TECHNICAL MEMORANDUM

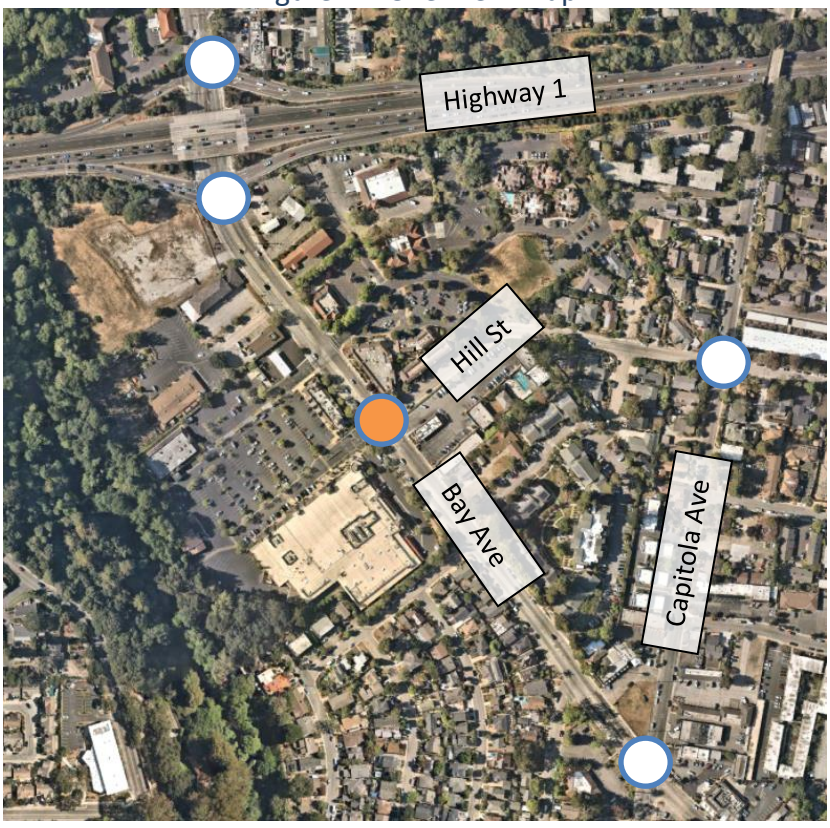
To:	Kailash Mozumder and Jessica Kahn, City of Capitola
From:	Derek Wu P.E. and Frederik Venter P.E., Kimley-Horn and Associates, Inc.
Date:	September 22, 2023
Re:	**Bay Avenue / Hill Street – Intersection Operations Analysis**

1. Introduction

Kimley-Horn and Associates, Inc. (Kimley-Horn) is working with the City of Capitola (City) to evaluate the traffic operations at the intersection of Bay Avenue and Hill Street. The Bay Avenue / Hill Street intersection is an existing all-way stop controlled intersection that provides connectivity to Highway 1 and the Capitola Village. The section of Bay Avenue at this location is a four-lane wide roadway with a center left turn lane, and there have been community concerns of limited pedestrian visibility and safety at the crosswalks. During the peak hour, the intersection experiences congestion from heavy vehicle and pedestrian cross traffic due to access to the Nob Hill Plaza, the Rispin bridge crossing, and the surrounding residential and commercial land uses.

The City is investigating feasible intersection improvements at Bay Avenue / Hill Street that could improve traffic operations and safety for vehicles, bicyclists, and pedestrians. These potential intersection improvements may include physical changes to the roadway geometry, signalization, and/or signing/striping. **Figure 1** presents an overview map of the project study intersections along the Bay Avenue corridor

Figure 1 – Overview Map



2. Data Collection and Intersection Conditions:

This section describes the various analysis scenarios and traffic data used to analyze the study intersection.

Year 2022 (Existing) Study Scenario

Year 2022 existing turning movement counts during the 7-9 AM peak, 2-4 PM Midday peak, and 4-6 PM peak hours at the project study intersections were collected by All Traffic Data Service. These traffic counts were collected on 2/15/2022 and 9/13/2022 when school was in session and during favorable weather conditions. The collected traffic volume data is provided in **Table 1** and **Attachment A**.

Table 1: Bay/Hill Intersection Traffic Volumes

Peak Hour		Vehicle Traffic Volume by Direction and Movement												
		Bay Avenue						Hill Street						
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
AM	8:00-9:00	59	392	12	86	329	29	51	17	30	7	38	134	1184
Mid	14:30-15:30	60	402	23	124	458	53	75	45	68	15	25	104	1452
PM	16:00-17:00	89	290	14	154	438	52	89	44	79	23	45	86	1403

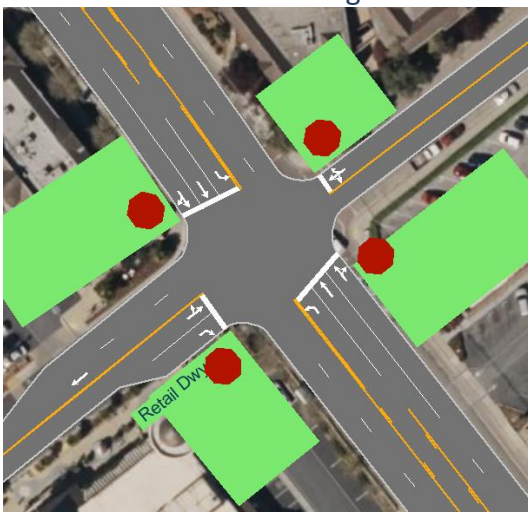
Peak Hour		Bike & Pedestrian Crossing Traffic Volume by Direction				
		Bay Avenue		Hill Street		
		NB Leg	SB Leg	EB Leg	WB Leg	TOTAL
AM	8:00-9:00	7	3	14	7	31
Mid	14:30-15:30	24	8	9	10	51
PM	16:00-17:00	17	14	8	10	49

Existing Intersection Layout

The Bay Avenue / Hill Street all-way stop controlled intersection currently operates with the following lane geometry as shown in **Figure 2**:

- Bay Avenue Major Approach (Northbound and Southbound directions)
  - 1 left turn lane, 1 through lane, 1 shared through-right lane
  - Class II bike lane striped along the curb
  - Santa Cruz Metro bus stop in southwest corner
  - Pedestrian crosswalk with raised median and contrasting pavement
- Hill Street Minor Approach (Westbound direction)
  - 1 shared left-through-right lane
- Nob Hill Driveway Minor Approach (Eastbound direction)
  - 1 shared left-through lane, 1 right turn lane
  - 2 receiving vehicle lanes into commercial plaza driveway

Figure 2 – Existing Bay/Hill Intersection Layout



SWITRS Collision Data

Collision data from 2017 to 2022 along Bay Avenue was also obtained using the State Integrated Traffic Records System (SWITRS) database. SWITRS is a tool which California Highway Patrol (CHP) staff and members of its Allied Agencies throughout California can request various types of statistical collision reports in an electronic format. **Table 2** and **Attachment A** summarizes the reported traffic collisions at the Bay/Hill intersection.

Table 2: Bay/Hill Collision Data (2017 to 2022)

Date Range	November 2017 to 2022	Primary Collision Factors	Collision Severity
Vehicle Collision Type			
Head-On	1	Other	PDO
Sideswipe	4	Improper Turn, Auto R/W	PDO
Rear End	1	Unsafe Speed	PDO
Broadside	6	Improper Turn, Auto R/W, Unsafe Speed	Injury, PDO
Hit Object	1	Improper Turn	PDO
Overturned	0		
Auto/Ped	0		
Other	0		
Total # Collisions	**13**		

Between November 2017 and November 2022, there were 13 reported collisions at the Bay Avenue / Hill Street intersection. The most common collision was 6 broadside crashes between two vehicles making improper turns at the intersection. All the reported collisions involved two vehicle parties and the collision severity ranged from property damage only to injuries.

Capitola Police Department Collision Data

The City of Capitola provided supplemental collision data for pedestrian and bicycle collisions from the Capitola Police Department (PD) in addition to the SWITRS data. Between 2017 and 2023, there were 3

collisions between vehicles and pedestrians and 0 collisions between vehicles and bicycles at the Bay/Hill intersection. See **Attachment A** for the detailed data.

3. Traffic Operations and Intersection Level of Service Analysis

Methodology

The Transportation Research Board's Highway Capacity Manual (HCM) Sixth Edition, Synchro 11, and Sidra 9 traffic analysis software were used to perform an operational analysis of the study intersection. The results of the HCM operational analysis are commonly described using a grading system called level of service, or LOS. LOS is a description of intersection operating conditions, ranging from LOS A (free flow traffic conditions with little or no delay) to LOS F (oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays).

Per the City of Capitola General Plan, LOS C is identified as the minimum level of service operational standard The City also accepts LOS D as the minimum acceptable standard at signalized and unsignalized intersections within the Village Area, along Bay Avenue, and along 41st Avenue. Therefore, LOS D was the threshold applied to the Bay/Hill intersection.

Proposed Bay/Hill Intersection Alternatives

The intersection operations analysis investigated potential improvements that could improve access and safety for vehicles, bicycles, and pedestrians. The following lane intersection improvement and lane configuration alternatives were evaluated under the Year 2022 study scenario:

- **Alternative 1 - Signal**
  - Convert intersection into signal control
  - Lane geometry as described in Section 2 for all intersection leg approaches
    - Permissive yield left turn operations for Eastbound and Westbound approaches
    - Protected left turn operations for Northbound and Southbound approaches
  - Assumes signal equipment can fit within existing City intersection footprint and right-of-way, no physical improvements needed

- **Alternative 2 - Roundabout**
  - Convert intersection into single lane roundabout layout with yield control
    - 84-ft inscribed circle diameter intersection
    - 44-ft diameter center island with raised apron for heavy vehicle turns
    - Raised splitter islands at each approach leg for 2-stage pedestrian crossing
    - 10-ft wide Class I shared bike/ped pathway
  - Assumes roundabout improvements can fit within existing City intersection footprint and right-of-way
  - Bay Avenue Major Approach (Northbound and Southbound directions)
    - 1 shared left-through-right lane
    - Lane drop transition prior to roundabout intersection
    - Bike lane transitions and curb ramps onto Class I shared bike/ped pathway prior to roundabout intersection
    - Santa Cruz Metro bus stop and commercial driveway access is maintained along Bay Avenue corridor
  - Hill Street Minor Approach (Westbound direction)

        - 1 shared left-through-right lane
        - Pedestrian crossing relocated before roundabout intersection
    - Nob Hill Driveway Minor Approach (Eastbound direction)
        - 1 shared left-through-right lane
        - Pedestrian crossing and pathway relocated inside plaza parking lot before roundabout intersection

- **Alternative 3 –All Way Stop Control with Road Diet**
    - Convert Bay Avenue into a 2-lane roadway with road diet transition and striping between Crossroads Loop and Center Street
    - Install curb bulb-outs and raised intersection crossings at the Bay/Hill intersection
    - Assumes improvements can fit within existing City intersection footprint and right-of-way
    - Bay Avenue Major Approach (Northbound and Southbound directions)
        - 1 left turn lane, 1 shared through-right lane
        - Lane drop transition prior to all-way stop intersection
        - Raised speed table and pedestrian crosswalk at stop bar
    - Hill Street Minor Approach (Westbound direction)
        - 1 shared left-through-right lane
    - Nob Hill Driveway Minor Approach (Eastbound direction)
        - 1 shared left-through lane, 1 right turn lane

- **Alternative 4 – Existing Baseline All Way Stop Control**
    - Lane geometry as described in Section 2
    - Control scenario for traffic operation comparison with proposed alternatives

Figures detailing the general operations and dimensions of the Alternative 1, 2, and 3 concept design layouts are included in **Attachment B**.

Year 2022 Existing Conditions LOS

Table 3 provides an intersection LOS comparison between the signal, roundabout, and all way stop control configurations for the AM, Midday, and PM peak hour under Year 2022 existing conditions. The LOS calculations with Synchro and Sidra software are included in **Attachment C**.

Table 3: Bay/Hill Intersection LOS Summary

AM Peak Hour Intersection Operations								
Alternative	Control Type	HCM 6th Ed Criteria	Overall Intersection	Hill Street		Bay Avenue		Notes
				EB	WB	NB	SB	
1 Signal	Signal	Delay (s)	**11.2**	10.4	12	11.3	11	Existing lane geometry
		LOS	**B**	B	B	B	B	
2 Roundabout	Yield	Delay (s)	**7.6**	5.7	7.9	8.2	7.3	1-lane approach geometry
		LOS	**A**	A	A	A	A	
3 AWSC Road Diet	Stop	Delay (s)	**24.8**	12.4	15.4	31.9	23.8	1-lane approach geometry
		LOS	**C**	B	C	D	C	
4 Baseline AWSC	Stop	Delay (s)	**16.1**	13.1	16	17.4	15.4	Existing lane geometry
		LOS	**C**	B	C	C	C	

Midday Peak Hour Intersection Operations								
Alternative	Control Type	HCM 6th Ed Criteria	Overall Intersection	Hill Street		Bay Avenue		Notes
				EB	WB	NB	SB	
1 Signal	Signal	Delay (s)	**12.2**	10.9	11.5	12.4	12.5	Existing lane geometry
		LOS	**B**	B	B	B	B	
2 Roundabout	Yield	Delay (s)	**9.5**	9	7.3	9.9	9.9	1-lane approach geometry
		LOS	**A**	A	A	A	A	
3 AWSC Road Diet	Stop	Delay (s)	**55.3**	14.6	16.3	47.9	87.9	1-lane approach geometry
		LOS	**F**	B	C	E	F	
4 Baseline AWSC	Stop	Delay (s)	**21.8**	16.2	17.6	22.3	24.1	Existing lane geometry
		LOS	**C**	C	C	C	C	

PM Peak Hour Intersection Operations								
Alternative	Control Type	HCM 6th Ed Criteria	Overall Intersection	Hill Street		Bay Avenue		Notes
				EB	WB	NB	SB	
1 Signal	Signal	Delay (s)	**12.1**	11	11.4	12	12.6	Existing lane geometry
		LOS	**B**	B	B	B	B	
2 Roundabout	Yield	Delay (s)	**8.6**	8.5	6.1	7.8	9.8	1-lane approach geometry
		LOS	**A**	A	A	A	A	
3 AWSC Road Diet	Stop	Delay (s)	**26.8**	13.5	14.8	18.5	39.1	1-lane approach geometry
		LOS	**D**	B	B	C	E	
4 Baseline AWSC	Stop	Delay (s)	**16.3**	14.6	15.7	15	17.7	Existing lane geometry
		LOS	**C**	B	C	B	C	

As shown above, the Bay/Hill intersection currently operates at acceptable LOS C during the AM, Midday, and PM peak with the Alternative 4 all-way stop baseline geometry. With the Alternative 1 signal layout, the intersection is anticipated to operate at LOS B during the AM, Midday, and PM peak. The Alternative 2 roundabout layout would operate at LOS A during the AM, Midday, and PM peak. With the Alternative 3 all-way stop road diet layout, the intersection would operate at LOS C during the AM peak, LOS F during the Midday peak, and LOS D during the PM peak.

Compared to the baseline all-way stop configuration, the Alternative 1 signal and Alternative 2 roundabout options would operate with better LOS and reduced overall intersection delay for all the

peak periods. Of these options, the roundabout would yield the best LOS results with the shortest overall intersection delay at 7.6 seconds, 9.5 seconds, and 8.6 seconds for the respective AM, Midday, and PM peaks.

The Alternative 3 all-way stop road diet option would operate with worse LOS and would exceed the City's acceptable LOS D threshold for traffic operations during the Midday peak. This increase in intersection delay is because the Bay Avenue northbound and southbound approaches are the critical intersection movements, and the reduction of travel lanes with the 2-lane road diet plus stop control increases overall vehicle delay along Bay Avenue.

4. Intersection Queuing Analysis

A queuing analysis was also performed along the Bay Avenue roadway corridor to determine the queuing effect for each of the alternative layouts. The SimTraffic software associated with Synchro 11 was used to simulate the signal, roundabout, and all way stop control lane configurations at the Bay/Hill intersection during the peak hour period. This micro-simulation was conducted to obtain the 95th percentile vehicle queue on each approach during the AM, Midday, and PM peak hour period. The results of the 95th percentile queues observed in the analysis for the Year 2022 Existing conditions are summarized in **Table 4**. Vehicle queuing calculations are included in **Attachment D**.

Table 4: Bay/Hill Intersection Queuing Analysis Summary

AM Peak Hour Vehicle Queues								
Alternative	Control Type	Criteria	Approach Queue (ft)					
			Hill Street		Bay Avenue			
			EB	WB	NBL	NBT	SBL	SBT
1 Signal	Signal	Average 95% Queue	78	84	61	72	74	175
		Approach Storage Length	95	348	100	340	100	160
		Storage Delta	17	264	39	268	26	-15
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**
2 Roundabout	Yield	Average 95% Queue	49	65	79	79	82	82
		Approach Storage Length	95	348	340	340	160	160
		Storage Delta	46	283	261	261	78	78
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
3 AWSC Road Diet	Stop	Average 95% Queue	54	63	59	116	77	131
		Approach Storage Length	95	348	100	340	100	160
		Storage Delta	41	285	41	224	23	29
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
4 Baseline AWSC	Stop	Average 95% Queue	54	74	43	62	81	108
		Approach Storage Length	95	348	100	340	100	160
		Storage Delta	41	274	57	278	19	52
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Note: Approach storage length based on existing turn pocket length or distance from next intersection

Midday Peak Hour Vehicle Queues								
Alternative	Control Type	Criteria	Approach Queue (ft)					
			Hill Street		Bay Avenue			
			EB	WB	NBL	NBT	SBL	SBT
1 Signal	Signal	Average 95% Queue	98	76	71	100	97	250
		Approach Storage Length	95	348	100	340	100	160
		Storage Delta	-3	272	29	240	3	-90
		Sufficient Storage?	**No**	**Yes**	**Yes**	**Yes**	**Yes**	**No**
2 Roundabout	Yield	Average 95% Queue	87	57	97	97	150	150
		Approach Storage Length	95	348	340	340	160	160
		Storage Delta	8	291	243	243	10	10
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
3 AWSC Road Diet	Stop	Average 95% Queue	78	78	71	157	100	238
		Approach Storage Length	95	348	100	340	100	160
		Storage Delta	17	270	29	183	0	-78
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**No**	**No**
4 Baseline AWSC	Stop	Average 95% Queue	76	61	44	83	98	191
		Approach Storage Length	95	348	100	340	100	160
		Storage Delta	19	287	56	257	2	-31
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**

Note: Approach storage length based on existing turn pocket length or distance from next intersection

PM Peak Hour Vehicle Queues								
Alternative	Control Type	Criteria	Approach Queue (ft)					
			Hill Street		Bay Avenue			
			EB	WB	NBL	NBT	SBL	SBT
1 Signal	Signal	Average 95% Queue	90	89	73	84	92	204
		Approach Storage Length	95	348	100	340	100	160
		Storage Delta	5	259	27	256	8	-44
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**
2 Roundabout	Yield	Average 95% Queue	67	56	82	82	206	206
		Approach Storage Length	95	348	340	340	160	160
		Storage Delta	28	292	258	258	-46	-46
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**No**	**No**
3 AWSC Road Diet	Stop	Average 95% Queue	74	74	55	74	95	267
		Approach Storage Length	95	348	100	340	100	160
		Storage Delta	21	274	45	266	5	-107
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**
4 Baseline AWSC	Stop	Average 95% Queue	74	72	47	67	98	237
		Approach Storage Length	95	348	100	340	100	160
		Storage Delta	21	276	53	273	2	-77
		Sufficient Storage?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**

Note: Approach storage length based on existing turn pocket length or distance from next intersection

For Alternative 1 - Signal, the average 95th percentile queues are anticipated to exceed the existing available storage length between adjacent intersections for the following approaches:

- Southbound Through – AM, Midday, and PM peak
- Eastbound – Midday peak

For Alternative 2 - Roundabout, the average 95th percentile queues are anticipated to exceed the existing available storage length between adjacent intersections for the following approaches:

- Southbound Left –PM peak
- Southbound Through – PM peak

For Alternative 3 – Road Diet, the average 95th percentile queues are anticipated to exceed the existing available storage length between adjacent intersections for the following approaches:

- Southbound Left –Midday peak
- Southbound Through – Midday and PM peak

For the Baseline AWSC Geometry, the average 95th percentile queues are anticipated to exceed the existing available storage length between adjacent intersections for the following approaches:

- Southbound Through – Midday and PM peak

Overall, for the Year 2022 scenario, Alternative 2 would provide the most optimal intersection configuration to accommodate the anticipated peak hour vehicle queues.

It should be noted that for all intersection options, the existing storage length for the Bay Avenue southbound approach is approximately 160-feet long between Hill Street and Crossroads Loop and does not accommodate the anticipated peak hour vehicle queues. The Crossroads Loop / Bay Avenue intersection is stop controlled on the minor approaches and the 95th percentile peak hour queues on Bay Avenue are anticipated to encroach into the intersection. To prevent vehicle queues from blocking access at the Crossroads Loop, the intersection area should be augmented with “Keep Clear” striping on Bay Avenue.

5. Bike and Pedestrian Access Comparison

Table 5 compares the bicycle and pedestrian access features between the proposed intersection alternatives. Overall, the Alternative 2 roundabout geometry would provide the shortest pedestrian crossings and enhance bicycle access through the intersection compared to the other configurations. The Alternative 3 road diet geometry would also enhance bike and pedestrian access due to the shorter crossing distances and raised crosswalks in the northbound and southbound legs.

Table 5: Bay/Hill Intersection Bike and Pedestrian Summary

Alternative	Control Type	Bike Features	Pedestrian Features	Crosswalk Exposure In Roadway (ft)			
				Hill Street		Bay Avenue	
				EB	WB	NB	SB
1 Signal	Signal	Striped Class II bike lane	Red contrasting pavement; Median refuge on NB & SB legs; 6' Sidewalk Ped signal crossing phase	42	38	64	64
2 Roundabout	Yield	Striped Class II bike lane; Bike ramp transitions between Class I shared pathway	Red contrasting pavement; Median refuge on NB, SB, EB, WB legs; 10' Class I shared pathway; Separated crossings from intersection	36	28	30	30
3 AWSC Road Diet	Stop	Striped Class II bike lane with 2' buffers	Red contrasting pavement; Curb extensions on NB & SB legs; 6' Sidewalk Raised speed table and crossings on NB & SB legs	42	30	48	48
4 Baseline AWSC	Stop	Striped Class II bike lane	Red contrasting pavement; Raised median refuge on NB & SB legs' 6' Sidewalk	42	38	64	64

6. Conclusions and Recommendations

From an intersection operations perspective, the Alternative 2 roundabout configuration would yield the best LOS and vehicle queuing results to accommodate improved multi-modal access for bikes, pedestrians, and vehicles. For Alternative 2 to be feasible, substantial intersection and construction improvements would be required to convert the intersection into a roundabout.

The Alternative 1 signal configuration would also yield acceptable LOS and vehicle queuing operations, and the signal would be a feasible alternative to provide improved multi-modal access for bikes and pedestrians. The Alternative 3 road diet configuration would yield the worst LOS and queueing operations, but the 2-lane road diet and raised pedestrian crossing features would provide improved bike and pedestrian access.

