46.5			34.2			45.3			170.9	
Approach LOS		D			C			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.8	72.7		23.0	38.1	48.4		40.5				
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9				
Max Green Setting (Gmax), s	15.3	61.5		18.1	38.0	38.8		36.0				
Max Q Clear Time (g_c+I1), s	9.6	21.7		20.1	33.4	27.3		13.4				
Green Ext Time (p_c), s	0.0	5.8		0.0	0.3	2.5		0.8				

Intersection Summary	
HCM 6th Ctrl Delay	53.0
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	252	49	83	1995	14	0	1788	467
Future Volume (veh/h)	0	0	0	125	252	49	83	1995	14	0	1788	467
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				136	274	53	90	2168	15	0	1943	508
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				187	399	80	459	3837	27	0	2221	680
Arrive On Green				0.18	0.18	0.18	0.52	1.00	1.00	0.00	0.44	0.44
Sat Flow, veh/h				1014	2158	432	1781	5232	36	0	5274	1563
Grp Volume(v), veh/h				244	0	219	90	1410	773	0	1943	508
Grp Sat Flow(s),veh/h/ln				1820	0	1784	1781	1702	1864	0	1702	1563
Q Serve(g_s), s				15.2	0.0	13.7	3.3	0.0	0.0	0.0	41.6	32.6
Cycle Q Clear(g_c), s				15.2	0.0	13.7	3.3	0.0	0.0	0.0	41.6	32.6
Prop In Lane				0.56		0.24	1.00		0.02	0.00		1.00
Lane Grp Cap(c), veh/h				336	0	330	459	2497	1367	0	2221	680
V/C Ratio(X)				0.73	0.00	0.66	0.20	0.56	0.57	0.00	0.87	0.75
Avail Cap(c_a), veh/h				667	0	654	459	2497	1367	0	2221	680
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.68	0.68	0.68	0.00	1.00	1.00
Uniform Delay (d), s/veh				46.0	0.0	45.4	22.4	0.0	0.0	0.0	30.9	28.4
Incr Delay (d2), s/veh				1.1	0.0	0.9	0.1	0.6	1.2	0.0	5.2	7.3
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				7.0	0.0	6.1	1.3	0.2	0.4	0.0	17.2	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.2	0.0	46.3	22.4	0.6	1.2	0.0	36.1	35.7
LnGrp LOS				D	A	D	C	A	A	A	D	D
Approach Vol, veh/h					463			2273			2451	
Approach Delay, s/veh					46.7			1.7			36.0	
Approach LOS					D			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	92.9	27.1	35.8	57.1
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	66.2	44.0	9.6	* 52
Max Q Clear Time (g_c+I1), s	2.0	17.2	5.3	43.6
Green Ext Time (p_c), s	7.6	1.0	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	424	133	212	243	234	151	10	403	1382	361	1249	638
Future Volume (vph)	424	133	212	243	234	151	10	403	1382	361	1249	638
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	14	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9	5.9		5.4	5.9		5.9	5.9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.91	0.91		0.97	0.91		0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	0.99		1.00	0.99		1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	0.85	1.00	0.99		1.00	0.97		1.00	0.85
Flt Protected	0.95	0.97	1.00	1.00	0.95	0.98		0.95	1.00		1.00	1.00
Satd. Flow (prot)	1681	1724	1583	1555	1610	3289		3662	4902		5085	1508
Flt Permitted	0.95	0.97	1.00	1.00	0.95	0.98		0.95	1.00		1.00	1.00
Satd. Flow (perm)	1681	1724	1583	1555	1610	3289		3662	4902		5085	1508
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	461	145	230	264	254	164	11	438	1502	392	1358	693
RTOR Reduction (vph)	0	0	0	207	0	2	0	0	0	0	0	411
Lane Group Flow (vph)	300	306	230	57	140	287	0	438	1894	0	1358	282
Confl. Peds. (#/hr)				4			37			11		28
Confl. Bikes (#/hr)				2			3			1		1
Turn Type	Split	NA	Perm	Perm	Split	NA		Prot	NA		NA	Perm
Protected Phases	4	4			8	8		5	2		6	
Permitted Phases			4	4								6
Actuated Green, G (s)	26.1	26.1	26.1	26.1	11.4	11.4		17.4	64.8		42.0	42.0
Effective Green, g (s)	26.1	26.1	26.1	26.1	11.4	11.4		17.4	64.8		42.0	42.0
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.10	0.10		0.14	0.54		0.35	0.35
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9	5.9		5.4	5.9		5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0
Lane Grp Cap (vph)	365	374	344	338	152	312		530	2647		1779	527
v/s Ratio Prot	c0.18	0.18			0.09	c0.09		0.12	c0.39		c0.27	
v/s Ratio Perm			0.15	0.04								0.19
v/c Ratio	0.82	0.82	0.67	0.17	0.92	0.92		0.83	0.72		0.76	0.54
Uniform Delay, d1	44.7	44.7	43.0	38.1	53.9	53.9		49.8	20.7		34.6	31.2
Progression Factor	1.00	1.00	1.00	1.00	0.92	0.92		1.34	0.57		0.66	2.32
Incremental Delay, d2	13.2	12.4	3.8	0.1	48.6	30.1		6.4	1.1		2.9	3.5
Delay (s)	57.9	57.1	46.8	38.2	98.1	79.9		73.0	12.9		25.6	76.0
Level of Service	E	E	D	D	F	E		E	B		C	E
Approach Delay (s)		50.6				85.8			24.2		42.6	
Approach LOS		D				F			C		D	

Intersection Summary			
HCM 2000 Control Delay	40.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NWR2
Lane Configurations	
Traffic Volume (vph)	63
Future Volume (vph)	63
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	5.9
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1611
Flt Permitted	1.00
Satd. Flow (perm)	1611
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	68
RTOR Reduction (vph)	62
Lane Group Flow (vph)	6
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	11.4
Effective Green, g (s)	11.4
Actuated g/C Ratio	0.10
Clearance Time (s)	5.9
Vehicle Extension (s)	1.0
Lane Grp Cap (vph)	153
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.04
Uniform Delay, d1	49.3
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	49.4
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	160	7	524	316	250	18	1300	548	81	1040	281
Future Volume (veh/h)	200	160	7	524	316	250	18	1300	548	81	1040	281
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.98	1.00		0.99	1.00		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	1900	1900	1900	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	174	8	570	343	272	20	1413	596	88	1130	305
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	212	10	586	390	325	37	2519	771	146	1830	797
Arrive On Green	0.08	0.12	0.12	0.17	0.21	0.21	0.02	0.49	0.49	0.04	0.51	0.51
Sat Flow, veh/h	3510	1794	83	3456	1870	1555	1781	5106	1564	3456	3554	1548
Grp Volume(v), veh/h	217	0	182	570	343	272	20	1413	596	88	1130	305
Grp Sat Flow(s),veh/h/ln	1755	0	1877	1728	1870	1555	1781	1702	1564	1728	1777	1548
Q Serve(g_s), s	6.7	0.0	10.4	18.0	19.5	15.5	1.2	21.3	16.6	2.8	24.9	8.5
Cycle Q Clear(g_c), s	6.7	0.0	10.4	18.0	19.5	15.5	1.2	21.3	16.6	2.8	24.9	8.5
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	278	0	222	586	390	325	37	2519	771	146	1830	797
V/C Ratio(X)	0.78	0.00	0.82	0.97	0.88	0.84	0.54	0.56	0.77	0.60	0.62	0.38
Avail Cap(c_a), veh/h	386	0	563	586	655	544	81	2519	771	157	1830	797
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	49.7	0.0	47.4	45.4	42.2	29.4	53.3	19.5	5.3	51.8	19.0	6.8
Incr Delay (d2), s/veh	4.3	0.0	2.9	29.9	3.9	2.2	4.5	0.9	7.4	3.1	1.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	5.0	10.0	9.2	5.8	0.6	8.1	5.6	1.2	9.9	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	0.0	50.2	75.3	46.0	31.6	57.8	20.4	12.7	54.8	20.4	8.0
LnGrp LOS	D	A	D	E	D	C	E	C	B	D	C	A
Approach Vol, veh/h		399			1185			2029			1523	
Approach Delay, s/veh		52.2			56.8			18.5			19.9	
Approach LOS		D			E			B			B	

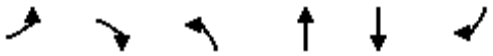
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	60.0	23.1	17.9	6.7	62.3	13.1	27.9
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.4	4.9
Max Green Setting (Gmax), s	5.0	* 35	17.6	33.0	5.0	35.0	12.1	38.5
Max Q Clear Time (g_c+I1), s	4.7	23.3	20.0	12.4	3.2	26.9	8.7	21.5
Green Ext Time (p_c), s	0.0	3.7	0.0	0.3	0.0	2.3	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

Notes

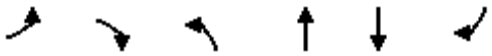
User approved ignoring U-Turning movement.

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	351	194	679	683	14
Future Volume (vph)	0	351	194	679	683	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	0.91	0.91	
Frpb, ped/bikes		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	
Frt		0.86	1.00	1.00	1.00	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1611	1770	5085	5068	
Flt Permitted		1.00	0.29	1.00	1.00	
Satd. Flow (perm)		1611	535	5085	5068	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	382	211	738	742	15
RTOR Reduction (vph)	0	105	0	0	5	0
Lane Group Flow (vph)	0	277	211	738	752	0
Confl. Peds. (#/hr)						2
Turn Type		Perm	pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases		5	2			
Actuated Green, G (s)		11.2	35.5	40.0	19.8	
Effective Green, g (s)		11.2	35.5	40.0	19.8	
Actuated g/C Ratio		0.28	0.89	1.00	0.50	
Clearance Time (s)		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		451	820	5085	2508	
v/s Ratio Prot			0.07	0.15	c0.15	
v/s Ratio Perm		c0.17	0.16			
v/c Ratio		0.61	0.26	0.15	0.30	
Uniform Delay, d1		12.5	0.7	0.0	6.0	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.5	0.2	0.1	0.3	
Delay (s)		15.0	0.8	0.1	6.3	
Level of Service		B	A	A	A	
Approach Delay (s)	15.0			0.2	6.3	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	44.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	886	135	0	949	1162	1200
Future Volume (vph)	886	135	0	949	1162	1200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	963	147	0	1032	1263	1304
RTOR Reduction (vph)	0	85	0	0	0	0
Lane Group Flow (vph)	963	62	0	1032	1263	1304
Confl. Peds. (#/hr)						5
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	41.8	41.8		47.2	47.2	115.0
Effective Green, g (s)	41.8	41.8		47.2	47.2	104.2
Actuated g/C Ratio	0.36	0.36		0.41	0.41	0.91
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	1247	575		1452	1452	1434
v/s Ratio Prot	0.28			0.29	0.36	c0.82
v/s Ratio Perm		0.04				
v/c Ratio	0.77	0.11		0.71	0.87	0.91
Uniform Delay, d1	32.4	24.3		28.2	31.1	2.9
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.9	0.1		1.6	5.8	8.7
Delay (s)	35.3	24.3		29.9	36.9	11.6
Level of Service	D	C		C	D	B
Approach Delay (s)	33.8			29.9	24.1	
Approach LOS	C			C	C	

Intersection Summary			
HCM 2000 Control Delay	27.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
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)	393	552	350	34	381	737	287	505	21	762	442	211
Future Volume (veh/h)	393	552	350	34	381	737	287	505	21	762	442	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.99	1.00		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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	342	719	380	37	414	801	312	549	23	828	480	229
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	440	924	546	343	684	715	366	620	26	909	774	367
Arrive On Green	0.25	0.25	0.25	0.19	0.19	0.19	0.11	0.18	0.18	0.26	0.33	0.33
Sat Flow, veh/h	1781	3741	1529	1781	3554	1550	3456	3473	145	3456	2324	1101
Grp Volume(v), veh/h	342	719	380	37	414	801	312	281	291	828	366	343
Grp Sat Flow(s),veh/h/ln	1781	1870	1529	1781	1777	1550	1728	1777	1842	1728	1777	1648
Q Serve(g_s), s	28.8	28.9	34.5	2.8	17.2	31.0	14.3	24.8	24.9	37.4	27.9	28.2
Cycle Q Clear(g_c), s	28.8	28.9	34.5	2.8	17.2	31.0	14.3	24.8	24.9	37.4	27.9	28.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		0.67
Lane Grp Cap(c), veh/h	440	924	546	343	684	715	366	317	329	909	592	549
V/C Ratio(X)	0.78	0.78	0.70	0.11	0.61	1.12	0.85	0.88	0.89	0.91	0.62	0.62
Avail Cap(c_a), veh/h	446	936	551	343	684	715	710	386	400	1169	618	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	56.6	44.9	53.6	59.5	44.1	70.8	64.6	64.6	57.5	45.1	45.3
Incr Delay (d2), s/veh	10.5	5.3	5.5	0.5	3.4	71.6	4.6	17.2	17.0	9.0	1.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	14.2	14.0	1.3	8.1	42.5	6.6	12.8	13.3	17.5	12.7	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.1	61.8	50.3	54.2	62.9	115.7	75.3	81.8	81.6	66.5	46.6	46.9
LnGrp LOS	E	E	D	D	E	F	E	F	F	E	D	D
Approach Vol, veh/h		1441			1252			884			1537	
Approach Delay, s/veh		60.0			96.4			79.4			57.4	
Approach LOS		E			F			E			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	44.7	46.9	33.6	35.9	22.0	58.5
Change Period (Y+Rc), s	4.9	4.5	4.9	4.9	4.9	4.9
Max Green Setting (Gmax), s	40.3	54.5	35.0	31.0	33.1	56.0
Max Q Clear Time (g_c+I1), s	36.5	39.4	26.9	33.0	16.3	30.2
Green Ext Time (p_c), s	3.3	3.0	1.7	0.0	0.8	3.6

Intersection Summary	
HCM 6th Ctrl Delay	71.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.



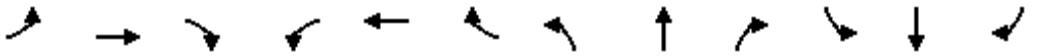
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	567	115	157	742	325	138	51	122	153	74	365
Future Volume (veh/h)	275	567	115	157	742	325	138	51	122	153	74	365
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	299	616	125	171	807	353	150	55	133	166	80	397
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	1144	486	198	891	824	186	68	397	497	76	378
Arrive On Green	0.18	0.32	0.32	0.11	0.25	0.25	0.14	0.14	0.14	0.28	0.28	0.28
Sat Flow, veh/h	1781	3554	1509	1781	3554	1523	1320	484	1575	1781	273	1354
Grp Volume(v), veh/h	299	616	125	171	807	353	205	0	133	166	0	477
Grp Sat Flow(s),veh/h/ln	1781	1777	1509	1781	1777	1523	1804	0	1575	1781	0	1627
Q Serve(g_s), s	21.4	18.4	7.9	12.2	28.5	18.4	14.3	0.0	8.9	9.6	0.0	36.1
Cycle Q Clear(g_c), s	21.4	18.4	7.9	12.2	28.5	18.4	14.3	0.0	8.9	9.6	0.0	36.1
Prop In Lane	1.00		1.00	1.00		1.00	0.73		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	324	1144	486	198	891	824	254	0	397	497	0	454
V/C Ratio(X)	0.92	0.54	0.26	0.87	0.91	0.43	0.81	0.00	0.33	0.33	0.00	1.05
Avail Cap(c_a), veh/h	394	1186	504	352	1104	915	502	0	614	497	0	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.0	36.0	32.4	56.6	47.0	18.6	53.9	0.0	39.6	37.1	0.0	46.7
Incr Delay (d2), s/veh	22.3	0.5	0.3	4.4	8.2	0.1	2.3	0.0	0.2	0.1	0.0	56.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	8.0	2.9	5.7	13.5	11.0	6.6	0.0	3.5	4.2	0.0	21.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	36.5	32.8	61.0	55.2	18.8	56.2	0.0	39.8	37.3	0.0	103.1
LnGrp LOS	E	D	C	E	E	B	E	A	D	D	A	F
Approach Vol, veh/h		1040			1331			338			643	
Approach Delay, s/veh		46.9			46.3			49.8			86.1	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.8	46.6		41.0	28.0	37.4		23.1
Change Period (Y+Rc), s	4.4	4.9		4.9	4.4	4.9		4.9
Max Green Setting (Gmax), s	25.6	43.2		36.1	28.6	40.2		36.0
Max Q Clear Time (g_c+I1), s	14.3	20.4		38.1	23.4	30.5		16.3
Green Ext Time (p_c), s	0.2	4.3		0.0	0.2	2.0		0.9

Intersection Summary	
HCM 6th Ctrl Delay	54.5
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	38	64	134	113	2349	9	0	2559	271
Future Volume (veh/h)	0	0	0	38	64	134	113	2349	9	0	2559	271
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				41	70	146	123	2553	10	0	2782	295
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	2	0	2	2
Cap, veh/h				85	146	197	422	4246	17	0	2754	850
Arrive On Green				0.13	0.13	0.13	0.47	1.00	1.00	0.00	0.54	0.54
Sat Flow, veh/h				678	1158	1566	1781	5250	21	0	5274	1576
Grp Volume(v), veh/h				111	0	146	123	1655	908	0	2782	295
Grp Sat Flow(s),veh/h/ln				1836	0	1566	1781	1702	1867	0	1702	1576
Q Serve(g_s), s				8.4	0.0	13.5	6.3	0.0	0.0	0.0	80.9	15.9
Cycle Q Clear(g_c), s				8.4	0.0	13.5	6.3	0.0	0.0	0.0	80.9	15.9
Prop In Lane				0.37		1.00	1.00		0.01	0.00		1.00
Lane Grp Cap(c), veh/h				231	0	197	422	2753	1510	0	2754	850
V/C Ratio(X)				0.48	0.00	0.74	0.29	0.60	0.60	0.00	1.01	0.35
Avail Cap(c_a), veh/h				539	0	459	422	2753	1510	0	2754	850
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.46	0.46	0.46	0.00	1.00	1.00
Uniform Delay (d), s/veh				61.0	0.0	63.2	31.8	0.0	0.0	0.0	34.6	19.6
Incr Delay (d2), s/veh				0.6	0.0	2.0	0.1	0.5	0.8	0.0	19.7	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.0	0.0	5.5	2.6	0.2	0.3	0.0	36.6	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				61.6	0.0	65.2	31.9	0.5	0.8	0.0	54.2	20.7
LnGrp LOS				E	A	E	C	A	A	A	F	C
Approach Vol, veh/h					257			2686			3077	
Approach Delay, s/veh					63.7			2.0			51.0	
Approach LOS					E			A			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	126.2	23.8	40.4	85.8
Change Period (Y+Rc), s	4.9	4.9	4.9	* 4.9
Max Green Setting (Gmax), s	96.2	44.0	10.9	* 81
Max Q Clear Time (g_c+I1), s	2.0	15.5	8.3	82.9
Green Ext Time (p_c), s	10.8	0.6	0.0	0.0

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

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	568	212	157	238	209	296	21	489	1497	492	1543	973
Future Volume (vph)	568	212	157	238	209	296	21	489	1497	492	1543	973
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	14	12	12	12	12
Total Lost time (s)	5.9	5.9	5.9	5.9	5.9	5.9		5.4	5.9		5.9	5.9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.91	0.91		0.97	0.91		0.91	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	0.85	1.00	0.99		1.00	0.96		1.00	0.85
Flt Protected	0.95	0.98	1.00	1.00	0.95	0.99		0.95	1.00		1.00	1.00
Satd. Flow (prot)	1681	1730	1583	1553	1610	3327		3662	4881		5085	1529
Flt Permitted	0.95	0.98	1.00	1.00	0.95	0.99		0.95	1.00		1.00	1.00
Satd. Flow (perm)	1681	1730	1583	1553	1610	3327		3662	4881		5085	1529
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	617	230	171	259	227	322	23	532	1627	535	1677	1058
RTOR Reduction (vph)	0	0	0	177	0	3	0	0	0	0	0	350
Lane Group Flow (vph)	420	427	171	82	186	383	0	532	2162	0	1677	708
Confl. Peds. (#/hr)				3			20					13
Confl. Bikes (#/hr)				4			4			1		3
Turn Type	Split	NA	Perm	Perm	Split	NA		Prot	NA		NA	Perm
Protected Phases	4	4			8	8		5	2		6	
Permitted Phases			4	4								6
Actuated Green, G (s)	36.0	36.0	36.0	36.0	15.1	15.1		18.6	81.2		57.2	57.2
Effective Green, g (s)	36.0	36.0	36.0	36.0	15.1	15.1		18.6	81.2		57.2	57.2
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.10	0.10		0.12	0.54		0.38	0.38
Clearance Time (s)	5.9	5.9	5.9	5.9	5.9	5.9		5.4	5.9		5.9	5.9
Vehicle Extension (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0
Lane Grp Cap (vph)	403	415	379	372	162	334		454	2642		1939	583
v/s Ratio Prot	c0.25	0.25			c0.12	0.12		c0.15	0.44		0.33	
v/s Ratio Perm			0.11	0.05								c0.46
v/c Ratio	1.04	1.03	0.45	0.22	1.15	1.15		1.17	0.82		0.86	1.21
Uniform Delay, d1	57.0	57.0	48.6	45.7	67.5	67.5		65.7	28.3		42.8	46.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.60	0.94
Incremental Delay, d2	56.2	51.8	0.3	0.1	116.1	95.6		98.5	3.0		4.5	108.9
Delay (s)	113.2	108.8	48.9	45.8	183.6	163.0		164.2	31.3		30.2	152.5
Level of Service	F	F	D	D	F	F		F	C		C	F
Approach Delay (s)		89.5				169.7			57.5		77.5	
Approach LOS		F				F			E		E	

Intersection Summary			
HCM 2000 Control Delay	79.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	23.1
Intersection Capacity Utilization	99.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NWR2
Lane Configurations	
Traffic Volume (vph)	93
Future Volume (vph)	93
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	5.9
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1611
Flt Permitted	1.00
Satd. Flow (perm)	1611
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	101
RTOR Reduction (vph)	91
Lane Group Flow (vph)	10
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	15.1
Effective Green, g (s)	15.1
Actuated g/C Ratio	0.10
Clearance Time (s)	5.9
Vehicle Extension (s)	1.0
Lane Grp Cap (vph)	162
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.06
Uniform Delay, d1	61.0
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	61.1
Level of Service	E
Approach Delay (s)	
Approach LOS	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	303	536	242	147	616	410	409	1654	134	425	1393	307
Future Volume (veh/h)	303	536	242	147	616	410	409	1654	134	425	1393	307
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	329	583	263	160	670	446	445	1798	146	462	1514	334
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	943	416	166	883	383	489	1778	144	1159	2376	521
Arrive On Green	0.11	0.27	0.27	0.09	0.25	0.25	0.14	0.37	0.37	0.34	0.57	0.57
Sat Flow, veh/h	3456	3554	1567	1781	3554	1540	3456	4805	389	3456	4185	918
Grp Volume(v), veh/h	329	583	263	160	670	446	445	1272	672	462	1230	618
Grp Sat Flow(s),veh/h/ln	1728	1777	1567	1781	1777	1540	1728	1702	1790	1728	1702	1700
Q Serve(g_s), s	12.2	18.7	19.3	11.6	22.7	32.3	16.5	48.1	48.1	13.3	31.8	32.1
Cycle Q Clear(g_c), s	12.2	18.7	19.3	11.6	22.7	32.3	16.5	48.1	48.1	13.3	31.8	32.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.54
Lane Grp Cap(c), veh/h	367	943	416	166	883	383	489	1260	662	1159	1933	965
V/C Ratio(X)	0.90	0.62	0.63	0.97	0.76	1.17	0.91	1.01	1.01	0.40	0.64	0.64
Avail Cap(c_a), veh/h	367	943	416	166	883	383	489	1260	662	1159	1933	965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	0.49	0.49	0.49	0.43	0.43	0.43
Uniform Delay (d), s/veh	57.4	42.0	42.2	58.7	45.2	48.9	55.0	41.0	41.0	33.1	19.0	19.1
Incr Delay (d2), s/veh	19.9	0.8	2.0	59.0	3.5	99.3	11.8	20.2	28.2	0.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	8.3	7.6	7.9	10.3	22.8	7.9	22.9	25.6	5.5	11.9	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.3	42.7	44.1	117.8	48.7	148.1	66.7	61.2	69.1	33.2	19.2	19.6
LnGrp LOS	E	D	D	F	D	F	E	F	F	C	B	B
Approach Vol, veh/h		1175			1276			2389			2310	
Approach Delay, s/veh		52.7			92.1			64.4			22.1	
Approach LOS		D			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	53.0	16.5	39.4	22.8	79.5	18.7	37.2
Change Period (Y+Rc), s	5.7	* 4.9	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	7.3	* 48	12.1	34.0	18.4	46.1	13.8	* 32
Max Q Clear Time (g_c+I1), s	15.3	50.1	13.6	21.3	18.5	34.1	14.2	34.3
Green Ext Time (p_c), s	0.1	0.0	0.0	1.5	0.0	4.3	0.0	0.0

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

Notes

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

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	156	19	381	204	234	20	1568	454	246	1166	297
Future Volume (veh/h)	262	156	19	381	204	234	20	1568	454	246	1166	297
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	285	170	21	414	222	254	22	1704	493	267	1267	323
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	234	29	469	323	267	39	2446	758	258	1890	842
Arrive On Green	0.10	0.14	0.14	0.14	0.17	0.17	0.02	0.48	0.48	0.07	0.53	0.53
Sat Flow, veh/h	3510	1653	204	3456	1870	1547	1781	5106	1583	3456	3554	1584
Grp Volume(v), veh/h	285	0	191	414	222	254	22	1704	493	267	1267	323
Grp Sat Flow(s),veh/h/ln	1755	0	1857	1728	1870	1547	1781	1702	1583	1728	1777	1584
Q Serve(g_s), s	9.1	0.0	11.3	13.5	12.8	15.2	1.4	30.0	27.1	8.6	29.8	8.1
Cycle Q Clear(g_c), s	9.1	0.0	11.3	13.5	12.8	15.2	1.4	30.0	27.1	8.6	29.8	8.1
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	0	263	469	323	267	39	2446	758	258	1890	842
V/C Ratio(X)	0.81	0.00	0.73	0.88	0.69	0.95	0.56	0.70	0.65	1.03	0.67	0.38
Avail Cap(c_a), veh/h	549	0	563	514	553	457	77	2446	758	258	1890	842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	50.7	0.0	47.2	48.8	44.6	31.0	55.7	23.4	22.7	53.2	19.6	5.5
Incr Delay (d2), s/veh	2.4	0.0	1.4	14.6	1.0	14.3	4.6	1.7	4.3	59.5	1.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	5.3	6.7	5.9	6.6	0.7	11.7	10.4	5.8	11.9	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	0.0	48.6	63.4	45.6	45.3	60.3	25.1	27.0	112.7	21.2	6.6
LnGrp LOS	D	A	D	E	D	D	E	C	C	F	C	A
Approach Vol, veh/h		476			890			2219			1857	
Approach Delay, s/veh		51.3			53.8			25.9			31.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	60.8	20.0	21.2	6.9	66.9	16.4	24.8
Change Period (Y+Rc), s	4.4	* 5.7	4.4	4.9	4.4	5.7	4.9	* 4.9
Max Green Setting (Gmax), s	8.6	* 35	17.1	34.9	5.0	38.6	18.0	* 34
Max Q Clear Time (g_c+I1), s	10.6	32.0	15.5	13.3	3.4	31.8	11.1	17.2
Green Ext Time (p_c), s	0.0	2.0	0.1	0.4	0.0	2.4	0.1	0.5

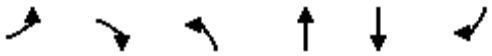
Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Notes

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

User approved ignoring U-Turning movement.