7. Appendix

- Attachment A – Traffic Count Data and SWITRS/Capitola PD Collision Data
- Attachment B – Intersection Alternative Concept Layouts
- Attachment C – Synchro and Sidra LOS Results
- Attachment D – Synchro Queuing Results

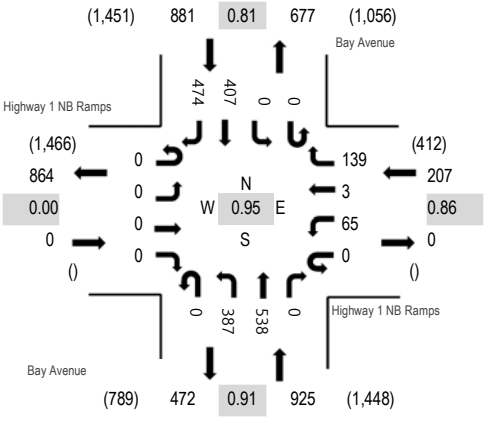
Attachment A –Traffic Count Data and SWITRS/Capitola PD Collision Data

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 Bay Avenue & Highway 1 NB Ramps AM
Date: Tuesday, February 15, 2022
Study Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes in Study Peak Hour: 08:15 AM - 08:30 AM

Study Peak Hour (for all study intersections)

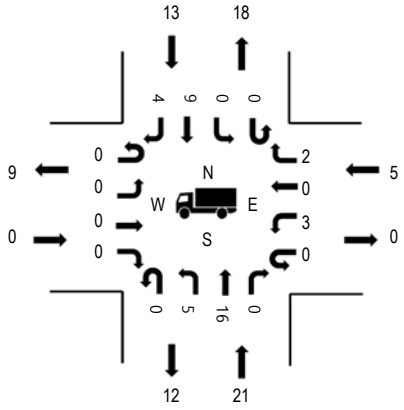
Motorized Vehicles



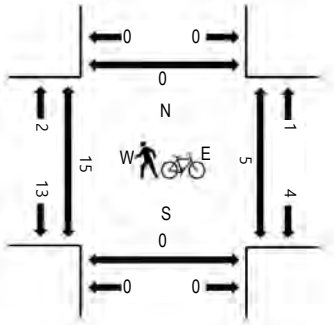
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	2.4%	0.86
NB	2.3%	0.91
SB	1.5%	0.81
All	1.9%	0.95

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Highway 1 NB Ramps Eastbound				Highway 1 NB Ramps Westbound				Bay Avenue Northbound				Bay Avenue Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	0	0	0	0	20	1	32	0	57	19	0	0	0	44	49	222	1,360
7:15 AM	0	0	0	0	0	18	1	34	0	64	41	0	0	0	46	66	270	1,630
7:30 AM	0	0	0	0	0	20	0	40	0	75	88	0	0	0	72	96	391	1,890
7:45 AM	0	0	0	0	0	13	2	30	0	108	127	0	0	0	91	106	477	2,013
8:00 AM	0	0	0	0	0	18	0	38	0	79	174	0	0	0	81	102	492	1,951
8:15 AM	0	0	0	0	0	12	1	33	0	96	115	0	0	0	133	140	530	
8:30 AM	0	0	0	0	0	22	0	38	0	104	122	0	0	0	102	126	514	
8:45 AM	0	0	0	0	0	18	2	19	0	73	106	0	0	0	79	118	415	
Count Total	0	0	0	0	0	141	7	264	0	656	792	0	0	0	648	803	3,311	
Peak Hour	0	0	0	0	0	65	3	139	0	387	538	0	0	0	407	474	2,013	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	3	1	0	4	7:00 AM	0	0	0	0	0	7:00 AM	0	0	4	0	4
7:15 AM	0	1	1	4	6	7:15 AM	0	0	0	0	0	7:15 AM	1	0	1	0	2
7:30 AM	0	2	2	0	4	7:30 AM	0	0	0	0	0	7:30 AM	1	0	0	0	1
7:45 AM	0	7	1	6	14	7:45 AM	0	1	0	0	1	7:45 AM	1	0	1	0	2
8:00 AM	0	1	2	2	5	8:00 AM	0	2	0	10	12	8:00 AM	3	0	3	0	6
8:15 AM	0	5	2	3	10	8:15 AM	0	3	0	2	5	8:15 AM	8	0	1	0	9
8:30 AM	0	8	0	2	10	8:30 AM	0	1	0	3	4	8:30 AM	3	0	0	0	3
8:45 AM	0	4	1	3	8	8:45 AM	0	1	0	1	2	8:45 AM	2	0	3	0	5
Count Total	0	31	10	20	61	Count Total	0	8	0	16	24	Count Total	19	0	13	0	32
Peak Hour	0	21	5	13	39	Peak Hour	0	7	0	15	22	Peak Hour	15	0	5	0	20

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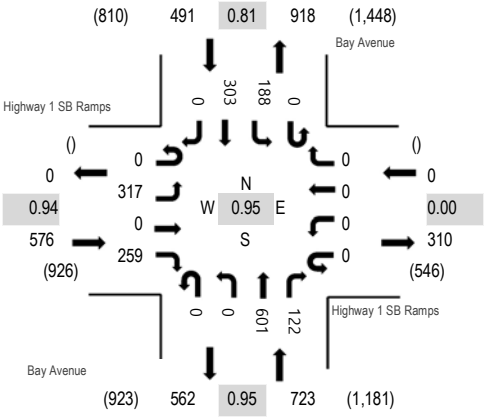
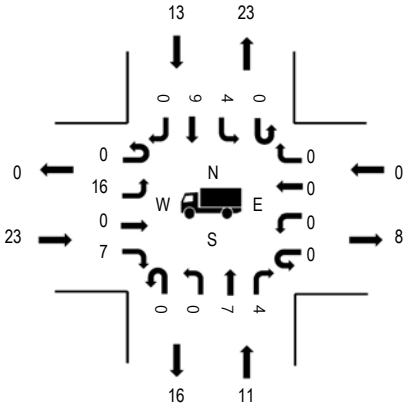


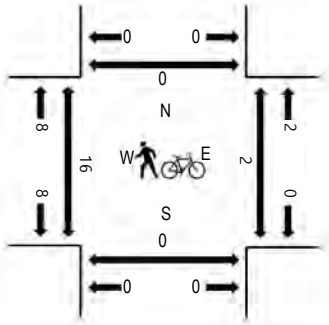
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	4.0%	0.94
WB	0.0%	0.00
NB	1.5%	0.95
SB	2.6%	0.81
All	2.6%	0.95

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Highway 1 SB Ramps Eastbound				Highway 1 SB Ramps Westbound				Bay Avenue Northbound				Bay Avenue Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	13	0	36	0	0	0	0	0	0	64	17	0	23	40	0	193	1,186
7:15 AM	0	27	0	38	0	0	0	0	0	0	73	25	0	29	34	0	226	1,442
7:30 AM	0	53	0	48	0	0	0	0	0	0	118	27	0	42	51	0	339	1,687
7:45 AM	0	84	0	60	0	0	0	0	0	0	149	30	0	58	47	0	428	1,790
8:00 AM	0	92	0	61	0	0	0	0	0	0	164	27	0	34	71	0	449	1,731
8:15 AM	0	69	0	78	0	0	0	0	0	0	138	34	0	47	105	0	471	
8:30 AM	0	72	0	60	0	0	0	0	0	0	150	31	0	49	80	0	442	
8:45 AM	0	73	0	62	0	0	0	0	0	0	108	26	1	47	52	0	369	
Count Total	0	483	0	443	0	0	0	0	0	0	964	217	1	329	480	0	2,917	
Peak Hour	0	317	0	259	0	0	0	0	0	0	601	122	0	188	303	0	1,790	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

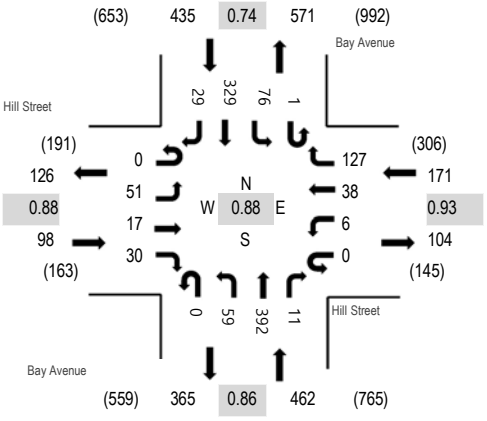
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	5	0	0	1	6	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	3	4	7:15 AM	0	0	0	0	0	7:15 AM	1	0	0	0	1
7:30 AM	2	1	0	0	3	7:30 AM	0	0	0	0	0	7:30 AM	3	0	0	0	3
7:45 AM	8	3	0	3	14	7:45 AM	0	1	0	0	1	7:45 AM	4	0	0	0	4
8:00 AM	2	2	0	2	6	8:00 AM	0	2	0	7	9	8:00 AM	5	0	1	0	6
8:15 AM	5	3	0	6	14	8:15 AM	0	2	0	3	5	8:15 AM	5	0	0	0	5
8:30 AM	8	3	0	2	13	8:30 AM	0	0	0	2	2	8:30 AM	2	0	1	0	3
8:45 AM	4	4	0	4	12	8:45 AM	0	1	0	1	2	8:45 AM	3	0	2	0	5
Count Total	35	16	0	21	72	Count Total	0	6	0	13	19	Count Total	23	0	4	0	27
Peak Hour	23	11	0	13	47	Peak Hour	0	5	0	12	17	Peak Hour	16	0	2	0	18

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 Bay Avenue & Hill Street AM
Date: Tuesday, February 15, 2022
Study Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes in Study Peak Hour: 08:15 AM - 08:30 AM

Study Peak Hour (for all study intersections)

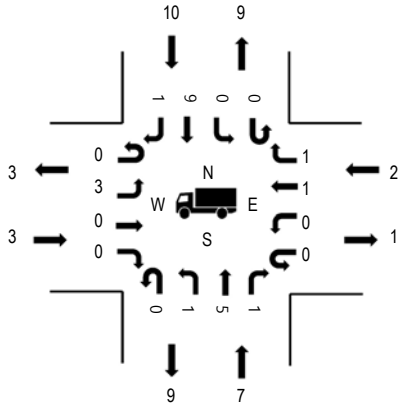
Motorized Vehicles



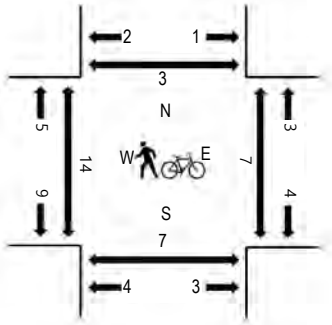
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	3.1%	0.88
WB	1.2%	0.93
NB	1.5%	0.86
SB	2.3%	0.74
All	1.9%	0.88

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Hill Street Eastbound				Hill Street Westbound				Bay Avenue Northbound				Bay Avenue Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	13	4	5	0	1	6	20	0	8	40	0	0	5	22	5	129	721
7:15 AM	0	7	3	3	0	1	2	21	0	3	42	1	0	9	35	5	132	882
7:30 AM	0	7	1	6	0	0	3	40	0	10	92	1	0	2	58	4	224	1,081
7:45 AM	0	7	3	6	0	2	4	35	0	8	97	1	0	11	55	7	236	1,156
8:00 AM	0	10	3	6	0	1	10	35	0	12	110	1	1	19	79	3	290	1,166
8:15 AM	0	17	4	7	0	1	8	37	0	14	95	2	0	22	119	5	331	
8:30 AM	0	13	4	7	0	0	12	25	0	12	118	4	0	20	75	9	299	
8:45 AM	0	11	6	10	0	4	8	30	0	21	69	4	0	15	56	12	246	
Count Total	0	85	28	50	0	10	53	243	0	88	663	14	1	103	499	50	1,887	
Peak Hour	0	51	17	30	0	6	38	127	0	59	392	11	1	76	329	29	1,166	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

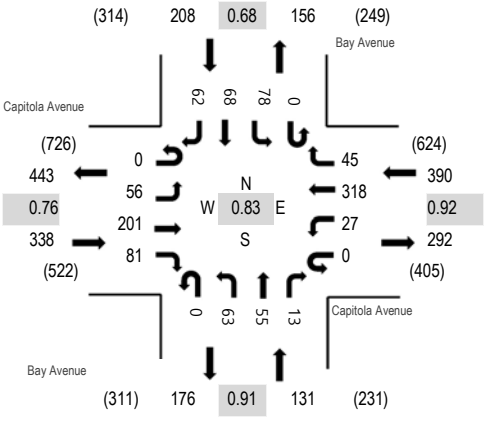
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	2	2	7:00 AM	0	0	0	0	0	7:00 AM	0	1	1	1	3
7:15 AM	0	0	0	3	3	7:15 AM	0	0	0	0	0	7:15 AM	0	1	1	1	3
7:30 AM	0	2	0	2	4	7:30 AM	0	0	1	0	1	7:30 AM	3	3	2	3	11
7:45 AM	0	2	0	4	6	7:45 AM	0	0	1	0	1	7:45 AM	2	0	0	2	4
8:00 AM	0	2	0	1	3	8:00 AM	0	1	0	7	8	8:00 AM	5	2	3	0	10
8:15 AM	2	1	1	5	9	8:15 AM	3	2	0	4	9	8:15 AM	4	4	2	0	10
8:30 AM	0	2	0	2	4	8:30 AM	0	1	0	3	4	8:30 AM	2	0	0	0	2
8:45 AM	1	2	1	2	6	8:45 AM	0	2	0	1	3	8:45 AM	3	1	2	3	9
Count Total	3	11	2	21	37	Count Total	3	6	2	15	26	Count Total	19	12	11	10	52
Peak Hour	3	7	2	10	22	Peak Hour	3	6	0	15	24	Peak Hour	14	7	7	3	31

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 Bay Avenue & Capitola Avenue AM
Date: Tuesday, February 15, 2022
Study Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes in Study Peak Hour: 08:15 AM - 08:30 AM

Study Peak Hour (for all study intersections)

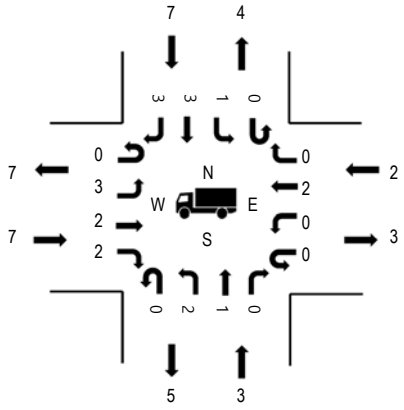
Motorized Vehicles



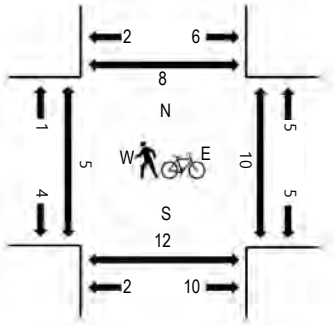
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	2.1%	0.76
WB	0.5%	0.92
NB	2.3%	0.91
SB	3.4%	0.68
All	1.8%	0.83

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Capitola Avenue Eastbound				Capitola Avenue Westbound				Bay Avenue Northbound				Bay Avenue Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	5	14	6	0	1	27	1	0	10	12	1	0	2	6	5	90	621
7:15 AM	0	10	16	12	0	4	30	2	0	9	6	2	0	4	20	6	121	817
7:30 AM	0	7	37	23	0	3	76	4	0	17	7	1	0	6	10	12	203	1,018
7:45 AM	0	14	31	17	0	6	70	9	0	12	14	2	0	6	16	10	207	1,067
8:00 AM	0	11	59	19	0	6	80	20	0	15	17	2	0	26	13	18	286	1,070
8:15 AM	0	15	78	18	0	8	86	8	0	16	10	7	0	38	22	16	322	
8:30 AM	0	16	33	27	0	7	82	8	0	20	14	2	0	8	17	18	252	
8:45 AM	0	10	21	23	0	7	69	10	0	13	19	3	0	6	20	9	210	
Count Total	0	88	289	145	0	42	520	62	0	112	99	20	0	96	124	94	1,691	
Peak Hour	0	56	201	81	0	27	318	45	0	63	55	13	0	78	68	62	1,067	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

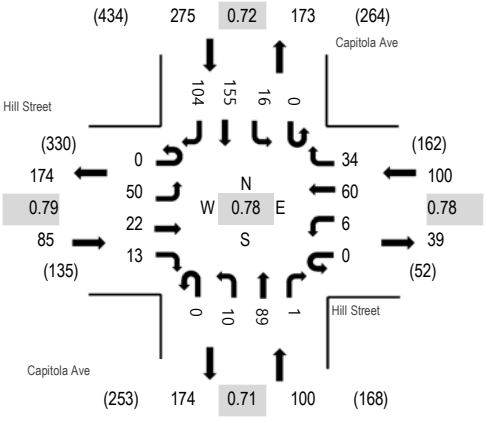
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	2	0	0	0	2	7:00 AM	0	0	0	0	0	7:00 AM	0	2	0	0	2
7:15 AM	1	0	0	0	1	7:15 AM	0	0	0	0	0	7:15 AM	3	1	2	1	7
7:30 AM	1	0	2	0	3	7:30 AM	0	0	0	0	0	7:30 AM	1	1	2	1	5
7:45 AM	2	0	2	2	6	7:45 AM	0	2	0	0	2	7:45 AM	1	0	1	2	4
8:00 AM	0	0	0	1	1	8:00 AM	6	0	3	2	11	8:00 AM	3	6	3	3	15
8:15 AM	2	1	0	1	4	8:15 AM	3	1	0	1	5	8:15 AM	0	4	4	2	10
8:30 AM	3	2	0	3	8	8:30 AM	1	0	0	0	1	8:30 AM	1	2	2	1	6
8:45 AM	1	0	3	1	5	8:45 AM	0	1	1	0	2	8:45 AM	1	6	1	3	11
Count Total	12	3	7	8	30	Count Total	10	4	4	3	21	Count Total	10	22	15	13	60
Peak Hour	7	3	2	7	19	Peak Hour	10	3	3	3	19	Peak Hour	5	12	10	8	35

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 Capitola Ave & Hill Street AM
Date: Tuesday, February 15, 2022
Study Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes in Study Peak Hour: 08:15 AM - 08:30 AM

Study Peak Hour (for all study intersections)

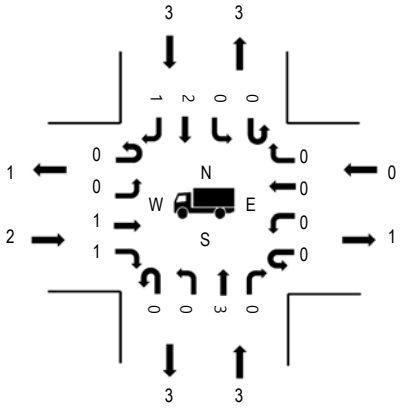
Motorized Vehicles



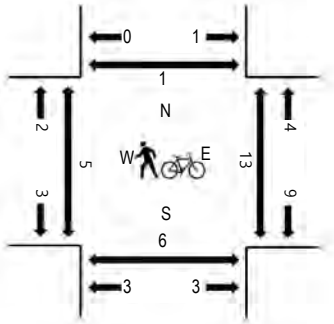
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	2.4%	0.79
WB	0.0%	0.78
NB	3.0%	0.71
SB	1.1%	0.72
All	1.4%	0.78

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Hill Street Eastbound				Hill Street Westbound				Capitola Ave Northbound				Capitola Ave Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	3	4	0	0	2	9	1	0	7	4	0	0	0	8	13	51	291
7:15 AM	0	7	0	3	0	0	5	4	0	1	9	0	0	0	21	22	72	411
7:30 AM	0	5	1	0	0	0	13	2	0	6	9	1	0	0	15	25	77	519
7:45 AM	0	7	1	1	0	1	15	3	0	2	15	1	0	3	20	22	91	560
8:00 AM	0	15	7	2	0	2	18	12	0	2	33	0	0	4	47	29	171	608
8:15 AM	0	18	6	3	0	3	13	14	0	3	25	0	0	8	57	30	180	
8:30 AM	0	10	8	7	0	0	14	5	0	3	16	0	0	1	31	23	118	
8:45 AM	0	21	4	2	0	4	16	6	0	9	20	2	0	1	24	30	139	
Count Total	0	86	31	18	0	12	103	47	0	33	131	4	0	17	223	194	899	
Peak Hour	0	50	22	13	0	6	60	34	0	10	89	1	0	16	155	104	560	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

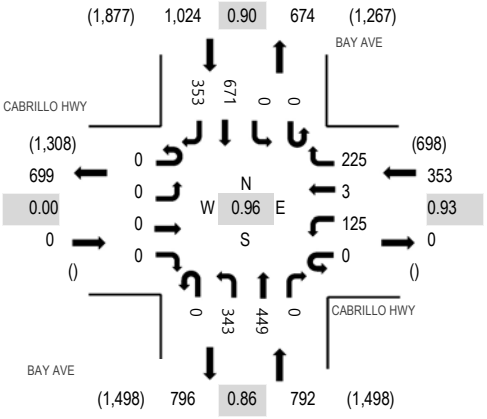
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	1	0	1	7:00 AM	1	0	2	0	3
7:15 AM	0	0	0	0	0	7:15 AM	0	1	0	0	1	7:15 AM	0	0	3	0	3
7:30 AM	0	0	0	0	0	7:30 AM	0	0	1	3	4	7:30 AM	3	0	4	0	7
7:45 AM	0	0	0	0	0	7:45 AM	0	1	0	4	5	7:45 AM	1	1	4	0	6
8:00 AM	1	1	0	2	4	8:00 AM	0	1	1	2	4	8:00 AM	3	2	7	1	13
8:15 AM	0	0	0	1	1	8:15 AM	2	0	0	4	6	8:15 AM	1	1	2	0	4
8:30 AM	1	2	0	0	3	8:30 AM	0	0	0	1	1	8:30 AM	0	2	0	0	2
8:45 AM	0	0	0	2	2	8:45 AM	0	1	1	0	2	8:45 AM	0	0	3	0	3
Count Total	2	3	0	5	10	Count Total	2	4	4	14	24	Count Total	9	6	25	1	41
Peak Hour	2	3	0	3	8	Peak Hour	2	2	1	11	16	Peak Hour	5	6	13	1	25

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 BAY AVE & CABRILLO HWY PM
Date: Tuesday, September 13, 2022
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:00 PM - 03:15 PM

Peak Hour

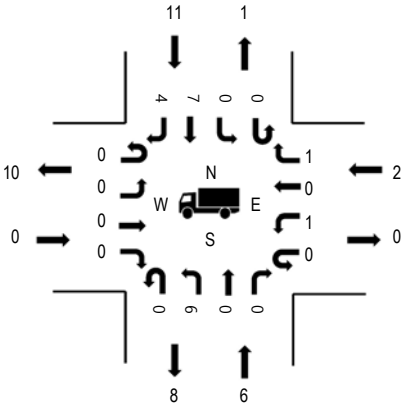
Motorized Vehicles



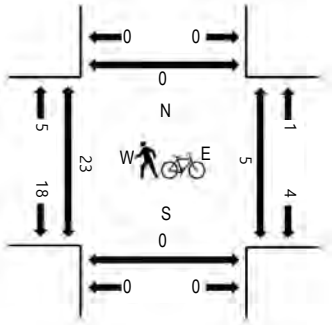
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.6%	0.93
NB	0.8%	0.86
SB	1.1%	0.90
All	0.9%	0.96

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	CABRILLO HWY Eastbound				CABRILLO HWY Westbound				BAY AVE Northbound				BAY AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
2:00 PM	0	0	0	0	0	42	0	34	0	79	85	0	0	0	120	78	438	1,987
2:15 PM	0	0	0	0	0	31	0	59	0	81	124	0	0	0	150	81	526	2,116
2:30 PM	0	0	0	0	0	33	0	47	0	85	103	0	0	0	152	72	492	2,138
2:45 PM	0	0	0	0	0	26	0	57	0	72	90	0	0	0	199	87	531	2,169
3:00 PM	0	0	0	0	0	40	1	50	0	103	128	0	0	0	163	82	567	2,086
3:15 PM	0	0	0	0	0	30	2	60	0	96	107	0	0	0	151	102	548	
3:30 PM	0	0	0	0	0	29	0	58	0	72	124	0	0	0	158	82	523	
3:45 PM	0	0	0	0	0	32	4	63	0	71	78	0	0	0	142	58	448	
Count Total	0	0	0	0	0	263	7	428	0	659	839	0	0	0	1,235	642	4,073	
Peak Hour	0	0	0	0	0	125	3	225	0	343	449	0	0	0	671	353	2,169	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

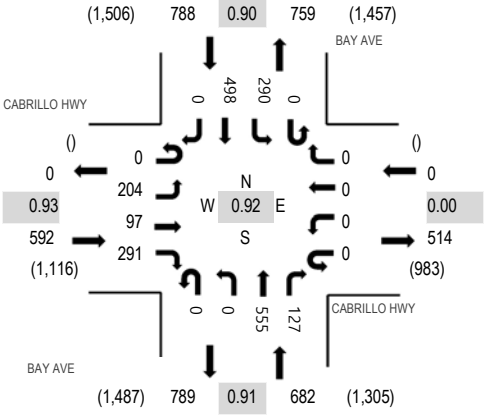
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
2:00 PM	0	1	4	3	8	2:00 PM	0	0	0	1	1	2:00 PM	2	0	3	0	5
2:15 PM	0	3	2	3	8	2:15 PM	0	0	0	1	1	2:15 PM	1	0	2	0	3
2:30 PM	0	3	0	3	6	2:30 PM	0	1	0	0	1	2:30 PM	0	0	3	0	3
2:45 PM	0	2	0	3	5	2:45 PM	0	0	0	0	0	2:45 PM	3	0	1	0	4
3:00 PM	0	1	1	3	5	3:00 PM	0	5	0	3	8	3:00 PM	5	0	2	0	7
3:15 PM	0	0	1	3	4	3:15 PM	0	4	0	3	7	3:15 PM	0	0	2	0	2
3:30 PM	0	3	0	2	5	3:30 PM	0	2	0	0	2	3:30 PM	15	0	0	0	15
3:45 PM	0	2	2	0	4	3:45 PM	0	0	0	4	4	3:45 PM	2	0	0	0	2
Count Total	0	15	10	20	45	Count Total	0	12	0	12	24	Count Total	28	0	13	0	41
Peak Hour	0	6	2	11	19	Peak Hour	0	11	0	6	17	Peak Hour	23	0	5	0	28

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 BAY AVE & CABRILLO HWY PM
Date: Tuesday, September 13, 2022
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:00 PM - 03:15 PM

Peak Hour

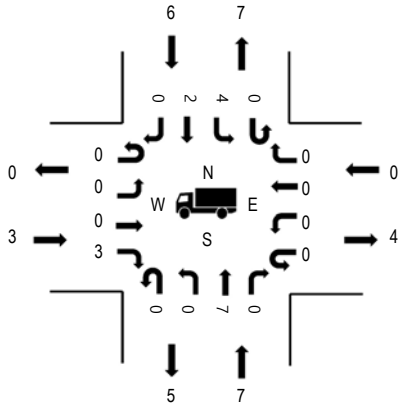
Motorized Vehicles



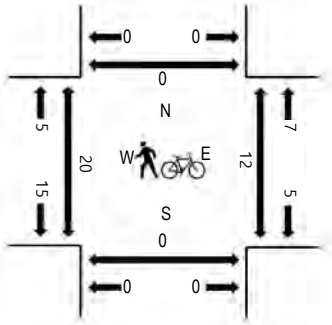
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.5%	0.93
WB	0.0%	0.00
NB	1.0%	0.91
SB	0.8%	0.90
All	0.8%	0.92