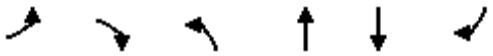
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	196	215	331	295	13
Future Volume (vph)	0	196	215	331	295	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	0.91	0.91	
Frpb, ped/bikes		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	
Frt		0.86	1.00	1.00	0.99	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1611	1770	5085	5046	
Flt Permitted		1.00	0.37	1.00	1.00	
Satd. Flow (perm)		1611	685	5085	5046	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	213	234	360	321	14
RTOR Reduction (vph)	0	147	0	0	9	0
Lane Group Flow (vph)	0	66	234	360	326	0
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						13
Turn Type		Perm	pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases		5	2			
Actuated Green, G (s)		8.3	22.3	26.8	9.5	
Effective Green, g (s)		8.3	22.3	26.8	9.5	
Actuated g/C Ratio		0.31	0.83	1.00	0.35	
Clearance Time (s)		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		498	906	5085	1788	
v/s Ratio Prot			c0.08	0.07	0.06	
v/s Ratio Perm		0.04	c0.13			
v/c Ratio		0.13	0.26	0.07	0.18	
Uniform Delay, d1		6.7	0.9	0.0	6.0	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.2	0.0	0.0	
Delay (s)		6.8	1.1	0.0	6.0	
Level of Service		A	A	A	A	
Approach Delay (s)	6.8			0.4	6.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	3.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	26.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	660	108	0	834	904	923
Future Volume (vph)	660	108	0	834	904	923
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.4	5.4	5.2
Lane Util. Factor	0.97	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		3539	3539	1583
Flt Permitted	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	717	117	0	907	983	1003
RTOR Reduction (vph)	0	88	0	0	0	0
Lane Group Flow (vph)	717	29	0	907	983	1003
Confl. Peds. (#/hr)						3
Confl. Bikes (#/hr)						4
Turn Type	Prot	Perm		NA	NA	custom
Protected Phases	1			2	2	1 2 8
Permitted Phases		1				
Actuated Green, G (s)	19.5	19.5		26.3	26.3	67.5
Effective Green, g (s)	19.5	19.5		26.3	26.3	62.1
Actuated g/C Ratio	0.25	0.25		0.34	0.34	0.80
Clearance Time (s)	5.2	5.2		5.4	5.4	
Vehicle Extension (s)	2.5	2.5		2.9	2.9	
Lane Grp Cap (vph)	859	396		1194	1194	1261
v/s Ratio Prot	0.21			0.26	0.28	c0.63
v/s Ratio Perm		0.02				
v/c Ratio	0.83	0.07		0.76	0.82	0.80
Uniform Delay, d1	27.7	22.3		23.0	23.7	4.4
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	6.9	0.1		2.8	4.7	3.4
Delay (s)	34.6	22.4		25.8	28.4	7.8
Level of Service	C	C		C	C	A
Approach Delay (s)	32.9			25.8	18.0	
Approach LOS	C			C	B	

Intersection Summary			
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	77.9	Sum of lost time (s)	19.0
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Appendix AE

Opening Year (2035) Plus Project Phase 2 Plus Improvements 95th Percentile Queue Worksheets

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	346	425	431	354	381	102	116	114	318	329	390	333
Average Queue (ft)	137	206	240	192	197	38	40	49	54	93	138	44
95th Queue (ft)	270	345	362	299	321	90	95	99	136	191	236	136
Link Distance (ft)	2516	2516	2516	2516	2516		754	754	1715	1715	1715	1715
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)						400						
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	403	1682	1639	1585	54	204	222	396	98	239	436	435
Average Queue (ft)	139	367	290	195	2	70	73	105	24	64	164	195
95th Queue (ft)	356	1233	1171	976	33	192	196	295	77	199	375	395
Link Distance (ft)		1924	1924	1924		620	620	620			1514	1514
Upstream Blk Time (%)		4	3	3								
Queuing Penalty (veh)		0	0	0								
Storage Bay Dist (ft)	360				150				230	230		
Storage Blk Time (%)	20	16				6				0	9	
Queuing Penalty (veh)	59	26				1				0	15	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	244	643	656	638
Average Queue (ft)	137	222	257	288
95th Queue (ft)	248	572	595	588
Link Distance (ft)		602	602	602
Upstream Blk Time (%)		15	17	13
Queuing Penalty (veh)		38	43	32
Storage Bay Dist (ft)	200			
Storage Blk Time (%)	15	21		
Queuing Penalty (veh)	23	33		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R
Maximum Queue (ft)	355	644	639	15	106	227	45	42	51
Average Queue (ft)	108	214	219	1	19	61	8	7	20
95th Queue (ft)	306	667	665	7	71	165	30	30	46
Link Distance (ft)		620	620		955	955		864	864
Upstream Blk Time (%)		27	27						
Queuing Penalty (veh)		83	82						
Storage Bay Dist (ft)	350			100			350		
Storage Blk Time (%)	6	30			0	0			
Queuing Penalty (veh)	16	48			0	0			

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	502	988	952	75	218	201	256	289	114	718	59	192
Average Queue (ft)	345	532	437	20	75	50	92	194	13	553	13	82
95th Queue (ft)	647	1224	1127	60	193	146	240	384	66	980	41	153
Link Distance (ft)		955	955			285	285	285		702		1251
Upstream Blk Time (%)		38	32			0	0	51		70		
Queuing Penalty (veh)		102	86			0	0	130		175		
Storage Bay Dist (ft)	440			350	175				100		150	
Storage Blk Time (%)	57	33	0		2	0			1	82		2
Queuing Penalty (veh)	105	24	0		7	0			1	96		0

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	115	134	176	50	216	242	238	82	449	85	193	549
Average Queue (ft)	35	33	60	12	96	127	139	25	177	17	61	244
95th Queue (ft)	87	94	152	39	217	274	283	129	458	61	155	602
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)					0	32	40	8	25			
Queuing Penalty (veh)					0	68	85	18	0			
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)					11	33			52	0	1	42
Queuing Penalty (veh)					25	54			23	0	2	61

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	WB	WB	WB
Directions Served	T	R	L	T	T
Maximum Queue (ft)	11	12	95	384	376
Average Queue (ft)	0	0	23	129	127
95th Queue (ft)	8	5	68	416	410
Link Distance (ft)	194	194		370	370
Upstream Blk Time (%)				32	31
Queuing Penalty (veh)				101	99
Storage Bay Dist (ft)			125		
Storage Blk Time (%)				34	
Queuing Penalty (veh)				39	

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	160	250	44	197	1107	1100	11	73
Average Queue (ft)	34	70	6	82	329	306	1	29
95th Queue (ft)	105	180	28	181	1063	1048	8	58
Link Distance (ft)	370	370	370		1083	1083	920	
Upstream Blk Time (%)		0			17	21		
Queuing Penalty (veh)		0			70	86		
Storage Bay Dist (ft)				125				100
Storage Blk Time (%)				4	31			0
Queuing Penalty (veh)				14	53			0

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	383	1496	1521	144	106	233	1458	1465	142	431	117	715
Average Queue (ft)	259	608	596	24	38	17	480	529	25	304	47	392
95th Queue (ft)	503	1587	1606	91	89	98	1379	1408	85	569	212	939
Link Distance (ft)		1514	1514				1839	1839		355	355	701
Upstream Blk Time (%)		18	20				8	8		63	0	47
Queuing Penalty (veh)		45	48				29	29		0	0	0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	56	0	3				13		0	70		
Queuing Penalty (veh)	103	0	3				8		1	43		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	701	136	218	112
Average Queue (ft)	370	34	78	21
95th Queue (ft)	914	99	168	66
Link Distance (ft)	701		702	
Upstream Blk Time (%)	37			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		1	6	
Queuing Penalty (veh)		2	8	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	53	188	223	72	547	565	53	96
Average Queue (ft)	7	48	65	9	144	169	9	23
95th Queue (ft)	34	118	153	39	465	479	32	65
Link Distance (ft)		1839	1839		964	964	270	920
Upstream Blk Time (%)					3	3		
Queuing Penalty (veh)					14	14		
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)		2			12			
Queuing Penalty (veh)		1			3			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB
Directions Served	LR	LT	T	TR
Maximum Queue (ft)	53	88	36	10
Average Queue (ft)	23	42	6	0
95th Queue (ft)	52	83	27	7
Link Distance (ft)	236	864	864	541
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	114	569	623	101
Average Queue (ft)	49	569	623	101
95th Queue (ft)	98	692	638	101
Link Distance (ft)	327	631	631	101
Upstream Blk Time (%)		60	100	100
Queuing Penalty (veh)		0	0	435
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	135	33	72
Average Queue (ft)	56	11	31
95th Queue (ft)	103	34	51
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	83	98	59
Average Queue (ft)	38	36	24
95th Queue (ft)	56	58	49
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	75	62	40	49
Average Queue (ft)	36	38	25	27
95th Queue (ft)	58	58	46	48
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	71	76	31	75
Average Queue (ft)	43	42	8	36
95th Queue (ft)	68	67	30	62
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	17	48	50	65	87	1284	1344	1384
Average Queue (ft)	2	10	3	4	5	86	105	147
95th Queue (ft)	12	29	23	29	36	618	658	708
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	103	125	86	163	178	194	310	326	328	205
Average Queue (ft)	37	36	24	62	74	76	200	211	243	56
95th Queue (ft)	81	93	64	139	154	165	360	364	386	183
Link Distance (ft)	526	526		289	289	289	254	254	254	
Upstream Blk Time (%)							6	10	22	
Queuing Penalty (veh)							44	76	165	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			0	3					33	
Queuing Penalty (veh)			1	1					33	

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	387	400	303	302	309	173	261	266	299	352
Average Queue (ft)	188	112	102	115	124	80	95	96	113	102
95th Queue (ft)	317	266	235	239	248	160	225	225	270	287
Link Distance (ft)	535	535	345	345	345		289	289	289	289
Upstream Blk Time (%)	1	0	0	0	0		0	0	6	13
Queuing Penalty (veh)	2	1	0	0	0		0	0	33	68
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						9	7			
Queuing Penalty (veh)						50	9			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	>	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	171	200	158	232	255	322	308	251	334	617	588	553
Average Queue (ft)	71	97	62	95	173	255	195	102	118	222	245	270
95th Queue (ft)	137	180	128	199	307	363	325	213	292	517	522	531
Link Distance (ft)	1083	1083	1083			305	305			630	630	630
Upstream Blk Time (%)						29	12			5	0	1
Queuing Penalty (veh)						67	27			31	2	9
Storage Bay Dist (ft)				300	180			260	260			
Storage Blk Time (%)					29	62		6	9	3		
Queuing Penalty (veh)					73	80		27	42	7		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB	NW
Directions Served	T	T	T	R	>
Maximum Queue (ft)	402	398	400	418	1
Average Queue (ft)	179	177	176	133	0
95th Queue (ft)	370	363	367	352	0
Link Distance (ft)	345	345	345	345	255
Upstream Blk Time (%)	3	2	3	17	
Queuing Penalty (veh)	15	12	15	92	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	167	200	174	204	284	465	522	255	214	277	556
Average Queue (ft)	41	59	60	64	61	125	163	178	128	107	128	176
95th Queue (ft)	106	136	141	150	149	221	324	355	234	187	227	397
Link Distance (ft)			964	964			2550	2550				1229
Upstream Blk Time (%)												0
Queuing Penalty (veh)												2
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	1	5	5		0	0	2	12	6	0	0	3
Queuing Penalty (veh)	1	6	8		0	1	3	30	12	2	2	9

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	562	561	222	394	647	634	643
Average Queue (ft)	204	224	116	209	378	393	400
95th Queue (ft)	421	435	196	411	612	618	626
Link Distance (ft)	1229	1229			630	630	630
Upstream Blk Time (%)	0				1	0	1
Queuing Penalty (veh)	1				6	3	5
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)				0	17		
Queuing Penalty (veh)				0	50		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	152	189	167	317	379	333	198	450	526	253
Average Queue (ft)	63	85	18	152	155	166	65	123	146	83
95th Queue (ft)	115	160	81	273	296	295	144	324	356	205
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)									0	
Queuing Penalty (veh)									0	
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				5				0		
Queuing Penalty (veh)				1				0		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	TR	L	L	T	R	L	T	T	T	R
Maximum Queue (ft)	162	200	1307	282	320	1295	639	148	371	382	333	312
Average Queue (ft)	104	183	917	215	277	657	215	21	264	252	224	133
95th Queue (ft)	191	250	1684	333	373	1636	1121	91	354	353	319	244
Link Distance (ft)			1405			2313	2313		2446	2446	2446	
Upstream Blk Time (%)			28			3	1					
Queuing Penalty (veh)			0			0	0					
Storage Bay Dist (ft)	125	125		245	245			100				490
Storage Blk Time (%)	11	17	63	8	14	27			39			
Queuing Penalty (veh)	33	54	231	24	41	158			4			

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	146	384	842	875	274
Average Queue (ft)	62	105	316	326	58
95th Queue (ft)	122	313	642	658	164
Link Distance (ft)			1347	1347	1347
Upstream Blk Time (%)			0	0	
Queuing Penalty (veh)			0	0	
Storage Bay Dist (ft)	470	470			
Storage Blk Time (%)			2		
Queuing Penalty (veh)			4		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	L	R	T	R	L	T
Maximum Queue (ft)	95	218	107	143	1017	277	92	94	347
Average Queue (ft)	30	88	80	93	219	92	9	19	121
95th Queue (ft)	78	177	115	167	712	241	60	81	333
Link Distance (ft)	257	257			1367	305	305		261
Upstream Blk Time (%)		1			2	7			21
Queuing Penalty (veh)		1			5	14			61
Storage Bay Dist (ft)			70	70				100	
Storage Blk Time (%)			54	18	9				28
Queuing Penalty (veh)			76	25	18				10

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	SB	SB	B73	SE
Directions Served	L	T	T	R	T	LR
Maximum Queue (ft)	159	227	532	6	170	8
Average Queue (ft)	50	37	77	0	11	0
95th Queue (ft)	145	187	383	5	94	5
Link Distance (ft)		261	640	640	248	526
Upstream Blk Time (%)		9	5		3	
Queuing Penalty (veh)		51	9		10	
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	14	0				
Queuing Penalty (veh)	57	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	114	134	127	53	104	100	111	34	144	84	90	124
Average Queue (ft)	33	33	58	18	86	57	72	9	48	26	32	29
95th Queue (ft)	83	86	112	46	111	114	122	25	105	68	71	79
Link Distance (ft)			248							1868	1868	1868
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120		100	150	150			150			
Storage Blk Time (%)	0	0	1						1			
Queuing Penalty (veh)	1	0	3						1			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	123	19	69	80	42	30
Average Queue (ft)	34	3	16	27	7	3
95th Queue (ft)	88	14	43	61	24	16
Link Distance (ft)				1531	1531	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	320	230	230			65
Storage Blk Time (%)					0	
Queuing Penalty (veh)					0	

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	B87	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	18	173	85	89	90	95	33
Average Queue (ft)	1	68	3	1	28	28	1
95th Queue (ft)	8	142	62	27	69	71	13
Link Distance (ft)	1367		357	706	1868	1868	1868
Upstream Blk Time (%)			1				
Queuing Penalty (veh)			2				
Storage Bay Dist (ft)		200					
Storage Blk Time (%)		1					
Queuing Penalty (veh)		2					

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	R	L	T	R	L	L	T	T	R	L
Maximum Queue (ft)	47	53	35	58	29	33	207	210	240	219	56	71
Average Queue (ft)	13	8	7	18	2	4	100	139	143	99	3	26
95th Queue (ft)	40	33	27	47	15	22	182	198	225	178	24	62
Link Distance (ft)		692		222	222	222			1613	1613		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280	280			300	200
Storage Blk Time (%)									0			
Queuing Penalty (veh)									0			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	162	281	295
Average Queue (ft)	53	154	170
95th Queue (ft)	113	243	260
Link Distance (ft)		706	706
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	200		
Storage Blk Time (%)		2	
Queuing Penalty (veh)		2	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	SB	SB
Directions Served	T	T	T	R	R
Maximum Queue (ft)	375	376	10	55	61
Average Queue (ft)	154	133	0	5	15
95th Queue (ft)	369	364	7	30	55
Link Distance (ft)	2550	2550	112	692	692
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	194	184	103	1102	1115	359	435	118	416	410
Average Queue (ft)	162	141	10	712	714	294	350	6	103	81
95th Queue (ft)	213	207	64	1491	1504	409	466	56	382	348
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	52	42	1			0	4		3	2
Queuing Penalty (veh)	134	109	3			0	0		0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						0	4			
Queuing Penalty (veh)						2	31			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	16	141	116	70	49	74	74	86
Average Queue (ft)	0	1	66	43	26	11	36	11	17
95th Queue (ft)	6	7	118	88	58	37	59	40	58
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)				0					
Queuing Penalty (veh)				0					

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	35	76	49	33	84	55	56	54	28	195	215	150
Average Queue (ft)	3	20	9	3	28	11	11	16	2	95	106	17
95th Queue (ft)	18	47	29	19	60	33	35	40	14	165	179	63
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											8	
Queuing Penalty (veh)											4	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	95	148	147	56
Average Queue (ft)	36	57	70	24
95th Queue (ft)	72	112	117	51
Link Distance (ft)		511	511	511
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	215			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	126	149	48	157	194	246	144	86
Average Queue (ft)	94	106	15	118	166	116	39	57
95th Queue (ft)	133	138	43	182	212	269	96	80
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	8	13						59
Queuing Penalty (veh)	29	46						142
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				2	39	0		
Queuing Penalty (veh)				4	70	0		

Intersection: 33: Kemper St & Kurtz St

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	468	217	1261
Average Queue (ft)	372	217	1208
95th Queue (ft)	578	222	1410
Link Distance (ft)	464		1251
Upstream Blk Time (%)	53		83
Queuing Penalty (veh)	23		149
Storage Bay Dist (ft)		150	
Storage Blk Time (%)		100	
Queuing Penalty (veh)		0	

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	R
Maximum Queue (ft)	81	31	90
Average Queue (ft)	38	7	32
95th Queue (ft)	66	29	74
Link Distance (ft)	143	300	949
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	35
Average Queue (ft)	11
95th Queue (ft)	34
Link Distance (ft)	283
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 36: E2 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	376
Average Queue (ft)	176
95th Queue (ft)	428
Link Distance (ft)	365
Upstream Blk Time (%)	33
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	WB	WB	SB
Directions Served	T	T	R
Maximum Queue (ft)	324	316	473
Average Queue (ft)	145	155	204
95th Queue (ft)	401	409	555
Link Distance (ft)	313	313	536
Upstream Blk Time (%)	43	45	14
Queuing Penalty (veh)	91	98	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	SB
Directions Served	T	T	R
Maximum Queue (ft)	202	201	356
Average Queue (ft)	74	75	132
95th Queue (ft)	228	228	357
Link Distance (ft)	194	194	355
Upstream Blk Time (%)	36	36	23
Queuing Penalty (veh)	68	67	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 39: A3 Dwy & Kurtz St

Movement	WB	NB
Directions Served	T	LR
Maximum Queue (ft)	139	315
Average Queue (ft)	139	315
95th Queue (ft)	139	330
Link Distance (ft)	139	321
Upstream Blk Time (%)	100	100
Queuing Penalty (veh)	210	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	84
Average Queue (ft)	4	41
95th Queue (ft)	21	65
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 46: Sea World Dr

Movement	EB	EB	SB
Directions Served	T	T	R
Maximum Queue (ft)	217	223	229
Average Queue (ft)	49	75	222
95th Queue (ft)	145	170	231
Link Distance (ft)	511	511	210
Upstream Blk Time (%)			27
Queuing Penalty (veh)			171
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	1350	1483
Average Queue (ft)	898	1124
95th Queue (ft)	1885	1865
Link Distance (ft)	1472	1472
Upstream Blk Time (%)	31	42
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	SB	SB	SB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	764	764	775	752
Average Queue (ft)	89	83	87	67
95th Queue (ft)	449	432	447	378
Link Distance (ft)	754	754	754	754
Upstream Blk Time (%)	4	4	4	1
Queuing Penalty (veh)	21	22	19	8
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	408	418
Average Queue (ft)	356	333
95th Queue (ft)	489	519
Link Distance (ft)	360	360
Upstream Blk Time (%)	9	4
Queuing Penalty (veh)	78	36
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 6461

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	1018	1009	1023	758	781	216	225	248	296	310	348	279
Average Queue (ft)	682	702	713	441	452	104	121	146	165	194	225	168
95th Queue (ft)	1188	1190	1186	782	800	185	200	223	257	282	307	270
Link Distance (ft)	2516	2516	2516	2516	2516		754	754	1715	1715	1715	1715
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)						400						
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	435	1967	1974	1951	225	482	491	447	235	305	1475	1471
Average Queue (ft)	409	1882	1869	1744	33	264	275	178	49	239	1081	1080
95th Queue (ft)	534	2164	2186	2498	158	502	511	369	153	425	1772	1755
Link Distance (ft)		1924	1924	1924		620	620	620			1514	1514
Upstream Blk Time (%)		82	74	35		2	2	1			11	10
Queuing Penalty (veh)		0	0	0		5	5	2			40	35
Storage Bay Dist (ft)	360				150				230	230		
Storage Blk Time (%)	9	91				44			0	1	75	
Queuing Penalty (veh)	42	147				12			1	1	230	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	275	678	635	651
Average Queue (ft)	245	418	391	443
95th Queue (ft)	325	764	670	685
Link Distance (ft)		602	602	602
Upstream Blk Time (%)		11	5	10
Queuing Penalty (veh)		65	27	56
Storage Bay Dist (ft)	200			
Storage Blk Time (%)	30	17		
Queuing Penalty (veh)	139	78		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R
Maximum Queue (ft)	425	617	576	16	345	464	288	99	199
Average Queue (ft)	352	319	189	2	101	219	62	37	78
95th Queue (ft)	506	686	441	10	310	459	212	82	166
Link Distance (ft)		620	620		955	955		864	864
Upstream Blk Time (%)		3	0						
Queuing Penalty (veh)		20	1						
Storage Bay Dist (ft)	350			100			350		
Storage Blk Time (%)	27	3			13	4			
Queuing Penalty (veh)	145	17			1	6			

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	215	212	234	68	248	302	307	107	174	422	93	140
Average Queue (ft)	101	108	108	24	136	164	220	30	91	189	44	49
95th Queue (ft)	183	191	194	56	227	296	338	88	192	363	85	105
Link Distance (ft)		955	955			285	285	285		702		1251
Upstream Blk Time (%)						1	5	0				
Queuing Penalty (veh)						4	15	1				
Storage Bay Dist (ft)	440			350	175				100		150	
Storage Blk Time (%)					3	7			1	30		0
Queuing Penalty (veh)					9	10			5	36		0

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	312	349	322	56	233	269	280	172	263	125	224	342
Average Queue (ft)	240	198	210	25	133	206	227	38	113	56	142	150
95th Queue (ft)	341	361	325	56	239	280	282	86	211	127	227	287
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	5	5	1		0	7	18	0				
Queuing Penalty (veh)	0	18	4		0	25	61	0				
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	5	5			2	21			41	1	11	9
Queuing Penalty (veh)	16	18			9	21			31	2	23	15

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB
Directions Served	T	T	R	L	T	T	R
Maximum Queue (ft)	4	98	25	116	60	93	24
Average Queue (ft)	0	7	2	49	2	7	3
95th Queue (ft)	3	45	16	93	28	41	32
Link Distance (ft)	194	194	194		370	370	468
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				125			
Storage Blk Time (%)				0			
Queuing Penalty (veh)				1			

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	336	381	392	199	326	286	165	151
Average Queue (ft)	163	244	39	138	133	131	70	58
95th Queue (ft)	311	378	174	208	266	246	141	114
Link Distance (ft)	370	370	370		1083	1083	920	
Upstream Blk Time (%)	0	1	0					
Queuing Penalty (veh)	0	3	2					
Storage Bay Dist (ft)				125				100
Storage Blk Time (%)				14	4		6	1
Queuing Penalty (veh)				82	9		10	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	141	283	305	221	199	296	759	732	165	430	87	84
Average Queue (ft)	56	129	138	45	95	83	236	243	111	232	40	5
95th Queue (ft)	119	247	263	149	165	255	596	572	193	384	74	40
Link Distance (ft)		1514	1514				1839	1839		355	355	701
Upstream Blk Time (%)										3		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)		0	12		1	0	15		8	47		
Queuing Penalty (veh)		0	15		1	1	23		26	40		

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	174	228	158
Average Queue (ft)	43	114	39
95th Queue (ft)	107	197	97
Link Distance (ft)		702	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		115
Storage Blk Time (%)	1	16	
Queuing Penalty (veh)	2	20	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	143	282	307	117	388	420	35	234
Average Queue (ft)	32	118	139	14	202	225	7	113
95th Queue (ft)	99	236	261	73	343	367	24	216
Link Distance (ft)		1839	1839		964	964	270	920
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	8			16			
Queuing Penalty (veh)	1	5			3			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	54	137	106	60	89
Average Queue (ft)	24	82	39	33	54
95th Queue (ft)	48	121	82	51	79
Link Distance (ft)	236	864	864	541	541
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	156	319	121	107
Average Queue (ft)	78	137	62	42
95th Queue (ft)	123	260	104	83
Link Distance (ft)	327	631	631	101
Upstream Blk Time (%)				0
Queuing Penalty (veh)				1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	186	28	122
Average Queue (ft)	76	4	54
95th Queue (ft)	129	20	88
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	77	70	62
Average Queue (ft)	40	38	26
95th Queue (ft)	61	58	51
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	116	92	70	75
Average Queue (ft)	62	50	31	36
95th Queue (ft)	92	78	53	61
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	122	123	31	72
Average Queue (ft)	66	61	15	38
95th Queue (ft)	104	95	40	61
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	63	47	28	32	62	2735	2766	2784
Average Queue (ft)	20	13	1	1	2	1672	1840	1892
95th Queue (ft)	62	35	11	13	26	3206	3097	3067
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	196	207	173	272	259	234	311	322	318	205
Average Queue (ft)	107	87	89	86	83	76	230	237	295	182
95th Queue (ft)	180	170	164	208	201	186	342	356	342	269
Link Distance (ft)	526	526		289	289	289	254	254	254	
Upstream Blk Time (%)				0	0	0	8	10	32	
Queuing Penalty (veh)				1	1	0	71	82	278	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			12	3					45	2
Queuing Penalty (veh)			86	4					163	16

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	412	308	234	228	219	132	195	193	155	358
Average Queue (ft)	242	186	104	113	100	29	42	34	28	269
95th Queue (ft)	369	287	203	202	190	88	134	122	101	438
Link Distance (ft)	535	535	345	345	345		289	289	289	289
Upstream Blk Time (%)	0									16
Queuing Penalty (veh)	0									93
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						2	1			
Queuing Penalty (veh)						9	1			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	>	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	433	472	340	311	243	255	226	297	335	538	491	558
Average Queue (ft)	233	281	181	150	124	167	130	218	233	264	286	379
95th Queue (ft)	380	430	304	261	218	245	203	317	352	507	481	552
Link Distance (ft)	1083	1083	1083			305	305			630	630	630
Upstream Blk Time (%)						1	0			1	0	1
Queuing Penalty (veh)						1	0			5	0	11
Storage Bay Dist (ft)				300	180			260	260			
Storage Blk Time (%)			1	1	5	15		11	13	2		
Queuing Penalty (veh)			2	2	13	19		58	67	10		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB	NW
Directions Served	T	T	T	R	>
Maximum Queue (ft)	402	403	405	431	8
Average Queue (ft)	219	211	221	413	0
95th Queue (ft)	407	398	411	459	6
Link Distance (ft)	345	345	345	345	255
Upstream Blk Time (%)	3	2	3	52	
Queuing Penalty (veh)	17	13	16	303	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	366	390	303	281	501	572	255	208	355	957
Average Queue (ft)	96	133	203	199	103	128	298	365	226	116	253	558
95th Queue (ft)	161	209	342	329	227	235	572	698	308	192	448	1082
Link Distance (ft)			964	964			2550	2550				1229
Upstream Blk Time (%)												0
Queuing Penalty (veh)												3
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	12	25	28	4	0	0	6	19	40		0	28
Queuing Penalty (veh)	31	65	68	10	0	1	8	71	121		0	93

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	940	936	270	395	602	608	614
Average Queue (ft)	567	602	172	313	461	470	483
95th Queue (ft)	1041	1065	257	483	594	599	608
Link Distance (ft)	1229	1229			630	630	630
Upstream Blk Time (%)	0	0			0	0	1
Queuing Penalty (veh)	0	1			1	0	4
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	0	37		
Queuing Penalty (veh)			0	0	132		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	98	220	75	403	381	348	101	406	230	210
Average Queue (ft)	41	111	8	235	206	207	43	78	96	51
95th Queue (ft)	79	193	47	379	340	323	89	264	204	139
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)								0		
Queuing Penalty (veh)								0		
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				10						
Queuing Penalty (veh)				1						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	TR	L	L	T	R	L	T	T	T	R
Maximum Queue (ft)	160	200	612	282	320	1232	430	174	499	474	457	539
Average Queue (ft)	70	147	326	209	274	543	81	38	345	329	293	248
95th Queue (ft)	143	247	576	318	374	1178	252	129	486	461	417	444
Link Distance (ft)			1405			2313	2313		2446	2446	2446	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	125	125		245	245			100				490
Storage Blk Time (%)	2	5	51	5	11	26		0	44		0	1
Queuing Penalty (veh)	6	16	124	18	39	148		2	10		1	5

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	136	222	523	538	308
Average Queue (ft)	60	72	273	282	90
95th Queue (ft)	109	154	476	497	196
Link Distance (ft)			1347	1347	1347
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	470	470			
Storage Blk Time (%)			1		
Queuing Penalty (veh)			2		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	L	R	T	R	L	T
Maximum Queue (ft)	140	267	107	144	249	346	126	154	233
Average Queue (ft)	59	159	69	64	84	183	27	68	91
95th Queue (ft)	115	259	114	140	198	328	101	141	217
Link Distance (ft)	257	257			1367	305	305		261
Upstream Blk Time (%)		2				3			3
Queuing Penalty (veh)		3				12			11
Storage Bay Dist (ft)			70	70				100	
Storage Blk Time (%)			28	7	13			15	6
Queuing Penalty (veh)			39	10	17			47	4

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	SB	SB	SE
Directions Served	L	T	T	R	LR
Maximum Queue (ft)	112	56	61	17	8
Average Queue (ft)	39	7	8	1	0
95th Queue (ft)	90	75	80	9	4
Link Distance (ft)		261	640	640	526
Upstream Blk Time (%)		2			
Queuing Penalty (veh)		17			
Storage Bay Dist (ft)	120				
Storage Blk Time (%)	2				
Queuing Penalty (veh)	18				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	B73	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	T	L	L	T	R	L	T	T
Maximum Queue (ft)	153	194	311	175	72	114	124	113	90	225	795	629
Average Queue (ft)	67	125	159	64	3	100	101	94	17	217	547	169
95th Queue (ft)	137	211	269	171	34	108	112	122	53	256	1114	543
Link Distance (ft)			248		640						1868	1868
Upstream Blk Time (%)			2									
Queuing Penalty (veh)			13									
Storage Bay Dist (ft)	120	120		100		150	150			150		
Storage Blk Time (%)	1	8	23	0			0			91	0	
Queuing Penalty (veh)	5	33	118	0			0			77	0	

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	T	R
Maximum Queue (ft)	233	246	45	101	204	190	140
Average Queue (ft)	88	97	9	41	111	87	25
95th Queue (ft)	178	189	31	84	182	166	92
Link Distance (ft)	1868				1531	1531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		320	230	230			65
Storage Blk Time (%)	0	0			0	14	0
Queuing Penalty (veh)	0	0			0	13	1

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	129	236	148	71	141	175	96
Average Queue (ft)	25	84	5	3	48	69	11
95th Queue (ft)	87	179	78	52	116	156	51
Link Distance (ft)	1367		357	357	1868	1868	1868
Upstream Blk Time (%)			0	0			
Queuing Penalty (veh)			0	0			
Storage Bay Dist (ft)		200					
Storage Blk Time (%)		1					
Queuing Penalty (veh)		3					

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	L	T	T	L	L
Maximum Queue (ft)	140	31	91	103	53	115	186	297	389	382	35	274
Average Queue (ft)	62	4	37	40	15	46	95	138	240	240	3	39
95th Queue (ft)	129	20	75	80	43	93	173	225	340	351	18	151
Link Distance (ft)		692		222	222	222			1613	1613		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280	280			200	200
Storage Blk Time (%)	0								3	2		
Queuing Penalty (veh)	0								6	0		

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	582	600
Average Queue (ft)	398	413
95th Queue (ft)	564	579
Link Distance (ft)	706	706
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)	36	
Queuing Penalty (veh)	10	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	TR	R	R
Maximum Queue (ft)	2013	2044	39	90	98	118
Average Queue (ft)	1306	1322	2	6	30	54
95th Queue (ft)	2229	2263	18	52	85	107
Link Distance (ft)	2550	2550	112	112	692	692
Upstream Blk Time (%)				1		
Queuing Penalty (veh)				3		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	200	190	77	3167	3176	359	454	233	441	408
Average Queue (ft)	176	170	5	3016	3010	338	411	24	223	152
95th Queue (ft)	189	188	46	3532	3532	413	499	184	508	474
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	79	74	1	80	79	1	16	3	8	4
Queuing Penalty (veh)	293	271	3	0	0	0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						1	16			
Queuing Penalty (veh)						6	93			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	9	198	203	162	86	99	132	167
Average Queue (ft)	0	0	96	96	51	29	55	18	26
95th Queue (ft)	5	4	173	175	106	72	86	86	109
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)				0	0				
Queuing Penalty (veh)				2	0				

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	123	173	176	186	133	90	111	100	118	413	462	175
Average Queue (ft)	34	75	52	57	54	29	38	35	10	228	262	110
95th Queue (ft)	101	145	120	135	108	72	89	75	70	360	408	232
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)			0	0								
Queuing Penalty (veh)			0	0								
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)			0	0	2	0				2	32	0
Queuing Penalty (veh)			1	1	4	0				1	57	1

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	534	546	537
Average Queue (ft)	171	306	319	111
95th Queue (ft)	319	513	536	413
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		1	2	1
Queuing Penalty (veh)		4	10	7
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	1	18		
Queuing Penalty (veh)	10	40		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	142	144	129	157	195	264	245	74
Average Queue (ft)	87	101	45	154	193	236	165	52
95th Queue (ft)	139	146	96	168	200	279	293	62
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	9	13	1					55
Queuing Penalty (veh)	41	57	2					122
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				41	92	3		
Queuing Penalty (veh)				144	323	9		

Intersection: 33: Kemper St & Kurtz St

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	74	69
Average Queue (ft)	32	31
95th Queue (ft)	62	56
Link Distance (ft)		1251
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	26	51	30	74
Average Queue (ft)	1	11	4	34
95th Queue (ft)	9	36	20	59
Link Distance (ft)	143	300		949
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	10	95
Average Queue (ft)	0	27
95th Queue (ft)	8	66
Link Distance (ft)	182	259
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: E2 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	43
Average Queue (ft)	18
95th Queue (ft)	43
Link Distance (ft)	365
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	154	74	81	149	58
Average Queue (ft)	23	9	4	18	27
95th Queue (ft)	117	62	34	81	56
Link Distance (ft)	285	285	313	313	536
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	2				
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	SB
Directions Served	T	T	R
Maximum Queue (ft)	184	216	53
Average Queue (ft)	45	87	18
95th Queue (ft)	141	215	47
Link Distance (ft)	194	194	355
Upstream Blk Time (%)	0	2	
Queuing Penalty (veh)	1	6	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 39: A3 Dwy & Kurtz St

Movement	WB	NB
Directions Served	T	LR
Maximum Queue (ft)	6	74
Average Queue (ft)	0	27
95th Queue (ft)	5	56
Link Distance (ft)	139	321
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	53	60
Average Queue (ft)	24	25
95th Queue (ft)	52	51
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	326	389	114	134	202
Average Queue (ft)	110	141	16	34	64
95th Queue (ft)	287	326	75	107	180
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			0	2	1
Queuing Penalty (veh)			1	6	8
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	388	760
Average Queue (ft)	128	198
95th Queue (ft)	328	590
Link Distance (ft)	1472	1472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	SB	SB	SB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	374	308	306	258
Average Queue (ft)	87	65	65	32
95th Queue (ft)	401	371	336	220
Link Distance (ft)	754	754	754	754
Upstream Blk Time (%)	1	0	0	
Queuing Penalty (veh)	5	2	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	416	421
Average Queue (ft)	380	372
95th Queue (ft)	439	473
Link Distance (ft)	360	360
Upstream Blk Time (%)	13	6
Queuing Penalty (veh)	156	68
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 6181

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	661	693	699	507	507	135	147	169	232	263	277	227
Average Queue (ft)	396	440	456	282	281	63	71	94	139	164	196	123
95th Queue (ft)	709	732	741	455	456	115	125	155	213	237	262	225
Link Distance (ft)	2516	2516	2516	2516	2516		754	754	1715	1715	1715	1715
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)						400						
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	435	1886	1856	1826	224	288	295	380	130	305	1354	1351
Average Queue (ft)	390	1528	1483	1151	19	144	154	127	30	202	972	971
95th Queue (ft)	559	2285	2281	2388	114	261	272	315	102	420	1593	1579
Link Distance (ft)		1924	1924	1924		620	620	620			1514	1514
Upstream Blk Time (%)		30	22	10							3	2
Queuing Penalty (veh)		0	0	0							8	6
Storage Bay Dist (ft)	360				150				230	230		
Storage Blk Time (%)	13	83				17			0	1	72	
Queuing Penalty (veh)	53	123				4			1	1	174	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	275	688	610	485
Average Queue (ft)	244	425	275	313
95th Queue (ft)	327	767	493	444
Link Distance (ft)		602	602	602
Upstream Blk Time (%)		10	1	
Queuing Penalty (veh)		53	6	
Storage Bay Dist (ft)	200			
Storage Blk Time (%)	32	21		
Queuing Penalty (veh)	152	101		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	R	LT	R
Maximum Queue (ft)	407	496	344	248	369	103	101	153
Average Queue (ft)	246	205	175	123	238	51	40	68
95th Queue (ft)	382	378	313	223	345	85	83	123
Link Distance (ft)		620	620	955	955		864	864
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	350					350		
Storage Blk Time (%)	3	0		22	1			
Queuing Penalty (veh)	14	1		0	2			

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	462	524	412	79	248	302	316	28	175	498	124	133
Average Queue (ft)	291	142	115	30	125	196	258	2	111	222	60	47
95th Queue (ft)	480	418	271	63	237	326	338	13	210	425	106	102
Link Distance (ft)		955	955			285	285	285		702		1251
Upstream Blk Time (%)						2	10					
Queuing Penalty (veh)						4	25					
Storage Bay Dist (ft)	440			350	175				100		150	
Storage Blk Time (%)	7	1			1	9			5	42	0	0
Queuing Penalty (veh)	27	2			5	10			17	62	0	0

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	312	349	310	70	231	263	272	114	277	125	159	336
Average Queue (ft)	225	158	182	31	120	196	224	38	128	56	26	160
95th Queue (ft)	319	316	298	65	223	276	277	86	237	126	91	317
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	2	2	0		0	4	13					
Queuing Penalty (veh)	0	6	1		0	12	41					
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	2	2			1	13			47	2		19
Queuing Penalty (veh)	7	6			5	11			36	3		4

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB
Directions Served	T	T	R	L	T	T	R
Maximum Queue (ft)	6	54	41	118	42	107	17
Average Queue (ft)	0	5	3	45	2	8	1
95th Queue (ft)	4	30	20	96	21	56	12
Link Distance (ft)	194	194	194		370	370	468
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				125			
Storage Blk Time (%)				0			
Queuing Penalty (veh)				1			

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	330	376	321	189	245	237	97	116
Average Queue (ft)	183	255	44	111	120	131	39	52
95th Queue (ft)	325	392	184	172	212	217	80	94
Link Distance (ft)	370	370	370		1083	1083	920	
Upstream Blk Time (%)		1						
Queuing Penalty (veh)		2						
Storage Bay Dist (ft)				125				100
Storage Blk Time (%)				8	4		0	1
Queuing Penalty (veh)				41	8		0	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	171	285	310	223	157	204	321	379	165	374	78	30
Average Queue (ft)	75	127	137	61	85	35	161	213	88	163	31	1
95th Queue (ft)	152	258	273	184	139	115	270	349	177	285	60	22
Link Distance (ft)		1514	1514				1839	1839		355	355	701
Upstream Blk Time (%)										1		
Queuing Penalty (veh)										0		
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)		0	11				2		4	37		
Queuing Penalty (veh)		0	15				2		9	26		

Intersection: 8: Kemper St & Midway Dr

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	123	165	66
Average Queue (ft)	44	69	28
95th Queue (ft)	95	139	57
Link Distance (ft)		702	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		115
Storage Blk Time (%)	1	6	
Queuing Penalty (veh)	2	8	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	123	275	306	111	341	394	18	161
Average Queue (ft)	27	110	131	8	187	230	3	77
95th Queue (ft)	89	233	256	50	310	368	13	139
Link Distance (ft)		1839	1839		964	964	270	920
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	9			20			
Queuing Penalty (veh)	0	4			2			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	50	121	85	56	90
Average Queue (ft)	23	62	22	30	47
95th Queue (ft)	50	98	56	48	73
Link Distance (ft)	236	864	864	541	541
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	136	537	200	79
Average Queue (ft)	67	258	58	29
95th Queue (ft)	112	454	138	65
Link Distance (ft)	327	631	631	101
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	113	28	98
Average Queue (ft)	60	4	54
95th Queue (ft)	89	21	84
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	71	56	31
Average Queue (ft)	37	34	26
95th Queue (ft)	56	47	44
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	141	115	53	59
Average Queue (ft)	75	54	29	27
95th Queue (ft)	117	88	46	53
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	124	121	43	108
Average Queue (ft)	75	60	20	48
95th Queue (ft)	114	94	46	82
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	136	41	11	28	24	1545	1620	1659
Average Queue (ft)	48	10	0	1	1	654	967	1067
95th Queue (ft)	134	29	6	13	11	1648	1850	1877
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	244	181	142	227	253	264	304	321	324	205
Average Queue (ft)	116	72	51	112	128	134	191	196	279	181
95th Queue (ft)	207	152	115	225	252	261	325	328	368	266
Link Distance (ft)	526	526		289	289	289	254	254	254	
Upstream Blk Time (%)				0	0	0	4	5	23	
Queuing Penalty (veh)				0	0	0	31	36	169	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			1	6					34	5
Queuing Penalty (veh)			7	5					147	30

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	291	216	174	183	175	96	99	96	167	310
Average Queue (ft)	167	107	53	70	74	26	15	12	20	83
95th Queue (ft)	255	191	126	139	137	72	61	56	97	244
Link Distance (ft)	535	535	345	345	345		289	289	289	289
Upstream Blk Time (%)									0	2
Queuing Penalty (veh)									0	8
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						1	0			
Queuing Penalty (veh)						2	0			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	>	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	259	302	242	270	230	273	200	235	243	258	289	336
Average Queue (ft)	153	184	120	105	128	173	92	122	119	143	179	240
95th Queue (ft)	246	286	206	206	242	289	188	197	200	241	277	336
Link Distance (ft)	1083	1083	1083			305	305			630	630	630
Upstream Blk Time (%)						2	0					
Queuing Penalty (veh)						3	0					
Storage Bay Dist (ft)				300	180			260	260			
Storage Blk Time (%)				0	9	23		0	0	0		
Queuing Penalty (veh)				0	16	27		0	1	1		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB	NW
Directions Served	T	T	T	R	>
Maximum Queue (ft)	336	348	377	431	2
Average Queue (ft)	167	161	181	299	0
95th Queue (ft)	308	309	347	487	1
Link Distance (ft)	345	345	345	345	255
Upstream Blk Time (%)	0	1	1	21	
Queuing Penalty (veh)	2	3	3	102	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	174	270	267	196	176	266	321	254	181	354	499
Average Queue (ft)	79	106	128	128	70	67	163	182	137	93	127	264
95th Queue (ft)	141	180	243	222	142	134	234	270	244	153	277	430
Link Distance (ft)			964	964			2550	2550				1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	7	18	12	1			1	10	5		0	8
Queuing Penalty (veh)	16	38	25	2			1	30	17		0	22

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	515	556	182	214	262	347	416
Average Queue (ft)	288	319	97	121	133	170	211
95th Queue (ft)	457	498	176	204	224	282	344
Link Distance (ft)	1229	1229			630	630	630
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)					0		
Queuing Penalty (veh)					0		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	103	203	74	322	328	325	139	194	220	165
Average Queue (ft)	42	91	7	135	119	123	46	47	61	37
95th Queue (ft)	82	153	46	254	234	224	99	130	153	114
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				2						
Queuing Penalty (veh)				0						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	TR	L	L	T	R	L	T	T	T	R
Maximum Queue (ft)	134	185	283	282	320	1050	736	174	378	362	328	223
Average Queue (ft)	65	100	137	182	272	481	105	23	220	208	177	104
95th Queue (ft)	119	186	247	285	377	1063	429	96	330	316	285	184
Link Distance (ft)			1405			2313	2313		2446	2446	2446	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	125	125		245	245			100				490
Storage Blk Time (%)	0	2	20	3	7	29		0	29			
Queuing Penalty (veh)	1	4	41	10	21	152		0	5			

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	100	105	395	398	192
Average Queue (ft)	37	46	189	198	69
95th Queue (ft)	81	88	345	360	152
Link Distance (ft)			1347	1347	1347
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	470	470			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	L	R	T	R	L	T
Maximum Queue (ft)	64	204	35	31	97	174	57	75	164
Average Queue (ft)	21	95	9	3	31	47	13	16	43
95th Queue (ft)	51	164	28	16	68	113	41	48	117
Link Distance (ft)	257	257			1367	305	305		261
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)			70	70				100	
Storage Blk Time (%)					1				1
Queuing Penalty (veh)					0				1

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	SB	SE
Directions Served	L	R	LR
Maximum Queue (ft)	67	21	12
Average Queue (ft)	30	1	0
95th Queue (ft)	62	12	5
Link Distance (ft)		640	526
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	120		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	122	171	214	158	109	120	117	50	225	1088	733	151
Average Queue (ft)	43	76	107	35	98	97	99	10	222	729	132	45
95th Queue (ft)	96	140	177	102	111	124	121	35	240	1276	485	119
Link Distance (ft)			248							1868	1868	1868
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)	120	120		100	150	150			150			
Storage Blk Time (%)	0	1	11	0		0			82	0		
Queuing Penalty (veh)	1	2	37	0		0			63	0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	147	33	79	161	151	135
Average Queue (ft)	50	6	29	89	69	31
95th Queue (ft)	124	22	67	146	137	87
Link Distance (ft)				1531	1531	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	320	230	230			65
Storage Blk Time (%)					11	2
Queuing Penalty (veh)					13	2

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	224	160	148	183	126
Average Queue (ft)	63	55	49	68	11
95th Queue (ft)	161	122	116	148	57
Link Distance (ft)	1367		1868	1868	1868
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		200			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	R	L	T	R	L	L	T	T	R	L
Maximum Queue (ft)	130	30	57	58	28	52	236	354	469	455	75	30
Average Queue (ft)	53	2	19	14	1	12	129	189	272	255	3	3
95th Queue (ft)	104	16	49	43	11	41	218	313	422	398	55	17
Link Distance (ft)		692		222	222	222			1613	1613		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280	280			300	200
Storage Blk Time (%)							0	0	6	4		
Queuing Penalty (veh)							0	1	20	0		

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	274	538	566
Average Queue (ft)	49	378	389
95th Queue (ft)	181	511	526
Link Distance (ft)		706	706
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	200		
Storage Blk Time (%)		33	
Queuing Penalty (veh)		8	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	SB	SB
Directions Served	T	T	R	R
Maximum Queue (ft)	793	860	126	137
Average Queue (ft)	409	414	36	49
95th Queue (ft)	771	810	98	110
Link Distance (ft)	2550	2550	692	692
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	205	178	92	2509	2488	360	468	425	434	425
Average Queue (ft)	175	165	5	1521	1518	346	428	52	327	230
95th Queue (ft)	195	189	41	2857	2827	399	473	267	525	557
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	70	57	1	4	4	2	23	1	8	6
Queuing Penalty (veh)	238	192	3	0	0	0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						2	23			
Queuing Penalty (veh)						11	133			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	T	R	L	L	T	T
Maximum Queue (ft)	5	6	131	105	62	53	68	159	172
Average Queue (ft)	0	1	58	48	23	8	40	23	32
95th Queue (ft)	3	6	102	88	52	33	62	94	107
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	114	144	63	94	96	54	55	64	43	214	244	174
Average Queue (ft)	19	59	16	24	35	13	14	19	2	103	125	36
95th Queue (ft)	68	114	43	63	79	38	39	47	17	175	202	110
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)					0					0	12	
Queuing Penalty (veh)					0					0	10	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	514	535	473
Average Queue (ft)	171	327	337	128
95th Queue (ft)	359	538	563	467
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		1	3	2
Queuing Penalty (veh)		5	16	13
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	29		
Queuing Penalty (veh)	0	57		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	125	132	102	157	194	242	152	52
Average Queue (ft)	87	103	41	117	161	142	59	48
95th Queue (ft)	129	138	85	191	217	271	123	60
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	8	15	0					38
Queuing Penalty (veh)	25	46	1					79
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				2	39	1		
Queuing Penalty (veh)				6	114	4		

Intersection: 33: Kemper St & Kurtz St

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	57	62
Average Queue (ft)	30	35
95th Queue (ft)	53	57
Link Distance (ft)		1251
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	R
Maximum Queue (ft)	12	48	75
Average Queue (ft)	0	11	37
95th Queue (ft)	6	37	64
Link Distance (ft)	143	300	949
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	WB
Directions Served	LT
Maximum Queue (ft)	62
Average Queue (ft)	27
95th Queue (ft)	56
Link Distance (ft)	259
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 36: E2 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	365
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	140	65	82	172	51
Average Queue (ft)	13	4	7	41	15
95th Queue (ft)	82	36	50	130	43
Link Distance (ft)	285	285	313	313	536
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	WB	WB	SB
Directions Served	T	T	R
Maximum Queue (ft)	171	208	31
Average Queue (ft)	37	81	3
95th Queue (ft)	135	204	19
Link Distance (ft)	194	194	355
Upstream Blk Time (%)	1	2	
Queuing Penalty (veh)	2	5	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 39: A3 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	62
Average Queue (ft)	27
95th Queue (ft)	50
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	48	31
Average Queue (ft)	9	7
95th Queue (ft)	33	28
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	212	243	67	90	215
Average Queue (ft)	51	83	6	13	83
95th Queue (ft)	152	195	42	58	221
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			0	0	2
Queuing Penalty (veh)			1	1	17
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	825	988
Average Queue (ft)	171	342
95th Queue (ft)	680	1000
Link Distance (ft)	1472	1472
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	428	385	349
Average Queue (ft)	65	35	22
95th Queue (ft)	327	244	212
Link Distance (ft)	754	754	754
Upstream Blk Time (%)	0	0	0
Queuing Penalty (veh)	1	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	410	415
Average Queue (ft)	383	376
95th Queue (ft)	406	460
Link Distance (ft)	360	360
Upstream Blk Time (%)	16	6
Queuing Penalty (veh)	148	59
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 3420

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	2544	2538	2552	2543	2542	130	171	185	1766	1751	1757	1742
Average Queue (ft)	1839	1843	1831	1606	1352	60	69	90	1175	1166	1137	1069
95th Queue (ft)	3186	3178	3160	3276	3021	122	141	163	2100	2099	2066	2023
Link Distance (ft)	2516	2516	2516	2516	2516		754	754	1715	1715	1715	1715
Upstream Blk Time (%)	36	39	40	36	16				32	31	24	16
Queuing Penalty (veh)	0	0	0	0	0				0	0	0	0
Storage Bay Dist (ft)						400						
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	435	1955	1959	1938	41	164	619	644	137	286	379	405
Average Queue (ft)	401	1639	1605	1204	5	51	160	626	40	81	155	194
95th Queue (ft)	563	2265	2273	2509	27	129	521	637	101	204	324	357
Link Distance (ft)		1924	1924	1924		620	620	620			1514	1514
Upstream Blk Time (%)		39	34	18			0	58				
Queuing Penalty (veh)		0	0	0			0	185				
Storage Bay Dist (ft)	360				150				230	230		
Storage Blk Time (%)	12	88				2				0	6	
Queuing Penalty (veh)	51	130				0				0	14	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	275	701	688	649
Average Queue (ft)	267	657	534	397
95th Queue (ft)	324	814	848	707
Link Distance (ft)		602	602	602
Upstream Blk Time (%)		65	30	8
Queuing Penalty (veh)		368	169	42
Storage Bay Dist (ft)	200			
Storage Blk Time (%)	67	53		
Queuing Penalty (veh)	341	268		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	T	T	R	LT	R
Maximum Queue (ft)	320	354	345	988	985	425	548	729
Average Queue (ft)	188	238	212	759	955	302	126	475
95th Queue (ft)	289	353	343	1295	1091	607	495	862
Link Distance (ft)		620	620	955	955		864	864
Upstream Blk Time (%)				17	69		0	11
Queuing Penalty (veh)				71	291		0	17
Storage Bay Dist (ft)	350					350		
Storage Blk Time (%)	0	0		13	96			
Queuing Penalty (veh)	1	1		0	171			

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	324	236	244	70	250	331	314	42	175	725	174	240
Average Queue (ft)	187	131	135	28	135	229	285	3	165	649	82	86
95th Queue (ft)	300	229	237	60	296	374	324	19	195	907	152	192
Link Distance (ft)		955	955			285	285	285		702		1251
Upstream Blk Time (%)						31	78			64		
Queuing Penalty (veh)						81	202			328		
Storage Bay Dist (ft)	440			350	175				100		150	
Storage Blk Time (%)					3	36			82	33	1	9
Queuing Penalty (veh)					10	40			268	48	1	10

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	307	321	291	62	234	268	272	62	468	125	224	598
Average Queue (ft)	212	118	142	20	118	209	236	9	353	39	51	378
95th Queue (ft)	317	281	266	48	266	315	272	39	595	126	187	692
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	2	1	0		3	46	74		65			
Queuing Penalty (veh)	0	4	0		0	150	239		0			
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	2	1			7	53			83	2		71
Queuing Penalty (veh)	5	5			27	45			64	2		15

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB
Directions Served	T	T	R	L	T	T	R
Maximum Queue (ft)	42	72	19	200	402	406	48
Average Queue (ft)	2	4	1	55	286	290	2
95th Queue (ft)	31	42	9	175	547	542	23
Link Distance (ft)	194	194	194		370	370	468
Upstream Blk Time (%)	1	1			58	58	
Queuing Penalty (veh)	2	2			319	318	
Storage Bay Dist (ft)				125			
Storage Blk Time (%)				0	65		
Queuing Penalty (veh)				0	97		

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	285	364	180	200	1107	1114	351	174
Average Queue (ft)	103	169	23	105	782	785	88	52
95th Queue (ft)	238	318	108	241	1486	1486	266	138
Link Distance (ft)	370	370	370		1083	1083	920	
Upstream Blk Time (%)	0	2	0		43	46		
Queuing Penalty (veh)	0	4	0		254	274		
Storage Bay Dist (ft)				125				100
Storage Blk Time (%)				6	68		20	1
Queuing Penalty (veh)				31	138		32	1

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	382	1468	1474	223	150	322	1585	1592	165	443	74	582
Average Queue (ft)	283	596	520	32	66	41	900	985	83	301	27	262
95th Queue (ft)	496	1484	1431	121	136	180	2063	2070	197	525	66	778
Link Distance (ft)		1514	1514				1839	1839		355	355	701
Upstream Blk Time (%)		12	13				23	25		44		24
Queuing Penalty (veh)		44	46				98	111		0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	60	0	8				8		4	70		
Queuing Penalty (veh)	139	0	11				11		9	49		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	527	109	155	92
Average Queue (ft)	235	44	55	26
95th Queue (ft)	755	92	114	65
Link Distance (ft)	701		702	
Upstream Blk Time (%)	21			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		1	3	
Queuing Penalty (veh)		2	4	

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	53	157	203	112	729	740	27	184
Average Queue (ft)	13	63	78	9	331	362	5	56
95th Queue (ft)	37	130	159	63	877	892	20	142
Link Distance (ft)		1839	1839		964	964	270	920
Upstream Blk Time (%)					9	12		
Queuing Penalty (veh)					54	71		
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	5			37			
Queuing Penalty (veh)	0	2			4			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	87	134	90	87	109
Average Queue (ft)	33	60	17	36	53
95th Queue (ft)	89	102	58	84	103
Link Distance (ft)	236	864	864	541	541
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	125	535	334	78
Average Queue (ft)	66	273	131	35
95th Queue (ft)	110	571	460	70
Link Distance (ft)	327	631	631	101
Upstream Blk Time (%)		11	8	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	107	28	84
Average Queue (ft)	59	3	43
95th Queue (ft)	88	15	72
Link Distance (ft)	259	310	296
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	73	68	40
Average Queue (ft)	37	33	20
95th Queue (ft)	56	48	45
Link Distance (ft)	461	461	321
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	145	100	43	49
Average Queue (ft)	61	46	29	27
95th Queue (ft)	109	82	44	49
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	130	116	39	81
Average Queue (ft)	59	49	18	32
95th Queue (ft)	104	92	43	68
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	102	58	10	13	20	3972	3981	3976
Average Queue (ft)	37	13	0	0	1	2156	2267	2329
95th Queue (ft)	91	37	5	4	12	5073	5015	4961
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						38	42	41
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	374	355	166	210	212	256	285	324	319	205
Average Queue (ft)	162	132	36	89	98	104	120	166	280	138
95th Queue (ft)	371	357	104	186	204	217	279	327	360	286
Link Distance (ft)	526	526		289	289	289	254	254	254	
Upstream Blk Time (%)	0	1				0	1	8	55	
Queuing Penalty (veh)	0	3				0	8	62	418	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			1	5					66	3
Queuing Penalty (veh)			4	4					305	16

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	365	375	165	177	194	79	94	122	316	360
Average Queue (ft)	169	143	60	77	73	20	19	19	58	236
95th Queue (ft)	303	282	144	154	163	60	66	74	224	457
Link Distance (ft)	535	535	345	345	345		289	289	289	289
Upstream Blk Time (%)	1	0						0	0	52
Queuing Penalty (veh)	2	1						0	2	244
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						0	0			
Queuing Penalty (veh)						1	0			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	>	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	763	785	580	261	255	328	311	297	335	659	662	659
Average Queue (ft)	219	265	162	81	132	232	183	230	254	407	323	324
95th Queue (ft)	574	633	477	179	285	383	343	349	412	837	707	671
Link Distance (ft)	1083	1083	1083			305	305			630	630	630
Upstream Blk Time (%)		1	2			38	7			40	13	17
Queuing Penalty (veh)		3	6			74	13			268	84	112
Storage Bay Dist (ft)				300	180			260	260			
Storage Blk Time (%)			2	0	5	54		50	55	0		
Queuing Penalty (veh)			5	0	10	62		228	252	0		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB	NW
Directions Served	T	T	T	R	>
Maximum Queue (ft)	308	277	350	431	177
Average Queue (ft)	93	79	93	341	30
95th Queue (ft)	234	211	238	530	153
Link Distance (ft)	345	345	345	345	255
Upstream Blk Time (%)	0	0	0	57	6
Queuing Penalty (veh)	0	0	0	272	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	136	170	575	544	139	324	2614	2616	255	207	355	1265
Average Queue (ft)	73	98	197	144	46	82	807	907	209	85	176	708
95th Queue (ft)	135	182	601	428	98	213	2314	2433	312	191	402	1468
Link Distance (ft)			964	964			2550	2550				1229
Upstream Blk Time (%)			3	0			15	15				32
Queuing Penalty (veh)			12	0			105	111				186
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	26	19	8	0	0		14	26	50	2	3	50
Queuing Penalty (veh)	54	40	16	1	0		12	85	155	9	14	137

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1266	1254	218	231	181	338	377
Average Queue (ft)	674	648	72	94	78	118	149
95th Queue (ft)	1357	1273	184	207	152	268	346
Link Distance (ft)	1229	1229			630	630	630
Upstream Blk Time (%)	15	9				0	1
Queuing Penalty (veh)	86	54				0	8
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	0			
Queuing Penalty (veh)			1	1			

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	195	766	70	1277	1256	1246	100	152	182	132
Average Queue (ft)	58	193	5	437	421	409	25	34	48	19
95th Queue (ft)	139	532	42	1239	1225	1193	69	104	127	75
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)				12	10	11				
Queuing Penalty (veh)				66	58	60				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				34						
Queuing Penalty (veh)				2						

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	TR	L	L	T	R	L	T	T	T	R
Maximum Queue (ft)	149	198	649	261	319	582	525	148	1568	1572	1568	510
Average Queue (ft)	58	87	146	135	182	229	122	27	321	313	289	137
95th Queue (ft)	124	172	413	217	299	400	376	106	961	946	957	355
Link Distance (ft)			1405			2313	2313		2446	2446	2446	
Upstream Blk Time (%)			0						0	0	0	
Queuing Penalty (veh)			0						0	0	0	
Storage Bay Dist (ft)	125	125		245	245			100				490
Storage Blk Time (%)	8	9	9	0	0	9			39		10	0
Queuing Penalty (veh)	13	15	19	1	2	48			7		56	0

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	65	68	333	337	157
Average Queue (ft)	22	25	127	130	53
95th Queue (ft)	53	59	284	287	129
Link Distance (ft)			1347	1347	1347
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	470	470			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	L	R	T	R	L	T
Maximum Queue (ft)	154	208	39	63	631	355	52	174	352
Average Queue (ft)	52	82	8	4	138	133	10	29	183
95th Queue (ft)	170	175	29	29	484	361	36	118	430
Link Distance (ft)	257	257			1367	305	305		261
Upstream Blk Time (%)	4	0				28			42
Queuing Penalty (veh)	4	0				75			180
Storage Bay Dist (ft)			70	70				100	
Storage Blk Time (%)			0		28			0	46
Queuing Penalty (veh)			0		3			0	23

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	SB	SB	B73	SE
Directions Served	L	T	T	R	T	LR
Maximum Queue (ft)	179	284	713	496	339	8
Average Queue (ft)	86	96	284	73	92	0
95th Queue (ft)	204	308	826	416	316	3
Link Distance (ft)		261	640	640	248	526
Upstream Blk Time (%)		31	30		23	
Queuing Penalty (veh)		176	124		194	
Storage Bay Dist (ft)	120					
Storage Blk Time (%)	37	0				
Queuing Penalty (veh)	166	0				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	105	156	176	146	117	124	121	54	225	1742	1292	158
Average Queue (ft)	31	47	69	22	85	84	98	10	218	740	263	36
95th Queue (ft)	79	120	149	75	141	146	116	36	245	1658	1071	100
Link Distance (ft)			248							1868	1868	1868
Upstream Blk Time (%)			0							8	2	
Queuing Penalty (veh)			0							18	4	
Storage Bay Dist (ft)	120	120		100	150	150			150			
Storage Blk Time (%)	0	0	6	0	0	0	0		78	0		
Queuing Penalty (veh)	1	1	20	0	0	0	0		60	0		

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	147	37	92	312	375	139
Average Queue (ft)	40	6	30	109	110	47
95th Queue (ft)	103	22	73	211	266	118
Link Distance (ft)				1531	1531	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	320	230	230			65
Storage Blk Time (%)				0	15	19
Queuing Penalty (veh)				0	18	22

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	NB	NB	B87	B87	B87	SB	SB	SB
Directions Served	R	L	T	T	T	T	T	T	T	T	TR
Maximum Queue (ft)	81	203	246	123	92	230	184	160	129	168	82
Average Queue (ft)	6	51	19	4	1	11	4	2	34	45	7
95th Queue (ft)	37	132	153	46	23	106	53	35	96	122	41
Link Distance (ft)	1367		357	357	357	706	706	706	1868	1868	1868
Upstream Blk Time (%)			3	0							
Queuing Penalty (veh)			12	1							
Storage Bay Dist (ft)		200									
Storage Blk Time (%)		0	4								
Queuing Penalty (veh)		0	8								

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	L	T	T	L	L
Maximum Queue (ft)	131	34	62	57	12	47	231	353	495	414	34	146
Average Queue (ft)	61	3	20	16	1	10	146	191	279	261	2	33
95th Queue (ft)	112	17	50	46	8	36	215	306	410	385	18	129
Link Distance (ft)		692		222	222	222			1613	1613		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280	280			200	200
Storage Blk Time (%)							0	0	7	3		
Queuing Penalty (veh)							0	1	23	0		

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	513	535
Average Queue (ft)	333	342
95th Queue (ft)	503	515
Link Distance (ft)	706	706
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)	27	
Queuing Penalty (veh)	6	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	TR	R	R
Maximum Queue (ft)	374	367	107	233	513	529
Average Queue (ft)	131	111	10	34	88	105
95th Queue (ft)	385	375	54	164	324	346
Link Distance (ft)	2550	2550	112	112	692	692
Upstream Blk Time (%)			0	14	1	2
Queuing Penalty (veh)			1	82	2	4
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	185	199	110	1579	1568	359	440	435	415	415
Average Queue (ft)	161	141	6	1050	1054	276	329	96	160	153
95th Queue (ft)	205	203	52	1772	1767	449	528	374	463	471
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	40	33	0			0	7	14	11	13
Queuing Penalty (veh)	139	113	2			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						0	7			
Queuing Penalty (veh)						2	39			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	T	R	L	L	T	T
Maximum Queue (ft)	8	13	124	126	67	36	75	150	183
Average Queue (ft)	0	1	58	52	23	8	42	23	35
95th Queue (ft)	4	8	102	98	54	32	65	86	111
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	108	152	71	102	80	59	64	66	39	247	279	175
Average Queue (ft)	24	65	18	29	34	14	15	20	2	114	141	40
95th Queue (ft)	77	121	53	70	69	43	43	51	16	204	233	120
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											18	
Queuing Penalty (veh)											15	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	290	541	563	565
Average Queue (ft)	227	431	444	292
95th Queue (ft)	391	603	630	703
Link Distance (ft)		511	511	511
Upstream Blk Time (%)		2	6	4
Queuing Penalty (veh)		14	37	24
Storage Bay Dist (ft)	215			
Storage Blk Time (%)	0	46		
Queuing Penalty (veh)	0	89		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	125	150	99	157	194	246	157	58
Average Queue (ft)	91	107	44	115	163	154	66	49
95th Queue (ft)	134	144	80	183	215	282	131	62
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	8	16	0					37
Queuing Penalty (veh)	26	50	1					75
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				3	42	2		
Queuing Penalty (veh)				11	144	7		

Intersection: 33: Kemper St & Kurtz St

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	62	89
Average Queue (ft)	28	38
95th Queue (ft)	56	70
Link Distance (ft)		1251
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	150	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	R
Maximum Queue (ft)	24	53	76
Average Queue (ft)	1	11	33
95th Queue (ft)	10	39	62
Link Distance (ft)	143	300	949
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	WB
Directions Served	LT
Maximum Queue (ft)	57
Average Queue (ft)	20
95th Queue (ft)	51
Link Distance (ft)	259
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 36: E2 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	24
Average Queue (ft)	2
95th Queue (ft)	15
Link Distance (ft)	365
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB	WB	SB
Directions Served	T	T	T	T	R	R
Maximum Queue (ft)	97	85	341	335	357	224
Average Queue (ft)	9	5	230	280	172	100
95th Queue (ft)	61	50	436	433	436	240
Link Distance (ft)	285	285	313	313	313	536
Upstream Blk Time (%)			23	58	25	
Queuing Penalty (veh)			76	195	87	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	52	50	234	226	60
Average Queue (ft)	1	1	161	176	15
95th Queue (ft)	17	30	291	283	61
Link Distance (ft)	234	234	194	194	355
Upstream Blk Time (%)	0	0	53	71	
Queuing Penalty (veh)	0	0	161	213	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 39: A3 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	62
Average Queue (ft)	25
95th Queue (ft)	47
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: X Dwy & Kurtz St