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	CABRILLO HWY Eastbound				CABRILLO HWY Westbound				BAY AVE Northbound				BAY AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
2:00 PM	0	57	0	61	0	0	0	0	0	0	106	44	0	63	110	0	441	1,903
2:15 PM	0	71	0	70	0	0	0	0	0	0	130	36	0	77	99	0	483	2,021
2:30 PM	0	41	4	71	0	0	0	0	0	0	139	38	0	85	99	0	477	2,053
2:45 PM	0	48	18	71	0	0	0	0	0	0	114	30	0	73	148	0	502	2,062
3:00 PM	0	64	26	71	0	0	0	0	0	0	170	27	0	76	125	0	559	2,024
3:15 PM	0	38	14	80	0	0	0	0	0	0	158	39	0	66	120	0	515	
3:30 PM	0	54	39	69	0	0	0	0	0	0	113	31	0	75	105	0	486	
3:45 PM	0	42	37	70	0	0	0	0	0	0	112	18	0	67	118	0	464	
Count Total	0	415	138	563	0	0	0	0	0	0	1,042	263	0	582	924	0	3,927	
Peak Hour	0	204	97	291	0	0	0	0	0	0	555	127	0	290	498	0	2,062	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

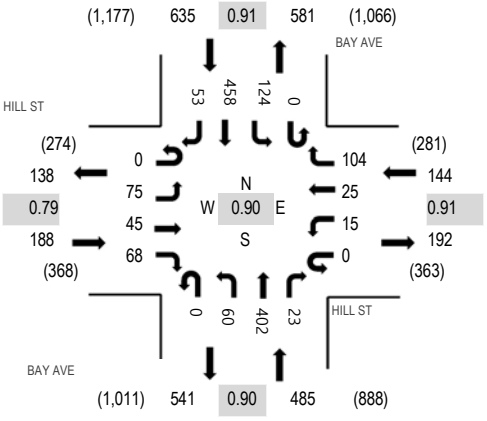
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
2:00 PM	1	0	0	4	5	2:00 PM	0	0	0	2	2	2:00 PM	2	0	3	0	5
2:15 PM	1	1	0	1	3	2:15 PM	0	1	0	1	2	2:15 PM	1	0	2	0	3
2:30 PM	1	4	0	3	8	2:30 PM	0	5	0	0	5	2:30 PM	0	0	3	0	3
2:45 PM	1	3	0	1	5	2:45 PM	0	0	0	0	0	2:45 PM	4	0	1	0	5
3:00 PM	0	1	0	2	3	3:00 PM	0	6	0	3	9	3:00 PM	5	0	4	0	9
3:15 PM	1	1	0	1	3	3:15 PM	0	2	0	1	3	3:15 PM	0	0	5	0	5
3:30 PM	1	2	0	2	5	3:30 PM	0	1	0	3	4	3:30 PM	11	0	2	0	13
3:45 PM	2	2	0	0	4	3:45 PM	0	0	0	6	6	3:45 PM	4	0	1	0	5
Count Total	8	14	0	14	36	Count Total	0	15	0	16	31	Count Total	27	0	21	0	48
Peak Hour	3	7	0	6	16	Peak Hour	0	9	0	7	16	Peak Hour	20	0	12	0	32

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 BAY AVE & HILL ST PM
Date: Tuesday, September 13, 2022
Peak Hour: 02:30 PM - 03:30 PM
Peak 15-Minutes: 03:00 PM - 03:15 PM

Peak Hour

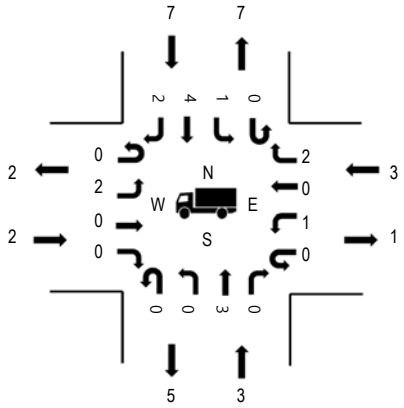
Motorized Vehicles



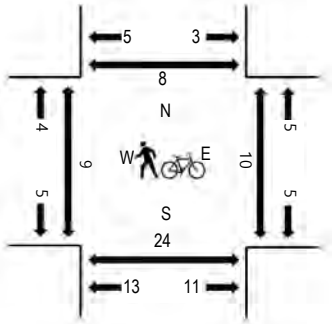
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.1%	0.79
WB	2.1%	0.91
NB	0.6%	0.90
SB	1.1%	0.91
All	1.0%	0.90

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	HILL ST Eastbound				HILL ST Westbound				BAY AVE Northbound				BAY AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
2:00 PM	0	20	8	13	0	6	7	18	0	10	87	10	0	22	85	10	296	1,317
2:15 PM	0	27	7	15	0	6	8	27	0	15	92	9	0	34	96	13	349	1,423
2:30 PM	0	15	8	16	0	3	3	20	0	11	104	8	0	27	90	13	318	1,452
2:45 PM	0	13	13	16	0	4	7	29	0	18	73	5	0	33	130	13	354	1,445
3:00 PM	0	23	18	21	0	3	6	28	0	18	112	4	0	28	129	12	402	1,397
3:15 PM	0	24	6	15	0	5	9	27	0	13	113	6	0	36	109	15	378	
3:30 PM	0	15	12	18	0	4	9	18	0	12	79	6	0	26	101	11	311	
3:45 PM	0	22	11	12	0	7	9	18	0	19	62	2	0	24	107	13	306	
Count Total	0	159	83	126	0	38	58	185	0	116	722	50	0	230	847	100	2,714	
Peak Hour	0	75	45	68	0	15	25	104	0	60	402	23	0	124	458	53	1,452	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

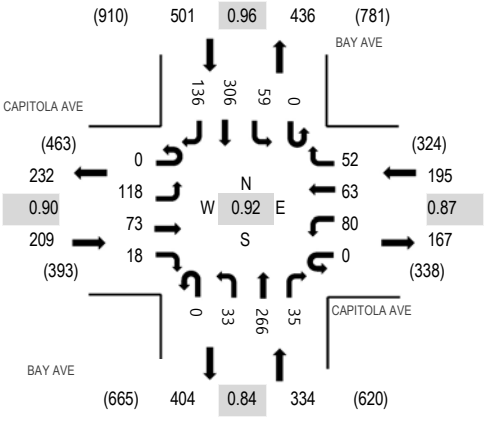
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
2:00 PM	0	0	1	3	4	2:00 PM	3	0	1	1	5	2:00 PM	0	0	1	2	3
2:15 PM	0	0	1	2	3	2:15 PM	0	0	0	1	1	2:15 PM	1	3	0	2	6
2:30 PM	1	2	0	2	5	2:30 PM	3	0	1	0	4	2:30 PM	3	3	2	2	10
2:45 PM	0	1	1	2	4	2:45 PM	1	0	0	1	2	2:45 PM	2	3	3	1	9
3:00 PM	1	0	0	1	2	3:00 PM	2	8	0	3	13	3:00 PM	1	7	1	3	12
3:15 PM	0	0	2	2	4	3:15 PM	1	3	0	2	6	3:15 PM	3	11	4	2	20
3:30 PM	1	0	2	5	8	3:30 PM	1	1	0	2	4	3:30 PM	9	4	4	1	18
3:45 PM	1	0	1	1	3	3:45 PM	1	1	1	3	6	3:45 PM	4	2	2	3	11
Count Total	4	3	8	18	33	Count Total	12	13	3	13	41	Count Total	23	33	17	16	89
Peak Hour	2	3	3	7	15	Peak Hour	7	11	1	6	25	Peak Hour	9	24	10	8	51

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 BAY AVE & CAPITOLA AVE PM
Date: Tuesday, September 13, 2022
Peak Hour: 02:30 PM - 03:30 PM
Peak 15-Minutes: 03:00 PM - 03:15 PM

Peak Hour

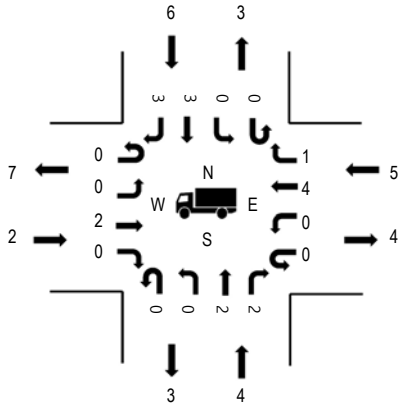
Motorized Vehicles



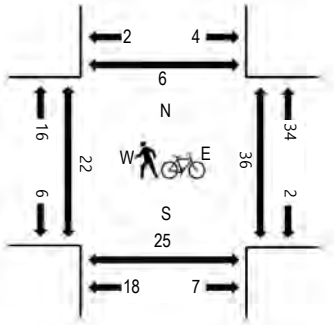
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.0%	0.90
WB	2.6%	0.87
NB	1.2%	0.84
SB	1.2%	0.96
All	1.4%	0.92

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	CAPITOLA AVE Eastbound				CAPITOLA AVE Westbound				BAY AVE Northbound				BAY AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
2:00 PM	0	24	15	4	0	6	16	11	0	5	56	9	0	18	28	41	233	1,077
2:15 PM	0	27	24	4	0	13	17	8	0	8	57	8	0	14	39	43	262	1,182
2:30 PM	0	34	23	4	0	12	18	14	0	9	48	11	0	11	79	34	297	1,239
2:45 PM	0	26	19	4	0	18	13	11	0	7	52	5	0	13	88	29	285	1,192
3:00 PM	0	31	16	8	0	26	14	16	0	9	82	12	0	20	67	37	338	1,170
3:15 PM	0	27	15	2	0	24	18	11	0	8	84	7	0	15	72	36	319	
3:30 PM	0	14	13	8	0	8	16	7	0	6	68	7	0	14	65	24	250	
3:45 PM	0	21	24	6	0	4	15	8	0	10	44	8	0	17	76	30	263	
Count Total	0	204	149	40	0	111	127	86	0	62	491	67	0	122	514	274	2,247	
Peak Hour	0	118	73	18	0	80	63	52	0	33	266	35	0	59	306	136	1,239	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

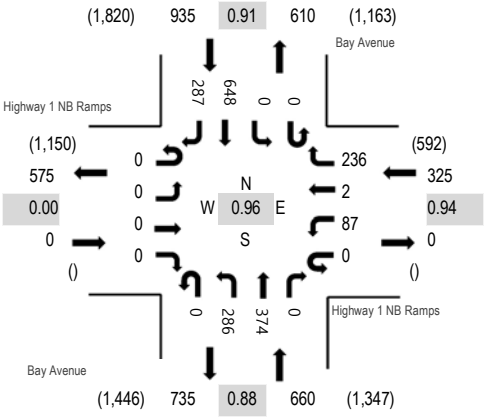
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
2:00 PM	1	0	0	2	3	2:00 PM	0	0	1	1	2	2:00 PM	2	2	1	0	5
2:15 PM	0	0	0	0	0	2:15 PM	0	0	1	2	3	2:15 PM	1	1	1	0	3
2:30 PM	0	2	2	3	7	2:30 PM	0	1	0	1	2	2:30 PM	0	5	2	2	9
2:45 PM	2	1	1	0	4	2:45 PM	0	0	0	2	2	2:45 PM	3	3	1	2	9
3:00 PM	0	0	0	1	1	3:00 PM	0	8	0	1	9	3:00 PM	8	7	16	0	31
3:15 PM	0	1	2	2	5	3:15 PM	0	1	0	1	2	3:15 PM	11	10	17	2	40
3:30 PM	0	0	0	3	3	3:30 PM	0	1	2	2	5	3:30 PM	5	1	1	1	8
3:45 PM	1	1	0	1	3	3:45 PM	2	0	1	2	5	3:45 PM	6	1	4	5	16
Count Total	4	5	5	12	26	Count Total	2	11	5	12	30	Count Total	36	30	43	12	121
Peak Hour	2	4	5	6	17	Peak Hour	0	10	0	5	15	Peak Hour	22	25	36	6	89

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 Bay Avenue & Highway 1 NB Ramps PM
Date: Tuesday, February 15, 2022
Study Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes in Study Peak Hour: 05:00 PM - 05:15 PM

Study Peak Hour (for all study intersections)

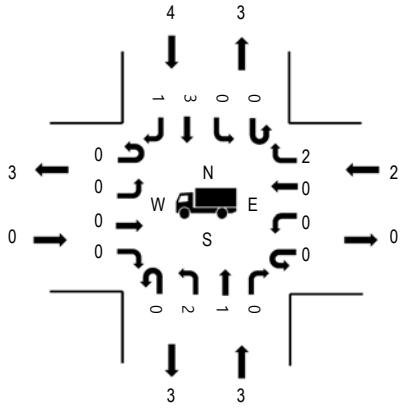
Motorized Vehicles



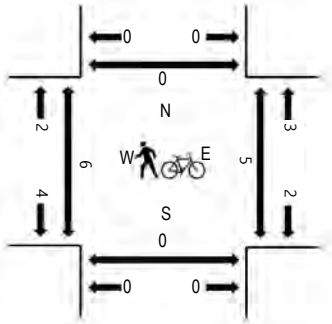
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.6%	0.94
NB	0.5%	0.88
SB	0.4%	0.91
All	0.5%	0.96

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Highway 1 NB Ramps Eastbound				Highway 1 NB Ramps Westbound				Bay Avenue Northbound				Bay Avenue Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	0	0	0	18	0	46	0	76	100	0	0	0	191	81	512	1,915
4:15 PM	0	0	0	0	0	27	0	43	0	75	93	0	0	0	159	70	467	1,901
4:30 PM	0	0	0	0	0	22	0	56	0	77	85	0	0	0	178	78	496	1,920
4:45 PM	0	0	0	0	0	19	1	66	0	61	90	0	0	0	144	59	440	1,878
5:00 PM	0	0	0	0	0	20	0	57	0	83	104	0	0	0	163	71	498	1,844
5:15 PM	0	0	0	0	0	26	1	57	0	65	95	0	0	0	163	79	486	
5:30 PM	0	0	0	0	0	29	0	47	0	77	105	0	0	0	140	56	454	
5:45 PM	0	0	0	0	0	22	0	35	0	77	84	0	0	0	125	63	406	
Count Total	0	0	0	0	0	183	2	407	0	591	756	0	0	0	1,263	557	3,759	
Peak Hour	0	0	0	0	0	87	2	236	0	286	374	0	0	0	648	287	1,920	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

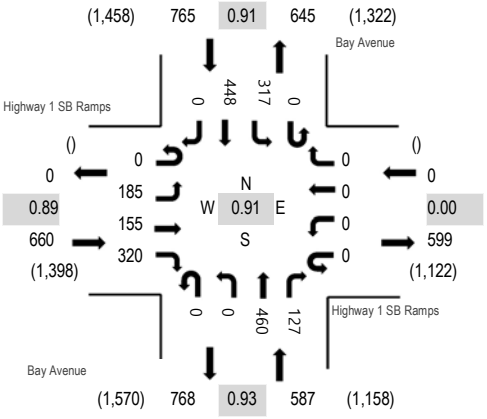
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	2	4	6	4:00 PM	0	3	0	1	4	4:00 PM	0	0	0	0	0
4:15 PM	0	3	2	2	7	4:15 PM	0	0	0	0	0	4:15 PM	2	0	3	0	5
4:30 PM	0	1	0	0	1	4:30 PM	0	4	0	3	7	4:30 PM	1	0	2	0	3
4:45 PM	0	0	1	1	2	4:45 PM	0	1	0	4	5	4:45 PM	3	0	2	0	5
5:00 PM	0	1	0	1	2	5:00 PM	0	1	0	2	3	5:00 PM	0	0	1	0	1
5:15 PM	0	1	1	2	4	5:15 PM	0	1	0	1	2	5:15 PM	2	0	0	0	2
5:30 PM	0	1	1	1	3	5:30 PM	0	0	0	0	0	5:30 PM	1	0	3	0	4
5:45 PM	0	1	0	2	3	5:45 PM	0	0	0	3	3	5:45 PM	2	0	3	0	5
Count Total	0	8	7	13	28	Count Total	0	10	0	14	24	Count Total	11	0	14	0	25
Peak Hour	0	3	2	4	9	Peak Hour	0	7	0	10	17	Peak Hour	6	0	5	0	11

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 Bay Avenue & Highway 1 SB Ramps PM
Date: Tuesday, February 15, 2022
Study Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes in Study Peak Hour: 04:00 PM - 04:15 PM

Study Peak Hour (for all study intersections)

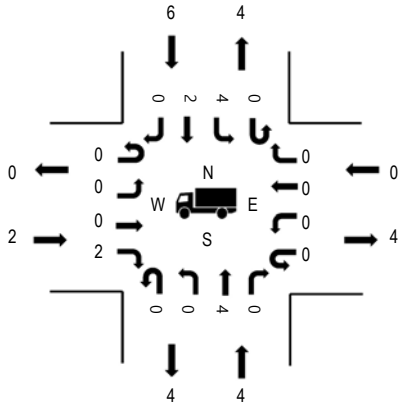
Motorized Vehicles



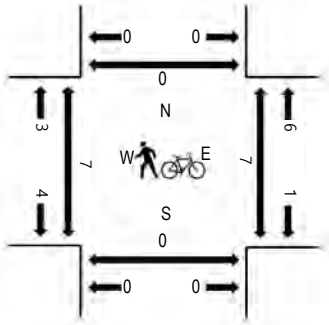
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.3%	0.89
WB	0.0%	0.00
NB	0.7%	0.93
SB	0.8%	0.91
All	0.6%	0.91

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Highway 1 SB Ramps Eastbound				Highway 1 SB Ramps Westbound				Bay Avenue Northbound				Bay Avenue Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	54	35	96	0	0	0	0	0	0	118	37	0	96	114	0	550	2,012
4:15 PM	0	43	33	67	0	0	0	0	0	0	124	33	0	80	113	0	493	1,976
4:30 PM	0	45	43	71	0	0	0	0	0	0	111	30	0	84	116	0	500	1,999
4:45 PM	0	43	44	86	0	0	0	0	0	0	107	27	0	57	105	0	469	1,992
5:00 PM	0	56	44	70	0	0	0	0	0	0	124	33	0	80	107	0	514	2,002
5:15 PM	0	57	39	99	0	0	0	0	0	0	102	30	0	61	128	0	516	
5:30 PM	0	56	42	88	0	0	0	0	0	0	116	17	0	64	110	0	493	
5:45 PM	0	52	28	107	0	0	0	0	0	0	114	35	0	50	93	0	479	
Count Total	0	406	308	684	0	0	0	0	0	0	916	242	0	572	886	0	4,014	
Peak Hour	0	185	155	320	0	0	0	0	0	0	460	127	0	317	448	0	2,012	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

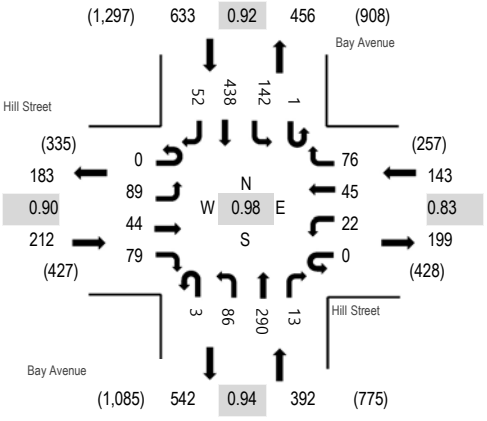
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	0	0	3	4	4:00 PM	0	3	0	0	3	4:00 PM	0	0	0	0	0
4:15 PM	0	3	0	2	5	4:15 PM	0	0	0	0	0	4:15 PM	4	0	3	0	7
4:30 PM	0	1	0	0	1	4:30 PM	0	3	0	3	6	4:30 PM	1	0	3	0	4
4:45 PM	1	0	0	1	2	4:45 PM	0	0	0	3	3	4:45 PM	2	0	1	0	3
5:00 PM	1	0	0	0	1	5:00 PM	0	1	0	2	3	5:00 PM	2	0	1	0	3
5:15 PM	1	1	0	2	4	5:15 PM	0	0	0	0	0	5:15 PM	1	0	0	0	1
5:30 PM	1	1	0	1	3	5:30 PM	0	0	0	0	0	5:30 PM	1	0	2	0	3
5:45 PM	4	0	0	1	5	5:45 PM	0	0	0	3	3	5:45 PM	3	0	2	0	5
Count Total	9	6	0	10	25	Count Total	0	7	0	11	18	Count Total	14	0	12	0	26
Peak Hour	2	4	0	6	12	Peak Hour	0	6	0	6	12	Peak Hour	7	0	7	0	14

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 Bay Avenue & Hill Street PM
Date: Tuesday, February 15, 2022
Study Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes in Study Peak Hour: 04:00 PM - 04:15 PM

Study Peak Hour (for all study intersections)

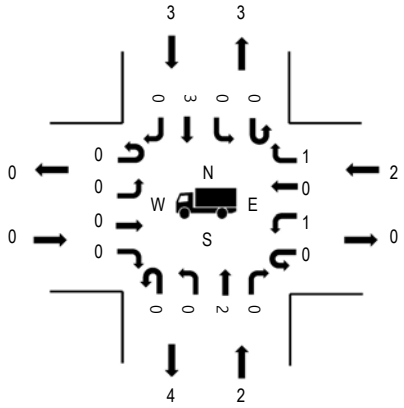
Motorized Vehicles



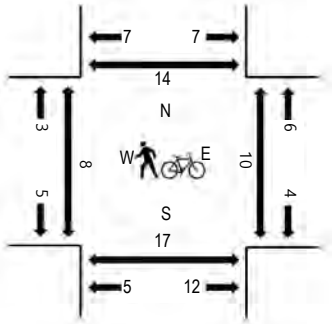
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.90
WB	1.4%	0.83
NB	0.5%	0.94
SB	0.5%	0.92
All	0.5%	0.98

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Hill Street Eastbound				Hill Street Westbound				Bay Avenue Northbound				Bay Avenue Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	23	9	16	0	7	18	18	1	17	69	3	1	41	120	9	352	1,380
4:15 PM	0	19	10	18	0	3	10	25	1	20	79	4	0	25	99	13	326	1,368
4:30 PM	0	22	15	22	0	7	9	21	0	25	72	4	0	36	99	18	350	1,382
4:45 PM	0	25	10	23	0	5	8	12	1	24	70	2	0	40	120	12	352	1,383
5:00 PM	0	23	13	21	0	2	10	15	0	20	84	2	1	44	93	12	340	1,376
5:15 PM	0	21	18	20	0	5	4	17	0	16	63	4	0	32	127	13	340	
5:30 PM	0	17	15	13	0	1	6	16	0	18	82	8	0	34	126	15	351	
5:45 PM	0	21	14	19	0	4	12	22	0	12	70	4	0	41	112	14	345	
Count Total	0	171	104	152	0	34	77	146	3	152	589	31	2	293	896	106	2,756	
Peak Hour	0	89	44	79	0	22	45	76	3	86	290	13	1	142	438	52	1,380	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

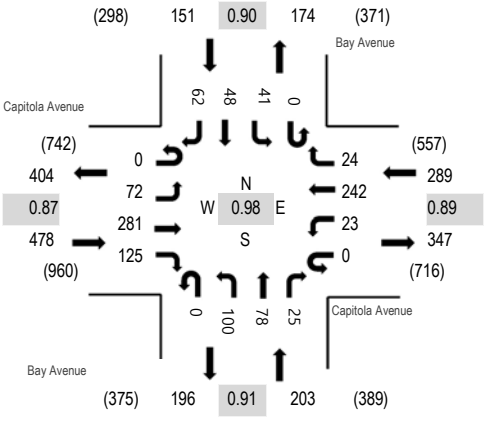
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	1	1	4:00 PM	1	0	0	1	2	4:00 PM	3	3	3	2	11
4:15 PM	0	1	1	1	3	4:15 PM	2	1	0	0	3	4:15 PM	0	2	1	4	7
4:30 PM	0	1	1	0	2	4:30 PM	0	4	1	3	8	4:30 PM	3	6	2	4	15
4:45 PM	0	0	0	1	1	4:45 PM	2	0	2	2	6	4:45 PM	2	6	4	4	16
5:00 PM	0	0	0	0	0	5:00 PM	3	0	1	1	5	5:00 PM	0	6	2	1	9
5:15 PM	0	1	0	0	1	5:15 PM	0	0	0	0	0	5:15 PM	3	4	2	2	11
5:30 PM	0	0	0	1	1	5:30 PM	0	0	0	0	0	5:30 PM	0	5	2	0	7
5:45 PM	0	0	0	0	0	5:45 PM	0	2	0	2	4	5:45 PM	0	4	7	5	16
Count Total	0	3	2	4	9	Count Total	8	7	4	9	28	Count Total	11	36	23	22	92
Peak Hour	0	2	2	3	7	Peak Hour	5	5	3	6	19	Peak Hour	8	17	10	14	49

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 Bay Avenue & Capitola Avenue PM
Date: Tuesday, February 15, 2022
Study Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes in Study Peak Hour: 04:45 PM - 05:00 PM

Study Peak Hour (for all study intersections)