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	31
Average Queue (ft)	5	8
95th Queue (ft)	24	30
Link Distance (ft)	182	297
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	R
Maximum Queue (ft)	187	221	100	135	225
Average Queue (ft)	54	87	20	30	143
95th Queue (ft)	148	193	76	95	270
Link Distance (ft)	511	511	100	100	210
Upstream Blk Time (%)			0	1	3
Queuing Penalty (veh)			1	4	35
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	1053	1232
Average Queue (ft)	400	633
95th Queue (ft)	1242	1456
Link Distance (ft)	1472	1472
Upstream Blk Time (%)	5	9
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	SB	SB	SB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	780	807	819	801
Average Queue (ft)	763	771	695	447
95th Queue (ft)	775	801	1026	1025
Link Distance (ft)	754	754	754	754
Upstream Blk Time (%)	61	42	19	6
Queuing Penalty (veh)	505	348	153	51
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	404	413
Average Queue (ft)	369	322
95th Queue (ft)	435	520
Link Distance (ft)	360	360
Upstream Blk Time (%)	9	4
Queuing Penalty (veh)	84	33
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 13652

Intersection: 1: Sports Arena Blvd/W Mission Bay Dr & I-8 WB Off Ramp

Movement	WB	WB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	L	L	R	R	T	T	T	T	T	T	T
Maximum Queue (ft)	482	499	520	678	682	201	226	238	515	544	521	458
Average Queue (ft)	212	239	261	339	347	115	123	134	128	145	177	96
95th Queue (ft)	385	405	424	606	617	185	195	219	381	384	408	337
Link Distance (ft)	2516	2516	2516	2516	2516		754	754	1715	1715	1715	1715
Upstream Blk Time (%)									0	0		
Queuing Penalty (veh)									0	0		
Storage Bay Dist (ft)						400						
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T	R	L	L	T	TR
Maximum Queue (ft)	435	1955	1958	1947	88	202	372	628	237	305	1211	1226
Average Queue (ft)	412	1713	1680	1405	9	84	105	371	82	241	822	823
95th Queue (ft)	511	2324	2342	2630	56	182	248	649	181	411	1498	1483
Link Distance (ft)		1924	1924	1924		620	620	620			1514	1514
Upstream Blk Time (%)		55	42	20			0	2			5	5
Queuing Penalty (veh)		0	0	0			0	7			19	18
Storage Bay Dist (ft)	360				150				230	230		
Storage Blk Time (%)	13	86				3			1	1	70	
Queuing Penalty (veh)	60	169				1			2	3	199	

Intersection: 2: Midway Dr & W Point Loma Blvd & Sports Arena Blvd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	TR
Maximum Queue (ft)	275	629	397	402
Average Queue (ft)	228	283	158	189
95th Queue (ft)	308	561	348	328
Link Distance (ft)		602	602	602
Upstream Blk Time (%)		6	0	
Queuing Penalty (veh)		29	1	
Storage Bay Dist (ft)	200			
Storage Blk Time (%)	26	17		
Queuing Penalty (veh)	100	64		

Intersection: 3: Commercial Dwy 1/Hancock St & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R
Maximum Queue (ft)	340	277	282	96	787	850	16	140	148
Average Queue (ft)	147	111	117	18	367	550	1	49	67
95th Queue (ft)	273	346	349	76	900	1028	8	127	118
Link Distance (ft)		620	620		955	955		864	864
Upstream Blk Time (%)		6	6		1	4			
Queuing Penalty (veh)		38	37		6	23			
Storage Bay Dist (ft)	350			100			350		
Storage Blk Time (%)	0	6			18	46			
Queuing Penalty (veh)	1	26			5	1			

Intersection: 4: Kemper St & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	199	389	390	97	249	296	308	116	174	334	100	285
Average Queue (ft)	93	187	197	35	122	179	215	35	66	158	40	78
95th Queue (ft)	174	568	568	74	236	323	343	85	140	444	119	230
Link Distance (ft)		955	955			285	285	285		702		1251
Upstream Blk Time (%)		7	7			4	8	0		8		
Queuing Penalty (veh)		31	31			15	29	1		45		
Storage Bay Dist (ft)	440			350	175				100		150	
Storage Blk Time (%)		8	8		2	10			2	16	7	1
Queuing Penalty (veh)		16	9		8	16			8	22	14	0

Intersection: 5: West Dr/Frontier Dr & Sports Arena Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	L	TR
Maximum Queue (ft)	297	306	284	83	221	251	257	163	347	125	225	484
Average Queue (ft)	180	153	171	34	110	154	179	56	178	84	136	259
95th Queue (ft)	314	299	287	70	200	255	278	122	356	159	252	493
Link Distance (ft)		313	313	313		234	234	234	437			949
Upstream Blk Time (%)	0	10	10		0	1	3	0	8			
Queuing Penalty (veh)	0	29	28		0	5	14	0	0			
Storage Bay Dist (ft)	330				175					50	150	
Storage Blk Time (%)	0	10			1	6			50	11	12	20
Queuing Penalty (veh)	1	26			5	10			61	20	52	30

Intersection: 6: Target Dwy & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	NB
Directions Served	T	T	R	L	T	R
Maximum Queue (ft)	53	59	9	136	49	216
Average Queue (ft)	21	22	1	60	2	58
95th Queue (ft)	120	121	8	124	26	290
Link Distance (ft)	194	194	194		370	468
Upstream Blk Time (%)	10	11				9
Queuing Penalty (veh)	29	29				0
Storage Bay Dist (ft)				125		
Storage Blk Time (%)				0		
Queuing Penalty (veh)				3		

Intersection: 7: East Dr & Sports Arena Blvd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	321	345	190	174	191	210	243	113
Average Queue (ft)	173	218	23	76	78	99	107	61
95th Queue (ft)	343	358	105	137	167	189	526	123
Link Distance (ft)	370	370	370		1083	1083	920	
Upstream Blk Time (%)	11	11	1				8	
Queuing Penalty (veh)	37	38	2				34	
Storage Bay Dist (ft)				125				100
Storage Blk Time (%)				1	2			10
Queuing Penalty (veh)				9	6			5

Intersection: 8: Kemper St & Midway Dr

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B53
Directions Served	L	T	T	R	L	L	T	TR	L	LT	R	T
Maximum Queue (ft)	278	368	388	225	269	307	923	868	165	387	94	220
Average Queue (ft)	160	179	178	51	203	203	401	327	90	219	40	55
95th Queue (ft)	311	390	373	164	335	396	1066	928	189	391	80	339
Link Distance (ft)		1514	1514				1839	1839		355	355	701
Upstream Blk Time (%)							1	1		10		6
Queuing Penalty (veh)							3	3		0		0
Storage Bay Dist (ft)	320			150	250	250			90			
Storage Blk Time (%)	7	0	12		38	19	7		5	44		
Queuing Penalty (veh)	19	0	13		91	45	13		18	36		

Intersection: 8: Kemper St & Midway Dr

Movement	B53	SB	SB	SB
Directions Served	T	L	T	R
Maximum Queue (ft)	167	168	225	164
Average Queue (ft)	39	50	83	49
95th Queue (ft)	288	120	173	111
Link Distance (ft)	701		702	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		100		115
Storage Blk Time (%)		1	7	0
Queuing Penalty (veh)		4	14	0

Intersection: 9: Commercial Dwy 2/East Dr & Midway Dr

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	147	450	434	148	283	304	74	184
Average Queue (ft)	35	172	186	19	133	181	19	74
95th Queue (ft)	96	560	569	76	243	285	105	143
Link Distance (ft)		1839	1839		964	964	270	920
Upstream Blk Time (%)							3	
Queuing Penalty (veh)							0	
Storage Bay Dist (ft)	90			100				
Storage Blk Time (%)	0	15			12			
Queuing Penalty (veh)	1	11			4			

Intersection: 10: Hancock St & Channel Way

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	50	143	129	64	80
Average Queue (ft)	23	84	36	28	47
95th Queue (ft)	47	133	89	51	73
Link Distance (ft)	236	864	864	541	541
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Kurtz St & Hancock St

Movement	EB	WB	WB	NB
Directions Served	R	L	T	L
Maximum Queue (ft)	151	177	120	55
Average Queue (ft)	74	81	55	16
95th Queue (ft)	130	138	99	45
Link Distance (ft)	327	631	631	101
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: H1 Dwy 2/Sherman St & Kurtz St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	142	28	121
Average Queue (ft)	72	4	54
95th Queue (ft)	156	20	151
Link Distance (ft)	259	310	296
Upstream Blk Time (%)	6		4
Queuing Penalty (veh)	19		8
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Kurtz St & Greenwood St

Movement	EB	EB	SB
Directions Served	LT	T	L
Maximum Queue (ft)	164	153	104
Average Queue (ft)	71	68	35
95th Queue (ft)	251	255	109
Link Distance (ft)	461	461	321
Upstream Blk Time (%)	7	7	0
Queuing Penalty (veh)	14	14	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Sherman St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	80	63	50	83
Average Queue (ft)	45	38	26	29
95th Queue (ft)	68	58	46	67
Link Distance (ft)	468	468	296	513
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Greenwood St & Hancock St

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	76	79	31	85
Average Queue (ft)	45	41	9	42
95th Queue (ft)	72	68	32	69
Link Distance (ft)	249	249	321	361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Camino Del Rio W & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	T	T	TR	T	T	TR
Maximum Queue (ft)	77	79	63	97	104	3992	3995	4000
Average Queue (ft)	21	19	4	9	8	3216	3255	3275
95th Queue (ft)	71	54	26	50	48	4845	4767	4749
Link Distance (ft)	361	414	254	254	254	3946	3946	3946
Upstream Blk Time (%)						35	47	50
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 17: Camino Del Rio W & Hancock St

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	TR	L	T	T	TR	T	T	T	R
Maximum Queue (ft)	109	146	155	232	213	200	308	323	317	205
Average Queue (ft)	36	53	70	83	82	78	229	230	301	155
95th Queue (ft)	86	123	142	190	182	170	365	364	315	288
Link Distance (ft)	526	526		289	289	289	254	254	254	
Upstream Blk Time (%)				0	0	0	18	17	47	
Queuing Penalty (veh)				4	2	0	165	161	437	
Storage Bay Dist (ft)			100							130
Storage Blk Time (%)			7	4					55	0
Queuing Penalty (veh)			52	5					150	1

Intersection: 18: Camino Del Rio W & Kurtz St

Movement	EB	EB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	L	TR	T	T	TR	L	T	T	T	T
Maximum Queue (ft)	459	312	304	293	322	166	302	274	120	359
Average Queue (ft)	250	178	155	160	200	94	103	38	24	273
95th Queue (ft)	441	391	295	298	416	176	284	145	77	437
Link Distance (ft)	535	535	345	345	345		289	289	289	289
Upstream Blk Time (%)	1	9	0	0	0		11	0		16
Queuing Penalty (veh)	1	20	0	1	0		70	1		103
Storage Bay Dist (ft)						100				
Storage Blk Time (%)						25	1			
Queuing Penalty (veh)						153	2			

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	>	L	LT	TR	L	L	T	T	TR
Maximum Queue (ft)	754	759	534	298	255	336	330	297	334	654	646	622
Average Queue (ft)	503	531	237	111	214	285	270	256	287	497	378	384
95th Queue (ft)	917	931	758	232	300	358	349	393	446	864	682	652
Link Distance (ft)	1083	1083	1083			305	305			630	630	630
Upstream Blk Time (%)	11	11	11			32	21			21	0	12
Queuing Penalty (veh)	44	46	44			81	54			167	3	91
Storage Bay Dist (ft)				300	180			260	260			
Storage Blk Time (%)			10	0	31	71		43	56	3		
Queuing Penalty (veh)			24	0	78	74		213	281	13		

Intersection: 19: Rosecrans St & Sports Arena Blvd & Camino Del Rio W

Movement	SB	SB	SB	SB	NW
Directions Served	T	T	T	R	>
Maximum Queue (ft)	363	346	312	430	77
Average Queue (ft)	130	107	106	376	30
95th Queue (ft)	289	252	246	554	161
Link Distance (ft)	345	345	345	345	255
Upstream Blk Time (%)	0	0	0	25	10
Queuing Penalty (veh)	2	1	0	157	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 20: Rosecrans St & Midway Dr

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	137	175	781	717	309	324	1614	1699	255	282	355	1283
Average Queue (ft)	100	153	349	229	68	134	633	828	238	147	303	986
95th Queue (ft)	175	206	803	529	167	284	1735	1923	305	262	470	1597
Link Distance (ft)			964	964			2550	2550				1229
Upstream Blk Time (%)			8				6	6				24
Queuing Penalty (veh)			39				33	32				169
Storage Bay Dist (ft)	100	100			240	250			180	280	280	
Storage Blk Time (%)	27	44	22	3		3	5	13	64	0	1	65
Queuing Penalty (veh)	71	117	66	7		9	7	52	196	0	5	264

Intersection: 20: Rosecrans St & Midway Dr

Movement	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	TR	L	L	T	T	TR
Maximum Queue (ft)	1278	1255	259	395	533	507	508
Average Queue (ft)	945	950	132	175	256	261	281
95th Queue (ft)	1513	1498	250	354	475	478	491
Link Distance (ft)	1229	1229			630	630	630
Upstream Blk Time (%)	15	15			0	0	
Queuing Penalty (veh)	102	106			0	0	
Storage Bay Dist (ft)			320	320			
Storage Blk Time (%)			0	0	8		
Queuing Penalty (veh)			0	2	33		

Intersection: 21: Rosecrans St & N Evergreen St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	187	506	254	1376	1376	1380	264	328	335	295
Average Queue (ft)	66	227	39	744	720	691	105	106	116	88
95th Queue (ft)	214	744	168	1605	1595	1520	215	292	311	252
Link Distance (ft)	1032	1493		1347	1347	1347		1229	1229	1229
Upstream Blk Time (%)		4		15	10	10				
Queuing Penalty (veh)		0		97	70	65				
Storage Bay Dist (ft)			180				310			
Storage Blk Time (%)				53			0	0		
Queuing Penalty (veh)				11			0	1		

Intersection: 22: Rosecrans St & Lytton St

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	TR	L	L	T	R	L	T	T	T	R
Maximum Queue (ft)	154	197	480	222	224	638	522	149	1426	1398	1383	517
Average Queue (ft)	85	114	205	122	141	163	155	23	566	546	523	151
95th Queue (ft)	153	196	735	196	211	529	602	94	1547	1507	1518	427
Link Distance (ft)			1405			2313	2313		2446	2446	2446	
Upstream Blk Time (%)			6						6		6	
Queuing Penalty (veh)			0						0		0	
Storage Bay Dist (ft)	125	125		245	245			100				490
Storage Blk Time (%)	11	12	8	0	0	0		0	57		18	
Queuing Penalty (veh)	18	21	21	0	0	1		0	11		80	

Intersection: 22: Rosecrans St & Lytton St

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	172	172	408	424	200
Average Queue (ft)	78	87	185	194	69
95th Queue (ft)	143	147	360	375	152
Link Distance (ft)			1347	1347	1347
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	470	470			
Storage Blk Time (%)			0		
Queuing Penalty (veh)			0		

Intersection: 23: Rosecrans St & Kurtz St

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	L	R	T	R	L	T
Maximum Queue (ft)	116	248	107	143	535	340	164	156	304
Average Queue (ft)	55	153	63	63	211	200	67	25	144
95th Queue (ft)	183	268	103	127	837	361	277	98	324
Link Distance (ft)	257	257			1367	305	305		261
Upstream Blk Time (%)	11	12			7	13	13		16
Queuing Penalty (veh)	17	19			15	53	50		54
Storage Bay Dist (ft)			70	70				100	
Storage Blk Time (%)			36	11	16				29
Queuing Penalty (veh)			44	13	24				13

Intersection: 24: Rosecrans St & Hancock St

Movement	NB	NB	SB	B73	SE
Directions Served	L	T	T	T	LR
Maximum Queue (ft)	101	53	166	65	6
Average Queue (ft)	55	36	86	35	1
95th Queue (ft)	146	183	447	195	6
Link Distance (ft)		261	640	248	526
Upstream Blk Time (%)		13	12	11	
Queuing Penalty (veh)		94	26	52	
Storage Bay Dist (ft)	120				
Storage Blk Time (%)	13				
Queuing Penalty (veh)	76				

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	64	103	118	73	101	102	112	30	171	231	222	76
Average Queue (ft)	17	36	60	30	66	32	76	7	85	80	36	18
95th Queue (ft)	50	85	112	64	114	89	123	23	183	423	222	54
Link Distance (ft)			248							1868	1868	1868
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120		100	150	150			150			
Storage Blk Time (%)		0	1						12			
Queuing Penalty (veh)		0	4						6			

Intersection: 25: Pacific Hwy & Rosecrans St/Taylor St

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	88	24	87	217	314	55
Average Queue (ft)	21	5	29	34	82	17
95th Queue (ft)	66	19	65	170	484	57
Link Distance (ft)				1531	1531	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	320	230	230			65
Storage Blk Time (%)				0	0	11
Queuing Penalty (veh)				0	0	5

Intersection: 26: Kurtz St & Pacific Hwy

Movement	EB	NB	NB	B87	B87	B87	SB	SB	SB
Directions Served	R	L	T	T	T	T	T	T	TR
Maximum Queue (ft)	21	135	85	143	44	42	57	69	29
Average Queue (ft)	2	45	21	27	7	5	13	21	3
95th Queue (ft)	13	142	168	236	63	50	42	57	15
Link Distance (ft)	1367		357	706	706	706	1868	1868	1868
Upstream Blk Time (%)			5	2					
Queuing Penalty (veh)			8	4					
Storage Bay Dist (ft)		200							
Storage Blk Time (%)		6							
Queuing Penalty (veh)		6							

Intersection: 27: Pacific Hwy & Enterprise St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	L	T	T	L	L
Maximum Queue (ft)	47	23	39	16	12	24	146	209	339	311	6	31
Average Queue (ft)	13	1	9	0	0	2	44	89	114	79	0	8
95th Queue (ft)	39	12	32	6	6	15	106	159	258	222	4	29
Link Distance (ft)		692		222	222	222			1613	1613		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200		200				280	280			200	200
Storage Blk Time (%)									2	1		
Queuing Penalty (veh)									4	0		

Intersection: 27: Pacific Hwy & Enterprise St

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	252	266
Average Queue (ft)	144	153
95th Queue (ft)	228	245
Link Distance (ft)	706	706
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)	2	
Queuing Penalty (veh)	0	

Intersection: 28: Midway Dr & Enterprise St

Movement	EB	EB	WB	WB	SB	SB
Directions Served	T	T	T	TR	R	R
Maximum Queue (ft)	165	155	20	43	92	130
Average Queue (ft)	34	16	5	13	17	29
95th Queue (ft)	118	88	37	96	119	144
Link Distance (ft)	2550	2550	112	112	692	692
Upstream Blk Time (%)			0	6		
Queuing Penalty (veh)			0	28		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 29: Barnett Ave & Midway Dr

Movement	EB	EB	EB	NB	NB	SB	SB	SB	B54	B54
Directions Served	L	L	R	T	T	T	T	R	T	T
Maximum Queue (ft)	189	187	65	386	383	351	419	339	362	325
Average Queue (ft)	144	117	3	225	206	164	214	77	68	71
95th Queue (ft)	220	185	32	397	397	304	376	329	312	321
Link Distance (ft)	112	112	112	3122	3122		360	360	393	393
Upstream Blk Time (%)	25	15	0			0	1	14	13	13
Queuing Penalty (veh)	63	40	0			0	0	0	0	0
Storage Bay Dist (ft)						400				
Storage Blk Time (%)						0	1			
Queuing Penalty (veh)						0	4			

Intersection: 30: Sea World Dr & Friars Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	T	R	L	L	T	T
Maximum Queue (ft)	9	16	132	108	57	50	54	141	138
Average Queue (ft)	0	1	56	40	20	8	34	19	23
95th Queue (ft)	5	7	105	87	49	33	54	79	80
Link Distance (ft)	899		980	980				1274	1274
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		300			185	300	300		
Storage Blk Time (%)								0	
Queuing Penalty (veh)								0	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	L	L	T	T	R
Maximum Queue (ft)	119	158	52	90	62	40	44	70	48	187	214	114
Average Queue (ft)	24	76	13	26	13	9	10	28	6	100	119	12
95th Queue (ft)	82	140	37	66	38	26	30	57	27	166	197	56
Link Distance (ft)			251			769				1274	1274	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250		200	125		200	325	325			100
Storage Blk Time (%)											11	
Queuing Penalty (veh)											3	

Intersection: 31: Sea World Dr & E Mission Bay Dr/Pacific Highway

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	79	260	260	76
Average Queue (ft)	27	147	148	27
95th Queue (ft)	63	233	224	57
Link Distance (ft)		511	511	511
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	215			
Storage Blk Time (%)		1		
Queuing Penalty (veh)		1		

Intersection: 32: I-5 Southbound On Ramp/I-5 Southbound Off Ramp & Sea World Dr

Movement	EB	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	R	L	L	T	T	LT
Maximum Queue (ft)	121	133	88	157	194	237	117	69
Average Queue (ft)	74	93	40	105	156	106	49	47
95th Queue (ft)	127	137	78	179	208	233	96	68
Link Distance (ft)	100	100	100					38
Upstream Blk Time (%)	3	7	0					37
Queuing Penalty (veh)	12	28	0					75
Storage Bay Dist (ft)				120	120			
Storage Blk Time (%)				1	32	0		
Queuing Penalty (veh)				4	101	1		

Intersection: 33: Kemper St & Kurtz St

Movement	NB
Directions Served	L
Maximum Queue (ft)	70
Average Queue (ft)	28
95th Queue (ft)	56
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	150
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 34: Frontier Dr & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	R
Maximum Queue (ft)	106	35	34
Average Queue (ft)	58	14	11
95th Queue (ft)	92	39	35
Link Distance (ft)	143	300	949
Upstream Blk Time (%)	2		
Queuing Penalty (veh)	6		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 35: H1 Dwy 1 & Kurtz St

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	36	30
Average Queue (ft)	9	1
95th Queue (ft)	75	11
Link Distance (ft)	182	259
Upstream Blk Time (%)	5	
Queuing Penalty (veh)	17	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: E2 Dwy & Kurtz St

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	89	18
Average Queue (ft)	6	1
95th Queue (ft)	76	10
Link Distance (ft)	464	365
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sports Arena Blvd & B2 Dwy

Movement	EB	EB	WB	WB	WB	SB
Directions Served	T	T	T	T	R	R
Maximum Queue (ft)	78	57	118	164	63	44
Average Queue (ft)	29	28	25	37	7	16
95th Queue (ft)	167	167	137	162	79	42
Link Distance (ft)	285	285	313	313	313	536
Upstream Blk Time (%)	9	9	0	0	0	
Queuing Penalty (veh)	40	40	1	1	0	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 38: Sports Arena Blvd & F/G Dwy

Movement	EB	EB	EB	WB	WB	SB
Directions Served	T	T	T	T	T	R
Maximum Queue (ft)	50	50	49	100	166	31
Average Queue (ft)	25	25	24	7	16	6
95th Queue (ft)	144	146	141	48	86	25
Link Distance (ft)	234	234	234	194	194	355
Upstream Blk Time (%)	10	10	10		0	
Queuing Penalty (veh)	27	28	28		0	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 39: A3 Dwy & Kurtz St

Movement	NB
Directions Served	LR
Maximum Queue (ft)	66
Average Queue (ft)	26
95th Queue (ft)	49
Link Distance (ft)	321
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 40: X Dwy & Kurtz St

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	60	54	31
Average Queue (ft)	13	18	7
95th Queue (ft)	106	45	28
Link Distance (ft)	300	182	297
Upstream Blk Time (%)	3		
Queuing Penalty (veh)	9		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 46: Sea World Dr

Movement	EB	EB	WB	SB
Directions Served	T	T	T	R
Maximum Queue (ft)	132	183	28	229
Average Queue (ft)	21	49	1	221
95th Queue (ft)	80	130	11	230
Link Distance (ft)	511	511	100	210
Upstream Blk Time (%)				25
Queuing Penalty (veh)				235
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 47: I-5 Southbound Off Ramp

Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	1526	1514
Average Queue (ft)	1493	1490
95th Queue (ft)	1512	1504
Link Distance (ft)	1472	1472
Upstream Blk Time (%)	84	100
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Sports Arena Blvd & I-8 EB On Ramp

Movement	SB	SB	SB	SB
Directions Served	T	T	TR	R
Maximum Queue (ft)	206	166	163	157
Average Queue (ft)	37	32	30	27
95th Queue (ft)	286	272	268	260
Link Distance (ft)	754	754	754	754
Upstream Blk Time (%)	3	3	3	3
Queuing Penalty (veh)	21	19	17	19
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 54: Bend

Movement	EB	EB
Directions Served	T	
Maximum Queue (ft)	380	381
Average Queue (ft)	228	136
95th Queue (ft)	481	390
Link Distance (ft)	360	360
Upstream Blk Time (%)	1	0
Queuing Penalty (veh)	11	3
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 92: Old Town Dwy & Taylor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 133: I-5 Northbound Off Ramp/I-5 Northbound On Ramp & Sea World Dr/Tecolote Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 7736

Appendix AF

MTS Routes

Fare Information
Información de tarifas
sdmts.com/fares

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MTS sdmts.com

MTS Security *MTS Seguridad*	**619-595-4960**
MTS Information & Trip Planning *MTS Información y planeo de viaje*	**619-233-3004**
Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 231-1466.
Formato alternativo disponible al preguntar. Llamar: (619) 231-1466.

Effective September 3, 2023

8
Old Town Transit Center ↔ Balboa Avenue Transit Center
via Mission Beach

9
Old Town Transit Center ↔ Pacific Beach
via SeaWorld/ Ingraham St.

Bus Routes

Destinations
- Belmont Park (8)
- Crown Point (9)
- Mission Bay
- Pechanga Arena (Sports Arena)
- SeaWorld (9)

Trolley Connections
- Old Town
- Balboa Avenue (8)

Subject to change without notice
Sujeto a cambios sin previo aviso

8 Sunday • *domingo*

Old Town T.C → Balboa Av. T.C.

A	B	F	G	D	H
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	W. Mission Bay Dr. & Mission Bl.	Grand Av. & Bayard St.	Grand Av. & Ingraham St.	Balboa Av. Transit Center **ARRIVE**
—	—	—	5:59a	6:02a	6:10a
6:12a	6:18a	6:23a	6:29	6:32	6:40
6:42	6:48	6:53	6:59	7:02	7:10
7:12	7:18	7:24	7:31	7:34	7:42
7:42	7:48	7:54	8:01	8:04	8:12
8:04	8:11	8:18	8:25	8:28	8:36
8:25	8:32	8:39	8:46	8:49	8:57
8:45	8:52	9:00	9:07	9:11	9:20
9:05	9:12	9:20	9:27	9:31	9:40
9:27	9:34	9:42	9:49	9:53	10:02
9:47	9:54	10:02	10:09	10:13	10:22
10:07	10:15	10:23	10:31	10:35	10:44
10:27	10:35	10:43	10:51	10:55	11:04
10:47	10:55	11:03	11:11	11:15	11:24
11:07	11:15	11:23	11:31	11:35	11:44
11:27	11:35	11:43	11:51	11:55	**12:04p**
11:47	11:55	**12:03p**	**12:11p**	**12:15p**	**12:24**
12:07p	**12:15p**	**12:24**	**12:33**	**12:37**	**12:47**
12:27	**12:35**	**12:44**	**12:53**	**12:57**	**1:07**
12:47	**12:55**	**1:04**	**1:13**	**1:17**	**1:27**
1:07	**1:15**	**1:24**	**1:33**	**1:37**	**1:47**
1:27	**1:35**	**1:44**	**1:53**	**1:57**	**2:07**
1:48	**1:56**	**2:05**	**2:14**	**2:18**	**2:28**
2:08	**2:16**	**2:25**	**2:34**	**2:38**	**2:48**
2:28	**2:36**	**2:45**	**2:54**	**2:58**	**3:08**
2:48	**2:56**	**3:05**	**3:14**	**3:18**	**3:28**
3:08	**3:16**	**3:25**	**3:34**	**3:38**	**3:48**
3:28	**3:36**	**3:45**	**3:54**	**3:58**	**4:08**
3:49	**3:57**	**4:06**	**4:15**	**4:19**	**4:29**
4:09	**4:17**	**4:26**	**4:35**	**4:39**	**4:49**
4:29	**4:37**	**4:46**	**4:55**	**4:59**	**5:09**
4:49	**4:57**	**5:06**	**5:15**	**5:19**	**5:29**
5:10	**5:18**	**5:27**	**5:36**	**5:40**	**5:49**
5:31	**5:39**	**5:47**	**5:56**	**6:00**	**6:09**
5:51	**5:58**	**6:05**	**6:13**	**6:17**	**6:26**
6:11	**6:18**	**6:25**	**6:33**	**6:37**	**6:46**
6:29	**6:36**	**6:43**	**6:51**	**6:55**	**7:03**
6:57	**7:04**	**7:11**	**7:19**	**7:23**	**7:31**
7:27	**7:34**	**7:41**	**7:49**	**7:53**	**8:01**
7:57	**8:04**	**8:10**	**8:17**	**8:21**	**8:29**
8:27	**8:34**	**8:40**	**8:47**	**8:51**	**8:59**
8:57	**9:03**	**9:09**	**9:15**	**9:19**	**9:27**
9:27	**9:33**	**9:39**	**9:45**	**9:48**	**9:55**
9:57	**10:03**	**10:09**	**10:15**	**10:18**	**10:25**

Balboa Av. T.C. → Old Town T.C.