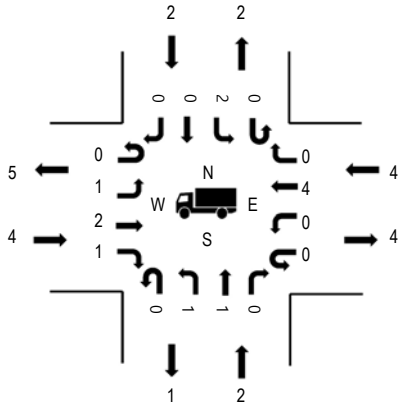
Motorized Vehicles



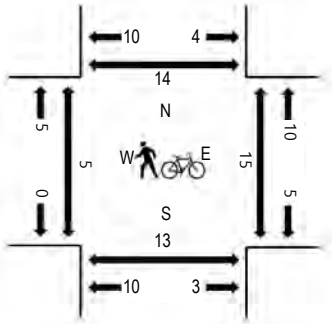
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.8%	0.87
WB	1.4%	0.89
NB	1.0%	0.91
SB	1.3%	0.90
All	1.1%	0.98

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Capitola Avenue Eastbound				Capitola Avenue Westbound				Bay Avenue Northbound				Bay Avenue Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	25	78	34	0	7	57	6	0	19	19	3	0	10	5	17	280	1,121
4:15 PM	0	21	56	27	0	4	70	7	0	26	22	8	0	10	14	16	281	1,109
4:30 PM	0	12	72	38	0	4	49	5	0	28	17	8	0	14	15	13	275	1,106
4:45 PM	0	14	75	26	0	8	66	6	0	27	20	6	0	7	14	16	285	1,109
5:00 PM	0	16	72	21	0	4	56	6	0	22	21	11	0	9	17	13	268	1,083
5:15 PM	0	26	89	25	0	3	52	5	0	17	18	6	0	9	17	11	278	
5:30 PM	0	17	65	24	0	8	60	8	0	21	24	6	0	15	17	13	278	
5:45 PM	0	20	79	28	0	6	47	13	0	14	23	3	0	5	9	12	259	
Count Total	0	151	586	223	0	44	457	56	0	174	164	51	0	79	108	111	2,204	
Peak Hour	0	72	281	125	0	23	242	24	0	100	78	25	0	41	48	62	1,121	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

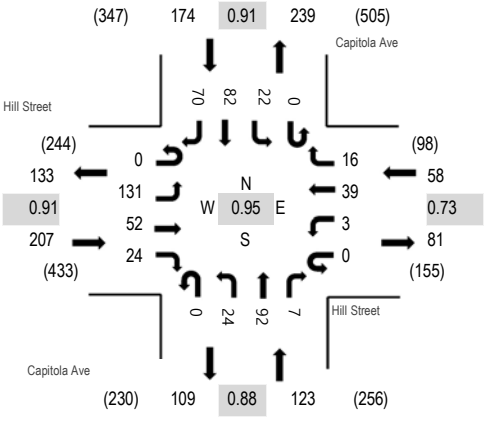
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	1	1	1	4	4:00 PM	1	3	0	4	8	4:00 PM	0	2	6	5	13
4:15 PM	1	1	0	0	2	4:15 PM	0	0	1	0	1	4:15 PM	2	4	5	3	14
4:30 PM	1	0	2	1	4	4:30 PM	2	0	0	0	2	4:30 PM	0	4	0	0	4
4:45 PM	1	0	1	0	2	4:45 PM	0	1	0	1	2	4:45 PM	3	3	4	6	16
5:00 PM	0	0	0	0	0	5:00 PM	1	2	1	1	5	5:00 PM	4	5	5	4	18
5:15 PM	0	1	1	0	2	5:15 PM	0	0	0	0	0	5:15 PM	2	3	2	7	14
5:30 PM	0	1	0	0	1	5:30 PM	0	0	0	1	1	5:30 PM	1	1	4	4	10
5:45 PM	0	0	0	0	0	5:45 PM	2	0	1	0	3	5:45 PM	2	0	4	4	10
Count Total	4	4	5	2	15	Count Total	6	6	3	7	22	Count Total	14	22	30	33	99
Peak Hour	4	2	4	2	12	Peak Hour	3	4	1	5	13	Peak Hour	5	13	15	14	47

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 Capitola Ave & Hill Street PM
Date: Tuesday, February 15, 2022
Study Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes in Study Peak Hour: 04:00 PM - 04:15 PM

Study Peak Hour (for all study intersections)

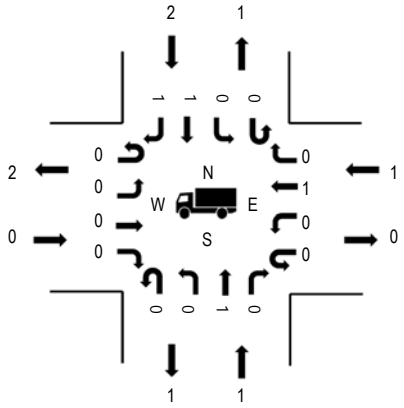
Motorized Vehicles



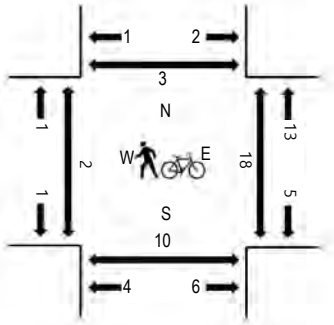
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.91
WB	1.7%	0.73
NB	0.8%	0.88
SB	1.1%	0.91
All	0.7%	0.95

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Hill Street Eastbound				Hill Street Westbound				Capitola Ave Northbound				Capitola Ave Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	33	13	3	0	1	8	8	0	6	27	2	0	5	25	18	149	562
4:15 PM	0	24	13	8	0	0	18	2	0	5	21	1	0	8	18	19	137	557
4:30 PM	0	37	12	8	0	2	8	4	0	8	20	0	0	4	16	19	138	558
4:45 PM	0	37	14	5	0	0	5	2	0	5	24	4	0	5	23	14	138	568
5:00 PM	0	38	15	6	0	2	5	3	0	3	28	0	0	5	22	17	144	572
5:15 PM	0	37	9	5	0	1	7	2	0	7	29	0	0	4	26	11	138	
5:30 PM	0	38	15	6	0	1	6	2	0	7	26	0	0	7	26	14	148	
5:45 PM	0	34	15	8	0	0	8	3	0	5	26	2	0	2	18	21	142	
Count Total	0	278	106	49	0	7	65	26	0	46	201	9	0	40	174	133	1,134	
Peak Hour	0	131	52	24	0	3	39	16	0	24	92	7	0	22	82	70	562	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	1	0	0	1	4:00 PM	0	1	2	2	5	4:00 PM	1	3	5	1	10
4:15 PM	0	0	1	0	1	4:15 PM	1	1	0	3	5	4:15 PM	0	2	6	1	9
4:30 PM	0	0	0	1	1	4:30 PM	0	0	0	0	0	4:30 PM	1	1	2	1	5
4:45 PM	0	0	0	1	1	4:45 PM	0	1	1	3	5	4:45 PM	0	4	5	0	9
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	1	1	5:00 PM	1	4	5	1	11
5:15 PM	0	0	0	0	0	5:15 PM	1	2	0	0	3	5:15 PM	1	1	2	0	4
5:30 PM	0	1	0	0	1	5:30 PM	1	0	0	2	3	5:30 PM	2	0	6	1	9
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	1	1	5:45 PM	2	2	6	0	10
Count Total	0	2	1	2	5	Count Total	3	5	3	12	23	Count Total	8	17	37	5	67
Peak Hour	0	1	1	2	4	Peak Hour	1	3	3	8	15	Peak Hour	2	10	18	3	33

SWITRS COLLISION DATA – Bay Avenue / Hill Street Intersection (2017 to 2022)

Primary Rd BAY AV | Distance (ft) 213. | Direction N | Secondary Rd HILL AV | NCIC 4401 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Capitola | County Santa Cruz | Population 3 | Rpt Dist 4401 | Beat | Type 0 | CalTrans | Badge 482 | Collision Date 20180813 | Time 2013 | Day MON
Primary Collision Factor IMPROP TURN | Violation 22107 | Collision Type BROADSIDE | Severity INJURY | #Killed 0 | #Injured 1 | Tow Away? N | Process Date 20180925
Weather1 CLEAR | Weather2 | Rdwy Surface DRY | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run | Motor Vehicle Involved With BICYCLE | Lighting DUSK/DAWN | Ped Action | Cntrl Dev FNCTNG | Loc Type | Ramp/Int

Party Info																		Victim Info							
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	34	F	O	HNBD		RGT TURN	S	A	0100	HONDA	2007	- 3	N		-	G -								
2	BICY	22	M		HNBD		PROC ST	S	L	0400	-		- 3	N		-	- -	BICY	COMP PN	22	M	1	0	G	W

Primary Rd BAY AV | Distance (ft) 203. | Direction N | Secondary Rd HILL ST | NCIC 4401 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Capitola | County Santa Cruz | Population 3 | Rpt Dist | Beat | Type 0 | CalTrans | Badge 3654 | Collision Date 20180213 | Time 0750 | Day TUE
Primary Collision Factor R-O-W AUTO | Violation 21804A | Collision Type BROADSIDE | Severity INJURY | #Killed 0 | #Injured 1 | Tow Away? Y | Process Date 20180628
Weather1 CLEAR | Weather2 | Rdwy Surface DRY | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run | Motor Vehicle Involved With OTHER MV | Lighting DAYLIGHT | Ped Action | Cntrl Dev FNCTNG | Loc Type | Ramp/Int

Party Info																		Victim Info							
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	67	F	W	HNBD		ENT TRAF	S	D	2200	TOYOT	2000	- 3	G		N	G -								
2	DRVR	39	F	H	HNBD		PROC ST	S	A	0100	VOLVO	2000	- 3	N		-	G -	DRVR	COMP PN	39	F	1	0	G	-

Primary Rd BAY AV | Distance (ft) 0.00 | Direction N | Secondary Rd HILL ST | NCIC 4401 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Capitola | County Santa Cruz | Population 3 | Rpt Dist | Beat 007 | Type 0 | CalTrans | Badge 522 | Collision Date 20180705 | Time 1618 | Day THU
Primary Collision Factor IMPROP TURN | Violation 22107 | Collision Type SIDESWIPE | Severity PDO | #Killed 0 | #Injured 0 | Tow Away? N | Process Date 20181018
Weather1 CLEAR | Weather2 | Rdwy Surface DRY | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run MSDMNR | Motor Vehicle Involved With OTHER MV | Lighting DAYLIGHT | Ped Action | Cntrl Dev NT PRS/FCTR | Loc Type | Ramp/Int

Party Info																		Victim Info							
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	998	-		HBD-UNK		RGT TURN	-	A	0700	HONDA		- 3	A	20002	N	B -								
2	DRVR	28	M	W	HNBD		STOPPED	N	F	2600	DODGE	2014	- 3	N		-	G -								

Primary Rd BAY AV | Distance (ft) 0.00 | Direction | Secondary Rd HILL AV | NCIC 4401 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Capitola | County Santa Cruz | Population 3 | Rpt Dist | Beat | Type 0 | CalTrans | Badge 3654 | Collision Date 20190115 | Time 0800 | Day TUE
Primary Collision Factor IMPROP TURN | Violation 22107 | Collision Type HIT OBJECT | Severity PDO | #Killed 0 | #Injured 0 | Tow Away? N | Process Date 20190321
Weather1 RAINING | Weather2 | Rdwy Surface WET | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run | Motor Vehicle Involved With FIXED OBJ | Lighting DAYLIGHT | Ped Action | Cntrl Dev NT PRS/FCTR | Loc Type | Ramp/Int

Party Info																		Victim Info							
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	75	F	W	HNBD		U-TURN	N	A	0100	HONDA	2009	- 3	N		-	- G								

Primary Rd BAY AV | Distance (ft) 177. | Direction N | Secondary Rd HILL ST | NCIC 4401 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Capitola | County Santa Cruz | Population 3 | Rpt Dist 4401 | Beat 007 | Type 0 | CalTrans | Badge 527 | Collision Date 20190109 | Time 1019 | Day WED
Primary Collision Factor R-O-W AUTO | Violation 21804A | Collision Type SIDESWIPE | Severity PDO | #Killed 0 | #Injured 0 | Tow Away? N | Process Date 20190207
Weather1 CLOUDY | Weather2 RAINING | Rdwy Surface WET | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run | Motor Vehicle Involved With OTHER MV | Lighting DAYLIGHT | Ped Action | Cntrl Dev FNCTNG | Loc Type | Ramp/Int

Party Info																		Victim Info							
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	41	M	H	HNBD		LFT TURN	E	A	0100	TOYOT	2000	- 3	E		G	G -								
2	DRVR	58	F	W	HNBD		PROC ST	S	A	0100	SUBAR	2000	- 3	G		-	G -								

Primary Rd BAY AV | Distance (ft) 0.00 | Direction | Secondary Rd HILL ST | NCIC 4401 | State Hwy? N | Route | Postmile Prefix | Postmile | Side of Hwy
City Capitola | County Santa Cruz | Population 3 | Rpt Dist 4401 | Beat 001 | Type 0 | CalTrans | Badge 527 | Collision Date 20190204 | Time 1608 | Day MON
Primary Collision Factor UNSAFE SPEED | Violation 22350 | Collision Type BROADSIDE | Severity PDO | #Killed 0 | #Injured 0 | Tow Away? Y | Process Date 20190225
Weather1 CLOUDY | Weather2 RAINING | Rdwy Surface WET | Rdwy Cond1 NO UNUSL CND | Rdwy Cond2 | Spec Cond 0
Hit and Run FELONY | Motor Vehicle Involved With OTHER MV | Lighting DAYLIGHT | Ped Action | Cntrl Dev FNCTNG | Loc Type | Ramp/Int

Party Info																		Victim Info							
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	32	M	H	IMP UNK	IMP UNK	PROC ST	N	D	2200	TOYOT	2018	- 3	A	22450	I	- B								
2	DRVR	26	M	H	HNBD		LFT TURN	S	A	0100	NISSA	2014	- 3	G		-	- G								

SWITRS COLLISION DATA – Bay Avenue / Hill Street Intersection (2017 to 2022)

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
BAY AV	74.0	N	HILL ST	4401	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Capitola	Santa Cruz	3	4401		0		521	20191209	1722	MON

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
R-O-W AUTO	21800A	SIDESWIPE	PDO	0	0	N	20200130

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DARK - ST		FNCTNG		

Party Info / Victim Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	19	F	H	HNBD		PROC ST	N	A	0100	FORD	2015	-	3	J		- - M								
2	DRVR	64	F	B	HNBD		RGT TURN	N	A	0100	SUBAR	2019	-	3	N		- - G								

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
BAY AV	0.00		HILL ST	4401	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Capitola	Santa Cruz	3	4401		0		526	20201008	1600	THU

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	BROADSIDE	INJURY	0	1	N	20201218

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info / Victim Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	40	F	H	HNBD		PROC ST	W	A	0100	-	2017	-	3	G		- G M								
2	DRVR	52	F	H	HNBD		PROC ST	N	A	0100	-	2020	-	3	G		- G M	PASS	COMP PN	32	F	3	0	G	M

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
BAY AV	0.00		HILL ST	4401	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Capitola	Santa Cruz	3	4401		0		5215	20210326	2006	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
NOT DRIVER		HEAD-ON	PDO	0	0	Y	20210513

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	FIXED OBJ	DARK - ST		FNCTNG		

Party Info / Victim Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1	DRVR	75	F	W	IMP UNK	IMP UNK	RAN OFF RD	E	A	0700	-	2001	-	-	-		- G -								

SWITRS COLLISION DATA – Bay Avenue / Hill Street Intersection (2017 to 2022)

Primary Rd	BAY AV	Distance (ft)	482.	Direction	N	Secondary Rd	HILL ST	NCIC	4401	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy			
City	Capitola	County	Santa Cruz	Population	3	Rpt Dist	4401	Beat		Type	0	CalTrans		Badge	535	Collision Date	20220214	Time	1330	Day	MON
Primary Collision Factor	UNSAFE SPEED	Violation	22350	Collision Type	REAR END	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20220316						
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1		Rdwy Cond2		Spec Cond	0										
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		Loc Type		Ramp/Int									

Party Info																		Victim Info							
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	47	M	W	HNBD		PROC ST	N	J	4800	FORD	2016	- -	N		-	- G								
2	DRVR	21	F	H			STOPPED	N	A	0700	-	2010	- -	N		-	- G	PASS		22	M	3	0	G	-

Primary Rd	BAY AV	Distance (ft)	0.00	Direction		Secondary Rd	HILL ST	NCIC	4401	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy			
City	Capitola	County	Santa Cruz	Population	3	Rpt Dist	4401	Beat		Type	0	CalTrans		Badge	535	Collision Date	20220329	Time	1252	Day	TUE
Primary Collision Factor	R-O-W AUTO	Violation	21801A	Collision Type	BROADSIDE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	Y	Process Date	20220504						
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0										
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev		Loc Type		Ramp/Int									

Party Info																		Victim Info							
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	74	F	H	HNBD		LFT TURN	W	A	0100	-	2010	- 3	-		-	- G								
2	DRVR	37	M	W	HNBD		PROC ST	S	F	2600	-	2010	- 3	-		-	- L								

Primary Rd	BAY AV	Distance (ft)	0.00	Direction		Secondary Rd	HILL ST	NCIC	4401	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy			
City	Capitola	County	Santa Cruz	Population	3	Rpt Dist	SANTA	Beat	007	Type	0	CalTrans		Badge	528	Collision Date	20220507	Time	1004	Day	SAT
Primary Collision Factor	R-O-W AUTO	Violation	21800A	Collision Type	SIDESWIPE	Severity	INJURY	#Killed	0	#Injured	1	Tow Away?	Y	Process Date	20220720						
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0										
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev	FNCTNG	Loc Type		Ramp/Int									

Party Info																		Victim Info							
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	52	F	W	HNBD		PROC ST	N	A	0100	-	2013	- 3	A	21800	-	- C	DRVR	COMP PN	52	F	1	1	C	-
2	DRVR	60	M	W	HNBD		LFT TURN	N	A	0100	FORD	2019	- 3	-		-	- C								

Primary Rd	BAY AV	Distance (ft)	0.00	Direction		Secondary Rd	HILL ST	NCIC	4401	State Hwy?	N	Route		Postmile Prefix		Postmile		Side of Hwy			
City	Capitola	County	Santa Cruz	Population	3	Rpt Dist	SANTA	Beat	007	Type	0	CalTrans		Badge	483	Collision Date	20220717	Time	1818	Day	SUN
Primary Collision Factor	R-O-W AUTO	Violation	21804A	Collision Type	BROADSIDE	Severity	PDO	#Killed	0	#Injured	0	Tow Away?	N	Process Date	20220919						
Weather1	CLEAR	Weather2		Rdwy Surface	DRY	Rdwy Cond1	NO UNUSL CND	Rdwy Cond2		Spec Cond	0										
Hit and Run		Motor Vehicle Involved With	OTHER MV	Lighting	DAYLIGHT	Ped Action		Cntrl Dev	FNCTNG	Loc Type		Ramp/Int									

Party Info																		Victim Info							
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F	DRVR	43	M	A	HNBD		ENT TRAF	E	A	0100	-	2013	- 3	N		-	G -								
2	DRVR	31	F		HNBD		PROC ST	N	A	0100	-	2020	- 3	N		-	G -								

Capitola Police Department Collision Data

ACPED

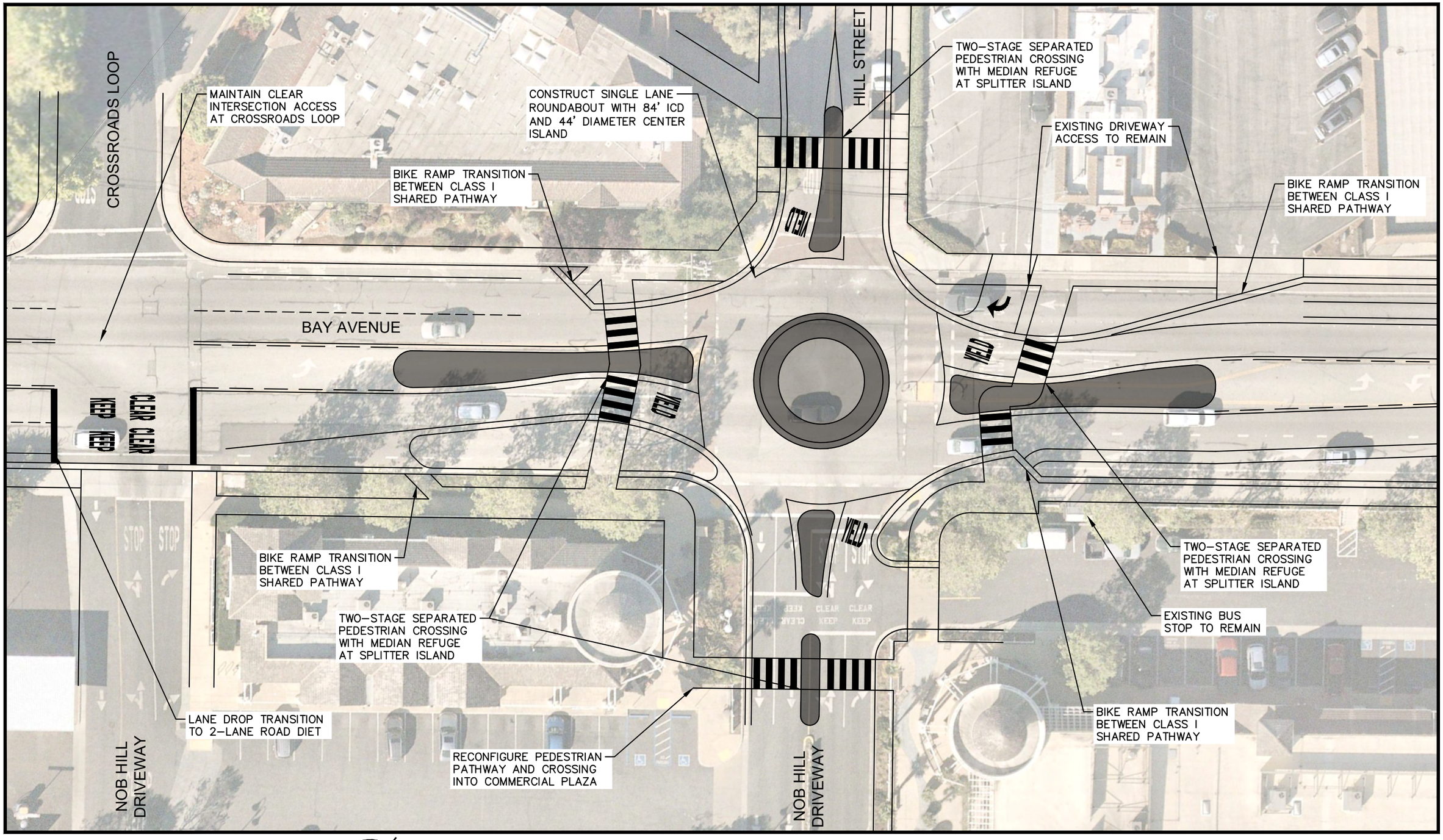
	2017	2018	2019	2020	2021	2022	2023
Case #	17C-00845	None	19C-01981	None	None	22C-01538	23C-01056
Location	Bay Av S Hill St		809 Bay Ave - Nob Hill Parking Lot			Bay Av S Hill St	Bay Av / Hill St

ACBike

	2017	2018	2019	2020	2021	2022	2023
Case #		18C-01395	None	None	21C-01221	22C-01007	None
Location		800 Bay Ave			828 Bay Ave	809 Bay Ave - Nob Hill Parking Lot	

*Note: Highlighted data was at the study intersection; all other data was in the vicinity, but not intersection related.