H	D	G	F	B	A
Balboa Av. Transit Center **DEPART**	Grand Av. & Ingraham St.	Grand Av. & Bayard St.	W. Mission Bay Dr. & Mission Bl.	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
—	—	5:56a	6:04a	6:10a	6:17a
6:16a	6:23a	6:27	6:35	6:41	6:48
6:46	6:53	6:57	7:05	7:11	7:18
7:16	7:23	7:27	7:35	7:41	7:48
7:45	7:52	7:56	8:04	8:10	8:17
8:14	8:21	8:25	8:33	8:39	8:46
8:43	8:51	8:55	9:03	9:09	9:16
9:13	9:21	9:25	9:34	9:41	9:48
9:38	9:47	9:51	10:01	10:08	10:16
9:57	10:06	10:10	10:20	10:27	10:35
10:17	10:26	10:30	10:40	10:47	10:55
10:37	10:47	10:51	11:01	11:09	11:18
10:57	11:07	11:11	11:21	11:29	11:38
11:15	11:25	11:29	11:40	11:48	11:57
11:35	11:45	11:49	**12:00p**	**12:08p**	**12:17p**
11:55	**12:05p**	**12:09p**	**12:20**	**12:28**	**12:37**
12:15p	**12:25**	**12:29**	**12:40**	**12:48**	**12:57**
12:35	**12:45**	**12:49**	**1:00**	**1:08**	**1:17**
12:57	**1:07**	**1:11**	**1:22**	**1:30**	**1:39**
1:17	**1:27**	**1:31**	**1:42**	**1:50**	**1:59**
1:37	**1:47**	**1:51**	**2:02**	**2:10**	**2:19**
1:57	**2:07**	**2:11**	**2:22**	**2:30**	**2:39**
2:17	**2:27**	**2:31**	**2:42**	**2:50**	**2:59**
2:37	**2:47**	**2:51**	**3:02**	**3:10**	**3:19**
2:57	**3:07**	**3:11**	**3:22**	**3:30**	**3:39**
3:17	**3:27**	**3:31**	**3:42**	**3:50**	**3:59**
3:37	**3:47**	**3:51**	**4:02**	**4:10**	**4:19**
3:57	**4:07**	**4:11**	**4:22**	**4:30**	**4:39**
4:18	**4:28**	**4:32**	**4:43**	**4:51**	**5:00**
4:39	**4:49**	**4:53**	**5:04**	**5:12**	**5:21**
4:59	**5:09**	**5:13**	**5:24**	**5:32**	**5:41**
5:19	**5:29**	**5:33**	**5:44**	**5:52**	**6:01**
5:39	**5:48**	**5:52**	**6:02**	**6:10**	**6:19**
5:59	**6:08**	**6:12**	**6:22**	**6:30**	**6:39**
6:22	**6:31**	**6:35**	**6:45**	**6:53**	**7:01**
6:44	**6:53**	**6:57**	**7:07**	**7:14**	**7:22**
7:14	**7:22**	**7:26**	**7:36**	**7:42**	**7:50**
7:43	**7:51**	**7:55**	**8:04**	**8:10**	**8:18**
8:15	**8:22**	**8:26**	**8:34**	**8:40**	**8:47**
8:45	**8:52**	**8:56**	**9:04**	**9:10**	**9:17**
9:15	**9:22**	**9:26**	**9:34**	**9:40**	**9:47**
9:45	**9:52**	**9:56**	**10:04**	**10:10**	**10:17**

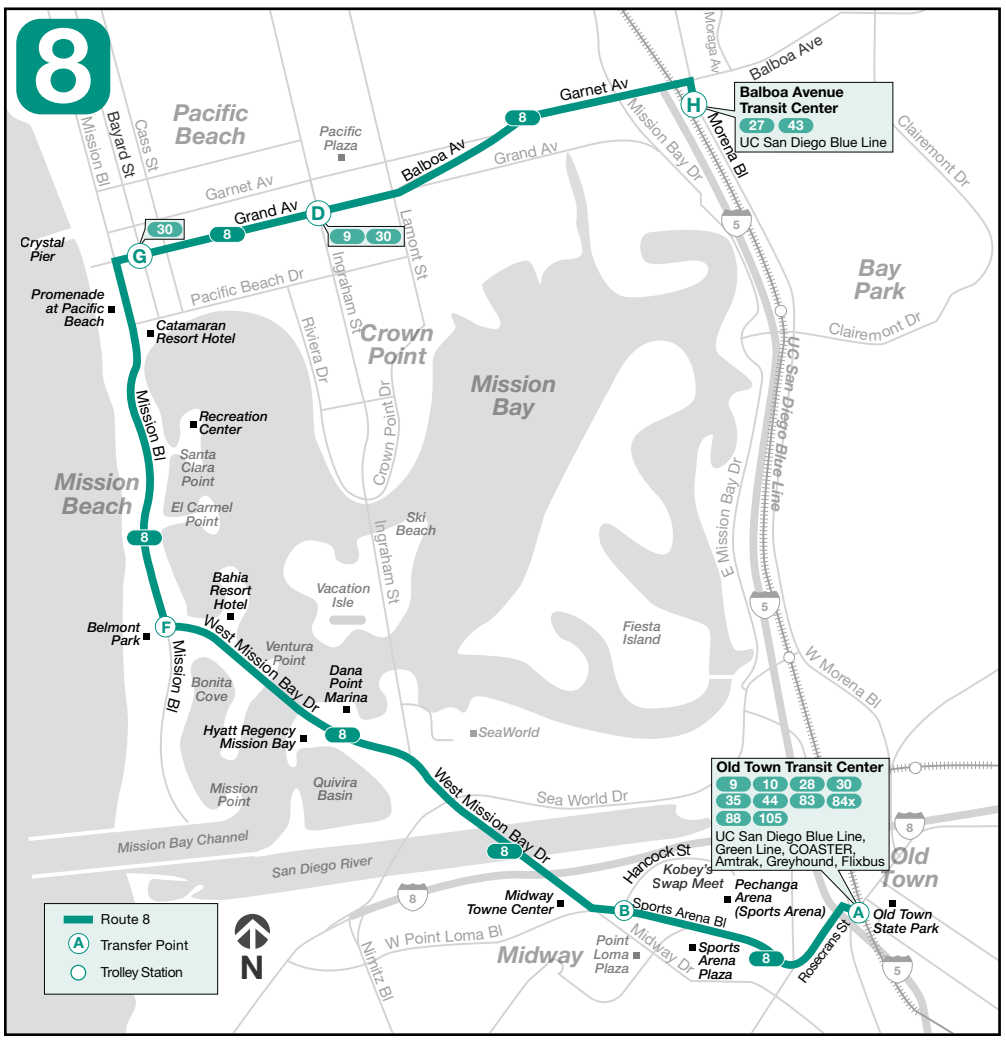
9 Sunday • *domingo*

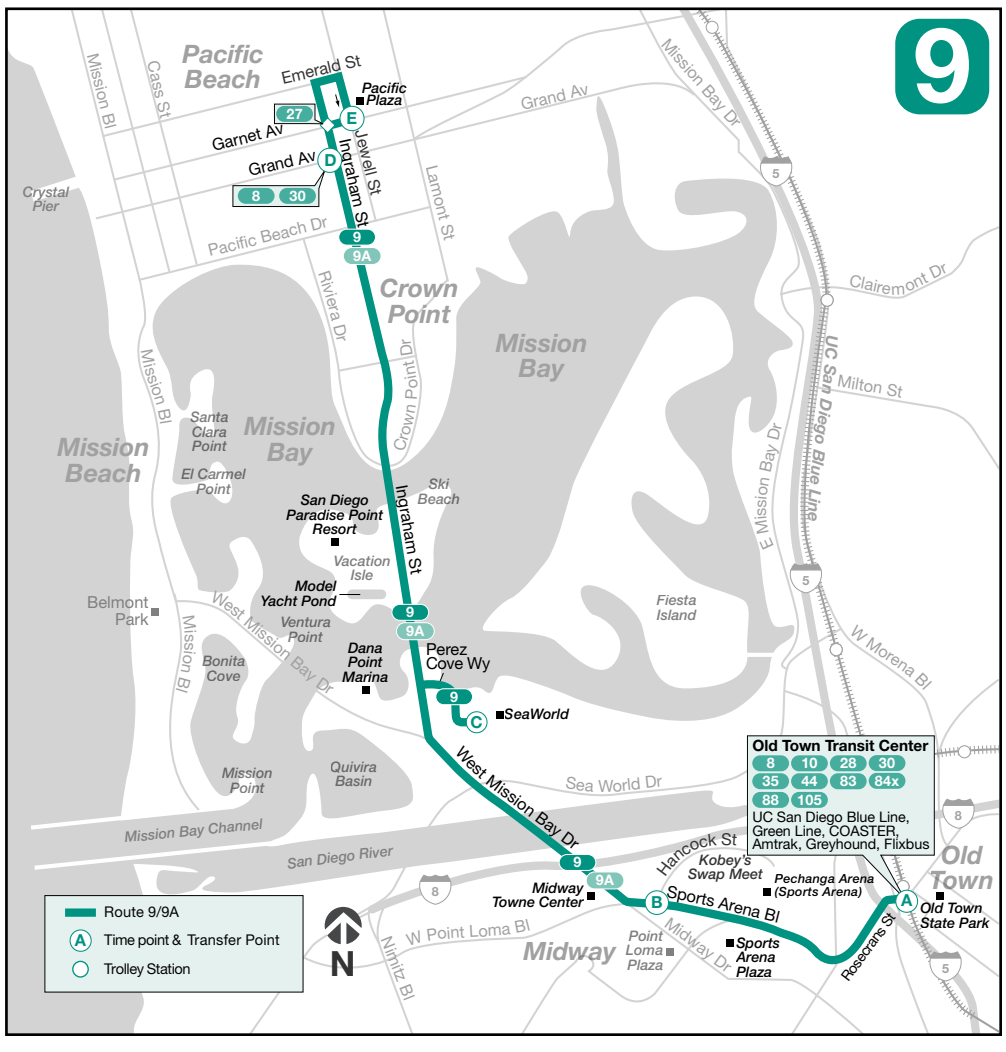
Old Town T.C. → SeaWorld

A	B	C	D	E
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	Sea World **ARRIVE**	Ingraham St. & Grand Av.	Jewell St. & Garnet Av.
7:20a	7:26a	7:31a	—	—
7:50	7:57	8:02	—	—
8:20	8:27	8:32	—	—
8:50	8:57	9:03	—	—
9:20	9:27	9:33	—	—
9:50	9:57	10:03	—	—
10:20	10:28	10:35	—	—
10:50	10:58	11:05	—	—
11:20	11:28	11:35	—	—
11:50	11:58	**12:05p**	—	—
12:20p	**12:28p**	**12:35**	—	—
12:50	**12:58**	**1:06**	—	—
1:20	**1:28**	**1:36**	—	—
1:50	**1:58**	**2:06**	—	—
2:20	**2:28**	**2:36**	—	—
2:50	**2:58**	**3:06**	—	—
3:20	**3:28**	**3:36**	—	—
3:50	**3:58**	**4:06**	—	—
4:20	**4:28**	**4:36**	—	—
4:50	**4:58**	**5:06**	—	—
5:20	**5:28**	**5:35**	—	—
5:50	**5:58**	**6:04**	—	—
6:20	**6:27**	**6:33**	—	—
6:50	**6:57**	**7:03**	—	—
7:20	**7:27**	**7:33**	—	—
7:50	**7:57**	**8:03**	—	—
8:20	**8:27**	**8:33**	—	—

SeaWorld → Old Town T.C.

E	D	C	B	A
Jewell St. & Garnet Av.	Ingraham St. & Grand Av.	Sea World **DEPART**	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
—	—	7:41a	7:47a	7:54a
—	—	8:11	8:17	8:24
—	—	8:41	8:47	8:54
—	—	9:11	9:17	9:24
—	—	9:41	9:47	9:54
—	—	10:10	10:16	10:24
—	—	10:40	10:46	10:54
—	—	11:09	11:15	11:24
—	—	11:39	11:45	11:54
—	—	**12:08p**	**12:15p**	**12:24p**
—	—	**12:38**	**12:45**	**12:54**
—	—	**1:08**	**1:15**	**1:24**
—	—	**1:38**	**1:45**	**1:54**
—	—	**2:08**	**2:15**	**2:24**
—	—	**2:38**	**2:45**	**2:54**
—	—	**3:08**	**3:15**	**3:24**
—	—	**3:38**	**3:45**	**3:54**
—	—	**4:08**	**4:15**	**4:24**
—	—	**4:38**	**4:45**	**4:54**
—	—	**5:08**	**5:15**	**5:24**
—	—	**5:38**	**5:45**	**5:54**
—	—	**6:08**	**6:15**	**6:24**
—	—	**6:39**	**6:46**	**6:54**
—	—	**7:09**	**7:16**	**7:24**
—	—	**7:39**	**7:46**	**7:54**
—	—	**8:10**	**8:17**	**8:24**
—	—	**8:40**	**8:47**	**8:54**
—	—	**9:12**	**9:18**	**9:25**





A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

8 Monday through Friday • *lunes a viernes*

Old Town T.C. → Balboa Av. T.C.

A	B	F	G	D	H
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	W. Mission Bay Dr. & Mission Bl.	Grand Av. & Bayard St.	Grand Av. & Ingraham St.	Balboa Av. Transit Center **ARRIVE**
—	—	—	5:26a	5:29a	5:37a
5:42a	5:48a	5:53a	5:59	6:02	6:10
6:12	6:18	6:23	6:29	6:32	6:40
6:27	6:33	6:38	6:44	6:47	6:55
6:42	6:48	6:53	6:59	7:02	7:10
6:57	7:03	7:09	7:16	7:19	7:28
7:12	7:18	7:24	7:31	7:34	7:43
7:27	7:33	7:39	7:46	7:49	7:58
7:42	7:48	7:54	8:01	8:04	8:13
7:57	8:04	8:11	8:18	8:22	8:31
8:12	8:19	8:26	8:33	8:37	8:46
8:27	8:34	8:41	8:48	8:52	9:01
8:41	8:48	8:55	9:02	9:06	9:15
8:56	9:03	9:10	9:17	9:21	9:30
9:11	9:18	9:25	9:32	9:36	9:45
9:26	9:33	9:40	9:47	9:51	10:00
9:41	9:48	9:55	10:02	10:06	10:15
9:59	10:06	10:13	10:20	10:24	10:33
10:13	10:21	10:28	10:36	10:40	10:49
10:28	10:36	10:43	10:51	10:55	11:04
10:43	10:51	10:58	11:06	11:10	11:19
10:58	11:06	11:13	11:21	11:25	11:34
11:13	11:21	11:28	11:36	11:40	11:49
11:28	11:36	11:43	11:51	11:55	**12:04p**
11:43	11:51	11:58	**12:06p**	**12:10p**	**12:19**
11:59	**12:07p**	**12:14p**	**12:22**	**12:26**	**12:35**
12:14p	**12:22**	**12:29**	**12:37**	**12:41**	**12:50**
12:29	**12:37**	**12:44**	**12:52**	**12:56**	**1:05**
12:44	**12:52**	**12:59**	**1:07**	**1:11**	**1:20**
12:59	**1:07**	**1:14**	**1:22**	**1:26**	**1:35**
1:14	**1:22**	**1:29**	**1:37**	**1:41**	**1:50**
1:29	**1:37**	**1:44**	**1:52**	**1:56**	**2:05**
1:44	**1:52**	**1:59**	**2:07**	**2:11**	**2:20**
1:59	**2:07**	**2:14**	**2:22**	**2:26**	**2:35**
2:14	**2:22**	**2:29**	**2:37**	**2:41**	**2:51**
2:29	**2:37**	**2:44**	**2:52**	**2:56**	**3:06**
2:44	**2:52**	**2:59**	**3:07**	**3:11**	**3:21**
2:59	**3:07**	**3:14**	**3:22**	**3:26**	**3:36**
3:14	**3:22**	**3:29**	**3:37**	**3:41**	**3:51**
3:31	**3:39**	**3:46**	**3:54**	**3:58**	**4:08**
3:47	**3:55**	**4:02**	**4:10**	**4:14**	**4:24**
4:02	**4:10**	**4:17**	**4:25**	**4:29**	**4:39**
4:17	**4:25**	**4:32**	**4:40**	**4:44**	**4:54**
4:32	**4:40**	**4:47**	**4:55**	**4:59**	**5:09**
4:47	**4:55**	**5:02**	**5:10**	**5:14**	**5:24**
5:03	**5:11**	**5:18**	**5:26**	**5:30**	**5:39**
5:18	**5:26**	**5:33**	**5:41**	**5:45**	**5:54**
5:33	**5:41**	**5:48**	**5:56**	**6:00**	**6:09**
5:48	**5:56**	**6:03**	**6:11**	**6:15**	**6:24**
6:03	**6:11**	**6:18**	**6:26**	**6:30**	**6:39**
6:19	**6:26**	**6:33**	**6:41**	**6:45**	**6:53**
6:34	**6:41**	**6:48**	**6:56**	**7:00**	**7:08**
6:57	**7:04**	**7:11**	**7:19**	**7:23**	**7:31**
7:27	**7:34**	**7:41**	**7:49**	**7:53**	**8:01**
7:57	**8:04**	**8:10**	**8:17**	**8:21**	**8:29**
8:27	**8:34**	**8:40**	**8:47**	**8:51**	**8:59**
8:57	**9:03**	**9:09**	**9:15**	**9:19**	**9:27**
9:27	**9:33**	**9:39**	**9:45**	**9:48**	**9:55**
9:57	**10:03**	**10:09**	**10:15**	**10:18**	**10:25**
10:27	**10:33**	**10:39**	**10:45**	**10:48**	**10:55**
10:57	**11:03**	**11:09**	**11:15**	**11:18**	**11:25**
11:27	**11:33**	**11:39**	**11:45**	**11:48**	**11:55**
11:57	12:03a	12:09a	12:15a	12:18a	12:25a

Balboa Av. T.C. → Old Town T.C.

H	D	G	F	B	A
Balboa Av. Transit Center **DEPART**	Grand Av. & Ingraham St.	Grand Av. & Bayard St.	W. Mission Bay Dr. & Mission Bl.	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
—	—	5:05a	5:13a	5:19a	5:25a
5:30a	5:36a	5:39	5:47	5:53	5:59
6:00	6:06	6:10	6:18	6:24	6:31
6:30	6:37	6:41	6:49	6:55	7:02
6:46	6:53	6:57	7:05	7:11	7:18
7:01	7:08	7:12	7:20	7:26	7:33
7:16	7:23	7:27	7:35	7:41	7:48
7:30	7:37	7:41	7:49	7:55	8:02
7:45	7:52	7:56	8:04	8:10	8:17
7:59	8:06	8:10	8:18	8:24	8:31
8:14	8:21	8:25	8:33	8:39	8:46
8:28	8:36	8:40	8:48	8:54	9:02
8:43	8:51	8:55	9:03	9:09	9:17
8:58	9:06	9:10	9:18	9:24	9:32
9:13	9:21	9:25	9:34	9:41	9:49
9:28	9:36	9:40	9:49	9:56	10:04
9:43	9:51	9:55	10:04	10:11	10:19
9:58	10:06	10:10	10:19	10:26	10:34
10:13	10:21	10:25	10:34	10:41	10:49
10:28	10:36	10:40	10:49	10:56	11:04
10:43	10:51	10:55	11:04	11:11	11:19
10:58	11:06	11:10	11:19	11:26	11:34
11:15	11:24	11:28	11:37	11:44	11:53
11:32	11:41	11:45	11:54	**12:01p**	**12:10p**
11:49	11:58	**12:02p**	**12:11p**	**12:18**	**12:27**
12:07p	**12:16p**	**12:20**	**12:29**	**12:36**	**12:45**
12:22	**12:31**	**12:35**	**12:44**	**12:51**	**1:00**
12:37	**12:46**	**12:50**	**12:59**	**1:06**	**1:15**
12:52	**1:01**	**1:05**	**1:14**	**1:21**	**1:30**
1:07	**1:16**	**1:20**	**1:29**	**1:36**	**1:45**
1:22	**1:31**	**1:35**	**1:44**	**1:51**	**2:00**
1:37	**1:46**	**1:50**	**1:59**	**2:06**	**2:15**
1:52	**2:01**	**2:05**	**2:14**	**2:21**	**2:30**
2:07	**2:16**	**2:20**	**2:29**	**2:36**	**2:45**
2:22	**2:31**	**2:35**	**2:44**	**2:51**	**3:00**
2:37	**2:47**	**2:51**	**3:01**	**3:08**	**3:17**
2:52	**3:02**	**3:06**	**3:16**	**3:23**	**3:32**
3:07	**3:17**	**3:21**	**3:31**	**3:38**	**3:47**
3:22	**3:32**	**3:36**	**3:46**	**3:53**	**4:02**
3:37	**3:47**	**3:51**	**4:01**	**4:08**	**4:17**
3:52	**4:02**	**4:06**	**4:16**	**4:23**	**4:32**
4:07	**4:17**	**4:21**	**4:31**	**4:38**	**4:47**
4:22	**4:32**	**4:36**	**4:46**	**4:53**	**5:02**
4:37	**4:47**	**4:51**	**5:01**	**5:08**	**5:17**
4:52	**5:02**	**5:06**	**5:16**	**5:23**	**5:32**
5:07	**5:17**	**5:21**	**5:31**	**5:38**	**5:47**
5:22	**5:32**	**5:36**	**5:46**	**5:53**	**6:02**
5:37	**5:47**	**5:51**	**6:01**	**6:08**	**6:17**
5:52	**6:02**	**6:06**	**6:16**	**6:23**	**6:32**
6:07	**6:16**	**6:20**	**6:29**	**6:36**	**6:45**
6:22	**6:31**	**6:35**	**6:44**	**6:51**	**7:00**
6:37	**6:45**	**6:49**	**6:58**	**7:04**	**7:12**
6:52	**7:00**	**7:04**	**7:13**	**7:19**	**7:27**
7:07	**7:15**	**7:19**	**7:28**	**7:34**	**7:42**
7:22	**7:30**	**7:34**	**7:43**	**7:49**	**7:57**
7:43	**7:51**	**7:55**	**8:04**	**8:10**	**8:18**
8:15	**8:22**	**8:26**	**8:34**	**8:40**	**8:47**
8:45	**8:52**	**8:56**	**9:04**	**9:10**	**9:17**
9:15	**9:22**	**9:26**	**9:34**	**9:40**	**9:47**
9:45	**9:52**	**9:56**	**10:04**	**10:10**	**10:17**
10:15	**10:22**	**10:26**	**10:34**	**10:40**	**10:47**
10:47	**10:53**	**10:56**	**11:03**	**11:09**	**11:16**
11:17	**11:23**	**11:26**	**11:33**	**11:39**	**11:46**
11:47	**11:53**	**11:56**	12:03a	12:09a	12:16a

9 Monday through Friday • *lunes a viernes*

Old Town T.C. → Pacific Beach

A	B	C	D	E
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	Sea World	Ingraham St. & Grand Av.	Jewell St. & Garnet Av. **ARRIVE**
A 6:13a	6:19a	—	6:27a	6:31a
A 6:43	6:49	—	6:58	7:02
A 7:13	7:19	—	7:28	7:33
7:43	7:49	7:55a	8:04	8:09
8:12	8:19	8:25	8:34	8:39
8:42	8:49	8:55	9:04	9:09
9:02	9:09	9:15	9:24	9:29
9:22	9:29	9:35	9:44	9:49
9:42	9:49	9:55	10:04	10:09
10:02	10:10	10:17	10:26	10:31
10:22	10:30	10:37	10:46	10:51
10:42	10:50	10:57	11:06	11:11
11:02	11:10	11:17	11:26	11:31
11:22	11:30	11:37	11:46	11:51
11:42	11:50	11:57	**12:06p**	**12:11p**
12:02p	**12:10p**	**12:17p**	**12:26**	**12:31**
12:22	**12:30**	**12:37**	**12:46**	**12:51**
12:41	**12:49**	**12:57**	**1:07**	**1:12**
1:01	**1:09**	**1:17**	**1:27**	**1:32**
1:21	**1:29**	**1:37**	**1:47**	**1:52**
1:41	**1:49**	**1:57**	**2:07**	**2:12**
2:01	**2:09**	**2:17**	**2:27**	**2:32**
2:21	**2:29**	**2:37**	**2:47**	**2:52**
2:40	**2:48**	**2:57**	**3:08**	**3:13**
3:00	**3:08**	**3:17**	**3:28**	**3:33**
3:20	**3:28**	**3:37**	**3:48**	**3:53**
3:40	**3:48**	**3:57**	**4:08**	**4:13**
4:01	**4:09**	**4:18**	**4:29**	**4:34**
A **4:22**	**4:30**	**—**	**4:41**	**4:46**
A **4:42**	**4:50**	**—**	**5:01**	**5:06**
A **5:02**	**5:10**	**—**	**5:21**	**5:26**
A **5:22**	**5:30**	**—**	**5:40**	**5:45**
A **5:42**	**5:50**	**—**	**6:00**	**6:05**
A **6:02**	**6:10**	**—**	**6:20**	**6:25**
A **6:20**	**6:28**	**—**	**6:37**	**6:42**
A **6:42**	**6:49**	**—**	**6:58**	**7:03**
A **7:12**	**7:19**	**—**	**7:28**	**7:33**
A **7:43**	**7:50**	**—**	**7:59**	**8:04**
A **8:13**	**8:20**	**—**	**8:28**	**8:33**
A **8:43**	**8:50**	**—**	**8:58**	**9:03**

Pacific Beach → Old Town T.C.

E	D	C	B	A
Jewell St. & Garnet Av. **DEPART**	Ingraham St. & Grand Av.	Sea World	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
A 5:46a	5:48a	—	5:56a	6:02a
A 6:15	6:17	—	6:25	6:32
A 6:43	6:46	—	6:55	7:02
A 7:12	7:15	—	7:25	7:32
A 7:42	7:45	—	7:55	8:02
A 8:11	8:14	—	8:24	8:32
A 8:41	8:44	—	8:54	9:02
A 9:11	9:14	—	9:24	9:32
9:26	9:29	9:39a	9:46	9:54
9:44	9:47	9:57	10:04	10:12
10:04	10:07	10:17	10:24	10:32
10:24	10:27	10:37	10:44	10:52
10:44	10:47	10:57	11:04	11:12
11:02	11:05	11:16	11:23	11:31
11:22	11:25	11:36	11:43	11:52
11:42	11:45	11:56	**12:03p**	**12:12p**
12:02p	**12:05p**	**12:16p**	**12:23**	**12:32**
12:22	**12:25**	**12:36**	**12:43**	**12:52**
12:42	**12:45**	**12:56**	**1:03**	**1:12**
1:02	**1:05**	**1:16**	**1:23**	**1:32**
1:22	**1:25**	**1:36**	**1:43**	**1:52**
1:42	**1:45**	**1:56**	**2:03**	**2:12**
2:01	**2:04**	**2:15**	**2:22**	**2:31**
2:21	**2:24**	**2:35**	**2:42**	**2:51**
2:41	**2:44**	**2:55**	**3:02**	**3:11**
3:00	**3:03**	**3:15**	**3:23**	**3:32**
3:21	**3:24**	**3:36**	**3:44**	**3:53**
3:41	**3:44**	**3:56**	**4:04**	**4:13**
4:01	**4:04**	**4:16**	**4:24**	**4:33**
4:21	**4:24**	**4:36**	**4:44**	**4:53**
4:42	**4:45**	**4:57**	**5:05**	**5:14**
5:00	**5:03**	**5:15**	**5:23**	**5:32**
5:18	**5:21**	**5:33**	**5:41**	**5:50**
5:38	**5:41**	**5:53**	**6:01**	**6:10**
5:56	**5:59**	**6:11**	**6:19**	**6:28**
6:14	**6:17**	**6:29**	**6:37**	**6:46**
6:33	**6:36**	**6:47**	**6:54**	**7:02**
7:03	**7:06**	**7:17**	**7:24**	**7:32**
7:33	**7:36**	**7:47**	**7:54**	**8:02**
8:05	**8:08**	**8:18**	**8:25**	**8:32**
8:36	**8:39**	**8:49**	**8:56**	**9:03**
9:09	**9:11**	**9:20**	**9:26**	**9:33**
9:39	**9:41**	**9:50**	**9:56**	**10:03**
—	—	**10:20**	**10:26**	**10:33**

A = Route 9A. Trip does not enter SeaWorld. Use bus stop on Ingraham St. at Perez Cove Way for access to/from SeaWorld. / *La ruta 9A no proporciona servicio hacia SeaWorld. Tome o baje del autobus en Ingraham St. en la esquina con Perez Cove Way para ir a SeaWorld.*

8 Saturday • *sábado*

Old Town T.C → Balboa Av. T.C.

A	B	F	G	D	H
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	W. Mission Bay Dr. & Mission Bl.	Grand Av. & Bayard St.	Grand Av. & Ingraham St.	Balboa Av. Transit Center **ARRIVE**
5:42a	5:48a	5:53a	5:59a	6:02a	6:10a
6:12	6:18	6:23	6:29	6:32	6:40
6:42	6:48	6:53	6:59	7:02	7:10
7:12	7:18	7:24	7:31	7:34	7:42
7:42	7:48	7:54	8:01	8:04	8:12
8:04	8:11	8:18	8:25	8:28	8:36
8:25	8:32	8:39	8:46	8:49	8:57
8:45	8:52	9:00	9:07	9:11	9:20
9:05	9:12	9:20	9:27	9:31	9:40
9:27	9:34	9:42	9:49	9:53	10:02
9:47	9:54	10:02	10:09	10:13	10:22
10:07	10:15	10:23	10:31	10:35	10:44
10:27	10:35	10:43	10:51	10:55	11:04
10:47	10:55	11:03	11:11	11:15	11:24
11:07	11:15	11:23	11:31	11:35	11:44
11:27	11:35	11:43	11:51	11:55	**12:04p**
11:47	11:55	**12:03p**	**12:11p**	**12:15p**	**12:24**
12:07p	**12:15p**	**12:24**	**12:33**	**12:37**	**12:47**
12:27	**12:35**	**12:44**	**12:53**	**12:57**	**1:07**
12:47	**12:55**	**1:04**	**1:13**	**1:17**	**1:27**
1:07	**1:15**	**1:24**	**1:33**	**1:37**	**1:47**
1:27	**1:35**	**1:44**	**1:53**	**1:57**	**2:07**
1:48	**1:56**	**2:05**	**2:14**	**2:18**	**2:28**
2:08	**2:16**	**2:25**	**2:34**	**2:38**	**2:48**
2:28	**2:36**	**2:45**	**2:54**	**2:58**	**3:08**
2:48	**2:56**	**3:05**	**3:14**	**3:18**	**3:28**
3:08	**3:16**	**3:25**	**3:34**	**3:38**	**3:48**
3:28	**3:36**	**3:45**	**3:54**	**3:58**	**4:08**
3:49	**3:57**	**4:06**	**4:15**	**4:19**	**4:29**
4:09	**4:17**	**4:26**	**4:35**	**4:39**	**4:49**
4:29	**4:37**	**4:46**	**4:55**	**4:59**	**5:09**
4:49	**4:57**	**5:06**	**5:15**	**5:19**	**5:29**
5:10	**5:18**	**5:27**	**5:36**	**5:40**	**5:49**
5:31	**5:39**	**5:47**	**5:56**	**6:00**	**6:09**
5:51	**5:58**	**6:05**	**6:13**	**6:17**	**6:26**
6:11	**6:18**	**6:25**	**6:33**	**6:37**	**6:46**
6:29	**6:36**	**6:43**	**6:51**	**6:55**	**7:03**
6:57	**7:04**	**7:11**	**7:19**	**7:23**	**7:31**
7:27	**7:34**	**7:41**	**7:49**	**7:53**	**8:01**
7:57	**8:04**	**8:10**	**8:17**	**8:21**	**8:29**
8:27	**8:34**	**8:40**	**8:47**	**8:51**	**8:59**
8:57	**9:03**	**9:09**	**9:15**	**9:19**	**9:27**
9:27	**9:33**	**9:39**	**9:45**	**9:48**	**9:55**
9:57	**10:03**	**10:09**	**10:15**	**10:18**	**10:25**
10:27	**10:33**	**10:39**	**10:45**	**10:48**	**10:55**
10:57	**11:03**	**11:09**	**11:15**	**11:18**	**11:25**
11:27	**11:33**	**11:39**	**11:45**	**11:48**	**11:55**
11:57	12:03a	12:09a	12:15a	12:18a	12:25a

Balboa Av. T.C. → Old Town T.C.