Attachment B – Intersection Alternative Concept Layouts



Kimley»Horn

NORTH

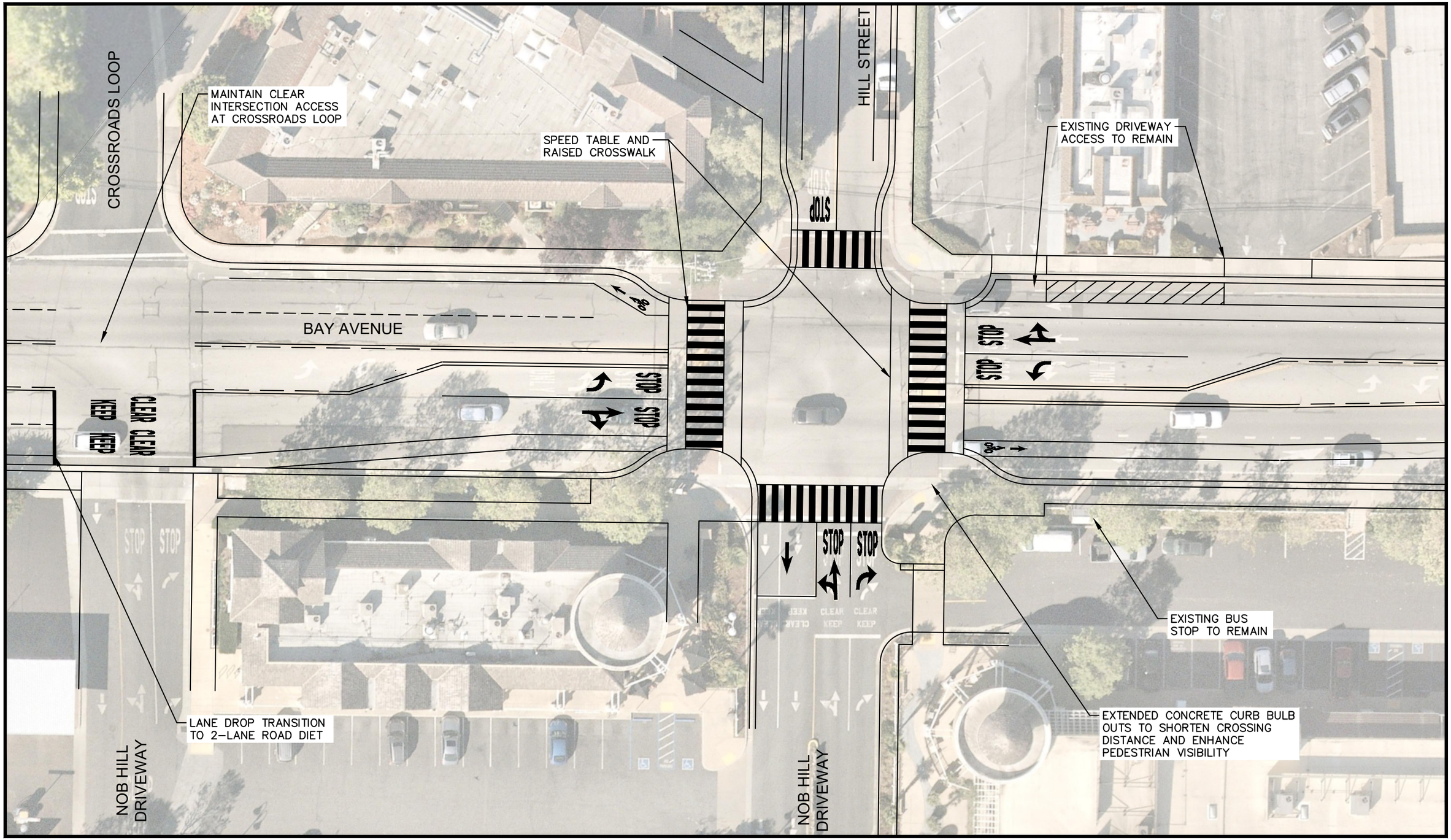
GRAPHIC SCALE IN FEET
0 15 30 60

CONCEPT LAYOUT FOR PLANNING PURPOSES. NOT FOR CONSTRUCTION

ALTERNATIVE 2 ROUNDABOUT

DWW-097763143 NOVEMBER 2022

CITY OF CAPITOLA - BAY/HILL INTERSECTION OPERATIONS ANALYSIS



Kimley»Horn

NORTH

GRAPHIC SCALE IN FEET
0 15 30 60

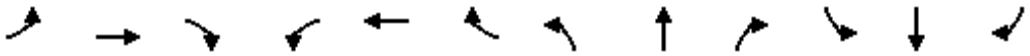
CONCEPT LAYOUT FOR PLANNING PURPOSES. NOT FOR CONSTRUCTION

ALTERNATIVE 3
ALL-WAY STOP WITH ROAD DIET

DWW–097763143 SEPTEMBER 2023

CITY OF CAPITOLA - BAY/HILL INTERSECTION OPERATIONS ANALYSIS

Attachment C – Synchro and Sidra LOS Results



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	69	3	139	390	538	0	0	407	474
Future Volume (veh/h)	0	0	0	69	3	139	390	538	0	0	407	474
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.93
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				1826	1900	1885	1885	1856	0	0	1870	1885
Adj Flow Rate, veh/h				73	3	146	411	566	0	0	428	499
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				5	0	1	1	3	0	0	2	1
Cap, veh/h				214	4	195	742	2574	0	0	426	353
Arrive On Green				0.12	0.12	0.12	0.83	1.00	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1739	33	1583	1795	3618	0	0	1870	1469
Grp Volume(v), veh/h				73	0	149	411	566	0	0	428	499
Grp Sat Flow(s),veh/h/ln				1739	0	1615	1795	1763	0	0	1777	1469
Q Serve(g_s), s				2.3	0.0	5.3	4.4	0.0	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				2.3	0.0	5.3	4.4	0.0	0.0	0.0	14.4	14.4
Prop In Lane				1.00		0.98	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				214	0	199	742	2574	0	0	426	353
V/C Ratio(X)				0.34	0.00	0.75	0.55	0.22	0.00	0.00	1.00	1.42
Avail Cap(c_a), veh/h				371	0	345	742	2574	0	0	426	353
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.68	0.68	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				24.1	0.0	25.4	3.4	0.0	0.0	0.0	22.8	22.8
Incr Delay (d2), s/veh				0.3	0.0	2.1	0.4	0.1	0.0	0.0	44.5	202.8
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				0.9	0.0	2.0	1.0	0.0	0.0	0.0	10.9	24.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.4	0.0	27.5	3.8	0.1	0.0	0.0	67.3	225.6
LnGrp LOS				C	A	C	A	A	A	A	F	F
Approach Vol, veh/h					222			977			927	
Approach Delay, s/veh					26.5			1.7			152.5	
Approach LOS					C			A			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	29.4	19.0		11.6		48.4						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	17.3	* 14		* 13		38.4						
Max Q Clear Time (g_c+I1), s	6.4	16.4		7.3		2.0						
Green Ext Time (p_c), s	0.2	0.0		0.2		1.7						

Intersection Summary		
HCM 6th Ctrl Delay		70.0
HCM 6th LOS		E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	317	0	263	0	0	0	0	604	125	188	308	0
Future Volume (veh/h)	317	0	263	0	0	0	0	604	125	188	308	0
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		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	1826	1900	1856				0	1885	1856	1870	1856	0
Adj Flow Rate, veh/h	420	0	185				0	636	132	198	324	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	0	3				0	1	3	2	3	0
Cap, veh/h	542	0	245				0	852	176	589	2459	0
Arrive On Green	0.16	0.00	0.16				0.00	0.29	0.29	0.11	0.23	0.00
Sat Flow, veh/h	3478	0	1572				0	3031	608	1781	3618	0
Grp Volume(v), veh/h	420	0	185				0	387	381	198	324	0
Grp Sat Flow(s),veh/h/ln	1739	0	1572				0	1791	1754	1781	1763	0
Q Serve(g_s), s	7.0	0.0	6.8				0.0	11.8	11.8	6.2	4.4	0.0
Cycle Q Clear(g_c), s	7.0	0.0	6.8				0.0	11.8	11.8	6.2	4.4	0.0
Prop In Lane	1.00		1.00				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	542	0	245				0	519	509	589	2459	0
V/C Ratio(X)	0.78	0.00	0.76				0.00	0.75	0.75	0.34	0.13	0.00
Avail Cap(c_a), veh/h	742	0	335				0	519	509	589	2459	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.97	0.97	0.75	0.75	0.00
Uniform Delay (d), s/veh	24.3	0.0	24.2				0.0	19.3	19.3	20.6	8.7	0.0
Incr Delay (d2), s/veh	2.3	0.0	3.8				0.0	9.1	9.4	0.1	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	2.8	0.0	2.6				0.0	5.8	5.8	2.6	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	0.0	28.1				0.0	28.4	28.7	20.7	8.8	0.0
LnGrp LOS	C	A	C				A	C	C	C	A	A
Approach Vol, veh/h		605						768			522	
Approach Delay, s/veh		27.0						28.6			13.3	
Approach LOS		C						C			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	46.5		24.5	22.0		13.5
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	38.4		14.3	* 17		12.8
Max Q Clear Time (g_c+I1), s	6.4		8.2	13.8		9.0
Green Ext Time (p_c), s	0.9		0.1	0.9		0.4

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

Notes

User approved volume balancing among the lanes for turning movement.

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	17	30	7	38	134	59	392	12	86	329	29
Future Volume (veh/h)	51	17	30	7	38	134	59	392	12	86	329	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.99	1.00		0.95	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	1811	1900	1900	1900	1856	1885	1870	1885	1767	1900	1856	1856
Adj Flow Rate, veh/h	58	19	34	8	43	152	67	445	14	98	374	33
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	0	0	0	3	1	2	1	9	0	3	3
Cap, veh/h	424	113	337	122	81	259	125	977	31	164	969	85
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.07	0.28	0.28	0.09	0.30	0.30
Sat Flow, veh/h	1064	527	1570	28	377	1208	1781	3538	111	1810	3267	286
Grp Volume(v), veh/h	77	0	34	203	0	0	67	225	234	98	201	206
Grp Sat Flow(s),veh/h/ln	1591	0	1570	1613	0	0	1781	1791	1858	1810	1763	1791
Q Serve(g_s), s	0.0	0.0	0.6	0.0	0.0	0.0	1.2	3.3	3.4	1.7	2.9	3.0
Cycle Q Clear(g_c), s	1.1	0.0	0.6	3.6	0.0	0.0	1.2	3.3	3.4	1.7	2.9	3.0
Prop In Lane	0.75		1.00	0.04		0.75	1.00		0.06	1.00		0.16
Lane Grp Cap(c), veh/h	537	0	337	462	0	0	125	494	513	164	523	531
V/C Ratio(X)	0.14	0.00	0.10	0.44	0.00	0.00	0.54	0.45	0.46	0.60	0.38	0.39
Avail Cap(c_a), veh/h	991	0	877	1013	0	0	276	1000	1038	309	1012	1028
HCM Platoon Ratio	1.00	1.00	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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	0.0	10.2	11.4	0.0	0.0	14.5	9.7	9.7	14.1	9.0	9.0
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.7	0.0	0.0	3.6	0.7	0.6	3.5	0.5	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	0.4	0.0	0.2	1.1	0.0	0.0	0.5	1.1	1.1	0.7	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	0.0	10.3	12.0	0.0	0.0	18.0	10.3	10.3	17.5	9.5	9.5
LnGrp LOS	B	A	B	B	A	A	B	B	B	B	A	A
Approach Vol, veh/h		111			203			526			505	
Approach Delay, s/veh		10.4			12.0			11.3			11.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	13.4		11.4	6.8	14.1		11.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	18.0		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	3.7	5.4		3.1	3.2	5.0		5.6				
Green Ext Time (p_c), s	0.0	2.3		0.4	0.0	2.1		1.0				

Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	201	81	45	318	27	63	55	13	78	68	62
Future Vol, veh/h	56	201	81	45	318	27	63	55	13	78	68	62
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	242	98	54	383	33	76	66	16	94	82	75
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	18.7	30.8	14.6	19.2
HCM LOS	C	D	B	C

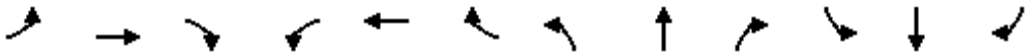
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	53%	0%	22%	0%	100%	1%	38%
Vol Thru, %	47%	0%	78%	0%	0%	91%	33%
Vol Right, %	0%	100%	0%	100%	0%	8%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	13	257	81	41	350	208
LT Vol	63	0	56	0	41	5	78
Through Vol	55	0	201	0	0	318	68
RT Vol	0	13	0	81	0	27	62
Lane Flow Rate	142	16	310	98	49	421	251
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.327	0.032	0.623	0.174	0.101	0.81	0.532
Departure Headway (Hd)	8.281	7.284	7.238	6.407	7.484	6.923	7.642
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	432	489	499	557	478	522	471
Service Time	6.064	5.066	5.008	4.177	5.249	4.688	5.719
HCM Lane V/C Ratio	0.329	0.033	0.621	0.176	0.103	0.807	0.533
HCM Control Delay	15.1	10.3	21.3	10.5	11.1	33.1	19.2
HCM Lane LOS	C	B	C	B	B	D	C
HCM 95th-tile Q	1.4	0.1	4.2	0.6	0.3	7.8	3.1

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	22	13	6	60	34	10	89	1	16	155	104
Future Vol, veh/h	50	22	13	6	60	34	10	89	1	16	155	104
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	4	7	0	0	0	0	3	0	0	2	2
Mvmt Flow	64	28	17	8	77	44	13	114	1	21	199	133
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	9.1	9	10.9
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	59%	6%	6%
Vol Thru, %	89%	26%	60%	56%
Vol Right, %	1%	15%	34%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	85	100	275
LT Vol	10	50	6	16
Through Vol	89	22	60	155
RT Vol	1	13	34	104
Lane Flow Rate	128	109	128	353
Geometry Grp	1	1	1	1
Degree of Util (X)	0.175	0.157	0.176	0.435
Departure Headway (Hd)	4.917	5.196	4.955	4.441
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	724	684	717	807
Service Time	2.985	3.275	3.033	2.492
HCM Lane V/C Ratio	0.177	0.159	0.179	0.437
HCM Control Delay	9	9.3	9.1	10.9
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.6	0.6	0.6	2.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	3	225	343	449	0	0	671	353
Future Volume (veh/h)	0	0	0	125	3	225	343	449	0	0	671	353
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		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				1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h				130	3	234	357	468	0	0	699	368
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				1	1	1	1	1	0	0	1	1
Cap, veh/h				322	4	283	642	2414	0	0	534	281
Arrive On Green				0.18	0.18	0.18	0.71	1.00	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1795	20	1580	1795	3676	0	0	2320	1170
Grp Volume(v), veh/h				130	0	237	357	468	0	0	562	505
Grp Sat Flow(s),veh/h/ln				1795	0	1601	1795	1791	0	0	1791	1605
Q Serve(g_s), s				3.8	0.0	8.6	5.6	0.0	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				3.8	0.0	8.6	5.6	0.0	0.0	0.0	14.4	14.4
Prop In Lane				1.00		0.99	1.00		0.00	0.00		0.73
Lane Grp Cap(c), veh/h				322	0	287	642	2414	0	0	430	385
V/C Ratio(X)				0.40	0.00	0.83	0.56	0.19	0.00	0.00	1.31	1.31
Avail Cap(c_a), veh/h				383	0	341	642	2414	0	0	430	385
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.8	0.0	23.7	6.3	0.0	0.0	0.0	22.8	22.8
Incr Delay (d2), s/veh				0.3	0.0	11.4	0.5	0.1	0.0	0.0	154.7	157.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.5	0.0	3.8	1.5	0.0	0.0	0.0	24.1	21.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.1	0.0	35.1	6.8	0.1	0.0	0.0	177.5	179.9
LnGrp LOS				C	A	D	A	A	A	A	F	F
Approach Vol, veh/h					367			825			1067	
Approach Delay, s/veh					30.5			3.0			178.6	
Approach LOS					C			A			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	26.0	19.0		15.0		45.0						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	17.3	* 14		* 13		38.4						
Max Q Clear Time (g_c+I1), s	7.6	16.4		10.6		2.0						
Green Ext Time (p_c), s	0.1	0.0		0.2		1.4						

Intersection Summary		
HCM 6th Ctrl Delay		90.4
HCM 6th LOS		F

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)	204	97	291	0	0	0	0	555	127	290	498	0
Future Volume (veh/h)	204	97	291	0	0	0	0	555	127	290	498	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	183	240	230				0	603	138	315	541	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, %	1	1	1				0	1	1	1	1	0
Cap, veh/h	319	335	284				0	836	191	554	2419	0
Arrive On Green	0.18	0.18	0.18				0.00	0.29	0.29	0.10	0.22	0.00
Sat Flow, veh/h	1795	1885	1598				0	2977	658	1795	3676	0
Grp Volume(v), veh/h	183	240	230				0	374	367	315	541	0
Grp Sat Flow(s),veh/h/ln	1795	1885	1598				0	1791	1750	1795	1791	0
Q Serve(g_s), s	5.6	7.2	8.3				0.0	11.2	11.3	10.0	7.4	0.0
Cycle Q Clear(g_c), s	5.6	7.2	8.3				0.0	11.2	11.3	10.0	7.4	0.0
Prop In Lane	1.00		1.00				0.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	319	335	284				0	519	508	554	2419	0
V/C Ratio(X)	0.57	0.72	0.81				0.00	0.72	0.72	0.57	0.22	0.00
Avail Cap(c_a), veh/h	383	402	341				0	519	508	554	2419	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.96	0.96	0.34	0.34	0.00
Uniform Delay (d), s/veh	22.6	23.2	23.7				0.0	19.1	19.1	23.1	10.4	0.0
Incr Delay (d2), s/veh	0.6	3.4	9.7				0.0	8.0	8.3	0.3	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	2.2	3.2	3.6				0.0	5.5	5.4	4.7	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	26.6	33.4				0.0	27.2	27.5	23.4	10.5	0.0
LnGrp LOS	C	C	C				A	C	C	C	B	A
Approach Vol, veh/h		653						741			856	
Approach Delay, s/veh		28.0						27.3			15.3	
Approach LOS		C						C			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	45.1		23.1	22.0		14.9
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	38.4		14.3	* 17		12.8
Max Q Clear Time (g_c+I1), s	9.4		12.0	13.3		10.3
Green Ext Time (p_c), s	1.6		0.1	0.9		0.4

Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	45	68	15	25	104	60	402	23	124	458	53
Future Volume (veh/h)	75	45	68	15	25	104	60	402	23	124	458	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.98		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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	83	50	76	17	28	116	67	447	26	138	509	59
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	360	179	364	135	86	270	124	906	53	192	975	113
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.07	0.26	0.26	0.11	0.30	0.30
Sat Flow, veh/h	804	761	1549	80	365	1149	1795	3436	199	1795	3231	373
Grp Volume(v), veh/h	133	0	76	161	0	0	67	232	241	138	281	287
Grp Sat Flow(s),veh/h/ln	1565	0	1549	1594	0	0	1795	1791	1845	1795	1791	1814
Q Serve(g_s), s	0.0	0.0	1.4	0.0	0.0	0.0	1.2	3.8	3.8	2.5	4.5	4.5
Cycle Q Clear(g_c), s	2.0	0.0	1.4	2.9	0.0	0.0	1.2	3.8	3.8	2.5	4.5	4.5
Prop In Lane	0.62		1.00	0.11		0.72	1.00		0.11	1.00		0.21
Lane Grp Cap(c), veh/h	539	0	364	491	0	0	124	472	487	192	540	547
V/C Ratio(X)	0.25	0.00	0.21	0.33	0.00	0.00	0.54	0.49	0.49	0.72	0.52	0.52
Avail Cap(c_a), veh/h	949	0	814	944	0	0	262	942	970	288	968	980
HCM Platoon Ratio	1.00	1.00	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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.8	0.0	10.5	11.1	0.0	0.0	15.4	10.7	10.7	14.8	9.9	9.9
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.4	0.0	0.0	3.7	0.8	0.8	5.0	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.4	0.9	0.0	0.0	0.6	1.3	1.3	1.1	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.0	0.0	10.8	11.5	0.0	0.0	19.1	11.5	11.5	19.8	10.7	10.7
LnGrp LOS	B	A	B	B	A	A	B	B	B	B	B	B
Approach Vol, veh/h		209			161			540			706	
Approach Delay, s/veh		10.9			11.5			12.4			12.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.2	13.5		12.6	6.9	14.8		12.6
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.5	18.0		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	4.5	5.8		4.0	3.2	6.5		4.9
Green Ext Time (p_c), s	0.0	2.3		0.8	0.0	2.9		0.7

Intersection Summary		
HCM 6th Ctrl Delay		12.2
HCM 6th LOS		B

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	306	136	33	266	35	118	73	18	52	63	80
Future Vol, veh/h	59	306	136	33	266	35	118	73	18	52	63	80
Peak Hour Factor	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	64	333	148	36	289	38	128	79	20	57	68	87
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	26.7	22.8	17.7	17.7
HCM LOS	D	C	C	C

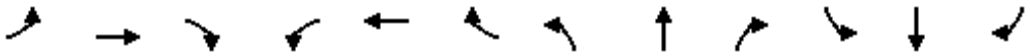
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	62%	0%	16%	0%	100%	1%	27%
Vol Thru, %	38%	0%	84%	0%	0%	87%	32%
Vol Right, %	0%	100%	0%	100%	0%	12%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	18	365	136	30	304	195
LT Vol	118	0	59	0	30	3	52
Through Vol	73	0	306	0	0	266	63
RT Vol	0	18	0	136	0	35	80
Lane Flow Rate	208	20	397	148	32	331	212
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.477	0.039	0.793	0.263	0.071	0.671	0.465
Departure Headway (Hd)	8.27	7.231	7.199	6.397	7.894	7.302	7.893
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	434	492	500	559	452	493	454
Service Time	6.056	5.016	4.977	4.174	5.676	5.084	5.985
HCM Lane V/C Ratio	0.479	0.041	0.794	0.265	0.071	0.671	0.467
HCM Control Delay	18.4	10.3	32.4	11.5	11.3	23.9	17.7
HCM Lane LOS	C	B	D	B	B	C	C
HCM 95th-tile Q	2.5	0.1	7.3	1	0.2	4.9	2.4

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Future Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	138	55	26	3	41	17	26	97	7	23	86	74
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.2	8.9	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	63%	5%	13%
Vol Thru, %	74%	25%	67%	47%
Vol Right, %	6%	12%	28%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	208	58	174
LT Vol	25	131	3	22
Through Vol	92	52	39	82
RT Vol	7	25	16	70
Lane Flow Rate	131	219	61	183
Geometry Grp	1	1	1	1
Degree of Util (X)	0.174	0.289	0.081	0.23
Departure Headway (Hd)	4.8	4.757	4.753	4.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	753	749	791
Service Time	2.849	2.803	2.81	2.568
HCM Lane V/C Ratio	0.176	0.291	0.081	0.231
HCM Control Delay	8.9	9.7	8.2	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.2	0.3	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	92	2	236	291	374	0	0	648	287
Future Volume (veh/h)	0	0	0	92	2	236	291	374	0	0	648	287
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		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				1900	1900	1885	1885	1900	0	0	1885	1900
Adj Flow Rate, veh/h				96	2	246	303	390	0	0	675	299
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	1	1	0	0	0	1	0
Cap, veh/h				333	2	295	633	2416	0	0	570	252
Arrive On Green				0.18	0.18	0.18	0.70	1.00	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1810	13	1599	1795	3705	0	0	2468	1051
Grp Volume(v), veh/h				96	0	248	303	390	0	0	509	465
Grp Sat Flow(s),veh/h/ln				1810	0	1612	1795	1805	0	0	1791	1634
Q Serve(g_s), s				2.7	0.0	8.9	4.5	0.0	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				2.7	0.0	8.9	4.5	0.0	0.0	0.0	14.4	14.4
Prop In Lane				1.00		0.99	1.00		0.00	0.00		0.64
Lane Grp Cap(c), veh/h				333	0	297	633	2416	0	0	430	392
V/C Ratio(X)				0.29	0.00	0.84	0.48	0.16	0.00	0.00	1.18	1.18
Avail Cap(c_a), veh/h				386	0	344	633	2416	0	0	430	392
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.79	0.79	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.1	0.0	23.6	6.4	0.0	0.0	0.0	22.8	22.8
Incr Delay (d2), s/veh				0.2	0.0	12.8	0.2	0.1	0.0	0.0	104.6	106.2
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				1.1	0.0	4.1	1.2	0.0	0.0	0.0	18.1	16.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				21.3	0.0	36.3	6.6	0.1	0.0	0.0	127.4	129.0
LnGrp LOS				C	A	D	A	A	A	A	F	F
Approach Vol, veh/h					344			693			974	
Approach Delay, s/veh					32.1			2.9			128.2	
Approach LOS					C			A			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.7	19.0		15.3		44.7						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	17.3	* 14		* 13		38.4						
Max Q Clear Time (g_c+I1), s	6.5	16.4		10.9		2.0						
Green Ext Time (p_c), s	0.1	0.0		0.2		1.1						

Intersection Summary		
HCM 6th Ctrl Delay		68.6
HCM 6th LOS		E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	155	325	0	0	0	0	465	132	317	454	0
Future Volume (veh/h)	185	155	325	0	0	0	0	465	132	317	454	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1885				0	1885	1900	1885	1900	0
Adj Flow Rate, veh/h	192	268	269				0	511	145	348	499	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	1				0	1	0	1	0	0
Cap, veh/h	360	378	318				0	792	223	516	2362	0
Arrive On Green	0.20	0.20	0.20				0.00	0.29	0.29	0.09	0.22	0.00
Sat Flow, veh/h	1810	1900	1598				0	2825	770	1795	3705	0
Grp Volume(v), veh/h	192	268	269				0	334	322	348	499	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1598				0	1791	1709	1795	1805	0
Q Serve(g_s), s	5.7	7.9	9.7				0.0	9.8	9.9	11.2	6.8	0.0
Cycle Q Clear(g_c), s	5.7	7.9	9.7				0.0	9.8	9.9	11.2	6.8	0.0
Prop In Lane	1.00		1.00				0.00		0.45	1.00		0.00
Lane Grp Cap(c), veh/h	360	378	318				0	519	496	516	2362	0
V/C Ratio(X)	0.53	0.71	0.85				0.00	0.64	0.65	0.67	0.21	0.00
Avail Cap(c_a), veh/h	386	405	341				0	519	496	516	2362	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.98	0.98	0.53	0.53	0.00
Uniform Delay (d), s/veh	21.5	22.4	23.1				0.0	18.6	18.6	24.4	10.8	0.0
Incr Delay (d2), s/veh	0.5	4.2	15.5				0.0	5.9	6.3	1.5	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	2.2	3.6	4.7				0.0	4.6	4.5	5.5	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	26.6	38.7				0.0	24.5	25.0	25.9	10.9	0.0
LnGrp LOS	C	C	D				A	C	C	C	B	A
Approach Vol, veh/h		729						656			847	
Approach Delay, s/veh		29.9						24.7			17.1	
Approach LOS		C						C			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	43.9		21.9	22.0		16.1
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	38.4		14.3	* 17		12.8
Max Q Clear Time (g_c+I1), s	8.8		13.2	11.9		11.7
Green Ext Time (p_c), s	1.4		0.0	1.0		0.2

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

Notes

User approved volume balancing among the lanes for turning movement.

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	44	79	23	45	86	89	290	14	154	438	52
Future Volume (veh/h)	89	44	79	23	45	86	89	290	14	154	438	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.98		0.96	1.00		0.95	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1870
Adj Flow Rate, veh/h	91	45	81	23	46	88	91	296	14	157	447	53
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	2
Cap, veh/h	375	150	334	155	126	197	156	881	41	211	915	108
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.09	0.25	0.25	0.12	0.28	0.28
Sat Flow, veh/h	879	697	1546	130	586	912	1810	3501	165	1810	3241	382
Grp Volume(v), veh/h	136	0	81	157	0	0	91	152	158	157	248	252
Grp Sat Flow(s),veh/h/ln	1576	0	1546	1628	0	0	1810	1805	1861	1810	1805	1819
Q Serve(g_s), s	0.0	0.0	1.4	0.0	0.0	0.0	1.6	2.2	2.3	2.7	3.7	3.8
Cycle Q Clear(g_c), s	2.0	0.0	1.4	2.6	0.0	0.0	1.6	2.2	2.3	2.7	3.7	3.8
Prop In Lane	0.67		1.00	0.15		0.56	1.00		0.09	1.00		0.21
Lane Grp Cap(c), veh/h	525	0	334	478	0	0	156	454	468	211	509	513
V/C Ratio(X)	0.26	0.00	0.24	0.33	0.00	0.00	0.58	0.33	0.34	0.74	0.49	0.49
Avail Cap(c_a), veh/h	1004	0	857	1014	0	0	279	1001	1032	307	1028	1036
HCM Platoon Ratio	1.00	1.00	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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.8	0.0	10.5	11.0	0.0	0.0	14.3	9.9	9.9	13.9	9.7	9.7
Incr Delay (d2), s/veh	0.3	0.0	0.4	0.4	0.0	0.0	3.4	0.4	0.4	5.6	0.7	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.4	0.8	0.0	0.0	0.7	0.7	0.8	1.2	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.0	0.0	10.9	11.4	0.0	0.0	17.7	10.4	10.4	19.4	10.4	10.4
LnGrp LOS	B	A	B	B	A	A	B	B	B	B	B	B
Approach Vol, veh/h		217			157			401			657	
Approach Delay, s/veh		11.0			11.4			12.0			12.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	12.7		11.5	7.3	13.7		11.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.5	18.0		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	4.7	4.3		4.0	3.6	5.8		4.6
Green Ext Time (p_c), s	0.0	1.5		0.9	0.0	2.6		0.7

Intersection Summary		
HCM 6th Ctrl Delay		12.1
HCM 6th LOS		B

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	72	281	125	23	242	24	100	78	25	41	48	62
Future Vol, veh/h	72	281	125	23	242	24	100	78	25	41	48	62
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	73	287	128	23	247	24	102	80	26	42	49	63
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	17.8	15.5	14	13.3
HCM LOS	C	C	B	B

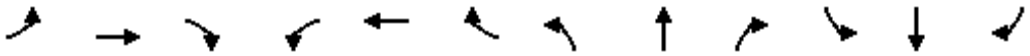
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	56%	0%	20%	0%	100%	1%	27%
Vol Thru, %	44%	0%	80%	0%	0%	90%	32%
Vol Right, %	0%	100%	0%	100%	0%	9%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	178	25	353	125	21	268	151
LT Vol	100	0	72	0	21	2	41
Through Vol	78	0	281	0	0	242	48
RT Vol	0	25	0	125	0	24	62
Lane Flow Rate	182	26	360	128	21	274	154
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.376	0.046	0.651	0.202	0.042	0.504	0.306
Departure Headway (Hd)	7.448	6.446	6.51	5.693	7.193	6.623	7.152
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	483	555	558	633	500	548	502
Service Time	5.194	4.191	4.221	3.404	4.907	4.337	5.201
HCM Lane V/C Ratio	0.377	0.047	0.645	0.202	0.042	0.5	0.307
HCM Control Delay	14.6	9.5	20.6	9.8	10.2	15.9	13.3
HCM Lane LOS	B	A	C	A	B	C	B
HCM 95th-tile Q	1.7	0.1	4.7	0.8	0.1	2.8	1.3

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Future Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	138	55	26	3	41	17	26	97	7	23	86	74
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.2	8.9	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	63%	5%	13%
Vol Thru, %	74%	25%	67%	47%
Vol Right, %	6%	12%	28%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	208	58	174
LT Vol	25	131	3	22
Through Vol	92	52	39	82
RT Vol	7	25	16	70
Lane Flow Rate	131	219	61	183
Geometry Grp	1	1	1	1
Degree of Util (X)	0.174	0.289	0.081	0.23
Departure Headway (Hd)	4.8	4.757	4.753	4.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	753	749	791
Service Time	2.849	2.803	2.81	2.568
HCM Lane V/C Ratio	0.176	0.291	0.081	0.231
HCM Control Delay	8.9	9.7	8.2	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.2	0.3	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	69	3	139	390	538	0	0	407	474
Future Volume (veh/h)	0	0	0	69	3	139	390	538	0	0	407	474
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.93
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				1826	1900	1885	1885	1856	0	0	1870	1885
Adj Flow Rate, veh/h				73	3	146	411	566	0	0	428	499
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				5	0	1	1	3	0	0	2	1
Cap, veh/h				214	4	195	742	2574	0	0	426	353
Arrive On Green				0.12	0.12	0.12	0.41	0.73	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1739	33	1583	1795	3618	0	0	1870	1469
Grp Volume(v), veh/h				73	0	149	411	566	0	0	428	499
Grp Sat Flow(s),veh/h/ln				1739	0	1615	1795	1763	0	0	1777	1469
Q Serve(g_s), s				2.3	0.0	5.3	10.4	3.1	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				2.3	0.0	5.3	10.4	3.1	0.0	0.0	14.4	14.4
Prop In Lane				1.00		0.98	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				214	0	199	742	2574	0	0	426	353
V/C Ratio(X)				0.34	0.00	0.75	0.55	0.22	0.00	0.00	1.00	1.42
Avail Cap(c_a), veh/h				371	0	345	742	2574	0	0	426	353
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	0.68	0.68	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				24.1	0.0	25.4	13.4	2.6	0.0	0.0	22.8	22.8
Incr Delay (d2), s/veh				0.3	0.0	2.1	0.4	0.1	0.0	0.0	44.5	202.8
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				0.9	0.0	2.0	3.9	0.7	0.0	0.0	10.9	24.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.4	0.0	27.5	13.7	2.7	0.0	0.0	67.3	225.6
LnGrp LOS				C	A	C	B	A	A	A	F	F
Approach Vol, veh/h					222			977			927	
Approach Delay, s/veh					26.5			7.4			152.5	
Approach LOS					C			A			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	29.4	19.0		11.6		48.4						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	17.3	* 14		* 13		38.4						
Max Q Clear Time (g_c+I1), s	12.4	16.4		7.3		5.1						
Green Ext Time (p_c), s	0.1	0.0		0.2		1.7						

Intersection Summary		
HCM 6th Ctrl Delay		72.7
HCM 6th LOS		E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	317	0	263	0	0	0	0	604	125	188	308	0
Future Volume (veh/h)	317	0	263	0	0	0	0	604	125	188	308	0
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		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	1826	1900	1856				0	1885	1856	1870	1856	0
Adj Flow Rate, veh/h	420	0	185				0	636	132	198	324	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	0	3				0	1	3	2	3	0
Cap, veh/h	542	0	245				0	852	176	589	2459	0
Arrive On Green	0.16	0.00	0.16				0.00	0.29	0.29	0.11	0.23	0.00
Sat Flow, veh/h	3478	0	1572				0	3031	608	1781	3618	0
Grp Volume(v), veh/h	420	0	185				0	387	381	198	324	0
Grp Sat Flow(s),veh/h/ln	1739	0	1572				0	1791	1754	1781	1763	0
Q Serve(g_s), s	7.0	0.0	6.8				0.0	11.8	11.8	6.2	4.4	0.0
Cycle Q Clear(g_c), s	7.0	0.0	6.8				0.0	11.8	11.8	6.2	4.4	0.0
Prop In Lane	1.00		1.00				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	542	0	245				0	519	509	589	2459	0
V/C Ratio(X)	0.78	0.00	0.76				0.00	0.75	0.75	0.34	0.13	0.00
Avail Cap(c_a), veh/h	742	0	335				0	519	509	589	2459	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	24.3	0.0	24.2				0.0	19.3	19.3	20.6	8.7	0.0
Incr Delay (d2), s/veh	2.3	0.0	3.8				0.0	9.4	9.7	0.1	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	2.8	0.0	2.6				0.0	5.9	5.8	2.6	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	0.0	28.1				0.0	28.7	29.0	20.7	8.8	0.0
LnGrp LOS	C	A	C				A	C	C	C	A	A
Approach Vol, veh/h		605						768			522	
Approach Delay, s/veh		27.0						28.9			13.3	
Approach LOS		C						C			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	46.5		24.5	22.0		13.5
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	38.4		14.3	* 17		12.8
Max Q Clear Time (g_c+I1), s	6.4		8.2	13.8		9.0
Green Ext Time (p_c), s	0.9		0.1	0.9		0.4

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

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	111	203	526	505
Demand Flow Rate, veh/h	114	206	532	517
Vehicles Circulating, veh/h	491	578	178	120
Vehicles Exiting, veh/h	146	132	427	664
Ped Vol Crossing Leg, #/h	14	7	7	3
Ped Cap Adj	0.998	0.999	0.999	1.000
Approach Delay, s/veh	5.8	7.9	8.2	7.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	114	206	532	517
Cap Entry Lane, veh/h	836	765	1151	1221
Entry HV Adj Factor	0.974	0.984	0.988	0.976
Flow Entry, veh/h	111	203	526	505
Cap Entry, veh/h	813	752	1136	1192
V/C Ratio	0.137	0.269	0.463	0.424
Control Delay, s/veh	5.8	7.9	8.2	7.3
LOS	A	A	A	A
95th %tile Queue, veh	0	1	3	2

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	201	81	45	318	27	63	55	13	78	68	62
Future Vol, veh/h	56	201	81	45	318	27	63	55	13	78	68	62
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	242	98	54	383	33	76	66	16	94	82	75
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	18.7	30.8	14.6	19.2
HCM LOS	C	D	B	C

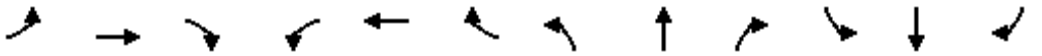
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	53%	0%	22%	0%	100%	1%	38%
Vol Thru, %	47%	0%	78%	0%	0%	91%	33%
Vol Right, %	0%	100%	0%	100%	0%	8%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	13	257	81	41	350	208
LT Vol	63	0	56	0	41	5	78
Through Vol	55	0	201	0	0	318	68
RT Vol	0	13	0	81	0	27	62
Lane Flow Rate	142	16	310	98	49	421	251
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.327	0.032	0.623	0.174	0.101	0.81	0.532
Departure Headway (Hd)	8.281	7.284	7.238	6.407	7.484	6.923	7.642
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	432	489	499	557	478	522	471
Service Time	6.064	5.066	5.008	4.177	5.249	4.688	5.719
HCM Lane V/C Ratio	0.329	0.033	0.621	0.176	0.103	0.807	0.533
HCM Control Delay	15.1	10.3	21.3	10.5	11.1	33.1	19.2
HCM Lane LOS	C	B	C	B	B	D	C
HCM 95th-tile Q	1.4	0.1	4.2	0.6	0.3	7.8	3.1

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	22	13	6	60	34	10	89	1	16	155	104
Future Vol, veh/h	50	22	13	6	60	34	10	89	1	16	155	104
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	4	7	0	0	0	0	3	0	0	2	2
Mvmt Flow	64	28	17	8	77	44	13	114	1	21	199	133
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	9.1	9	10.9
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	59%	6%	6%
Vol Thru, %	89%	26%	60%	56%
Vol Right, %	1%	15%	34%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	85	100	275
LT Vol	10	50	6	16
Through Vol	89	22	60	155
RT Vol	1	13	34	104
Lane Flow Rate	128	109	128	353
Geometry Grp	1	1	1	1
Degree of Util (X)	0.175	0.157	0.176	0.435
Departure Headway (Hd)	4.917	5.196	4.955	4.441
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	724	684	717	807
Service Time	2.985	3.275	3.033	2.492
HCM Lane V/C Ratio	0.177	0.159	0.179	0.437
HCM Control Delay	9	9.3	9.1	10.9
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.6	0.6	0.6	2.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	3	225	343	449	0	0	671	353
Future Volume (veh/h)	0	0	0	125	3	225	343	449	0	0	671	353
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.96
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				1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h				130	3	234	357	468	0	0	699	368
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				1	1	1	1	1	0	0	1	1
Cap, veh/h				310	3	273	615	2560	0	0	699	368
Arrive On Green				0.17	0.17	0.17	0.34	0.71	0.00	0.00	0.31	0.31
Sat Flow, veh/h				1795	20	1580	1795	3676	0	0	2330	1176
Grp Volume(v), veh/h				130	0	237	357	468	0	0	560	507
Grp Sat Flow(s),veh/h/ln				1795	0	1601	1795	1791	0	0	1791	1621
Q Serve(g_s), s				5.0	0.0	11.2	12.7	3.3	0.0	0.0	24.4	24.4
Cycle Q Clear(g_c), s				5.0	0.0	11.2	12.7	3.3	0.0	0.0	24.4	24.4
Prop In Lane				1.00		0.99	1.00		0.00	0.00		0.73
Lane Grp Cap(c), veh/h				310	0	276	615	2560	0	0	560	507
V/C Ratio(X)				0.42	0.00	0.86	0.58	0.18	0.00	0.00	1.00	1.00
Avail Cap(c_a), veh/h				364	0	324	615	2560	0	0	560	507
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	0.80	0.80	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.8	0.0	31.3	21.0	3.7	0.0	0.0	26.8	26.8
Incr Delay (d2), s/veh				0.3	0.0	15.9	0.7	0.1	0.0	0.0	37.8	40.1
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				2.1	0.0	5.3	5.3	1.0	0.0	0.0	15.8	14.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.1	0.0	47.2	21.8	3.8	0.0	0.0	64.6	66.9
LnGrp LOS				C	A	D	C	A	A	A	E	F
Approach Vol, veh/h					367			825			1067	
Approach Delay, s/veh					40.8			11.6			65.7	
Approach LOS					D			B			E	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	31.3	29.0		17.7		60.3						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	22.3	* 24		* 16		53.4						
Max Q Clear Time (g_c+I1), s	14.7	26.4		13.2		5.3						
Green Ext Time (p_c), s	0.1	0.0		0.3		1.4						

Intersection Summary		
HCM 6th Ctrl Delay		41.9
HCM 6th LOS		D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	97	291	0	0	0	0	555	127	290	498	0
Future Volume (veh/h)	204	97	291	0	0	0	0	555	127	290	498	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	183	240	230				0	603	138	315	541	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, %	1	1	1				0	1	1	1	1	0
Cap, veh/h	313	329	279				0	865	197	635	2553	0
Arrive On Green	0.17	0.17	0.17				0.00	0.30	0.30	0.47	0.95	0.00
Sat Flow, veh/h	1795	1885	1598				0	2978	658	1795	3676	0
Grp Volume(v), veh/h	183	240	230				0	374	367	315	541	0
Grp Sat Flow(s),veh/h/ln	1795	1885	1598				0	1791	1751	1795	1791	0
Q Serve(g_s), s	7.3	9.4	10.8				0.0	14.4	14.5	9.5	0.8	0.0
Cycle Q Clear(g_c), s	7.3	9.4	10.8				0.0	14.4	14.5	9.5	0.8	0.0
Prop In Lane	1.00		1.00				0.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	313	329	279				0	537	525	635	2553	0
V/C Ratio(X)	0.58	0.73	0.83				0.00	0.70	0.70	0.50	0.21	0.00
Avail Cap(c_a), veh/h	479	503	426				0	537	525	635	2553	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.56	0.56	0.00
Uniform Delay (d), s/veh	29.6	30.5	31.1				0.0	24.2	24.2	15.8	0.6	0.0
Incr Delay (d2), s/veh	0.6	1.2	4.4				0.0	7.3	7.5	0.1	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	3.1	4.2	4.3				0.0	7.0	6.9	3.4	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	31.6	35.5				0.0	31.4	31.7	16.0	0.7	0.0
LnGrp LOS	C	C	D				A	C	C	B	A	A
Approach Vol, veh/h		653						741			856	
Approach Delay, s/veh		32.6						31.6			6.3	
Approach LOS		C						C			A	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	60.2		32.2	28.0		17.8
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	48.4		18.3	* 23		20.8
Max Q Clear Time (g_c+I1), s	2.8		11.5	16.5		12.8
Green Ext Time (p_c), s	1.6		0.1	1.3		0.8

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	209	161	540	706
Demand Flow Rate, veh/h	211	162	545	713
Vehicles Circulating, veh/h	670	603	273	113
Vehicles Exiting, veh/h	156	215	608	652
Ped Vol Crossing Leg, #/h	9	10	24	8
Ped Cap Adj	0.999	0.999	0.997	0.999
Approach Delay, s/veh	9.0	7.3	9.9	9.9
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	211	162	545	713
Cap Entry Lane, veh/h	697	746	1045	1230
Entry HV Adj Factor	0.988	0.992	0.990	0.990
Flow Entry, veh/h	209	161	540	706
Cap Entry, veh/h	688	739	1031	1216
V/C Ratio	0.303	0.217	0.523	0.580
Control Delay, s/veh	9.0	7.3	9.9	9.9
LOS	A	A	A	A
95th %tile Queue, veh	1	1	3	4

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	306	136	33	266	35	118	73	18	52	63	80
Future Vol, veh/h	59	306	136	33	266	35	118	73	18	52	63	80
Peak Hour Factor	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	64	333	148	36	289	38	128	79	20	57	68	87
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	26.7	22.8	17.7	17.7
HCM LOS	D	C	C	C

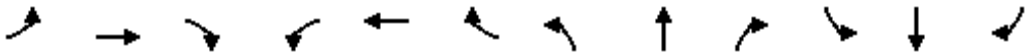
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	62%	0%	16%	0%	100%	1%	27%
Vol Thru, %	38%	0%	84%	0%	0%	87%	32%
Vol Right, %	0%	100%	0%	100%	0%	12%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	18	365	136	30	304	195
LT Vol	118	0	59	0	30	3	52
Through Vol	73	0	306	0	0	266	63
RT Vol	0	18	0	136	0	35	80
Lane Flow Rate	208	20	397	148	32	331	212
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.477	0.039	0.793	0.263	0.071	0.671	0.465
Departure Headway (Hd)	8.27	7.231	7.199	6.397	7.894	7.302	7.893
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	434	492	500	559	452	493	454
Service Time	6.056	5.016	4.977	4.174	5.676	5.084	5.985
HCM Lane V/C Ratio	0.479	0.041	0.794	0.265	0.071	0.671	0.467
HCM Control Delay	18.4	10.3	32.4	11.5	11.3	23.9	17.7
HCM Lane LOS	C	B	D	B	B	C	C
HCM 95th-tile Q	2.5	0.1	7.3	1	0.2	4.9	2.4

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Future Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	138	55	26	3	41	17	26	97	7	23	86	74
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.2	8.9	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	63%	5%	13%
Vol Thru, %	74%	25%	67%	47%
Vol Right, %	6%	12%	28%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	208	58	174
LT Vol	25	131	3	22
Through Vol	92	52	39	82
RT Vol	7	25	16	70
Lane Flow Rate	131	219	61	183
Geometry Grp	1	1	1	1
Degree of Util (X)	0.174	0.289	0.081	0.23
Departure Headway (Hd)	4.8	4.757	4.753	4.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	753	749	791
Service Time	2.849	2.803	2.81	2.568
HCM Lane V/C Ratio	0.176	0.291	0.081	0.231
HCM Control Delay	8.9	9.7	8.2	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.2	0.3	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	92	2	236	291	374	0	0	648	287
Future Volume (veh/h)	0	0	0	92	2	236	291	374	0	0	648	287
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.96
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				1900	1900	1885	1885	1900	0	0	1885	1900
Adj Flow Rate, veh/h				96	2	246	303	390	0	0	675	299
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	1	1	0	0	0	1	0
Cap, veh/h				322	2	284	606	2561	0	0	744	330
Arrive On Green				0.18	0.18	0.18	0.34	0.71	0.00	0.00	0.31	0.31
Sat Flow, veh/h				1810	13	1599	1795	3705	0	0	2473	1054
Grp Volume(v), veh/h				96	0	248	303	390	0	0	508	466
Grp Sat Flow(s),veh/h/ln				1810	0	1612	1795	1805	0	0	1791	1642
Q Serve(g_s), s				3.6	0.0	11.7	10.5	2.7	0.0	0.0	21.2	21.2
Cycle Q Clear(g_c), s				3.6	0.0	11.7	10.5	2.7	0.0	0.0	21.2	21.2
Prop In Lane				1.00		0.99	1.00		0.00	0.00		0.64
Lane Grp Cap(c), veh/h				322	0	287	606	2561	0	0	560	514
V/C Ratio(X)				0.30	0.00	0.87	0.50	0.15	0.00	0.00	0.91	0.91
Avail Cap(c_a), veh/h				367	0	327	606	2561	0	0	560	514
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	0.85	0.85	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				27.8	0.0	31.2	20.6	3.7	0.0	0.0	25.7	25.7
Incr Delay (d2), s/veh				0.2	0.0	17.5	0.2	0.1	0.0	0.0	20.9	22.3
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				1.5	0.0	5.7	4.3	0.8	0.0	0.0	11.9	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.0	0.0	48.7	20.8	3.8	0.0	0.0	46.6	48.0
LnGrp LOS				C	A	D	C	A	A	A	D	D
Approach Vol, veh/h					344			693			974	
Approach Delay, s/veh					42.9			11.2			47.3	
Approach LOS					D			B			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	30.9	29.0		18.1		59.9						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	22.3	* 24		* 16		53.4						
Max Q Clear Time (g_c+I1), s	12.5	23.2		13.7		4.7						
Green Ext Time (p_c), s	0.1	0.5		0.2		1.1						

Intersection Summary		
HCM 6th Ctrl Delay		34.1
HCM 6th LOS		C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	155	325	0	0	0	0	465	132	317	454	0
Future Volume (veh/h)	185	155	325	0	0	0	0	465	132	317	454	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1885				0	1885	1900	1885	1900	0
Adj Flow Rate, veh/h	192	268	269				0	511	145	348	499	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	1				0	1	0	1	0	0
Cap, veh/h	358	376	316				0	819	231	593	2488	0
Arrive On Green	0.20	0.20	0.20				0.00	0.30	0.30	0.44	0.92	0.00
Sat Flow, veh/h	1810	1900	1598				0	2825	770	1795	3705	0
Grp Volume(v), veh/h	192	268	269				0	334	322	348	499	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1598				0	1791	1710	1795	1805	0
Q Serve(g_s), s	7.4	10.3	12.7				0.0	12.5	12.7	11.4	1.1	0.0
Cycle Q Clear(g_c), s	7.4	10.3	12.7				0.0	12.5	12.7	11.4	1.1	0.0
Prop In Lane	1.00		1.00				0.00		0.45	1.00		0.00
Lane Grp Cap(c), veh/h	358	376	316				0	537	513	593	2488	0
V/C Ratio(X)	0.54	0.71	0.85				0.00	0.62	0.63	0.59	0.20	0.00
Avail Cap(c_a), veh/h	483	507	426				0	537	513	593	2488	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.70	0.70	0.00
Uniform Delay (d), s/veh	28.1	29.2	30.2				0.0	23.5	23.5	17.9	1.1	0.0
Incr Delay (d2), s/veh	0.5	1.6	9.2				0.0	5.3	5.7	0.7	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	3.1	4.6	5.4				0.0	5.9	5.8	4.2	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	30.8	39.3				0.0	28.8	29.3	18.6	1.2	0.0
LnGrp LOS	C	C	D				A	C	C	B	A	A
Approach Vol, veh/h		729						656			847	
Approach Delay, s/veh		33.3						29.0			8.3	
Approach LOS		C						C			A	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	58.4		30.4	28.0		19.6
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	48.4		18.3	* 23		20.8
Max Q Clear Time (g_c+I1), s	3.1		13.4	14.7		14.7
Green Ext Time (p_c), s	1.5		0.1	1.3		0.8

Intersection Summary	
HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	217	157	401	657
Demand Flow Rate, veh/h	217	157	401	658
Vehicles Circulating, veh/h	627	478	293	160
Vehicles Exiting, veh/h	191	216	551	475
Ped Vol Crossing Leg, #/h	8	10	17	17
Ped Cap Adj	0.999	0.999	0.998	0.998
Approach Delay, s/veh	8.5	6.1	7.8	9.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	217	157	401	658
Cap Entry Lane, veh/h	728	847	1023	1172
Entry HV Adj Factor	1.000	1.000	1.000	0.998
Flow Entry, veh/h	217	157	401	657
Cap Entry, veh/h	727	846	1021	1168
V/C Ratio	0.298	0.186	0.393	0.563
Control Delay, s/veh	8.5	6.1	7.8	9.8
LOS	A	A	A	A
95th %tile Queue, veh	1	1	2	4