H	D	G	F	B	A
Balboa Av. Transit Center **DEPART**	Grand Av. & Ingraham St.	Grand Av. & Bayard St.	W. Mission Bay Dr. & Mission Bl.	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
5:46a	5:52a	5:56a	6:04a	6:10a	6:17a
6:16	6:23	6:27	6:35	6:41	6:48
6:46	6:53	6:57	7:05	7:11	7:18
7:16	7:23	7:27	7:35	7:41	7:48
7:45	7:52	7:56	8:04	8:10	8:17
8:14	8:21	8:25	8:33	8:39	8:46
8:43	8:51	8:55	9:03	9:09	9:16
9:13	9:21	9:25	9:34	9:41	9:48
9:38	9:47	9:51	10:01	10:08	10:16
9:57	10:06	10:10	10:20	10:27	10:35
10:17	10:26	10:30	10:40	10:47	10:55
10:37	10:47	10:51	11:01	11:09	11:18
10:57	11:07	11:11	11:21	11:29	11:38
11:15	11:25	11:29	11:40	11:48	11:57
11:35	11:45	11:49	**12:00p**	**12:08p**	**12:17p**
11:55	**12:05p**	**12:09p**	**12:20**	**12:28**	**12:37**
12:15p	**12:25**	**12:29**	**12:40**	**12:48**	**12:57**
12:35	**12:45**	**12:49**	**1:00**	**1:08**	**1:17**
12:57	**1:07**	**1:11**	**1:22**	**1:30**	**1:39**
1:17	**1:27**	**1:31**	**1:42**	**1:50**	**1:59**
1:37	**1:47**	**1:51**	**2:02**	**2:10**	**2:19**
1:57	**2:07**	**2:11**	**2:22**	**2:30**	**2:39**
2:17	**2:27**	**2:31**	**2:42**	**2:50**	**2:59**
2:37	**2:47**	**2:51**	**3:02**	**3:10**	**3:19**
2:57	**3:07**	**3:11**	**3:22**	**3:30**	**3:39**
3:17	**3:27**	**3:31**	**3:42**	**3:50**	**3:59**
3:37	**3:47**	**3:51**	**4:02**	**4:10**	**4:19**
3:57	**4:07**	**4:11**	**4:22**	**4:30**	**4:39**
4:18	**4:28**	**4:32**	**4:43**	**4:51**	**5:00**
4:39	**4:49**	**4:53**	**5:04**	**5:12**	**5:21**
4:59	**5:09**	**5:13**	**5:24**	**5:32**	**5:41**
5:19	**5:29**	**5:33**	**5:44**	**5:52**	**6:01**
5:39	**5:48**	**5:52**	**6:02**	**6:10**	**6:19**
5:59	**6:08**	**6:12**	**6:22**	**6:30**	**6:39**
6:22	**6:31**	**6:35**	**6:45**	**6:53**	**7:01**
6:44	**6:53**	**6:57**	**7:07**	**7:14**	**7:22**
7:14	**7:22**	**7:26**	**7:36**	**7:42**	**7:50**
7:43	**7:51**	**7:55**	**8:04**	**8:10**	**8:18**
8:15	**8:22**	**8:26**	**8:34**	**8:40**	**8:47**
8:45	**8:52**	**8:56**	**9:04**	**9:10**	**9:17**
9:15	**9:22**	**9:26**	**9:34**	**9:40**	**9:47**
9:45	**9:52**	**9:56**	**10:04**	**10:10**	**10:17**
10:15	**10:22**	**10:26**	**10:34**	**10:40**	**10:47**
10:47	**10:53**	**10:56**	**11:03**	**11:09**	**11:16**
11:17	**11:23**	**11:26**	**11:33**	**11:39**	**11:46**
11:47	**11:53**	**11:56**	12:03a	12:09a	12:16a

9 Saturday • *sábado*

Old Town T.C. → Pacific Beach

A	B	C	D	E
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	Sea World	Ingraham St. & Grand Av.	Jewell St. & Garnet Av. **ARRIVE**
A 6:27a	6:33a	—	6:42a	6:46a
A 6:57	7:03	—	7:12	7:16
A 7:27	7:33	—	7:42	7:46
7:57	8:04	8:09a	8:18	8:23
8:27	8:34	8:39	8:48	8:53
8:57	9:04	9:10	9:19	9:24
9:27	9:34	9:40	9:49	9:54
9:57	10:04	10:10	10:19	10:24
10:27	10:35	10:42	10:51	10:56
10:57	11:05	11:12	11:21	11:26
11:27	11:35	11:42	11:51	11:56
11:57	**12:05p**	**12:12p**	**12:21p**	**12:26p**
12:27p	**12:35**	**12:42**	**12:51**	**12:56**
12:57	**1:05**	**1:13**	**1:23**	**1:28**
1:27	**1:35**	**1:43**	**1:53**	**1:58**
1:57	**2:05**	**2:13**	**2:23**	**2:28**
2:27	**2:35**	**2:43**	**2:53**	**2:58**
2:57	**3:05**	**3:13**	**3:23**	**3:28**
3:27	**3:35**	**3:43**	**3:53**	**3:58**
3:57	**4:05**	**4:13**	**4:23**	**4:28**
A **4:29**	**4:37**	**—**	**4:48**	**4:53**
A **4:57**	**5:05**	**—**	**5:16**	**5:21**
A **5:28**	**5:36**	**—**	**5:46**	**5:51**
A **6:04**	**6:11**	**—**	**6:21**	**6:26**
A **6:40**	**6:47**	**—**	**6:56**	**7:01**
A **7:12**	**7:19**	**—**	**7:28**	**7:33**
A **7:43**	**7:50**	**—**	**7:59**	**8:04**
A **8:13**	**8:20**	**—**	**8:28**	**8:33**
A **8:43**	**8:50**	**—**	**8:58**	**9:03**

Pacific Beach → Old Town T.C.

E	D	C	B	A
Jewell St. & Garnet Av. **DEPART**	Ingraham St. & Grand Av.	Sea World	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
A 6:29a	6:31a	—	6:40a	6:47a
A 6:59	7:01	—	7:10	7:17
A 7:29	7:31	—	7:40	7:47
A 7:59	8:01	—	8:10	8:17
A 8:28	8:30	—	8:40	8:47
A 8:58	9:00	—	9:10	9:17
9:23	9:25	9:34a	9:40	9:47
9:50	9:53	10:03	10:09	10:17
10:20	10:23	10:33	10:39	10:47
10:48	10:51	11:02	11:08	11:17
11:18	11:21	11:32	11:38	11:47
11:48	11:51	**12:02p**	**12:08p**	**12:17p**
12:16p	**12:19p**	**12:31**	**12:38**	**12:47**
12:46	**12:49**	**1:01**	**1:08**	**1:17**
1:16	**1:19**	**1:31**	**1:38**	**1:47**
1:46	**1:49**	**2:01**	**2:08**	**2:17**
2:16	**2:19**	**2:31**	**2:38**	**2:47**
2:46	**2:49**	**3:01**	**3:08**	**3:17**
3:16	**3:19**	**3:31**	**3:38**	**3:47**
3:46	**3:49**	**4:01**	**4:08**	**4:17**
4:16	**4:19**	**4:31**	**4:38**	**4:47**
4:46	**4:49**	**5:01**	**5:08**	**5:17**
5:16	**5:19**	**5:31**	**5:38**	**5:47**
5:49	**5:52**	**6:04**	**6:11**	**6:20**
6:25	**6:28**	**6:40**	**6:47**	**6:55**
7:03	**7:06**	**7:17**	**7:24**	**7:32**
7:33	**7:36**	**7:47**	**7:54**	**8:02**
8:05	**8:08**	**8:18**	**8:25**	**8:32**
8:36	**8:39**	**8:49**	**8:56**	**9:03**
9:09	**9:11**	**9:20**	**9:26**	**9:33**
9:39	**9:41**	**9:50**	**9:56**	**10:03**
—	—	**10:20**	**10:26**	**10:33**

A = Route 9A. Trip does not enter SeaWorld. Use bus stop on Ingraham St. at Perez Cove Way for access to/from SeaWorld. / *La ruta 9A no proporciona servicio hacia SeaWorld. Tome o baje del autobus en Ingraham St. en la esquina con Perez Cove Way para ir a SeaWorld.*

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MTS Information & Trip Planning *MTS Información y planeo de viaje*	**619-233-3004**
Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 231-1466.
Formato alternativo disponible al preguntar. Llamar: (619) 231-1466.

Effective September 3, 2023

8
Old Town Transit Center ↔ Balboa Avenue Transit Center
via Mission Beach

9
Old Town Transit Center ↔ Pacific Beach
via SeaWorld/ Ingraham St.

Bus Routes

Destinations
- Belmont Park (8)
- Crown Point (9)
- Mission Bay
- Pechanga Arena (Sports Arena)
- SeaWorld (9)

Trolley Connections
- Old Town
- Balboa Avenue (8)

Subject to change without notice
Sujeto a cambios sin previo aviso

8 Sunday • *domingo*

Old Town T.C → Balboa Av. T.C.

A	B	F	G	D	H
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	W. Mission Bay Dr. & Mission Bl.	Grand Av. & Bayard St.	Grand Av. & Ingraham St.	Balboa Av. Transit Center **ARRIVE**
—	—	—	5:59a	6:02a	6:10a
6:12a	6:18a	6:23a	6:29	6:32	6:40
6:42	6:48	6:53	6:59	7:02	7:10
7:12	7:18	7:24	7:31	7:34	7:42
7:42	7:48	7:54	8:01	8:04	8:12
8:04	8:11	8:18	8:25	8:28	8:36
8:25	8:32	8:39	8:46	8:49	8:57
8:45	8:52	9:00	9:07	9:11	9:20
9:05	9:12	9:20	9:27	9:31	9:40
9:27	9:34	9:42	9:49	9:53	10:02
9:47	9:54	10:02	10:09	10:13	10:22
10:07	10:15	10:23	10:31	10:35	10:44
10:27	10:35	10:43	10:51	10:55	11:04
10:47	10:55	11:03	11:11	11:15	11:24
11:07	11:15	11:23	11:31	11:35	11:44
11:27	11:35	11:43	11:51	11:55	**12:04p**
11:47	11:55	**12:03p**	**12:11p**	**12:15p**	**12:24**
12:07p	**12:15p**	**12:24**	**12:33**	**12:37**	**12:47**
12:27	**12:35**	**12:44**	**12:53**	**12:57**	**1:07**
12:47	**12:55**	**1:04**	**1:13**	**1:17**	**1:27**
1:07	**1:15**	**1:24**	**1:33**	**1:37**	**1:47**
1:27	**1:35**	**1:44**	**1:53**	**1:57**	**2:07**
1:48	**1:56**	**2:05**	**2:14**	**2:18**	**2:28**
2:08	**2:16**	**2:25**	**2:34**	**2:38**	**2:48**
2:28	**2:36**	**2:45**	**2:54**	**2:58**	**3:08**
2:48	**2:56**	**3:05**	**3:14**	**3:18**	**3:28**
3:08	**3:16**	**3:25**	**3:34**	**3:38**	**3:48**
3:28	**3:36**	**3:45**	**3:54**	**3:58**	**4:08**
3:49	**3:57**	**4:06**	**4:15**	**4:19**	**4:29**
4:09	**4:17**	**4:26**	**4:35**	**4:39**	**4:49**
4:29	**4:37**	**4:46**	**4:55**	**4:59**	**5:09**
4:49	**4:57**	**5:06**	**5:15**	**5:19**	**5:29**
5:10	**5:18**	**5:27**	**5:36**	**5:40**	**5:49**
5:31	**5:39**	**5:47**	**5:56**	**6:00**	**6:09**
5:51	**5:58**	**6:05**	**6:13**	**6:17**	**6:26**
6:11	**6:18**	**6:25**	**6:33**	**6:37**	**6:46**
6:29	**6:36**	**6:43**	**6:51**	**6:55**	**7:03**
6:57	**7:04**	**7:11**	**7:19**	**7:23**	**7:31**
7:27	**7:34**	**7:41**	**7:49**	**7:53**	**8:01**
7:57	**8:04**	**8:10**	**8:17**	**8:21**	**8:29**
8:27	**8:34**	**8:40**	**8:47**	**8:51**	**8:59**
8:57	**9:03**	**9:09**	**9:15**	**9:19**	**9:27**
9:27	**9:33**	**9:39**	**9:45**	**9:48**	**9:55**
9:57	**10:03**	**10:09**	**10:15**	**10:18**	**10:25**

Balboa Av. T.C. → Old Town T.C.

H	D	G	F	B	A
Balboa Av. Transit Center **DEPART**	Grand Av. & Ingraham St.	Grand Av. & Bayard St.	W. Mission Bay Dr. & Mission Bl.	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
—	—	5:56a	6:04a	6:10a	6:17a
6:16a	6:23a	6:27	6:35	6:41	6:48
6:46	6:53	6:57	7:05	7:11	7:18
7:16	7:23	7:27	7:35	7:41	7:48
7:45	7:52	7:56	8:04	8:10	8:17
8:14	8:21	8:25	8:33	8:39	8:46
8:43	8:51	8:55	9:03	9:09	9:16
9:13	9:21	9:25	9:34	9:41	9:48
9:38	9:47	9:51	10:01	10:08	10:16
9:57	10:06	10:10	10:20	10:27	10:35
10:17	10:26	10:30	10:40	10:47	10:55
10:37	10:47	10:51	11:01	11:09	11:18
10:57	11:07	11:11	11:21	11:29	11:38
11:15	11:25	11:29	11:40	11:48	11:57
11:35	11:45	11:49	**12:00p**	**12:08p**	**12:17p**
11:55	**12:05p**	**12:09p**	**12:20**	**12:28**	**12:37**
12:15p	**12:25**	**12:29**	**12:40**	**12:48**	**12:57**
12:35	**12:45**	**12:49**	**1:00**	**1:08**	**1:17**
12:57	**1:07**	**1:11**	**1:22**	**1:30**	**1:39**
1:17	**1:27**	**1:31**	**1:42**	**1:50**	**1:59**
1:37	**1:47**	**1:51**	**2:02**	**2:10**	**2:19**
1:57	**2:07**	**2:11**	**2:22**	**2:30**	**2:39**
2:17	**2:27**	**2:31**	**2:42**	**2:50**	**2:59**
2:37	**2:47**	**2:51**	**3:02**	**3:10**	**3:19**
2:57	**3:07**	**3:11**	**3:22**	**3:30**	**3:39**
3:17	**3:27**	**3:31**	**3:42**	**3:50**	**3:59**
3:37	**3:47**	**3:51**	**4:02**	**4:10**	**4:19**
3:57	**4:07**	**4:11**	**4:22**	**4:30**	**4:39**
4:18	**4:28**	**4:32**	**4:43**	**4:51**	**5:00**
4:39	**4:49**	**4:53**	**5:04**	**5:12**	**5:21**
4:59	**5:09**	**5:13**	**5:24**	**5:32**	**5:41**
5:19	**5:29**	**5:33**	**5:44**	**5:52**	**6:01**
5:39	**5:48**	**5:52**	**6:02**	**6:10**	**6:19**
5:59	**6:08**	**6:12**	**6:22**	**6:30**	**6:39**
6:22	**6:31**	**6:35**	**6:45**	**6:53**	**7:01**
6:44	**6:53**	**6:57**	**7:07**	**7:14**	**7:22**
7:14	**7:22**	**7:26**	**7:36**	**7:42**	**7:50**
7:43	**7:51**	**7:55**	**8:04**	**8:10**	**8:18**
8:15	**8:22**	**8:26**	**8:34**	**8:40**	**8:47**
8:45	**8:52**	**8:56**	**9:04**	**9:10**	**9:17**
9:15	**9:22**	**9:26**	**9:34**	**9:40**	**9:47**
9:45	**9:52**	**9:56**	**10:04**	**10:10**	**10:17**

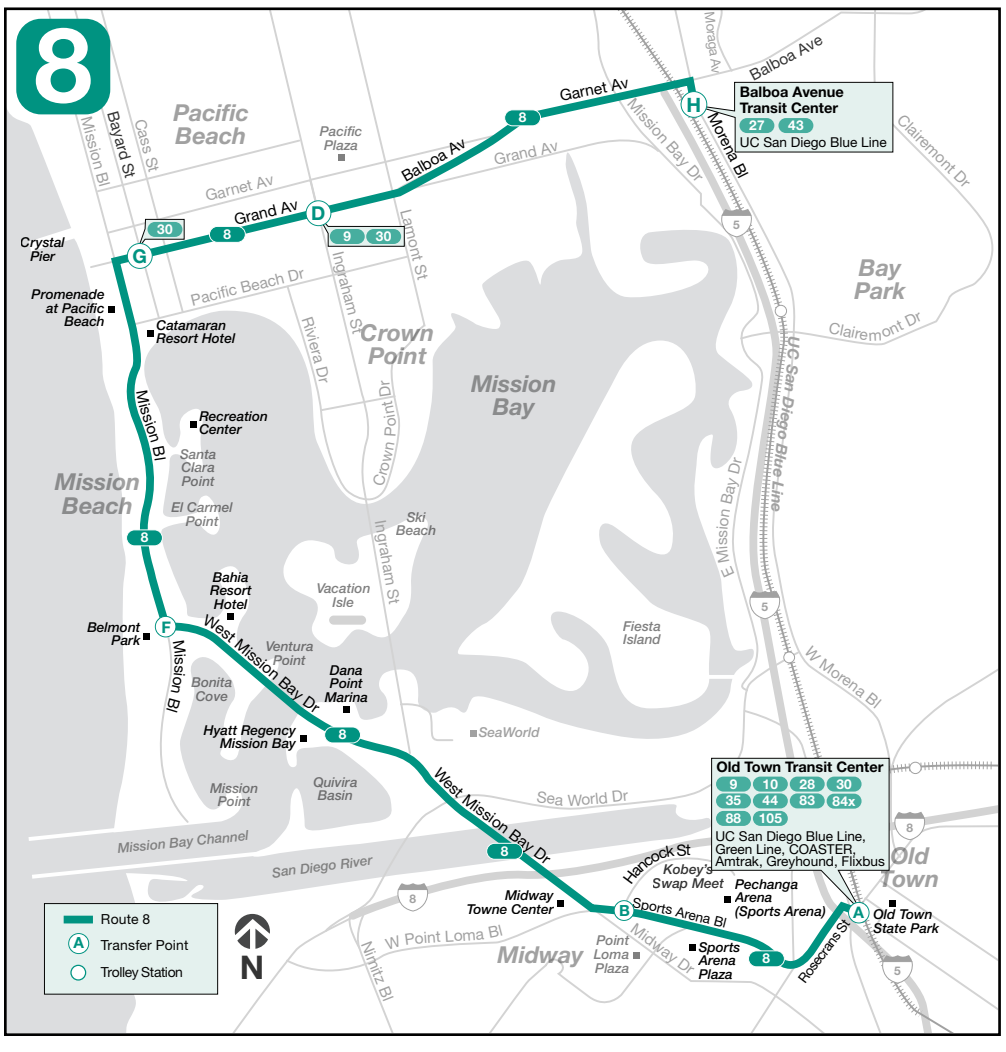
9 Sunday • *domingo*

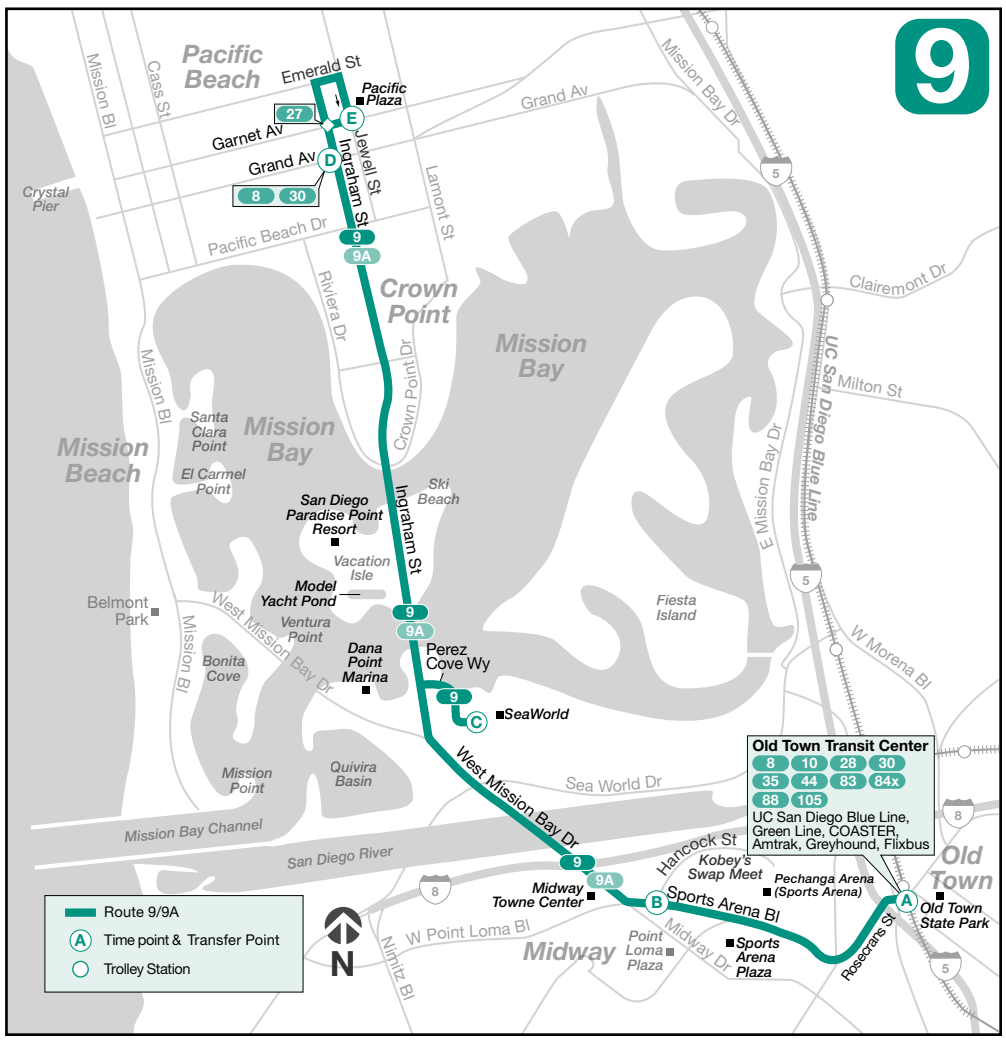
Old Town T.C. → SeaWorld

A	B	C	D	E
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	Sea World **ARRIVE**	Ingraham St. & Grand Av.	Jewell St. & Garnet Av.
7:20a	7:26a	7:31a	—	—
7:50	7:57	8:02	—	—
8:20	8:27	8:32	—	—
8:50	8:57	9:03	—	—
9:20	9:27	9:33	—	—
9:50	9:57	10:03	—	—
10:20	10:28	10:35	—	—
10:50	10:58	11:05	—	—
11:20	11:28	11:35	—	—
11:50	11:58	**12:05p**	—	—
12:20p	**12:28p**	**12:35**	—	—
12:50	**12:58**	**1:06**	—	—
1:20	**1:28**	**1:36**	—	—
1:50	**1:58**	**2:06**	—	—
2:20	**2:28**	**2:36**	—	—
2:50	**2:58**	**3:06**	—	—
3:20	**3:28**	**3:36**	—	—
3:50	**3:58**	**4:06**	—	—
4:20	**4:28**	**4:36**	—	—
4:50	**4:58**	**5:06**	—	—
5:20	**5:28**	**5:35**	—	—
5:50	**5:58**	**6:04**	—	—
6:20	**6:27**	**6:33**	—	—
6:50	**6:57**	**7:03**	—	—
7:20	**7:27**	**7:33**	—	—
7:50	**7:57**	**8:03**	—	—
8:20	**8:27**	**8:33**	—	—

SeaWorld → Old Town T.C.

E	D	C	B	A
Jewell St. & Garnet Av.	Ingraham St. & Grand Av.	Sea World **DEPART**	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
—	—	7:41a	7:47a	7:54a
—	—	8:11	8:17	8:24
—	—	8:41	8:47	8:54
—	—	9:11	9:17	9:24
—	—	9:41	9:47	9:54
—	—	10:10	10:16	10:24
—	—	10:40	10:46	10:54
—	—	11:09	11:15	11:24
—	—	11:39	11:45	11:54
—	—	**12:08p**	**12:15p**	**12:24p**
—	—	**12:38**	**12:45**	**12:54**
—	—	**1:08**	**1:15**	**1:24**
—	—	**1:38**	**1:45**	**1:54**
—	—	**2:08**	**2:15**	**2:24**
—	—	**2:38**	**2:45**	**2:54**
—	—	**3:08**	**3:15**	**3:24**
—	—	**3:38**	**3:45**	**3:54**
—	—	**4:08**	**4:15**	**4:24**
—	—	**4:38**	**4:45**	**4:54**
—	—	**5:08**	**5:15**	**5:24**
—	—	**5:38**	**5:45**	**5:54**
—	—	**6:08**	**6:15**	**6:24**
—	—	**6:39**	**6:46**	**6:54**
—	—	**7:09**	**7:16**	**7:24**
—	—	**7:39**	**7:46**	**7:54**
—	—	**8:10**	**8:17**	**8:24**
—	—	**8:40**	**8:47**	**8:54**
—	—	**9:12**	**9:18**	**9:25**





A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

8 Monday through Friday • *lunes a viernes*

Old Town T.C. → Balboa Av. T.C.

A	B	F	G	D	H
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	W. Mission Bay Dr. & Mission Bl.	Grand Av. & Bayard St.	Grand Av. & Ingraham St.	Balboa Av. Transit Center **ARRIVE**
—	—	—	5:26a	5:29a	5:37a
5:42a	5:48a	5:53a	5:59	6:02	6:10
6:12	6:18	6:23	6:29	6:32	6:40
6:27	6:33	6:38	6:44	6:47	6:55
6:42	6:48	6:53	6:59	7:02	7:10
6:57	7:03	7:09	7:16	7:19	7:28
7:12	7:18	7:24	7:31	7:34	7:43
7:27	7:33	7:39	7:46	7:49	7:58
7:42	7:48	7:54	8:01	8:04	8:13
7:57	8:04	8:11	8:18	8:22	8:31
8:12	8:19	8:26	8:33	8:37	8:46
8:27	8:34	8:41	8:48	8:52	9:01
8:41	8:48	8:55	9:02	9:06	9:15
8:56	9:03	9:10	9:17	9:21	9:30
9:11	9:18	9:25	9:32	9:36	9:45
9:26	9:33	9:40	9:47	9:51	10:00
9:41	9:48	9:55	10:02	10:06	10:15
9:59	10:06	10:13	10:20	10:24	10:33
10:13	10:21	10:28	10:36	10:40	10:49
10:28	10:36	10:43	10:51	10:55	11:04
10:43	10:51	10:58	11:06	11:10	11:19
10:58	11:06	11:13	11:21	11:25	11:34
11:13	11:21	11:28	11:36	11:40	11:49
11:28	11:36	11:43	11:51	11:55	**12:04p**
11:43	11:51	11:58	**12:06p**	**12:10p**	**12:19**
11:59	**12:07p**	**12:14p**	**12:22**	**12:26**	**12:35**
12:14p	**12:22**	**12:29**	**12:37**	**12:41**	**12:50**
12:29	**12:37**	**12:44**	**12:52**	**12:56**	**1:05**
12:44	**12:52**	**12:59**	**1:07**	**1:11**	**1:20**
12:59	**1:07**	**1:14**	**1:22**	**1:26**	**1:35**
1:14	**1:22**	**1:29**	**1:37**	**1:41**	**1:50**
1:29	**1:37**	**1:44**	**1:52**	**1:56**	**2:05**
1:44	**1:52**	**1:59**	**2:07**	**2:11**	**2:20**
1:59	**2:07**	**2:14**	**2:22**	**2:26**	**2:35**
2:14	**2:22**	**2:29**	**2:37**	**2:41**	**2:51**
2:29	**2:37**	**2:44**	**2:52**	**2:56**	**3:06**
2:44	**2:52**	**2:59**	**3:07**	**3:11**	**3:21**
2:59	**3:07**	**3:14**	**3:22**	**3:26**	**3:36**
3:14	**3:22**	**3:29**	**3:37**	**3:41**	**3:51**
3:31	**3:39**	**3:46**	**3:54**	**3:58**	**4:08**
3:47	**3:55**	**4:02**	**4:10**	**4:14**	**4:24**
4:02	**4:10**	**4:17**	**4:25**	**4:29**	**4:39**
4:17	**4:25**	**4:32**	**4:40**	**4:44**	**4:54**
4:32	**4:40**	**4:47**	**4:55**	**4:59**	**5:09**
4:47	**4:55**	**5:02**	**5:10**	**5:14**	**5:24**
5:03	**5:11**	**5:18**	**5:26**	**5:30**	**5:39**
5:18	**5:26**	**5:33**	**5:41**	**5:45**	**5:54**
5:33	**5:41**	**5:48**	**5:56**	**6:00**	**6:09**
5:48	**5:56**	**6:03**	**6:11**	**6:15**	**6:24**
6:03	**6:11**	**6:18**	**6:26**	**6:30**	**6:39**
6:19	**6:26**	**6:33**	**6:41**	**6:45**	**6:53**
6:34	**6:41**	**6:48**	**6:56**	**7:00**	**7:08**
6:57	**7:04**	**7:11**	**7:19**	**7:23**	**7:31**
7:27	**7:34**	**7:41**	**7:49**	**7:53**	**8:01**
7:57	**8:04**	**8:10**	**8:17**	**8:21**	**8:29**
8:27	**8:34**	**8:40**	**8:47**	**8:51**	**8:59**
8:57	**9:03**	**9:09**	**9:15**	**9:19**	**9:27**
9:27	**9:33**	**9:39**	**9:45**	**9:48**	**9:55**
9:57	**10:03**	**10:09**	**10:15**	**10:18**	**10:25**
10:27	**10:33**	**10:39**	**10:45**	**10:48**	**10:55**
10:57	**11:03**	**11:09**	**11:15**	**11:18**	**11:25**
11:27	**11:33**	**11:39**	**11:45**	**11:48**	**11:55**
11:57	12:03a	12:09a	12:15a	12:18a	12:25a

Balboa Av. T.C. → Old Town T.C.

H	D	G	F	B	A
Balboa Av. Transit Center **DEPART**	Grand Av. & Ingraham St.	Grand Av. & Bayard St.	W. Mission Bay Dr. & Mission Bl.	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
—	—	5:05a	5:13a	5:19a	5:25a
5:30a	5:36a	5:39	5:47	5:53	5:59
6:00	6:06	6:10	6:18	6:24	6:31
6:30	6:37	6:41	6:49	6:55	7:02
6:46	6:53	6:57	7:05	7:11	7:18
7:01	7:08	7:12	7:20	7:26	7:33
7:16	7:23	7:27	7:35	7:41	7:48
7:30	7:37	7:41	7:49	7:55	8:02
7:45	7:52	7:56	8:04	8:10	8:17
7:59	8:06	8:10	8:18	8:24	8:31
8:14	8:21	8:25	8:33	8:39	8:46
8:28	8:36	8:40	8:48	8:54	9:02
8:43	8:51	8:55	9:03	9:09	9:17
8:58	9:06	9:10	9:18	9:24	9:32
9:13	9:21	9:25	9:34	9:41	9:49
9:28	9:36	9:40	9:49	9:56	10:04
9:43	9:51	9:55	10:04	10:11	10:19
9:58	10:06	10:10	10:19	10:26	10:34
10:13	10:21	10:25	10:34	10:41	10:49
10:28	10:36	10:40	10:49	10:56	11:04
10:43	10:51	10:55	11:04	11:11	11:19
10:58	11:06	11:10	11:19	11:26	11:34
11:15	11:24	11:28	11:37	11:44	11:53
11:32	11:41	11:45	11:54	**12:01p**	**12:10p**
11:49	11:58	**12:02p**	**12:11p**	**12:18**	**12:27**
12:07p	**12:16p**	**12:20**	**12:29**	**12:36**	**12:45**
12:22	**12:31**	**12:35**	**12:44**	**12:51**	**1:00**
12:37	**12:46**	**12:50**	**12:59**	**1:06**	**1:15**
12:52	**1:01**	**1:05**	**1:14**	**1:21**	**1:30**
1:07	**1:16**	**1:20**	**1:29**	**1:36**	**1:45**
1:22	**1:31**	**1:35**	**1:44**	**1:51**	**2:00**
1:37	**1:46**	**1:50**	**1:59**	**2:06**	**2:15**
1:52	**2:01**	**2:05**	**2:14**	**2:21**	**2:30**
2:07	**2:16**	**2:20**	**2:29**	**2:36**	**2:45**
2:22	**2:31**	**2:35**	**2:44**	**2:51**	**3:00**
2:37	**2:47**	**2:51**	**3:01**	**3:08**	**3:17**
2:52	**3:02**	**3:06**	**3:16**	**3:23**	**3:32**
3:07	**3:17**	**3:21**	**3:31**	**3:38**	**3:47**
3:22	**3:32**	**3:36**	**3:46**	**3:53**	**4:02**
3:37	**3:47**	**3:51**	**4:01**	**4:08**	**4:17**
3:52	**4:02**	**4:06**	**4:16**	**4:23**	**4:32**
4:07	**4:17**	**4:21**	**4:31**	**4:38**	**4:47**
4:22	**4:32**	**4:36**	**4:46**	**4:53**	**5:02**
4:37	**4:47**	**4:51**	**5:01**	**5:08**	**5:17**
4:52	**5:02**	**5:06**	**5:16**	**5:23**	**5:32**
5:07	**5:17**	**5:21**	**5:31**	**5:38**	**5:47**
5:22	**5:32**	**5:36**	**5:46**	**5:53**	**6:02**
5:37	**5:47**	**5:51**	**6:01**	**6:08**	**6:17**
5:52	**6:02**	**6:06**	**6:16**	**6:23**	**6:32**
6:07	**6:16**	**6:20**	**6:29**	**6:36**	**6:45**
6:22	**6:31**	**6:35**	**6:44**	**6:51**	**7:00**
6:37	**6:45**	**6:49**	**6:58**	**7:04**	**7:12**
6:52	**7:00**	**7:04**	**7:13**	**7:19**	**7:27**
7:07	**7:15**	**7:19**	**7:28**	**7:34**	**7:42**
7:22	**7:30**	**7:34**	**7:43**	**7:49**	**7:57**
7:43	**7:51**	**7:55**	**8:04**	**8:10**	**8:18**
8:15	**8:22**	**8:26**	**8:34**	**8:40**	**8:47**
8:45	**8:52**	**8:56**	**9:04**	**9:10**	**9:17**
9:15	**9:22**	**9:26**	**9:34**	**9:40**	**9:47**
9:45	**9:52**	**9:56**	**10:04**	**10:10**	**10:17**
10:15	**10:22**	**10:26**	**10:34**	**10:40**	**10:47**
10:47	**10:53**	**10:56**	**11:03**	**11:09**	**11:16**
11:17	**11:23**	**11:26**	**11:33**	**11:39**	**11:46**
11:47	**11:53**	**11:56**	12:03a	12:09a	12:16a

9 Monday through Friday • *lunes a viernes*

Old Town T.C. → Pacific Beach

A	B	C	D	E
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	Sea World	Ingraham St. & Grand Av.	Jewell St. & Garnet Av. **ARRIVE**
A 6:13a	6:19a	—	6:27a	6:31a
A 6:43	6:49	—	6:58	7:02
A 7:13	7:19	—	7:28	7:33
7:43	7:49	7:55a	8:04	8:09
8:12	8:19	8:25	8:34	8:39
8:42	8:49	8:55	9:04	9:09
9:02	9:09	9:15	9:24	9:29
9:22	9:29	9:35	9:44	9:49
9:42	9:49	9:55	10:04	10:09
10:02	10:10	10:17	10:26	10:31
10:22	10:30	10:37	10:46	10:51
10:42	10:50	10:57	11:06	11:11
11:02	11:10	11:17	11:26	11:31
11:22	11:30	11:37	11:46	11:51
11:42	11:50	11:57	**12:06p**	**12:11p**
12:02p	**12:10p**	**12:17p**	**12:26**	**12:31**
12:22	**12:30**	**12:37**	**12:46**	**12:51**
12:41	**12:49**	**12:57**	**1:07**	**1:12**
1:01	**1:09**	**1:17**	**1:27**	**1:32**
1:21	**1:29**	**1:37**	**1:47**	**1:52**
1:41	**1:49**	**1:57**	**2:07**	**2:12**
2:01	**2:09**	**2:17**	**2:27**	**2:32**
2:21	**2:29**	**2:37**	**2:47**	**2:52**
2:40	**2:48**	**2:57**	**3:08**	**3:13**
3:00	**3:08**	**3:17**	**3:28**	**3:33**
3:20	**3:28**	**3:37**	**3:48**	**3:53**
3:40	**3:48**	**3:57**	**4:08**	**4:13**
4:01	**4:09**	**4:18**	**4:29**	**4:34**
A **4:22**	**4:30**	**—**	**4:41**	**4:46**
A **4:42**	**4:50**	**—**	**5:01**	**5:06**
A **5:02**	**5:10**	**—**	**5:21**	**5:26**
A **5:22**	**5:30**	**—**	**5:40**	**5:45**
A **5:42**	**5:50**	**—**	**6:00**	**6:05**
A **6:02**	**6:10**	**—**	**6:20**	**6:25**
A **6:20**	**6:28**	**—**	**6:37**	**6:42**
A **6:42**	**6:49**	**—**	**6:58**	**7:03**
A **7:12**	**7:19**	**—**	**7:28**	**7:33**
A **7:43**	**7:50**	**—**	**7:59**	**8:04**
A **8:13**	**8:20**	**—**	**8:28**	**8:33**
A **8:43**	**8:50**	**—**	**8:58**	**9:03**

Pacific Beach → Old Town T.C.