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	72	281	125	23	242	24	100	78	25	41	48	62
Future Vol, veh/h	72	281	125	23	242	24	100	78	25	41	48	62
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	73	287	128	23	247	24	102	80	26	42	49	63
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	17.8	15.5	14	13.3
HCM LOS	C	C	B	B

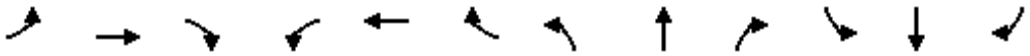
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	56%	0%	20%	0%	100%	1%	27%
Vol Thru, %	44%	0%	80%	0%	0%	90%	32%
Vol Right, %	0%	100%	0%	100%	0%	9%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	178	25	353	125	21	268	151
LT Vol	100	0	72	0	21	2	41
Through Vol	78	0	281	0	0	242	48
RT Vol	0	25	0	125	0	24	62
Lane Flow Rate	182	26	360	128	21	274	154
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.376	0.046	0.651	0.202	0.042	0.504	0.306
Departure Headway (Hd)	7.448	6.446	6.51	5.693	7.193	6.623	7.152
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	483	555	558	633	500	548	502
Service Time	5.194	4.191	4.221	3.404	4.907	4.337	5.201
HCM Lane V/C Ratio	0.377	0.047	0.645	0.202	0.042	0.5	0.307
HCM Control Delay	14.6	9.5	20.6	9.8	10.2	15.9	13.3
HCM Lane LOS	B	A	C	A	B	C	B
HCM 95th-tile Q	1.7	0.1	4.7	0.8	0.1	2.8	1.3

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Future Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	138	55	26	3	41	17	26	97	7	23	86	74
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.2	8.9	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	63%	5%	13%
Vol Thru, %	74%	25%	67%	47%
Vol Right, %	6%	12%	28%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	208	58	174
LT Vol	25	131	3	22
Through Vol	92	52	39	82
RT Vol	7	25	16	70
Lane Flow Rate	131	219	61	183
Geometry Grp	1	1	1	1
Degree of Util (X)	0.174	0.289	0.081	0.23
Departure Headway (Hd)	4.8	4.757	4.753	4.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	753	749	791
Service Time	2.849	2.803	2.81	2.568
HCM Lane V/C Ratio	0.176	0.291	0.081	0.231
HCM Control Delay	8.9	9.7	8.2	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.2	0.3	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	69	3	139	390	538	0	0	407	474
Future Volume (veh/h)	0	0	0	69	3	139	390	538	0	0	407	474
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.93
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				1826	1900	1885	1885	1856	0	0	1870	1885
Adj Flow Rate, veh/h				73	3	146	411	566	0	0	428	499
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				5	0	1	1	3	0	0	2	1
Cap, veh/h				214	4	195	742	2574	0	0	426	353
Arrive On Green				0.12	0.12	0.12	0.41	0.73	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1739	33	1583	1795	3618	0	0	1870	1469
Grp Volume(v), veh/h				73	0	149	411	566	0	0	428	499
Grp Sat Flow(s),veh/h/ln				1739	0	1615	1795	1763	0	0	1777	1469
Q Serve(g_s), s				2.3	0.0	5.3	10.4	3.1	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				2.3	0.0	5.3	10.4	3.1	0.0	0.0	14.4	14.4
Prop In Lane				1.00		0.98	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				214	0	199	742	2574	0	0	426	353
V/C Ratio(X)				0.34	0.00	0.75	0.55	0.22	0.00	0.00	1.00	1.42
Avail Cap(c_a), veh/h				371	0	345	742	2574	0	0	426	353
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	0.68	0.68	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				24.1	0.0	25.4	13.4	2.6	0.0	0.0	22.8	22.8
Incr Delay (d2), s/veh				0.3	0.0	2.1	0.4	0.1	0.0	0.0	44.5	202.8
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				0.9	0.0	2.0	3.9	0.7	0.0	0.0	10.9	24.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.4	0.0	27.5	13.7	2.7	0.0	0.0	67.3	225.6
LnGrp LOS				C	A	C	B	A	A	A	F	F
Approach Vol, veh/h					222			977			927	
Approach Delay, s/veh					26.5			7.4			152.5	
Approach LOS					C			A			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	29.4	19.0		11.6		48.4						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	17.3	* 14		* 13		38.4						
Max Q Clear Time (g_c+I1), s	12.4	16.4		7.3		5.1						
Green Ext Time (p_c), s	0.1	0.0		0.2		1.7						

Intersection Summary		
HCM 6th Ctrl Delay		72.7
HCM 6th LOS		E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	317	0	263	0	0	0	0	604	125	188	308	0
Future Volume (veh/h)	317	0	263	0	0	0	0	604	125	188	308	0
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		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	1826	1900	1856				0	1885	1856	1870	1856	0
Adj Flow Rate, veh/h	420	0	185				0	636	132	198	324	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	0	3				0	1	3	2	3	0
Cap, veh/h	542	0	245				0	852	176	589	2459	0
Arrive On Green	0.16	0.00	0.16				0.00	0.29	0.29	0.11	0.23	0.00
Sat Flow, veh/h	3478	0	1572				0	3031	608	1781	3618	0
Grp Volume(v), veh/h	420	0	185				0	387	381	198	324	0
Grp Sat Flow(s),veh/h/ln	1739	0	1572				0	1791	1754	1781	1763	0
Q Serve(g_s), s	7.0	0.0	6.8				0.0	11.8	11.8	6.2	4.4	0.0
Cycle Q Clear(g_c), s	7.0	0.0	6.8				0.0	11.8	11.8	6.2	4.4	0.0
Prop In Lane	1.00		1.00				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	542	0	245				0	519	509	589	2459	0
V/C Ratio(X)	0.78	0.00	0.76				0.00	0.75	0.75	0.34	0.13	0.00
Avail Cap(c_a), veh/h	742	0	335				0	519	509	589	2459	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	24.3	0.0	24.2				0.0	19.3	19.3	20.6	8.7	0.0
Incr Delay (d2), s/veh	2.3	0.0	3.8				0.0	9.4	9.7	0.1	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	2.8	0.0	2.6				0.0	5.9	5.8	2.6	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	0.0	28.1				0.0	28.7	29.0	20.7	8.8	0.0
LnGrp LOS	C	A	C				A	C	C	C	A	A
Approach Vol, veh/h		605						768			522	
Approach Delay, s/veh		27.0						28.9			13.3	
Approach LOS		C						C			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	46.5		24.5	22.0		13.5
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	38.4		14.3	* 17		12.8
Max Q Clear Time (g_c+I1), s	6.4		8.2	13.8		9.0
Green Ext Time (p_c), s	0.9		0.1	0.9		0.4

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

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection	
Intersection Delay, s/veh	24.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	17	30	7	38	134	59	392	12	86	329	29
Future Vol, veh/h	51	17	30	7	38	134	59	392	12	86	329	29
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	6	0	0	0	3	1	2	1	9	0	3	3
Mvmt Flow	58	19	34	8	43	152	67	445	14	98	374	33
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	12.4	15.4	31.9	23.8
HCM LOS	B	C	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	75%	0%	4%	100%	0%
Vol Thru, %	0%	97%	25%	0%	21%	0%	92%
Vol Right, %	0%	3%	0%	100%	75%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	404	68	30	179	86	358
LT Vol	59	0	51	0	7	86	0
Through Vol	0	392	17	0	38	0	329
RT Vol	0	12	0	30	134	0	29
Lane Flow Rate	67	459	77	34	203	98	407
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.133	0.84	0.183	0.069	0.413	0.194	0.749
Departure Headway (Hd)	7.138	6.589	8.545	7.331	7.302	7.147	6.63
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	502	551	420	487	492	502	545
Service Time	4.882	4.333	6.305	5.09	5.35	4.892	4.375
HCM Lane V/C Ratio	0.133	0.833	0.183	0.07	0.413	0.195	0.747
HCM Control Delay	11	35	13.2	10.6	15.4	11.6	26.7
HCM Lane LOS	B	D	B	B	C	B	D
HCM 95th-tile Q	0.5	8.7	0.7	0.2	2	0.7	6.5

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	201	81	45	318	27	63	55	13	78	68	62
Future Vol, veh/h	56	201	81	45	318	27	63	55	13	78	68	62
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	242	98	54	383	33	76	66	16	94	82	75
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	18.7	30.8	14.6	19.2
HCM LOS	C	D	B	C

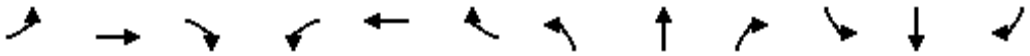
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	53%	0%	22%	0%	100%	1%	38%
Vol Thru, %	47%	0%	78%	0%	0%	91%	33%
Vol Right, %	0%	100%	0%	100%	0%	8%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	13	257	81	41	350	208
LT Vol	63	0	56	0	41	5	78
Through Vol	55	0	201	0	0	318	68
RT Vol	0	13	0	81	0	27	62
Lane Flow Rate	142	16	310	98	49	421	251
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.327	0.032	0.623	0.174	0.101	0.81	0.532
Departure Headway (Hd)	8.281	7.284	7.238	6.407	7.484	6.923	7.642
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	432	489	499	557	478	522	471
Service Time	6.064	5.066	5.008	4.177	5.249	4.688	5.719
HCM Lane V/C Ratio	0.329	0.033	0.621	0.176	0.103	0.807	0.533
HCM Control Delay	15.1	10.3	21.3	10.5	11.1	33.1	19.2
HCM Lane LOS	C	B	C	B	B	D	C
HCM 95th-tile Q	1.4	0.1	4.2	0.6	0.3	7.8	3.1

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	22	13	6	60	34	10	89	1	16	155	104
Future Vol, veh/h	50	22	13	6	60	34	10	89	1	16	155	104
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	4	7	0	0	0	0	3	0	0	2	2
Mvmt Flow	64	28	17	8	77	44	13	114	1	21	199	133
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	9.1	9	10.9
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	59%	6%	6%
Vol Thru, %	89%	26%	60%	56%
Vol Right, %	1%	15%	34%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	85	100	275
LT Vol	10	50	6	16
Through Vol	89	22	60	155
RT Vol	1	13	34	104
Lane Flow Rate	128	109	128	353
Geometry Grp	1	1	1	1
Degree of Util (X)	0.175	0.157	0.176	0.435
Departure Headway (Hd)	4.917	5.196	4.955	4.441
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	724	684	717	807
Service Time	2.985	3.275	3.033	2.492
HCM Lane V/C Ratio	0.177	0.159	0.179	0.437
HCM Control Delay	9	9.3	9.1	10.9
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.6	0.6	0.6	2.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	3	225	343	449	0	0	671	353
Future Volume (veh/h)	0	0	0	125	3	225	343	449	0	0	671	353
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		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				1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h				130	3	234	357	468	0	0	699	368
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				1	1	1	1	1	0	0	1	1
Cap, veh/h				322	4	283	642	2414	0	0	534	281
Arrive On Green				0.18	0.18	0.18	0.36	0.67	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1795	20	1580	1795	3676	0	0	2320	1170
Grp Volume(v), veh/h				130	0	237	357	468	0	0	562	505
Grp Sat Flow(s),veh/h/ln				1795	0	1601	1795	1791	0	0	1791	1605
Q Serve(g_s), s				3.8	0.0	8.6	9.6	2.9	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				3.8	0.0	8.6	9.6	2.9	0.0	0.0	14.4	14.4
Prop In Lane				1.00		0.99	1.00		0.00	0.00		0.73
Lane Grp Cap(c), veh/h				322	0	287	642	2414	0	0	430	385
V/C Ratio(X)				0.40	0.00	0.83	0.56	0.19	0.00	0.00	1.31	1.31
Avail Cap(c_a), veh/h				383	0	341	642	2414	0	0	430	385
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	0.72	0.72	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.8	0.0	23.7	15.5	3.7	0.0	0.0	22.8	22.8
Incr Delay (d2), s/veh				0.3	0.0	11.4	0.5	0.1	0.0	0.0	154.7	157.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.5	0.0	3.8	3.7	0.8	0.0	0.0	24.1	21.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.1	0.0	35.1	15.9	3.8	0.0	0.0	177.5	179.9
LnGrp LOS				C	A	D	B	A	A	A	F	F
Approach Vol, veh/h					367			825			1067	
Approach Delay, s/veh					30.5			9.0			178.6	
Approach LOS					C			A			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	26.0	19.0		15.0		45.0						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	17.3	* 14		* 13		38.4						
Max Q Clear Time (g_c+I1), s	11.6	16.4		10.6		4.9						
Green Ext Time (p_c), s	0.1	0.0		0.2		1.4						

Intersection Summary		
HCM 6th Ctrl Delay		92.6
HCM 6th LOS		F

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)	204	97	291	0	0	0	0	555	127	290	498	0
Future Volume (veh/h)	204	97	291	0	0	0	0	555	127	290	498	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	183	240	230				0	603	138	315	541	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, %	1	1	1				0	1	1	1	1	0
Cap, veh/h	319	335	284				0	836	191	554	2419	0
Arrive On Green	0.18	0.18	0.18				0.00	0.29	0.29	0.10	0.22	0.00
Sat Flow, veh/h	1795	1885	1598				0	2977	658	1795	3676	0
Grp Volume(v), veh/h	183	240	230				0	374	367	315	541	0
Grp Sat Flow(s),veh/h/ln	1795	1885	1598				0	1791	1750	1795	1791	0
Q Serve(g_s), s	5.6	7.2	8.3				0.0	11.2	11.3	10.0	7.4	0.0
Cycle Q Clear(g_c), s	5.6	7.2	8.3				0.0	11.2	11.3	10.0	7.4	0.0
Prop In Lane	1.00		1.00				0.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	319	335	284				0	519	508	554	2419	0
V/C Ratio(X)	0.57	0.72	0.81				0.00	0.72	0.72	0.57	0.22	0.00
Avail Cap(c_a), veh/h	383	402	341				0	519	508	554	2419	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.34	0.34	0.00
Uniform Delay (d), s/veh	22.6	23.2	23.7				0.0	19.1	19.1	23.1	10.4	0.0
Incr Delay (d2), s/veh	0.6	3.4	9.7				0.0	8.4	8.7	0.3	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	2.2	3.2	3.6				0.0	5.5	5.5	4.7	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	26.6	33.4				0.0	27.5	27.8	23.4	10.5	0.0
LnGrp LOS	C	C	C				A	C	C	C	B	A
Approach Vol, veh/h		653						741			856	
Approach Delay, s/veh		28.0						27.6			15.3	
Approach LOS		C						C			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	45.1		23.1	22.0		14.9
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	38.4		14.3	* 17		12.8
Max Q Clear Time (g_c+I1), s	9.4		12.0	13.3		10.3
Green Ext Time (p_c), s	1.6		0.1	0.9		0.4

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection	
Intersection Delay, s/veh	55.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	45	68	15	25	104	60	402	23	124	458	53
Future Vol, veh/h	75	45	68	15	25	104	60	402	23	124	458	53
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	83	50	76	17	28	116	67	447	26	138	509	59
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	14.6	16.3	47.9	81.9
HCM LOS	B	C	E	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	62%	0%	10%	100%	0%
Vol Thru, %	0%	95%	38%	0%	17%	0%	90%
Vol Right, %	0%	5%	0%	100%	72%	0%	10%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	425	120	68	144	124	511
LT Vol	60	0	75	0	15	124	0
Through Vol	0	402	45	0	25	0	458
RT Vol	0	23	0	68	104	0	53
Lane Flow Rate	67	472	133	76	160	138	568
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.142	0.935	0.321	0.16	0.363	0.292	1.109
Departure Headway (Hd)	7.917	7.364	9.006	7.955	8.519	7.617	7.029
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	456	496	401	453	426	473	517
Service Time	5.617	5.064	6.706	5.655	6.519	5.356	4.768
HCM Lane V/C Ratio	0.147	0.952	0.332	0.168	0.376	0.292	1.099
HCM Control Delay	11.9	53	15.9	12.2	16.3	13.5	98.5
HCM Lane LOS	B	F	C	B	C	B	F
HCM 95th-tile Q	0.5	11.3	1.4	0.6	1.6	1.2	18.4

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	306	136	33	266	35	118	73	18	52	63	80
Future Vol, veh/h	59	306	136	33	266	35	118	73	18	52	63	80
Peak Hour Factor	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	64	333	148	36	289	38	128	79	20	57	68	87
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	26.7	22.8	17.7	17.7
HCM LOS	D	C	C	C

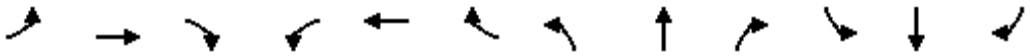
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	62%	0%	16%	0%	100%	1%	27%
Vol Thru, %	38%	0%	84%	0%	0%	87%	32%
Vol Right, %	0%	100%	0%	100%	0%	12%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	18	365	136	30	304	195
LT Vol	118	0	59	0	30	3	52
Through Vol	73	0	306	0	0	266	63
RT Vol	0	18	0	136	0	35	80
Lane Flow Rate	208	20	397	148	32	331	212
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.477	0.039	0.793	0.263	0.071	0.671	0.465
Departure Headway (Hd)	8.27	7.231	7.199	6.397	7.894	7.302	7.893
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	434	492	500	559	452	493	454
Service Time	6.056	5.016	4.977	4.174	5.676	5.084	5.985
HCM Lane V/C Ratio	0.479	0.041	0.794	0.265	0.071	0.671	0.467
HCM Control Delay	18.4	10.3	32.4	11.5	11.3	23.9	17.7
HCM Lane LOS	C	B	D	B	B	C	C
HCM 95th-tile Q	2.5	0.1	7.3	1	0.2	4.9	2.4

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Future Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	138	55	26	3	41	17	26	97	7	23	86	74
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.2	8.9	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	63%	5%	13%
Vol Thru, %	74%	25%	67%	47%
Vol Right, %	6%	12%	28%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	208	58	174
LT Vol	25	131	3	22
Through Vol	92	52	39	82
RT Vol	7	25	16	70
Lane Flow Rate	131	219	61	183
Geometry Grp	1	1	1	1
Degree of Util (X)	0.174	0.289	0.081	0.23
Departure Headway (Hd)	4.8	4.757	4.753	4.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	753	749	791
Service Time	2.849	2.803	2.81	2.568
HCM Lane V/C Ratio	0.176	0.291	0.081	0.231
HCM Control Delay	8.9	9.7	8.2	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.2	0.3	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	92	2	236	291	374	0	0	648	287
Future Volume (veh/h)	0	0	0	92	2	236	291	374	0	0	648	287
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		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				1900	1900	1885	1885	1900	0	0	1885	1900
Adj Flow Rate, veh/h				96	2	246	303	390	0	0	675	299
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	1	1	0	0	0	1	0
Cap, veh/h				333	2	295	633	2416	0	0	570	252
Arrive On Green				0.18	0.18	0.18	0.35	0.67	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1810	13	1599	1795	3705	0	0	2468	1051
Grp Volume(v), veh/h				96	0	248	303	390	0	0	509	465
Grp Sat Flow(s),veh/h/ln				1810	0	1612	1795	1805	0	0	1791	1634
Q Serve(g_s), s				2.7	0.0	8.9	7.9	2.4	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				2.7	0.0	8.9	7.9	2.4	0.0	0.0	14.4	14.4
Prop In Lane				1.00		0.99	1.00		0.00	0.00		0.64
Lane Grp Cap(c), veh/h				333	0	297	633	2416	0	0	430	392
V/C Ratio(X)				0.29	0.00	0.84	0.48	0.16	0.00	0.00	1.18	1.18
Avail Cap(c_a), veh/h				386	0	344	633	2416	0	0	430	392
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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.1	0.0	23.6	15.1	3.7	0.0	0.0	22.8	22.8
Incr Delay (d2), s/veh				0.2	0.0	12.8	0.2	0.1	0.0	0.0	104.6	106.2
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				1.1	0.0	4.1	3.0	0.7	0.0	0.0	18.1	16.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				21.3	0.0	36.3	15.3	3.8	0.0	0.0	127.4	129.0
LnGrp LOS				C	A	D	B	A	A	A	F	F
Approach Vol, veh/h					344			693			974	
Approach Delay, s/veh					32.1			8.8			128.2	
Approach LOS					C			A			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.7	19.0		15.3		44.7						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	17.3	* 14		* 13		38.4						
Max Q Clear Time (g_c+I1), s	9.9	16.4		10.9		4.4						
Green Ext Time (p_c), s	0.1	0.0		0.2		1.1						

Intersection Summary		
HCM 6th Ctrl Delay		70.6
HCM 6th LOS		E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	155	325	0	0	0	0	465	132	317	454	0
Future Volume (veh/h)	185	155	325	0	0	0	0	465	132	317	454	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1885				0	1885	1900	1885	1900	0
Adj Flow Rate, veh/h	192	268	269				0	511	145	348	499	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	1				0	1	0	1	0	0
Cap, veh/h	360	378	318				0	792	223	516	2362	0
Arrive On Green	0.20	0.20	0.20				0.00	0.29	0.29	0.09	0.22	0.00
Sat Flow, veh/h	1810	1900	1598				0	2825	770	1795	3705	0
Grp Volume(v), veh/h	192	268	269				0	334	322	348	499	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1598				0	1791	1709	1795	1805	0
Q Serve(g_s), s	5.7	7.9	9.7				0.0	9.8	9.9	11.2	6.8	0.0
Cycle Q Clear(g_c), s	5.7	7.9	9.7				0.0	9.8	9.9	11.2	6.8	0.0
Prop In Lane	1.00		1.00				0.00		0.45	1.00		0.00
Lane Grp Cap(c), veh/h	360	378	318				0	519	496	516	2362	0
V/C Ratio(X)	0.53	0.71	0.85				0.00	0.64	0.65	0.67	0.21	0.00
Avail Cap(c_a), veh/h	386	405	341				0	519	496	516	2362	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.53	0.53	0.00
Uniform Delay (d), s/veh	21.5	22.4	23.1				0.0	18.6	18.6	24.4	10.8	0.0
Incr Delay (d2), s/veh	0.5	4.2	15.5				0.0	6.0	6.5	1.5	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	2.2	3.6	4.7				0.0	4.6	4.5	5.5	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	26.6	38.7				0.0	24.6	25.1	25.9	10.9	0.0
LnGrp LOS	C	C	D				A	C	C	C	B	A
Approach Vol, veh/h		729						656			847	
Approach Delay, s/veh		29.9						24.8			17.1	
Approach LOS		C						C			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	43.9		21.9	22.0		16.1
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	38.4		14.3	* 17		12.8
Max Q Clear Time (g_c+I1), s	8.8		13.2	11.9		11.7
Green Ext Time (p_c), s	1.4		0.0	1.0		0.2

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

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection	
Intersection Delay, s/veh	26.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	89	44	79	23	45	86	89	290	14	154	438	52
Future Vol, veh/h	89	44	79	23	45	86	89	290	14	154	438	52
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	91	45	81	23	46	88	91	296	14	157	447	53
Number of Lanes	0	1	1	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	2
HCM Control Delay	13.5	14.8	18.5	39.1
HCM LOS	B	B	C	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	67%	0%	15%	100%	0%
Vol Thru, %	0%	95%	33%	0%	29%	0%	89%
Vol Right, %	0%	5%	0%	100%	56%	0%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	89	304	133	79	154	154	490
LT Vol	89	0	89	0	23	154	0
Through Vol	0	290	44	0	45	0	438
RT Vol	0	14	0	79	86	0	52
Lane Flow Rate	91	310	136	81	157	157	500
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.192	0.609	0.312	0.162	0.34	0.315	0.921
Departure Headway (Hd)	7.61	7.064	8.284	7.219	7.788	7.219	6.632
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	471	512	433	496	460	498	545
Service Time	5.364	4.817	6.042	4.976	5.852	4.969	4.382
HCM Lane V/C Ratio	0.193	0.605	0.314	0.163	0.341	0.315	0.917
HCM Control Delay	12.2	20.3	14.8	11.4	14.8	13.3	47.2
HCM Lane LOS	B	C	B	B	B	B	E
HCM 95th-tile Q	0.7	4	1.3	0.6	1.5	1.3	11.2

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	72	281	125	23	242	24	100	78	25	41	48	62
Future Vol, veh/h	72	281	125	23	242	24	100	78	25	41	48	62
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	73	287	128	23	247	24	102	80	26	42	49	63
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	17.8	15.5	14	13.3
HCM LOS	C	C	B	B

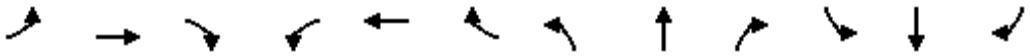
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	56%	0%	20%	0%	100%	1%	27%
Vol Thru, %	44%	0%	80%	0%	0%	90%	32%
Vol Right, %	0%	100%	0%	100%	0%	9%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	178	25	353	125	21	268	151
LT Vol	100	0	72	0	21	2	41
Through Vol	78	0	281	0	0	242	48
RT Vol	0	25	0	125	0	24	62
Lane Flow Rate	182	26	360	128	21	274	154
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.376	0.046	0.651	0.202	0.042	0.504	0.306
Departure Headway (Hd)	7.448	6.446	6.51	5.693	7.193	6.623	7.152
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	483	555	558	633	500	548	502
Service Time	5.194	4.191	4.221	3.404	4.907	4.337	5.201
HCM Lane V/C Ratio	0.377	0.047	0.645	0.202	0.042	0.5	0.307
HCM Control Delay	14.6	9.5	20.6	9.8	10.2	15.9	13.3
HCM Lane LOS	B	A	C	A	B	C	B
HCM 95th-tile Q	1.7	0.1	4.7	0.8	0.1	2.8	1.3