E	D	C	B	A
Jewell St. & Garnet Av. **DEPART**	Ingraham St. & Grand Av.	Sea World	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
A 5:46a	5:48a	—	5:56a	6:02a
A 6:15	6:17	—	6:25	6:32
A 6:43	6:46	—	6:55	7:02
A 7:12	7:15	—	7:25	7:32
A 7:42	7:45	—	7:55	8:02
A 8:11	8:14	—	8:24	8:32
A 8:41	8:44	—	8:54	9:02
A 9:11	9:14	—	9:24	9:32
9:26	9:29	9:39a	9:46	9:54
9:44	9:47	9:57	10:04	10:12
10:04	10:07	10:17	10:24	10:32
10:24	10:27	10:37	10:44	10:52
10:44	10:47	10:57	11:04	11:12
11:02	11:05	11:16	11:23	11:31
11:22	11:25	11:36	11:43	11:52
11:42	11:45	11:56	**12:03p**	**12:12p**
12:02p	**12:05p**	**12:16p**	**12:23**	**12:32**
12:22	**12:25**	**12:36**	**12:43**	**12:52**
12:42	**12:45**	**12:56**	**1:03**	**1:12**
1:02	**1:05**	**1:16**	**1:23**	**1:32**
1:22	**1:25**	**1:36**	**1:43**	**1:52**
1:42	**1:45**	**1:56**	**2:03**	**2:12**
2:01	**2:04**	**2:15**	**2:22**	**2:31**
2:21	**2:24**	**2:35**	**2:42**	**2:51**
2:41	**2:44**	**2:55**	**3:02**	**3:11**
3:00	**3:03**	**3:15**	**3:23**	**3:32**
3:21	**3:24**	**3:36**	**3:44**	**3:53**
3:41	**3:44**	**3:56**	**4:04**	**4:13**
4:01	**4:04**	**4:16**	**4:24**	**4:33**
4:21	**4:24**	**4:36**	**4:44**	**4:53**
4:42	**4:45**	**4:57**	**5:05**	**5:14**
5:00	**5:03**	**5:15**	**5:23**	**5:32**
5:18	**5:21**	**5:33**	**5:41**	**5:50**
5:38	**5:41**	**5:53**	**6:01**	**6:10**
5:56	**5:59**	**6:11**	**6:19**	**6:28**
6:14	**6:17**	**6:29**	**6:37**	**6:46**
6:33	**6:36**	**6:47**	**6:54**	**7:02**
7:03	**7:06**	**7:17**	**7:24**	**7:32**
7:33	**7:36**	**7:47**	**7:54**	**8:02**
8:05	**8:08**	**8:18**	**8:25**	**8:32**
8:36	**8:39**	**8:49**	**8:56**	**9:03**
9:09	**9:11**	**9:20**	**9:26**	**9:33**
9:39	**9:41**	**9:50**	**9:56**	**10:03**
—	—	**10:20**	**10:26**	**10:33**

A = Route 9A. Trip does not enter SeaWorld. Use bus stop on Ingraham St. at Perez Cove Way for access to/from SeaWorld. / *La ruta 9A no proporciona servicio hacia SeaWorld. Tome o baje del autobus en Ingraham St. en la esquina con Perez Cove Way para ir a SeaWorld.*

8 Saturday • *sábado*

Old Town T.C → Balboa Av. T.C.

A	B	F	G	D	H
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	W. Mission Bay Dr. & Mission Bl.	Grand Av. & Bayard St.	Grand Av. & Ingraham St.	Balboa Av. Transit Center **ARRIVE**
5:42a	5:48a	5:53a	5:59a	6:02a	6:10a
6:12	6:18	6:23	6:29	6:32	6:40
6:42	6:48	6:53	6:59	7:02	7:10
7:12	7:18	7:24	7:31	7:34	7:42
7:42	7:48	7:54	8:01	8:04	8:12
8:04	8:11	8:18	8:25	8:28	8:36
8:25	8:32	8:39	8:46	8:49	8:57
8:45	8:52	9:00	9:07	9:11	9:20
9:05	9:12	9:20	9:27	9:31	9:40
9:27	9:34	9:42	9:49	9:53	10:02
9:47	9:54	10:02	10:09	10:13	10:22
10:07	10:15	10:23	10:31	10:35	10:44
10:27	10:35	10:43	10:51	10:55	11:04
10:47	10:55	11:03	11:11	11:15	11:24
11:07	11:15	11:23	11:31	11:35	11:44
11:27	11:35	11:43	11:51	11:55	**12:04p**
11:47	11:55	**12:03p**	**12:11p**	**12:15p**	**12:24**
12:07p	**12:15p**	**12:24**	**12:33**	**12:37**	**12:47**
12:27	**12:35**	**12:44**	**12:53**	**12:57**	**1:07**
12:47	**12:55**	**1:04**	**1:13**	**1:17**	**1:27**
1:07	**1:15**	**1:24**	**1:33**	**1:37**	**1:47**
1:27	**1:35**	**1:44**	**1:53**	**1:57**	**2:07**
1:48	**1:56**	**2:05**	**2:14**	**2:18**	**2:28**
2:08	**2:16**	**2:25**	**2:34**	**2:38**	**2:48**
2:28	**2:36**	**2:45**	**2:54**	**2:58**	**3:08**
2:48	**2:56**	**3:05**	**3:14**	**3:18**	**3:28**
3:08	**3:16**	**3:25**	**3:34**	**3:38**	**3:48**
3:28	**3:36**	**3:45**	**3:54**	**3:58**	**4:08**
3:49	**3:57**	**4:06**	**4:15**	**4:19**	**4:29**
4:09	**4:17**	**4:26**	**4:35**	**4:39**	**4:49**
4:29	**4:37**	**4:46**	**4:55**	**4:59**	**5:09**
4:49	**4:57**	**5:06**	**5:15**	**5:19**	**5:29**
5:10	**5:18**	**5:27**	**5:36**	**5:40**	**5:49**
5:31	**5:39**	**5:47**	**5:56**	**6:00**	**6:09**
5:51	**5:58**	**6:05**	**6:13**	**6:17**	**6:26**
6:11	**6:18**	**6:25**	**6:33**	**6:37**	**6:46**
6:29	**6:36**	**6:43**	**6:51**	**6:55**	**7:03**
6:57	**7:04**	**7:11**	**7:19**	**7:23**	**7:31**
7:27	**7:34**	**7:41**	**7:49**	**7:53**	**8:01**
7:57	**8:04**	**8:10**	**8:17**	**8:21**	**8:29**
8:27	**8:34**	**8:40**	**8:47**	**8:51**	**8:59**
8:57	**9:03**	**9:09**	**9:15**	**9:19**	**9:27**
9:27	**9:33**	**9:39**	**9:45**	**9:48**	**9:55**
9:57	**10:03**	**10:09**	**10:15**	**10:18**	**10:25**
10:27	**10:33**	**10:39**	**10:45**	**10:48**	**10:55**
10:57	**11:03**	**11:09**	**11:15**	**11:18**	**11:25**
11:27	**11:33**	**11:39**	**11:45**	**11:48**	**11:55**
11:57	12:03a	12:09a	12:15a	12:18a	12:25a

Balboa Av. T.C. → Old Town T.C.

H	D	G	F	B	A
Balboa Av. Transit Center **DEPART**	Grand Av. & Ingraham St.	Grand Av. & Bayard St.	W. Mission Bay Dr. & Mission Bl.	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
5:46a	5:52a	5:56a	6:04a	6:10a	6:17a
6:16	6:23	6:27	6:35	6:41	6:48
6:46	6:53	6:57	7:05	7:11	7:18
7:16	7:23	7:27	7:35	7:41	7:48
7:45	7:52	7:56	8:04	8:10	8:17
8:14	8:21	8:25	8:33	8:39	8:46
8:43	8:51	8:55	9:03	9:09	9:16
9:13	9:21	9:25	9:34	9:41	9:48
9:38	9:47	9:51	10:01	10:08	10:16
9:57	10:06	10:10	10:20	10:27	10:35
10:17	10:26	10:30	10:40	10:47	10:55
10:37	10:47	10:51	11:01	11:09	11:18
10:57	11:07	11:11	11:21	11:29	11:38
11:15	11:25	11:29	11:40	11:48	11:57
11:35	11:45	11:49	**12:00p**	**12:08p**	**12:17p**
11:55	**12:05p**	**12:09p**	**12:20**	**12:28**	**12:37**
12:15p	**12:25**	**12:29**	**12:40**	**12:48**	**12:57**
12:35	**12:45**	**12:49**	**1:00**	**1:08**	**1:17**
12:57	**1:07**	**1:11**	**1:22**	**1:30**	**1:39**
1:17	**1:27**	**1:31**	**1:42**	**1:50**	**1:59**
1:37	**1:47**	**1:51**	**2:02**	**2:10**	**2:19**
1:57	**2:07**	**2:11**	**2:22**	**2:30**	**2:39**
2:17	**2:27**	**2:31**	**2:42**	**2:50**	**2:59**
2:37	**2:47**	**2:51**	**3:02**	**3:10**	**3:19**
2:57	**3:07**	**3:11**	**3:22**	**3:30**	**3:39**
3:17	**3:27**	**3:31**	**3:42**	**3:50**	**3:59**
3:37	**3:47**	**3:51**	**4:02**	**4:10**	**4:19**
3:57	**4:07**	**4:11**	**4:22**	**4:30**	**4:39**
4:18	**4:28**	**4:32**	**4:43**	**4:51**	**5:00**
4:39	**4:49**	**4:53**	**5:04**	**5:12**	**5:21**
4:59	**5:09**	**5:13**	**5:24**	**5:32**	**5:41**
5:19	**5:29**	**5:33**	**5:44**	**5:52**	**6:01**
5:39	**5:48**	**5:52**	**6:02**	**6:10**	**6:19**
5:59	**6:08**	**6:12**	**6:22**	**6:30**	**6:39**
6:22	**6:31**	**6:35**	**6:45**	**6:53**	**7:01**
6:44	**6:53**	**6:57**	**7:07**	**7:14**	**7:22**
7:14	**7:22**	**7:26**	**7:36**	**7:42**	**7:50**
7:43	**7:51**	**7:55**	**8:04**	**8:10**	**8:18**
8:15	**8:22**	**8:26**	**8:34**	**8:40**	**8:47**
8:45	**8:52**	**8:56**	**9:04**	**9:10**	**9:17**
9:15	**9:22**	**9:26**	**9:34**	**9:40**	**9:47**
9:45	**9:52**	**9:56**	**10:04**	**10:10**	**10:17**
10:15	**10:22**	**10:26**	**10:34**	**10:40**	**10:47**
10:47	**10:53**	**10:56**	**11:03**	**11:09**	**11:16**
11:17	**11:23**	**11:26**	**11:33**	**11:39**	**11:46**
11:47	**11:53**	**11:56**	12:03a	12:09a	12:16a

9 Saturday • *sábado*

Old Town T.C. → Pacific Beach

A	B	C	D	E
Old Town Transit Center **DEPART**	Sports Arena Bl. & Hancock St.	Sea World	Ingraham St. & Grand Av.	Jewell St. & Garnet Av. **ARRIVE**
A 6:27a	6:33a	—	6:42a	6:46a
A 6:57	7:03	—	7:12	7:16
A 7:27	7:33	—	7:42	7:46
7:57	8:04	8:09a	8:18	8:23
8:27	8:34	8:39	8:48	8:53
8:57	9:04	9:10	9:19	9:24
9:27	9:34	9:40	9:49	9:54
9:57	10:04	10:10	10:19	10:24
10:27	10:35	10:42	10:51	10:56
10:57	11:05	11:12	11:21	11:26
11:27	11:35	11:42	11:51	11:56
11:57	**12:05p**	**12:12p**	**12:21p**	**12:26p**
12:27p	**12:35**	**12:42**	**12:51**	**12:56**
12:57	**1:05**	**1:13**	**1:23**	**1:28**
1:27	**1:35**	**1:43**	**1:53**	**1:58**
1:57	**2:05**	**2:13**	**2:23**	**2:28**
2:27	**2:35**	**2:43**	**2:53**	**2:58**
2:57	**3:05**	**3:13**	**3:23**	**3:28**
3:27	**3:35**	**3:43**	**3:53**	**3:58**
3:57	**4:05**	**4:13**	**4:23**	**4:28**
A **4:29**	**4:37**	**—**	**4:48**	**4:53**
A **4:57**	**5:05**	**—**	**5:16**	**5:21**
A **5:28**	**5:36**	**—**	**5:46**	**5:51**
A **6:04**	**6:11**	**—**	**6:21**	**6:26**
A **6:40**	**6:47**	**—**	**6:56**	**7:01**
A **7:12**	**7:19**	**—**	**7:28**	**7:33**
A **7:43**	**7:50**	**—**	**7:59**	**8:04**
A **8:13**	**8:20**	**—**	**8:28**	**8:33**
A **8:43**	**8:50**	**—**	**8:58**	**9:03**

Pacific Beach → Old Town T.C.

E	D	C	B	A
Jewell St. & Garnet Av. **DEPART**	Ingraham St. & Grand Av.	Sea World	Sports Arena Bl. & Hancock St.	Old Town Transit Center **ARRIVE**
A 6:29a	6:31a	—	6:40a	6:47a
A 6:59	7:01	—	7:10	7:17
A 7:29	7:31	—	7:40	7:47
A 7:59	8:01	—	8:10	8:17
A 8:28	8:30	—	8:40	8:47
A 8:58	9:00	—	9:10	9:17
9:23	9:25	9:34a	9:40	9:47
9:50	9:53	10:03	10:09	10:17
10:20	10:23	10:33	10:39	10:47
10:48	10:51	11:02	11:08	11:17
11:18	11:21	11:32	11:38	11:47
11:48	11:51	**12:02p**	**12:08p**	**12:17p**
12:16p	**12:19p**	**12:31**	**12:38**	**12:47**
12:46	**12:49**	**1:01**	**1:08**	**1:17**
1:16	**1:19**	**1:31**	**1:38**	**1:47**
1:46	**1:49**	**2:01**	**2:08**	**2:17**
2:16	**2:19**	**2:31**	**2:38**	**2:47**
2:46	**2:49**	**3:01**	**3:08**	**3:17**
3:16	**3:19**	**3:31**	**3:38**	**3:47**
3:46	**3:49**	**4:01**	**4:08**	**4:17**
4:16	**4:19**	**4:31**	**4:38**	**4:47**
4:46	**4:49**	**5:01**	**5:08**	**5:17**
5:16	**5:19**	**5:31**	**5:38**	**5:47**
5:49	**5:52**	**6:04**	**6:11**	**6:20**
6:25	**6:28**	**6:40**	**6:47**	**6:55**
7:03	**7:06**	**7:17**	**7:24**	**7:32**
7:33	**7:36**	**7:47**	**7:54**	**8:02**
8:05	**8:08**	**8:18**	**8:25**	**8:32**
8:36	**8:39**	**8:49**	**8:56**	**9:03**
9:09	**9:11**	**9:20**	**9:26**	**9:33**
9:39	**9:41**	**9:50**	**9:56**	**10:03**
—	—	**10:20**	**10:26**	**10:33**

A = Route 9A. Trip does not enter SeaWorld. Use bus stop on Ingraham St. at Perez Cove Way for access to/from SeaWorld. / *La ruta 9A no proporciona servicio hacia SeaWorld. Tome o baje del autobus en Ingraham St. en la esquina con Perez Cove Way para ir a SeaWorld.*

More Information / *más información*

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*Todos los horarios están disponibles en línea. Visita **sdmts.com/timetables** o escanea.*

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MTS Security *MTS Seguridad*	**619-595-4960**
MTS Information & Trip Planning *MTS Información y planeo de viaje*	**619-233-3004**
Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 231-1466.
Formato alternativo disponible al preguntar. Llamar: (619) 231-1466.

Effective September 3, 2023

28

Old Town Transit Center ↔ Shelter Island
via Rosecrans Street

84

Shelter Island ↔ Sub Base
via Rosecrans Street
Cabrillo Monument
via Catalina Boulevard

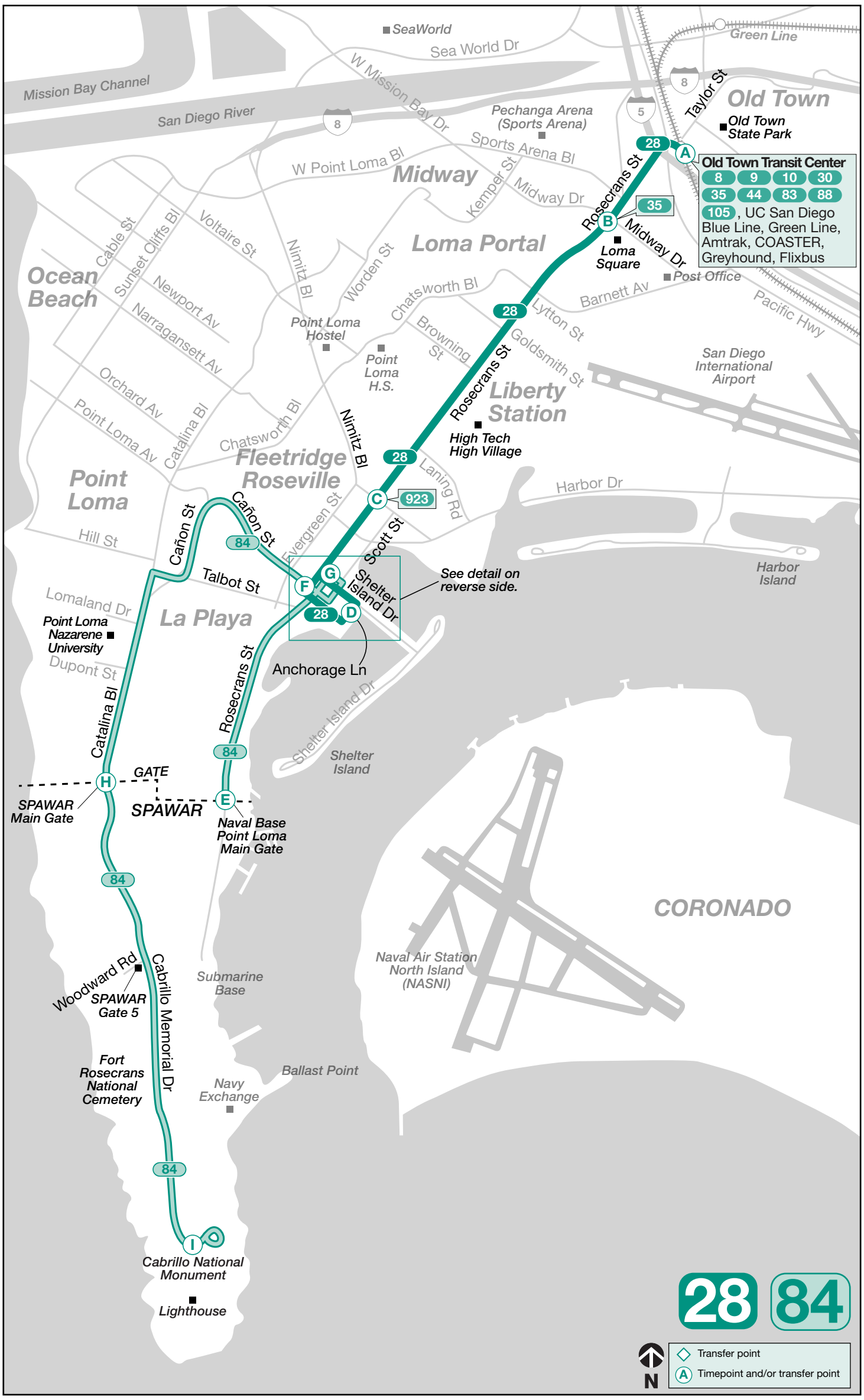
Destinations
- High Tech High Village (28)
- Liberty Station (28)
- Loma Square (28)
- Cabrillo National Monument (84)
- Fort Rosecrans National Cemetery (84)
- Naval Base Point Loma (84)
- Point Loma Nazarene University (84)
- SPAWAR (84)

Bus Routes

Trolley Connections
- Old Town

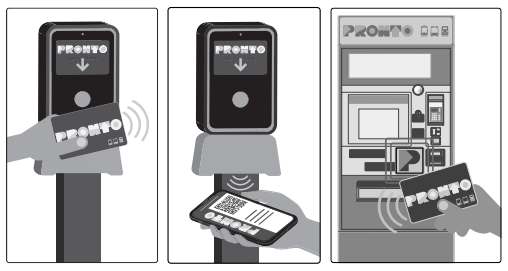
Subject to change without notice
Sujeto a cambios sin previo aviso

MTS



PRONTO

TAP or SCAN - Required Before Boarding



TOCA o ESCANEA - Se requiere antes de abordar

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MTS **sdmts.com/drive**

28 Monday through Friday • *lunes a viernes*

Old Town T.C. → Shelter Island

A Old Town Transit Center **DEPART**	B Rosecrans St. & Midway Dr.	C Rosecrans St. & Nimitz Blvd.	G	D Anchorage & Shelter Island Dr. **ARRIVE**
5:41a	5:45a	5:52a		5:57a
6:11	6:16	6:23	B	6:29
6:40	6:45	6:54	C	7:00
6:59	7:04	7:13	B	7:19
7:16	7:21	7:30		7:36
7:36	7:41	7:50	C	7:56
7:56	8:01	8:10	B	8:16
8:11	8:16	8:25		8:31
8:31	8:36	8:45	C	8:51
8:51	8:56	9:05		9:11
9:11	9:17	9:24	B	9:29
9:41	9:47	9:54	C	9:59
10:11	10:17	10:24	B	10:29
10:41	10:47	10:54	C	10:59
11:11	11:17	11:24	B	11:29
11:41	11:47	11:54	C	11:59
12:11p	**12:17p**	**12:25p**	B	**12:31p**
12:41	**12:47**	**12:55**	C	**1:01**
1:11	**1:17**	**1:25**	B	**1:31**
1:41	**1:47**	**1:55**	C	**2:01**
2:11	**2:17**	**2:25**	B	**2:31**
2:41	**2:47**	**2:55**	C	**3:01**
3:11	**3:17**	**3:25**	B	**3:31**
3:41	**3:47**	**3:55**	C	**4:01**
4:11	**4:17**	**4:25**	B	**4:31**
4:41	**4:47**	**4:55**	C	**5:01**
5:11	**5:17**	**5:24**	B	**5:29**
5:41	**5:47**	**5:54**		**5:59**
6:11	**6:17**	**6:24**		**6:29**
6:41	**6:47**	**6:54**		**6:59**
7:11	**7:16**	**7:22**		**7:27**
7:41	**7:46**	**7:52**		**7:57**
8:11	**8:16**	**8:22**		**8:27**
8:41	**8:46**	**8:52**		**8:57**
9:11	**9:15**	**9:21**		**9:25**
9:41	**9:45**	**9:51**		**9:55**
10:34	**10:38**	**10:44**		**10:48**

Shelter Island → Old Town T.C.

D Anchorage & Shelter Island Dr. **DEPART**	C Rosecrans St. & Nimitz Blvd.	B Rosecrans St. & Midway Dr.	A Old Town Transit Center **ARRIVE**
5:26a	5:30a	5:35a	5:40a
6:16	6:21	6:27	6:33
6:46	6:51	6:57	7:03
7:06	7:11	7:17	7:23
7:26	7:31	7:37	7:43
7:45	7:50	7:57	8:03
8:05	8:10	8:17	8:23
8:25	8:30	8:37	8:43
8:45	8:50	8:57	9:03
9:15	9:20	9:27	9:33
9:45	9:50	9:57	10:03
10:15	10:20	10:27	10:33
10:45	10:50	10:57	11:03
11:13	11:18	11:26	11:33
11:43	11:48	11:56	**12:03p**
12:13p	**12:18p**	**12:26p**	**12:33**
12:43	**12:48**	**12:56**	**1:03**
1:12	**1:17**	**1:25**	**1:33**
1:42	**1:47**	**1:55**	**2:03**
2:10	**2:15**	**2:25**	**2:33**
2:40	**2:45**	**2:55**	**3:03**
2:55	**3:00**	**3:10**	**3:18**
3:10	**3:15**	**3:25**	**3:33**
3:25	**3:30**	**3:40**	**3:48**
3:40	**3:45**	**3:55**	**4:03**
3:55	**4:00**	**4:10**	**4:18**
4:10	**4:15**	**4:25**	**4:33**
4:25	**4:30**	**4:40**	**4:48**
4:40	**4:45**	**4:55**	**5:03**
5:10	**5:15**	**5:25**	**5:33**
5:42	**5:47**	**5:55**	**6:03**
6:16	**6:21**	**6:27**	**6:33**
6:46	**6:51**	**6:57**	**7:03**
7:16	**7:21**	**7:27**	**7:33**
7:46	**7:51**	**7:57**	**8:03**
8:16	**8:21**	**8:27**	**8:33**
8:46	**8:51**	**8:57**	**9:03**
9:16	**9:21**	**9:27**	**9:33**
9:48	**9:52**	**9:57**	**10:03**
10:18	**10:22**	**10:27**	**10:33**

G = Transfer required at Shelter Island Dr. & Rosecrans St. for Route 84 service to Sub Base Gate or Cabrillo Monument. These trips are scheduled to connect with Route 84 from Rosecrans St. & Cañon St. as noted:
- B = Connects with Route 84 for service to Sub Base Gate.
- C = Connects with Route 84 for service to SPAWAR or Cabrillo Monument.

Se requiere transbordar a la ruta 84 en Shelter Island Dr. & Rosecrans St. para servicio a 'Sub Base Gate' o Cabrillo Monument. Estos viajes están programados para conectar con Ruta 84 con las salidas de la Ruta 84 de Rosecrans St. y Cañon St. como se indica:
- B = *Se conecta a la Ruta 84 viajes a 'Sub Base Gate'*
- C = *Se conecta a la Ruta 84 viajes a 'SPAWAR o Cabrillo Monument'*

28 Saturday • *sábado*

Old Town T.C. → Shelter Island

A Old Town Transit Center **DEPART**	B Rosecrans St. & Midway Dr.	C Rosecrans St. & Nimitz Blvd.	D Anchorage & Shelter Island Dr. **ARRIVE**
6:11a	6:15a	6:22a	6:26a
6:41	6:45	6:52	6:56
7:11	7:15	7:22	7:26
7:41	7:46	7:53	7:58
8:11	8:16	8:23	8:28
8:41	8:46	8:53	8:58
9:11	9:16	9:23	9:28
9:41	9:47	9:54	9:59
10:11	10:17	10:24	10:29
10:41	10:47	10:54	10:59
11:11	11:17	11:24	11:29
11:41	11:47	11:54	11:59
12:11p	**12:17p**	**12:25p**	**12:31p**
12:41	**12:47**	**12:55**	**1:01**
1:11	**1:17**	**1:25**	**1:31**
1:41	**1:47**	**1:55**	**2:01**
2:11	**2:17**	**2:25**	**2:31**
2:41	**2:47**	**2:55**	**3:01**
3:11	**3:17**	**3:25**	**3:31**
3:41	**3:47**	**3:55**	**4:01**
4:11	**4:17**	**4:25**	**4:31**
4:41	**4:47**	**4:55**	**5:01**
5:11	**5:17**	**5:24**	**5:29**
5:41	**5:47**	**5:54**	**5:59**
6:11	**6:17**	**6:24**	**6:29**
6:41	**6:47**	**6:54**	**6:59**
7:11	**7:16**	**7:22**	**7:27**
7:41	**7:46**	**7:52**	**7:57**
8:11	**8:16**	**8:22**	**8:27**
8:41	**8:46**	**8:52**	**8:57**
9:11	**9:15**	**9:21**	**9:25**
9:41	**9:45**	**9:51**	**9:55**
10:34	**10:38**	**10:44**	**10:48**

Shelter Island → Old Town T.C.