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Future Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	138	55	26	3	41	17	26	97	7	23	86	74
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.2	8.9	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	63%	5%	13%
Vol Thru, %	74%	25%	67%	47%
Vol Right, %	6%	12%	28%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	208	58	174
LT Vol	25	131	3	22
Through Vol	92	52	39	82
RT Vol	7	25	16	70
Lane Flow Rate	131	219	61	183
Geometry Grp	1	1	1	1
Degree of Util (X)	0.174	0.289	0.081	0.23
Departure Headway (Hd)	4.8	4.757	4.753	4.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	753	749	791
Service Time	2.849	2.803	2.81	2.568
HCM Lane V/C Ratio	0.176	0.291	0.081	0.231
HCM Control Delay	8.9	9.7	8.2	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.2	0.3	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	69	3	139	390	538	0	0	407	474
Future Volume (veh/h)	0	0	0	69	3	139	390	538	0	0	407	474
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.93
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				1826	1900	1885	1885	1856	0	0	1870	1885
Adj Flow Rate, veh/h				73	3	146	411	566	0	0	428	499
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				5	0	1	1	3	0	0	2	1
Cap, veh/h				214	4	195	742	2574	0	0	426	353
Arrive On Green				0.12	0.12	0.12	0.83	1.00	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1739	33	1583	1795	3618	0	0	1870	1469
Grp Volume(v), veh/h				73	0	149	411	566	0	0	428	499
Grp Sat Flow(s),veh/h/ln				1739	0	1615	1795	1763	0	0	1777	1469
Q Serve(g_s), s				2.3	0.0	5.3	4.4	0.0	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				2.3	0.0	5.3	4.4	0.0	0.0	0.0	14.4	14.4
Prop In Lane				1.00		0.98	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				214	0	199	742	2574	0	0	426	353
V/C Ratio(X)				0.34	0.00	0.75	0.55	0.22	0.00	0.00	1.00	1.42
Avail Cap(c_a), veh/h				371	0	345	742	2574	0	0	426	353
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.68	0.68	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				24.1	0.0	25.4	3.4	0.0	0.0	0.0	22.8	22.8
Incr Delay (d2), s/veh				0.3	0.0	2.1	0.4	0.1	0.0	0.0	44.5	202.8
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				0.9	0.0	2.0	1.0	0.0	0.0	0.0	10.9	24.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.4	0.0	27.5	3.8	0.1	0.0	0.0	67.3	225.6
LnGrp LOS				C	A	C	A	A	A	A	F	F
Approach Vol, veh/h					222			977			927	
Approach Delay, s/veh					26.5			1.7			152.5	
Approach LOS					C			A			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	29.4	19.0		11.6		48.4						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	17.3	* 14		* 13		38.4						
Max Q Clear Time (g_c+I1), s	6.4	16.4		7.3		2.0						
Green Ext Time (p_c), s	0.2	0.0		0.2		1.7						

Intersection Summary		
HCM 6th Ctrl Delay		70.0
HCM 6th LOS		E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	317	0	263	0	0	0	0	604	125	188	308	0
Future Volume (veh/h)	317	0	263	0	0	0	0	604	125	188	308	0
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		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	1826	1900	1856				0	1885	1856	1870	1856	0
Adj Flow Rate, veh/h	420	0	185				0	636	132	198	324	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	0	3				0	1	3	2	3	0
Cap, veh/h	542	0	245				0	852	176	589	2459	0
Arrive On Green	0.16	0.00	0.16				0.00	0.29	0.29	0.11	0.23	0.00
Sat Flow, veh/h	3478	0	1572				0	3031	608	1781	3618	0
Grp Volume(v), veh/h	420	0	185				0	387	381	198	324	0
Grp Sat Flow(s),veh/h/ln	1739	0	1572				0	1791	1754	1781	1763	0
Q Serve(g_s), s	7.0	0.0	6.8				0.0	11.8	11.8	6.2	4.4	0.0
Cycle Q Clear(g_c), s	7.0	0.0	6.8				0.0	11.8	11.8	6.2	4.4	0.0
Prop In Lane	1.00		1.00				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	542	0	245				0	519	509	589	2459	0
V/C Ratio(X)	0.78	0.00	0.76				0.00	0.75	0.75	0.34	0.13	0.00
Avail Cap(c_a), veh/h	742	0	335				0	519	509	589	2459	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	24.3	0.0	24.2				0.0	19.3	19.3	20.6	8.7	0.0
Incr Delay (d2), s/veh	2.3	0.0	3.8				0.0	9.4	9.7	0.1	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	2.8	0.0	2.6				0.0	5.9	5.8	2.6	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	0.0	28.1				0.0	28.7	29.0	20.7	8.8	0.0
LnGrp LOS	C	A	C				A	C	C	C	A	A
Approach Vol, veh/h		605						768			522	
Approach Delay, s/veh		27.0						28.9			13.3	
Approach LOS		C						C			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	46.5		24.5	22.0		13.5
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	38.4		14.3	* 17		12.8
Max Q Clear Time (g_c+I1), s	6.4		8.2	13.8		9.0
Green Ext Time (p_c), s	0.9		0.1	0.9		0.4

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

Notes

User approved volume balancing among the lanes for turning movement.

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

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	51	17	30	7	38	134	59	392	12	86	329	29
Future Vol, veh/h	51	17	30	7	38	134	59	392	12	86	329	29
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	6	0	0	0	3	1	2	1	9	0	3	3
Mvmt Flow	58	19	34	8	43	152	67	445	14	98	374	33
Number of Lanes	0	1	1	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	13.1	16	17.4	15.4
HCM LOS	B	C	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	75%	0%	4%	100%	0%	0%
Vol Thru, %	0%	100%	92%	25%	0%	21%	0%	100%	79%
Vol Right, %	0%	0%	8%	0%	100%	75%	0%	0%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	261	143	68	30	179	86	219	139
LT Vol	59	0	0	51	0	7	86	0	0
Through Vol	0	261	131	17	0	38	0	219	110
RT Vol	0	0	12	0	30	134	0	0	29
Lane Flow Rate	67	297	162	77	34	203	98	249	158
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.146	0.602	0.332	0.193	0.074	0.429	0.213	0.512	0.317
Departure Headway (Hd)	7.827	7.298	7.377	8.986	7.786	7.597	7.851	7.391	7.241
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	457	493	486	398	458	472	456	486	495
Service Time	5.586	5.057	5.136	6.764	5.564	5.362	5.61	5.15	5
HCM Lane V/C Ratio	0.147	0.602	0.333	0.193	0.074	0.43	0.215	0.512	0.319
HCM Control Delay	11.9	20.6	13.8	13.9	11.2	16	12.7	17.7	13.4
HCM Lane LOS	B	C	B	B	B	C	B	C	B
HCM 95th-tile Q	0.5	3.9	1.4	0.7	0.2	2.1	0.8	2.9	1.3

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	201	81	45	318	27	63	55	13	78	68	62
Future Vol, veh/h	56	201	81	45	318	27	63	55	13	78	68	62
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	242	98	54	383	33	76	66	16	94	82	75
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	18.7	30.8	14.6	19.2
HCM LOS	C	D	B	C

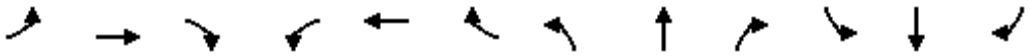
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	53%	0%	22%	0%	100%	1%	38%
Vol Thru, %	47%	0%	78%	0%	0%	91%	33%
Vol Right, %	0%	100%	0%	100%	0%	8%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	13	257	81	41	350	208
LT Vol	63	0	56	0	41	5	78
Through Vol	55	0	201	0	0	318	68
RT Vol	0	13	0	81	0	27	62
Lane Flow Rate	142	16	310	98	49	421	251
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.327	0.032	0.623	0.174	0.101	0.81	0.532
Departure Headway (Hd)	8.281	7.284	7.238	6.407	7.484	6.923	7.642
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	432	489	499	557	478	522	471
Service Time	6.064	5.066	5.008	4.177	5.249	4.688	5.719
HCM Lane V/C Ratio	0.329	0.033	0.621	0.176	0.103	0.807	0.533
HCM Control Delay	15.1	10.3	21.3	10.5	11.1	33.1	19.2
HCM Lane LOS	C	B	C	B	B	D	C
HCM 95th-tile Q	1.4	0.1	4.2	0.6	0.3	7.8	3.1

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	22	13	6	60	34	10	89	1	16	155	104
Future Vol, veh/h	50	22	13	6	60	34	10	89	1	16	155	104
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	4	7	0	0	0	0	3	0	0	2	2
Mvmt Flow	64	28	17	8	77	44	13	114	1	21	199	133
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	9.1	9	10.9
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	59%	6%	6%
Vol Thru, %	89%	26%	60%	56%
Vol Right, %	1%	15%	34%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	85	100	275
LT Vol	10	50	6	16
Through Vol	89	22	60	155
RT Vol	1	13	34	104
Lane Flow Rate	128	109	128	353
Geometry Grp	1	1	1	1
Degree of Util (X)	0.175	0.157	0.176	0.435
Departure Headway (Hd)	4.917	5.196	4.955	4.441
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	724	684	717	807
Service Time	2.985	3.275	3.033	2.492
HCM Lane V/C Ratio	0.177	0.159	0.179	0.437
HCM Control Delay	9	9.3	9.1	10.9
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.6	0.6	0.6	2.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	3	225	343	449	0	0	671	353
Future Volume (veh/h)	0	0	0	125	3	225	343	449	0	0	671	353
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		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				1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h				130	3	234	357	468	0	0	699	368
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				1	1	1	1	1	0	0	1	1
Cap, veh/h				322	4	283	642	2414	0	0	534	281
Arrive On Green				0.18	0.18	0.18	0.71	1.00	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1795	20	1580	1795	3676	0	0	2320	1170
Grp Volume(v), veh/h				130	0	237	357	468	0	0	562	505
Grp Sat Flow(s),veh/h/ln				1795	0	1601	1795	1791	0	0	1791	1605
Q Serve(g_s), s				3.8	0.0	8.6	5.6	0.0	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				3.8	0.0	8.6	5.6	0.0	0.0	0.0	14.4	14.4
Prop In Lane				1.00		0.99	1.00		0.00	0.00		0.73
Lane Grp Cap(c), veh/h				322	0	287	642	2414	0	0	430	385
V/C Ratio(X)				0.40	0.00	0.83	0.56	0.19	0.00	0.00	1.31	1.31
Avail Cap(c_a), veh/h				383	0	341	642	2414	0	0	430	385
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.8	0.0	23.7	6.3	0.0	0.0	0.0	22.8	22.8
Incr Delay (d2), s/veh				0.3	0.0	11.4	0.5	0.1	0.0	0.0	154.7	157.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.5	0.0	3.8	1.5	0.0	0.0	0.0	24.1	21.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.1	0.0	35.1	6.8	0.1	0.0	0.0	177.5	179.9
LnGrp LOS				C	A	D	A	A	A	A	F	F
Approach Vol, veh/h					367			825			1067	
Approach Delay, s/veh					30.5			3.0			178.6	
Approach LOS					C			A			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	26.0	19.0		15.0		45.0						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	17.3	* 14		* 13		38.4						
Max Q Clear Time (g_c+I1), s	7.6	16.4		10.6		2.0						
Green Ext Time (p_c), s	0.1	0.0		0.2		1.4						

Intersection Summary		
HCM 6th Ctrl Delay		90.4
HCM 6th LOS		F

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)	204	97	291	0	0	0	0	555	127	290	498	0
Future Volume (veh/h)	204	97	291	0	0	0	0	555	127	290	498	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	183	240	230				0	603	138	315	541	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, %	1	1	1				0	1	1	1	1	0
Cap, veh/h	319	335	284				0	836	191	554	2419	0
Arrive On Green	0.18	0.18	0.18				0.00	0.29	0.29	0.10	0.22	0.00
Sat Flow, veh/h	1795	1885	1598				0	2977	658	1795	3676	0
Grp Volume(v), veh/h	183	240	230				0	374	367	315	541	0
Grp Sat Flow(s),veh/h/ln	1795	1885	1598				0	1791	1750	1795	1791	0
Q Serve(g_s), s	5.6	7.2	8.3				0.0	11.2	11.3	10.0	7.4	0.0
Cycle Q Clear(g_c), s	5.6	7.2	8.3				0.0	11.2	11.3	10.0	7.4	0.0
Prop In Lane	1.00		1.00				0.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	319	335	284				0	519	508	554	2419	0
V/C Ratio(X)	0.57	0.72	0.81				0.00	0.72	0.72	0.57	0.22	0.00
Avail Cap(c_a), veh/h	383	402	341				0	519	508	554	2419	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.34	0.34	0.00
Uniform Delay (d), s/veh	22.6	23.2	23.7				0.0	19.1	19.1	23.1	10.4	0.0
Incr Delay (d2), s/veh	0.6	3.4	9.7				0.0	8.4	8.7	0.3	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	2.2	3.2	3.6				0.0	5.5	5.5	4.7	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	26.6	33.4				0.0	27.5	27.8	23.4	10.5	0.0
LnGrp LOS	C	C	C				A	C	C	C	B	A
Approach Vol, veh/h		653						741			856	
Approach Delay, s/veh		28.0						27.6			15.3	
Approach LOS		C						C			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	45.1		23.1	22.0		14.9
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	38.4		14.3	* 17		12.8
Max Q Clear Time (g_c+I1), s	9.4		12.0	13.3		10.3
Green Ext Time (p_c), s	1.6		0.1	0.9		0.4

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection	
Intersection Delay, s/veh	21.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	45	68	15	25	104	60	402	23	124	458	53
Future Vol, veh/h	75	45	68	15	25	104	60	402	23	124	458	53
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	83	50	76	17	28	116	67	447	26	138	509	59
Number of Lanes	0	1	1	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	16.2	17.6	22.3	24.1
HCM LOS	C	C	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	62%	0%	10%	100%	0%	0%
Vol Thru, %	0%	100%	85%	38%	0%	17%	0%	100%	74%
Vol Right, %	0%	0%	15%	0%	100%	72%	0%	0%	26%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	268	157	120	68	144	124	305	206
LT Vol	60	0	0	75	0	15	124	0	0
Through Vol	0	268	134	45	0	25	0	305	153
RT Vol	0	0	23	0	68	104	0	0	53
Lane Flow Rate	67	298	174	133	76	160	138	339	229
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.164	0.689	0.399	0.358	0.181	0.399	0.327	0.756	0.497
Departure Headway (Hd)	8.85	8.334	8.228	9.678	8.64	8.985	8.534	8.019	7.833
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	405	435	438	372	415	400	422	451	459
Service Time	6.597	6.081	5.975	7.436	6.399	6.742	6.28	5.764	5.578
HCM Lane V/C Ratio	0.165	0.685	0.397	0.358	0.183	0.4	0.327	0.752	0.499
HCM Control Delay	13.3	27.7	16.4	17.8	13.3	17.6	15.4	31.7	18.1
HCM Lane LOS	B	D	C	C	B	C	C	D	C
HCM 95th-tile Q	0.6	5.1	1.9	1.6	0.7	1.9	1.4	6.3	2.7

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	306	136	33	266	35	118	73	18	52	63	80
Future Vol, veh/h	59	306	136	33	266	35	118	73	18	52	63	80
Peak Hour Factor	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	64	333	148	36	289	38	128	79	20	57	68	87
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	26.7	22.8	17.7	17.7
HCM LOS	D	C	C	C

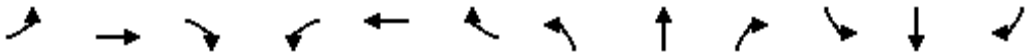
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	62%	0%	16%	0%	100%	1%	27%
Vol Thru, %	38%	0%	84%	0%	0%	87%	32%
Vol Right, %	0%	100%	0%	100%	0%	12%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	18	365	136	30	304	195
LT Vol	118	0	59	0	30	3	52
Through Vol	73	0	306	0	0	266	63
RT Vol	0	18	0	136	0	35	80
Lane Flow Rate	208	20	397	148	32	331	212
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.477	0.039	0.793	0.263	0.071	0.671	0.465
Departure Headway (Hd)	8.27	7.231	7.199	6.397	7.894	7.302	7.893
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	434	492	500	559	452	493	454
Service Time	6.056	5.016	4.977	4.174	5.676	5.084	5.985
HCM Lane V/C Ratio	0.479	0.041	0.794	0.265	0.071	0.671	0.467
HCM Control Delay	18.4	10.3	32.4	11.5	11.3	23.9	17.7
HCM Lane LOS	C	B	D	B	B	C	C
HCM 95th-tile Q	2.5	0.1	7.3	1	0.2	4.9	2.4

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Future Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	138	55	26	3	41	17	26	97	7	23	86	74
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.2	8.9	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	63%	5%	13%
Vol Thru, %	74%	25%	67%	47%
Vol Right, %	6%	12%	28%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	208	58	174
LT Vol	25	131	3	22
Through Vol	92	52	39	82
RT Vol	7	25	16	70
Lane Flow Rate	131	219	61	183
Geometry Grp	1	1	1	1
Degree of Util (X)	0.174	0.289	0.081	0.23
Departure Headway (Hd)	4.8	4.757	4.753	4.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	753	749	791
Service Time	2.849	2.803	2.81	2.568
HCM Lane V/C Ratio	0.176	0.291	0.081	0.231
HCM Control Delay	8.9	9.7	8.2	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.2	0.3	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	92	2	236	291	374	0	0	648	287
Future Volume (veh/h)	0	0	0	92	2	236	291	374	0	0	648	287
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		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				1900	1900	1885	1885	1900	0	0	1885	1900
Adj Flow Rate, veh/h				96	2	246	303	390	0	0	675	299
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	1	1	0	0	0	1	0
Cap, veh/h				333	2	295	633	2416	0	0	570	252
Arrive On Green				0.18	0.18	0.18	0.70	1.00	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1810	13	1599	1795	3705	0	0	2468	1051
Grp Volume(v), veh/h				96	0	248	303	390	0	0	509	465
Grp Sat Flow(s),veh/h/ln				1810	0	1612	1795	1805	0	0	1791	1634
Q Serve(g_s), s				2.7	0.0	8.9	4.5	0.0	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				2.7	0.0	8.9	4.5	0.0	0.0	0.0	14.4	14.4
Prop In Lane				1.00		0.99	1.00		0.00	0.00		0.64
Lane Grp Cap(c), veh/h				333	0	297	633	2416	0	0	430	392
V/C Ratio(X)				0.29	0.00	0.84	0.48	0.16	0.00	0.00	1.18	1.18
Avail Cap(c_a), veh/h				386	0	344	633	2416	0	0	430	392
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.79	0.79	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.1	0.0	23.6	6.4	0.0	0.0	0.0	22.8	22.8
Incr Delay (d2), s/veh				0.2	0.0	12.8	0.2	0.1	0.0	0.0	104.6	106.2
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				1.1	0.0	4.1	1.2	0.0	0.0	0.0	18.1	16.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				21.3	0.0	36.3	6.6	0.1	0.0	0.0	127.4	129.0
LnGrp LOS				C	A	D	A	A	A	A	F	F
Approach Vol, veh/h					344			693			974	
Approach Delay, s/veh					32.1			2.9			128.2	
Approach LOS					C			A			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	25.7	19.0		15.3		44.7						
Change Period (Y+Rc), s	4.6	* 4.6		* 4.2		4.6						
Max Green Setting (Gmax), s	17.3	* 14		* 13		38.4						
Max Q Clear Time (g_c+I1), s	6.5	16.4		10.9		2.0						
Green Ext Time (p_c), s	0.1	0.0		0.2		1.1						

Intersection Summary		
HCM 6th Ctrl Delay		68.6
HCM 6th LOS		E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	155	325	0	0	0	0	465	132	317	454	0
Future Volume (veh/h)	185	155	325	0	0	0	0	465	132	317	454	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1885				0	1885	1900	1885	1900	0
Adj Flow Rate, veh/h	192	268	269				0	511	145	348	499	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	1				0	1	0	1	0	0
Cap, veh/h	360	378	318				0	792	223	516	2362	0
Arrive On Green	0.20	0.20	0.20				0.00	0.29	0.29	0.09	0.22	0.00
Sat Flow, veh/h	1810	1900	1598				0	2825	770	1795	3705	0
Grp Volume(v), veh/h	192	268	269				0	334	322	348	499	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1598				0	1791	1709	1795	1805	0
Q Serve(g_s), s	5.7	7.9	9.7				0.0	9.8	9.9	11.2	6.8	0.0
Cycle Q Clear(g_c), s	5.7	7.9	9.7				0.0	9.8	9.9	11.2	6.8	0.0
Prop In Lane	1.00		1.00				0.00		0.45	1.00		0.00
Lane Grp Cap(c), veh/h	360	378	318				0	519	496	516	2362	0
V/C Ratio(X)	0.53	0.71	0.85				0.00	0.64	0.65	0.67	0.21	0.00
Avail Cap(c_a), veh/h	386	405	341				0	519	496	516	2362	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.53	0.53	0.00
Uniform Delay (d), s/veh	21.5	22.4	23.1				0.0	18.6	18.6	24.4	10.8	0.0
Incr Delay (d2), s/veh	0.5	4.2	15.5				0.0	6.0	6.5	1.5	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	2.2	3.6	4.7				0.0	4.6	4.5	5.5	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	26.6	38.7				0.0	24.6	25.1	25.9	10.9	0.0
LnGrp LOS	C	C	D				A	C	C	C	B	A
Approach Vol, veh/h		729						656			847	
Approach Delay, s/veh		29.9						24.8			17.1	
Approach LOS		C						C			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	43.9		21.9	22.0		16.1
Change Period (Y+Rc), s	4.6		4.6	* 4.6		4.2
Max Green Setting (Gmax), s	38.4		14.3	* 17		12.8
Max Q Clear Time (g_c+I1), s	8.8		13.2	11.9		11.7
Green Ext Time (p_c), s	1.4		0.0	1.0		0.2

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

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection	
Intersection Delay, s/veh	16.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	89	44	79	23	45	86	89	290	14	154	438	52
Future Vol, veh/h	89	44	79	23	45	86	89	290	14	154	438	52
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	91	45	81	23	46	88	91	296	14	157	447	53
Number of Lanes	0	1	1	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	14.6	15.7	15	17.7
HCM LOS	B	C	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	67%	0%	15%	100%	0%	0%
Vol Thru, %	0%	100%	87%	33%	0%	29%	0%	100%	74%
Vol Right, %	0%	0%	13%	0%	100%	56%	0%	0%	26%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	89	193	111	133	79	154	154	292	198
LT Vol	89	0	0	89	0	23	154	0	0
Through Vol	0	193	97	44	0	45	0	292	146
RT Vol	0	0	14	0	79	86	0	0	52
Lane Flow Rate	91	197	113	136	81	157	157	298	202
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.213	0.433	0.245	0.332	0.174	0.361	0.345	0.612	0.407
Departure Headway (Hd)	8.424	7.91	7.819	8.805	7.753	8.272	7.911	7.398	7.245
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	425	454	457	407	460	432	453	486	495
Service Time	6.205	5.691	5.6	6.594	5.542	6.061	5.683	5.17	5.016
HCM Lane V/C Ratio	0.214	0.434	0.247	0.334	0.176	0.363	0.347	0.613	0.408
HCM Control Delay	13.5	16.7	13.1	16	12.2	15.7	14.8	21.2	14.9
HCM Lane LOS	B	C	B	C	B	C	B	C	B
HCM 95th-tile Q	0.8	2.1	1	1.4	0.6	1.6	1.5	4	2

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	72	281	125	23	242	24	100	78	25	41	48	62
Future Vol, veh/h	72	281	125	23	242	24	100	78	25	41	48	62
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	73	287	128	23	247	24	102	80	26	42	49	63
Number of Lanes	0	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	17.8	15.5	14	13.3
HCM LOS	C	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	56%	0%	20%	0%	100%	1%	27%
Vol Thru, %	44%	0%	80%	0%	0%	90%	32%
Vol Right, %	0%	100%	0%	100%	0%	9%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	178	25	353	125	21	268	151
LT Vol	100	0	72	0	21	2	41
Through Vol	78	0	281	0	0	242	48
RT Vol	0	25	0	125	0	24	62
Lane Flow Rate	182	26	360	128	21	274	154
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.376	0.046	0.651	0.202	0.042	0.504	0.306
Departure Headway (Hd)	7.448	6.446	6.51	5.693	7.193	6.623	7.152
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	483	555	558	633	500	548	502
Service Time	5.194	4.191	4.221	3.404	4.907	4.337	5.201
HCM Lane V/C Ratio	0.377	0.047	0.645	0.202	0.042	0.5	0.307
HCM Control Delay	14.6	9.5	20.6	9.8	10.2	15.9	13.3
HCM Lane LOS	B	A	C	A	B	C	B
HCM 95th-tile Q	1.7	0.1	4.7	0.8	0.1	2.8	1.3

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Future Vol, veh/h	131	52	25	3	39	16	25	92	7	22	82	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	138	55	26	3	41	17	26	97	7	23	86	74
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.2	8.9	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	63%	5%	13%
Vol Thru, %	74%	25%	67%	47%
Vol Right, %	6%