D Anchorage & Shelter Island Dr. **DEPART**	C Rosecrans St. & Nimitz Blvd.	B Rosecrans St. & Midway Dr.	A Old Town Transit Center **ARRIVE**
6:17a	6:22a	6:28a	6:33a
6:47	6:52	6:58	7:03
7:17	7:22	7:28	7:33
7:47	7:52	7:58	8:03
8:17	8:22	8:28	8:33
8:45	8:50	8:57	9:03
9:15	9:20	9:27	9:33
9:45	9:50	9:57	10:03
10:15	10:20	10:27	10:33
10:45	10:50	10:57	11:03
11:13	11:18	11:26	11:33
11:43	11:48	11:56	**12:03p**
12:13p	**12:18p**	**12:26p**	**12:33**
12:43	**12:48**	**12:56**	**1:03**
1:13	**1:18**	**1:26**	**1:33**
1:43	**1:48**	**1:56**	**2:03**
2:13	**2:18**	**2:26**	**2:33**
2:43	**2:48**	**2:56**	**3:03**
3:13	**3:18**	**3:26**	**3:33**
3:43	**3:48**	**3:56**	**4:03**
4:13	**4:18**	**4:26**	**4:33**
4:43	**4:48**	**4:56**	**5:03**
5:13	**5:18**	**5:26**	**5:33**
5:43	**5:48**	**5:56**	**6:03**
6:16	**6:21**	**6:27**	**6:33**
6:46	**6:51**	**6:57**	**7:03**
7:16	**7:21**	**7:27**	**7:33**
7:46	**7:51**	**7:57**	**8:03**
8:16	**8:21**	**8:27**	**8:33**
8:48	**8:52**	**8:57**	**9:03**
9:18	**9:22**	**9:27**	**9:33**
9:48	**9:52**	**9:57**	**10:03**
10:12	**10:16**	**10:21**	**10:27**

28 Sunday • *domingo*

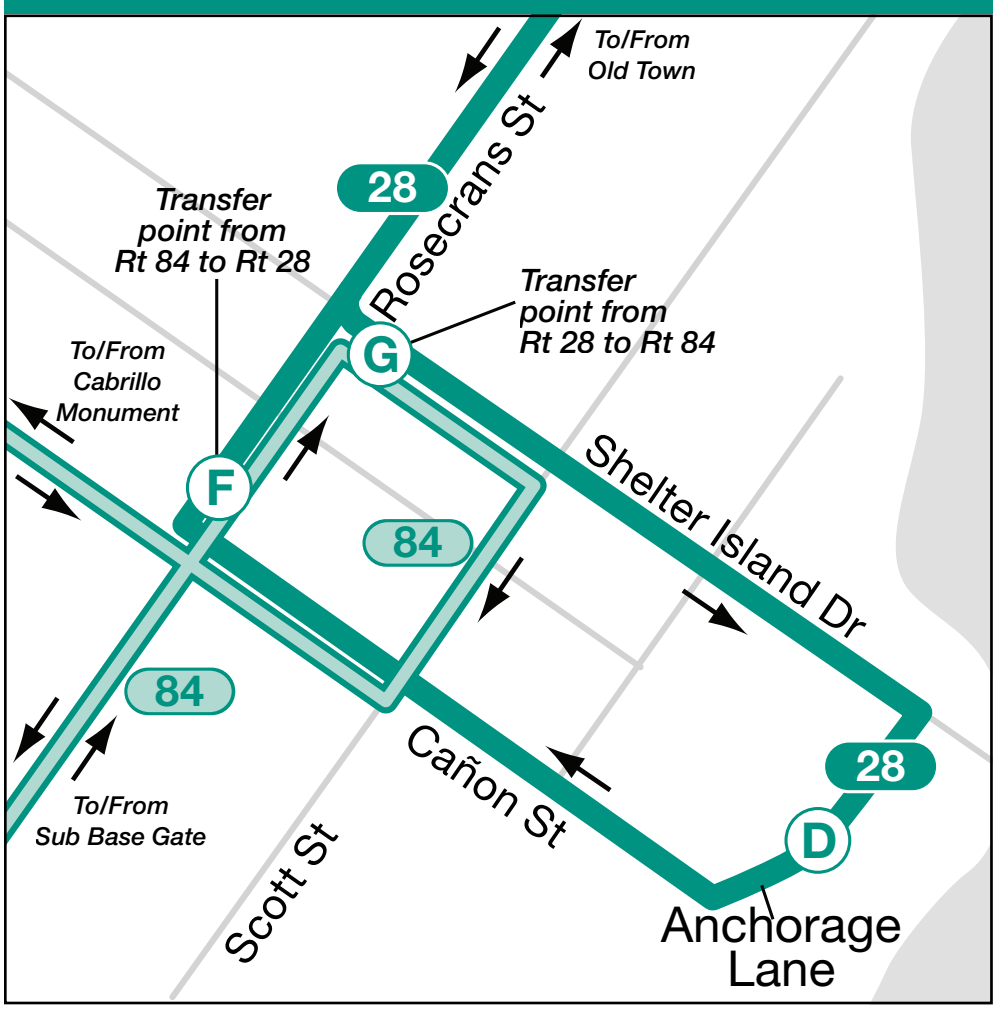
Old Town T.C. → Shelter Island

A Old Town Transit Center **DEPART**	B Rosecrans St. & Midway Dr.	C Rosecrans St. & Nimitz Blvd.	D Anchorage & Shelter Island Dr. **ARRIVE**
6:26a	6:30a	6:37a	6:41a
7:26	7:31	7:38	7:43
8:26	8:31	8:38	8:43
9:26	9:31	9:38	9:43
10:26	10:32	10:39	10:44
11:26	11:32	11:39	11:44
12:26p	**12:32p**	**12:40p**	**12:46p**
1:26	**1:32**	**1:40**	**1:46**
2:26	**2:32**	**2:40**	**2:46**
3:26	**3:32**	**3:40**	**3:46**
4:26	**4:32**	**4:40**	**4:46**
5:26	**5:32**	**5:39**	**5:44**
6:26	**6:32**	**6:39**	**6:44**
7:26	**7:31**	**7:37**	**7:42**

Shelter Island → Old Town T.C.

D Anchorage & Shelter Island Dr. **DEPART**	C Rosecrans St. & Nimitz Blvd.	B Rosecrans St. & Midway Dr.	A Old Town Transit Center **ARRIVE**
7:02a	7:07a	7:13a	7:18a
8:02	8:07	8:13	8:18
9:00	9:05	9:12	9:18
10:00	10:05	10:12	10:18
11:00	11:05	11:12	11:18
11:58	**12:03p**	**12:11p**	**12:18p**
12:58p	**1:03**	**1:11**	**1:18**
1:58	**2:03**	**2:11**	**2:18**
2:58	**3:03**	**3:11**	**3:18**
3:58	**4:03**	**4:11**	**4:18**
4:58	**5:03**	**5:11**	**5:18**
5:58	**6:03**	**6:11**	**6:18**
7:01	**7:06**	**7:12**	**7:18**

Transfer area detail



84 Monday through Friday • *lunes a viernes*

Sub Base Gate → Cabrillo Mon.

A Old Town Transit Center **DEPART**	E Sub Base Gate	F Rosecrans St. & Cañon St. ★	H SPAWAR Main Gate	I Cabrillo Monument **ARRIVE**
X 6:13a	—	—	W 6:29a	—
—	6:59a	7:05a	7:14	—
—	8:01	8:07	8:16	—
—	9:01	9:07	9:16	9:24a
—	10:01	10:07	10:16	10:24
—	11:01	11:07	11:16	11:24
—	**12:01p**	**12:07p**	**12:16p**	**12:24p**
—	**1:01**	**1:07**	**1:16**	**1:24**
—	**2:01**	**2:07**	**2:16**	**2:24**
—	**2:59**	**3:05**	**3:14**	**3:22**
—	**3:59**	**4:05**	**4:14**	**4:22**
—	**4:59**	**5:05**	**5:14**	**5:22**
—	**6:00**	**6:06**	—	—

Cabrillo Mon. → Sub Base Gate

I Cabrillo Monument **DEPART**	H SPAWAR Main Gate	F Rosecrans St. & Cañon St. ★	E Sub Base Gate **ARRIVE**
—	6:34a	6:43a	6:52a
—	7:16	7:25	7:34
—	8:18	8:27	8:36
9:26a	9:31	9:40	9:49
10:26	10:31	10:40	10:49
11:26	11:31	11:40	11:49
12:26p	**12:31p**	**12:40p**	**12:49p**
1:26	**1:31**	**1:40**	**1:49**
2:26	**2:31**	**2:40**	**2:49**
3:24	**3:29**	**3:38**	**3:47**
4:24	**4:29**	**4:38**	**4:47**
5:24	**5:29**	**5:38**	**5:47**

★ = For service to Old Town, transfer required to Route 28 at Rosecrans St. & Cañon St. / *Para servicio a Old Town, se require transbordar a la ruta 28 en Rosecrans St. y Cañon St.*

W = Trip ends 3 minutes later at Woodward Rd./SPAWAR Gate 5 / *Viaje temina 3 minutos después en Woodward Rd./ SPAWAR Gate 5*

X = Route 84 Express to SPAWAR/Woodward Rd. The first Route 84X stop after the Old Town Transit Center is Cañon St. & Evergreen St., two blocks west of Rosecrans St. & Cañon St. / *Viaje de la ruta 84 'Express' a SPAWAR/ Woodward Rd. La primera parada de la ruta 84X después del Old Town Transit Center es Cañon St. y Evergreen St., dos cuadras al oeste de Rosecrans St. y Cañon St.*

Route 84 does not operate on weekends or on following holidays and observed holidays / *La ruta 84 no ofrece servicio durante el fín de semana ó durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

Fare Information
Información de tarifas
sdmts.com/fares

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MTS sdmts.com

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MTS Information & Trip Planning *MTS Información y planeo de viaje*	**619-233-3004**
Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 231-1466.
Formato alternativo disponible al preguntar. Llamar: (619) 231-1466.

Effective June 30, 2023

35

Ocean Beach ↔ Old Town Transit Center

via Midway Dr. / Cable St.

923

Ocean Beach ↔ Downtown San Diego

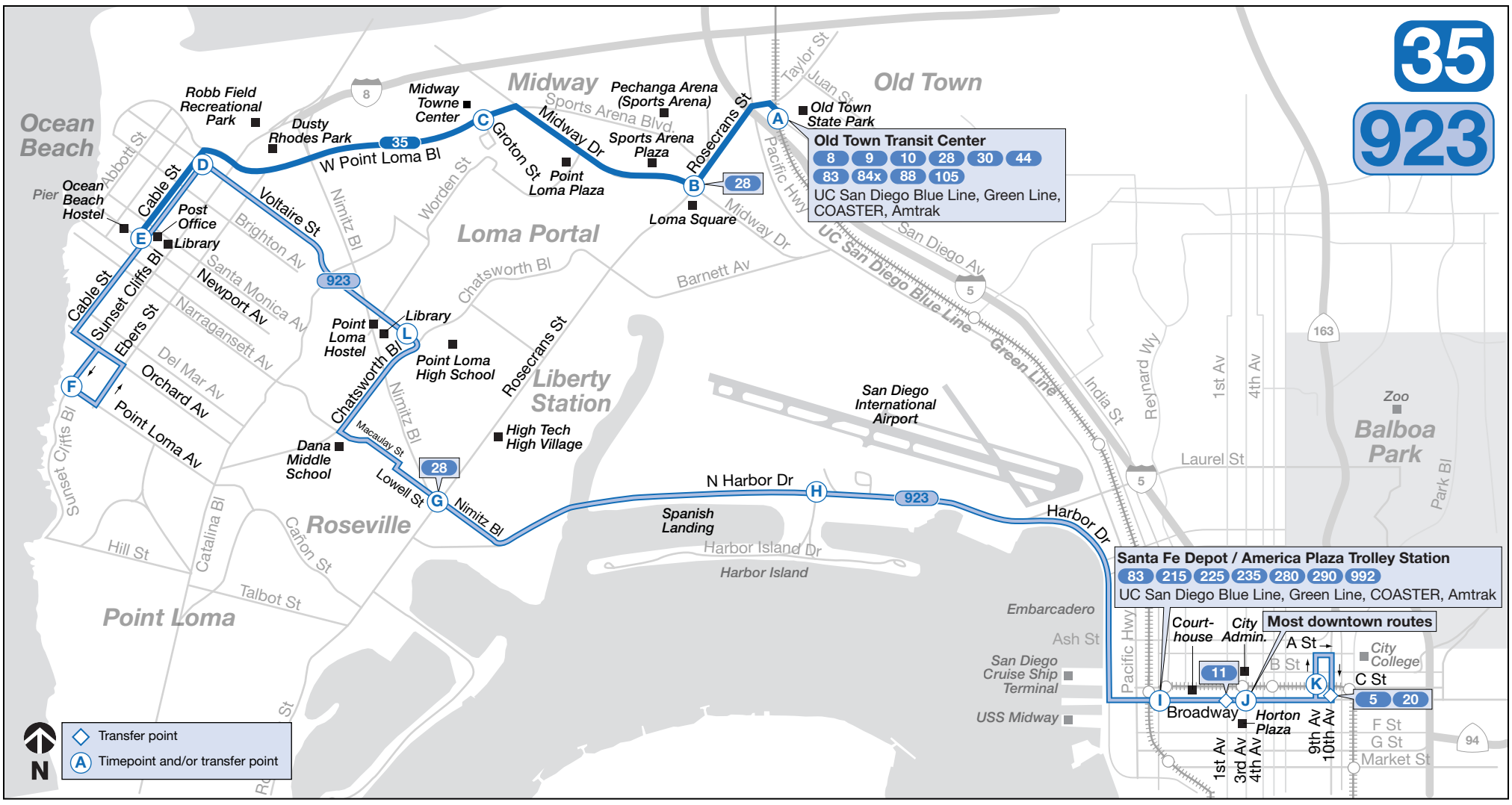
via Voltaire St. / Harbor Dr.

Destinations
- Liberty Station (923)
- Loma Square (35)
- Point Loma High School (923)
- Point Loma Plaza (35)
- Robb Field
- Sports Arena Plaza (35)
- SD International Airport (923)

Bus Routes

Trolley Connections
- Old Town (35) (923)
- Santa Fe Depot (923)
- America Plaza (923)

Subject to change without notice
Sujeto a cambios sin previo aviso



923 Monday through Friday / *lunes a viernes*

Ocean Beach → Downtown San Diego

F Pt Loma Av. & Sunset Cliffs Bl. **DEPART**	D Cable St. & Voltaire St.	L Voltaire St. & Poinsettia Dr.	G Nimitz Bl. & Rosecrans St.	H N. Harbor Dr. & Harbor Island Dr.	I Broadway & Kettner Bl.	J Broadway & 3rd Av.	K 9th Av. & C St. **ARRIVE**
5:19a	5:26a	5:32a	5:39a	5:44a	5:51a	5:55a	5:58a
5:57	6:04	6:10	6:17	6:22	6:30	6:34	6:38
6:31	6:39	6:46	6:53	6:59	7:08	7:12	7:16
7:06	7:14	7:21	7:29	7:36	7:45	7:49	7:53
7:41	7:49	7:56	8:04	8:11	8:20	8:24	8:28
8:11	8:19	8:26	8:33	8:39	8:48	8:52	8:56
8:41	8:49	8:56	9:03	9:09	9:18	9:22	9:26
9:11	9:19	9:26	9:33	9:39	9:48	9:52	9:56
9:41	9:49	9:56	10:03	10:09	10:19	10:23	10:27
10:11	10:19	10:26	10:33	10:39	10:49	10:53	10:57
10:41	10:49	10:56	11:03	11:09	11:19	11:23	11:27
11:11	11:19	11:26	11:33	11:39	11:49	11:53	11:57
11:41	11:49	11:56	**12:04p**	**12:10p**	**12:21p**	**12:25p**	**12:29p**
12:11p	**12:19p**	**12:26p**	**12:34**	**12:40**	**12:51**	**12:55**	**12:59**
12:41	**12:49**	**12:56**	**1:04**	**1:10**	**1:21**	**1:25**	**1:29**
1:11	**1:19**	**1:26**	**1:34**	**1:40**	**1:51**	**1:55**	**1:59**
1:41	**1:49**	**1:56**	**2:04**	**2:10**	**2:21**	**2:25**	**2:29**
2:10	**2:18**	**2:26**	**2:34**	**2:41**	**2:53**	**2:57**	**3:01**
2:40	**2:48**	**2:56**	**3:04**	**3:11**	**3:23**	**3:27**	**3:31**
3:10	**3:18**	**3:26**	**3:34**	**3:41**	**3:53**	**3:57**	**4:01**
3:40	**3:48**	**3:56**	**4:04**	**4:11**	**4:23**	**4:27**	**4:31**
4:10	**4:18**	**4:26**	**4:34**	**4:41**	**4:53**	**4:57**	**5:01**
4:40	**4:48**	**4:56**	**5:04**	**5:11**	**5:23**	**5:27**	**5:31**
5:11	**5:19**	**5:26**	**5:34**	**5:40**	**5:51**	**5:55**	**5:59**
5:41	**5:49**	**5:56**	**6:04**	**6:10**	**6:21**	**6:25**	**6:29**
6:12	**6:19**	**6:26**	**6:34**	**6:40**	**6:50**	**6:54**	**6:57**
6:42	**6:49**	**6:56**	**7:04**	**7:10**	**7:20**	**7:24**	**7:27**

Downtown San Diego → Ocean Beach

K 9th Av. & C St. **DEPART**	J Broadway & 5th Av.	I Broadway & Kettner Bl.	H N. Harbor Dr. & Harbor Island Dr.	G Nimitz Bl. & Rosecrans St.	L Voltaire St. & Poinsettia Dr.	D Cable St. & Voltaire St.	F Pt Loma Av. & Sunset Cliffs Bl. **ARRIVE**
5:42a	5:47a	5:52a	6:01a	6:06a	6:12a	6:17a	6:24a
6:12	6:17	6:22	6:31	6:36	6:42	6:47	6:54
6:42	6:47	6:53	7:03	7:09	7:16	7:22	7:29
7:12	7:18	7:25	7:36	7:42	7:49	7:55	8:02
7:42	7:48	7:55	8:06	8:12	8:19	8:25	8:32
8:13	8:19	8:25	8:36	8:42	8:48	8:54	9:01
8:43	8:49	8:55	9:06	9:12	9:18	9:24	9:31
9:13	9:19	9:25	9:36	9:42	9:48	9:54	10:01
9:43	9:49	9:55	10:06	10:12	10:18	10:24	10:31
10:13	10:19	10:25	10:36	10:42	10:48	10:54	11:01
10:42	10:48	10:55	11:06	11:12	11:19	11:25	11:32
11:12	11:18	11:25	11:36	11:42	11:49	11:55	**12:02p**
11:42	11:48	11:55	**12:06p**	**12:12p**	**12:19p**	**12:25p**	**12:32**
12:12p	**12:18p**	**12:25p**	**12:36**	**12:42**	**12:49**	**12:55**	**1:02**
12:42	**12:48**	**12:55**	**1:06**	**1:12**	**1:19**	**1:25**	**1:32**
1:12	**1:18**	**1:25**	**1:36**	**1:42**	**1:49**	**1:55**	**2:02**
1:42	**1:48**	**1:55**	**2:06**	**2:12**	**2:19**	**2:25**	**2:32**
2:10	**2:16**	**2:23**	**2:34**	**2:41**	**2:48**	**2:55**	**3:02**
2:40	**2:46**	**2:53**	**3:04**	**3:11**	**3:18**	**3:25**	**3:32**
3:10	**3:16**	**3:23**	**3:34**	**3:41**	**3:48**	**3:55**	**4:02**
3:40	**3:46**	**3:53**	**4:04**	**4:11**	**4:18**	**4:25**	**4:32**
4:10	**4:16**	**4:23**	**4:34**	**4:41**	**4:48**	**4:55**	**5:02**
4:40	**4:46**	**4:53**	**5:04**	**5:11**	**5:18**	**5:25**	**5:32**
5:10	**5:16**	**5:23**	**5:34**	**5:41**	**5:48**	**5:55**	**6:02**
5:40	**5:46**	**5:53**	**6:04**	**6:11**	**6:18**	**6:25**	**6:32**
6:11	**6:17**	**6:23**	**6:34**	**6:40**	**6:47**	**6:53**	**7:00**
6:41	**6:47**	**6:53**	**7:04**	**7:10**	**7:17**	**7:23**	**7:30**

Route 923 does not operate on weekends or on the observation of the following holidays / *La Ruta 923 no ofrece servicio durante el fín de semana ó durante los siguientes días festivos*
Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, & Christmas.

35 Monday through Friday • *lunes a viernes*

Old Town Transit Center → Ocean Beach

A Old Town Transit Center **DEPART**	B Midway Dr. & Rosecrans St.	C West Point Loma Bl. & Groton St.	D Cable St. & Voltaire St.	E Cable St. & Newport Av. **ARRIVE**
5:41a	5:45a	5:51a	5:57a	6:00a
6:11	6:15	6:21	6:27	6:30
6:41	6:46	6:53	6:59	7:02
7:07	7:12	7:19	7:25	7:28
7:27	7:32	7:39	7:47	7:50
7:47	7:52	7:59	8:07	8:10
8:07	8:12	8:19	8:27	8:30
8:27	8:32	8:39	8:47	8:50
8:47	8:52	8:59	9:06	9:09
9:07	9:12	9:19	9:26	9:29
9:27	9:32	9:39	9:46	9:49
9:47	9:52	9:59	10:06	10:09
10:07	10:12	10:19	10:26	10:29
10:27	10:32	10:39	10:46	10:49
10:47	10:52	10:59	11:06	11:09
11:07	11:12	11:20	11:27	11:30
11:27	11:32	11:40	11:47	11:50
11:47	11:52	**12:00p**	**12:07p**	**12:10p**
12:07p	**12:12p**	**12:21**	**12:29**	**12:32**
12:27	**12:32**	**12:41**	**12:49**	**12:52**
12:47	**12:52**	**1:01**	**1:09**	**1:12**
1:07	**1:12**	**1:21**	**1:29**	**1:32**
1:27	**1:32**	**1:41**	**1:49**	**1:52**
1:47	**1:52**	**2:01**	**2:09**	**2:12**
2:07	**2:12**	**2:21**	**2:29**	**2:32**
2:27	**2:32**	**2:41**	**2:49**	**2:52**
2:47	**2:52**	**3:01**	**3:09**	**3:12**
3:07	**3:12**	**3:21**	**3:29**	**3:32**
3:27	**3:32**	**3:41**	**3:49**	**3:52**
3:47	**3:52**	**4:01**	**4:09**	**4:12**
4:07	**4:12**	**4:21**	**4:29**	**4:32**
4:27	**4:32**	**4:41**	**4:49**	**4:52**
4:47	**4:52**	**5:01**	**5:09**	**5:12**
5:07	**5:12**	**5:21**	**5:29**	**5:32**
5:27	**5:32**	**5:41**	**5:49**	**5:52**
5:47	**5:52**	**6:01**	**6:09**	**6:12**
6:11	**6:16**	**6:25**	**6:33**	**6:36**
6:41	**6:46**	**6:54**	**7:02**	**7:05**
7:11	**7:16**	**7:24**	**7:32**	**7:35**
7:41	**7:46**	**7:54**	**8:02**	**8:05**
8:11	**8:16**	**8:22**	**8:29**	**8:32**
8:41	**8:46**	**8:52**	**8:59**	**9:02**
9:11	**9:16**	**9:22**	**9:29**	**9:32**
9:41	**9:46**	**9:52**	**9:59**	**10:02**
10:18	**10:22**	**10:28**	**10:34**	**10:37**
11:04	**11:08**	**11:14**	**11:20**	**11:23**

Ocean Beach → Old Town Transit Center

E Cable St. & Newport Av. **DEPART**	D Cable St. & Voltaire St.	C West Point Loma Bl. & Groton St.	A Old Town Transit Center **ARRIVE**
5:13a	5:18a	5:24a	5:33a
5:43	5:48	5:54	6:03
6:13	6:18	6:24	6:33
6:40	6:46	6:53	7:03
7:06	7:12	7:21	7:33
7:26	7:32	7:41	7:53
7:46	7:52	8:01	8:13
8:06	8:12	8:21	8:33
8:26	8:32	8:41	8:53
8:46	8:52	9:01	9:13
9:08	9:14	9:21	9:33
9:28	9:34	9:41	9:53
9:48	9:54	10:01	10:13
10:08	10:14	10:21	10:33
10:28	10:34	10:41	10:53
10:48	10:54	11:01	11:13
11:06	11:12	11:19	11:33
11:26	11:32	11:39	11:53
11:46	11:52	11:59	**12:13p**
12:06p	**12:12p**	**12:19p**	**12:33**
12:26	**12:32**	**12:39**	**12:53**
12:46	**12:52**	**12:59**	**1:13**
1:04	**1:10**	**1:18**	**1:33**
1:24	**1:30**	**1:38**	**1:53**
1:44	**1:50**	**1:58**	**2:13**
2:04	**2:10**	**2:18**	**2:33**
2:24	**2:30**	**2:38**	**2:53**
2:44	**2:50**	**2:58**	**3:13**
3:04	**3:10**	**3:18**	**3:33**
3:24	**3:30**	**3:38**	**3:53**
3:44	**3:50**	**3:58**	**4:13**
4:04	**4:10**	**4:18**	**4:33**
4:24	**4:30**	**4:38**	**4:53**
4:44	**4:50**	**4:58**	**5:13**
5:04	**5:10**	**5:18**	**5:33**
5:24	**5:30**	**5:38**	**5:53**
5:44	**5:50**	**5:58**	**6:13**
6:04	**6:10**	**6:18**	**6:33**
6:34	**6:40**	**6:48**	**7:03**
7:06	**7:12**	**7:20**	**7:33**
7:38	**7:44**	**7:52**	**8:03**
8:08	**8:14**	**8:22**	**8:33**
8:41	**8:46**	**8:53**	**9:03**
9:11	**9:16**	**9:23**	**9:33**
9:41	**9:46**	**9:53**	**10:03**
10:11	**10:16**	**10:23**	**10:33**

35 Saturday • *sábado*

Old Town Transit Center → Ocean Beach

A Old Town Transit Center **DEPART**	B Midway Dr. & Rosecrans St.	C West Point Loma Bl. & Groton St.	D Cable St. & Voltaire St.	E Cable St. & Newport Av. **ARRIVE**
6:11a	6:15a	6:21a	6:27a	6:30a
6:41	6:45	6:52	6:59	7:02
7:11	7:15	7:22	7:29	7:32
7:41	7:45	7:52	7:59	8:02
8:11	8:15	8:22	8:29	8:32
8:50	8:55	9:02	9:10	9:13
9:20	9:25	9:32	9:40	9:43
9:50	9:55	10:04	10:12	10:15
10:20	10:25	10:34	10:42	10:45
10:50	10:55	11:04	11:13	11:16
11:20	11:25	11:34	11:43	11:46
11:50	11:55	**12:04p**	**12:13p**	**12:16p**
12:20p	**12:25p**	**12:34**	**12:43**	**12:46**
12:50	**12:55**	**1:04**	**1:13**	**1:16**
1:20	**1:25**	**1:34**	**1:43**	**1:46**
1:50	**1:55**	**2:04**	**2:13**	**2:16**
2:20	**2:25**	**2:34**	**2:43**	**2:46**
2:50	**2:55**	**3:04**	**3:13**	**3:16**
3:20	**3:25**	**3:34**	**3:43**	**3:46**
3:50	**3:55**	**4:03**	**4:12**	**4:15**
4:20	**4:25**	**4:33**	**4:42**	**4:45**
4:50	**4:55**	**5:03**	**5:12**	**5:15**
5:20	**5:25**	**5:33**	**5:42**	**5:45**
5:50	**5:55**	**6:02**	**6:10**	**6:13**
6:20	**6:25**	**6:32**	**6:40**	**6:43**
6:50	**6:55**	**7:02**	**7:10**	**7:13**
7:20	**7:25**	**7:31**	**7:38**	**7:41**
7:50	**7:55**	**8:01**	**8:08**	**8:11**
8:11	**8:16**	**8:22**	**8:29**	**8:32**
8:41	**8:46**	**8:52**	**8:59**	**9:02**
9:11	**9:16**	**9:22**	**9:29**	**9:32**
9:41	**9:46**	**9:52**	**9:59**	**10:02**
10:18	**10:22**	**10:28**	**10:34**	**10:37**
11:04	**11:08**	**11:14**	**11:20**	**11:23**

Ocean Beach → Old Town Transit Center

E Cable St. & Newport Av. **DEPART**	D Cable St. & Voltaire St.	C West Point Loma Bl. & Groton St.	A Old Town Transit Center **ARRIVE**
6:41a	6:47a	6:54a	7:03a
7:11	7:17	7:24	7:33
7:41	7:47	7:54	8:03
8:11	8:17	8:24	8:33
8:39	8:45	8:53	9:03
9:07	9:13	9:22	9:33
9:37	9:43	9:52	10:03
10:05	10:12	10:21	10:33
10:35	10:42	10:51	11:03
11:03	11:10	11:19	11:33
11:33	11:40	11:49	**12:03p**
12:03p	**12:10p**	**12:19p**	**12:33**
12:33	**12:40**	**12:49**	**1:03**
1:03	**1:10**	**1:19**	**1:33**
1:33	**1:40**	**1:49**	**2:03**
2:03	**2:10**	**2:19**	**2:33**
2:33	**2:40**	**2:49**	**3:03**
3:03	**3:10**	**3:19**	**3:33**
3:33	**3:40**	**3:49**	**4:03**
4:03	**4:10**	**4:19**	**4:33**
4:33	**4:40**	**4:49**	**5:03**
5:03	**5:10**	**5:19**	**5:33**
5:33	**5:40**	**5:49**	**6:03**
6:05	**6:12**	**6:21**	**6:33**
6:37	**6:44**	**6:52**	**7:03**
7:07	**7:14**	**7:22**	**7:33**
7:39	**7:45**	**7:53**	**8:03**
8:09	**8:15**	**8:23**	**8:33**
8:41	**8:46**	**8:53**	**9:03**
9:11	**9:16**	**9:23**	**9:33**
9:41	**9:46**	**9:53**	**10:03**
10:05	**10:10**	**10:17**	**10:27**

35 Sunday • *domingo*

Old Town Transit Center → Ocean Beach

A Old Town Transit Center **DEPART**	B Midway Dr. & Rosecrans St.	C West Point Loma Bl. & Groton St.	D Cable St. & Voltaire St.	E Cable St. & Newport Av. **ARRIVE**
6:26a	6:30a	6:36a	6:42a	6:45a
6:56	7:00	7:07	7:14	7:17
7:26	7:30	7:37	7:44	7:47
7:56	8:00	8:07	8:14	8:17
8:26	8:30	8:37	8:44	8:47
8:56	9:01	9:08	9:16	9:19
9:26	9:31	9:38	9:46	9:49
9:56	10:01	10:10	10:18	10:21
10:26	10:31	10:40	10:48	10:51
10:56	11:01	11:10	11:19	11:22
11:26	11:31	11:40	11:49	11:52
11:56	**12:01p**	**12:10p**	**12:19p**	**12:22p**
12:26p	**12:31**	**12:40**	**12:49**	**12:52**
12:56	**1:01**	**1:10**	**1:19**	**1:22**
1:26	**1:31**	**1:40**	**1:49**	**1:52**
1:56	**2:01**	**2:10**	**2:19**	**2:22**
2:26	**2:31**	**2:40**	**2:49**	**2:52**
2:56	**3:01**	**3:10**	**3:19**	**3:22**
3:26	**3:31**	**3:40**	**3:49**	**3:52**
3:56	**4:01**	**4:09**	**4:18**	**4:21**
4:26	**4:31**	**4:39**	**4:48**	**4:51**
4:56	**5:01**	**5:09**	**5:18**	**5:21**
5:26	**5:31**	**5:39**	**5:48**	**5:51**
5:56	**6:01**	**6:08**	**6:16**	**6:19**
6:26	**6:31**	**6:38**	**6:46**	**6:49**
6:56	**7:01**	**7:08**	**7:16**	**7:19**
7:26	**7:31**	**7:37**	**7:44**	**7:47**
8:26	**8:31**	**8:37**	**8:44**	**8:47**
9:26	**9:31**	**9:37**	**9:44**	**9:47**

Ocean Beach → Old Town Transit Center

E Cable St. & Newport Av. **DEPART**	D Cable St. & Voltaire St.	C West Point Loma Bl. & Groton St.	A Old Town Transit Center **ARRIVE**
6:56a	7:02a	7:09a	7:18a
7:26	7:32	7:39	7:48
7:56	8:02	8:09	8:18
8:26	8:32	8:39	8:48
8:45	8:51	8:59	9:09
9:13	9:19	9:28	9:39
9:43	9:49	9:58	10:09
10:11	10:18	10:27	10:39
10:41	10:48	10:57	11:09
11:09	11:16	11:25	11:39
11:39	11:46	11:55	**12:09p**
12:09p	**12:16p**	**12:25p**	**12:39**
12:39	**12:46**	**12:55**	**1:09**
1:09	**1:16**	**1:25**	**1:39**
1:39	**1:46**	**1:55**	**2:09**
2:09	**2:16**	**2:25**	**2:39**
2:39	**2:46**	**2:55**	**3:09**
3:09	**3:16**	**3:25**	**3:39**
3:39	**3:46**	**3:55**	**4:09**
4:09	**4:16**	**4:25**	**4:39**
4:39	**4:46**	**4:55**	**5:09**
5:09	**5:16**	**5:25**	**5:39**
5:39	**5:46**	**5:55**	**6:09**
6:11	**6:18**	**6:27**	**6:39**
6:52	**6:59**	**7:07**	**7:18**
7:54	**8:00**	**8:08**	**8:18**
8:54	**8:59**	**9:06**	**9:16**

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas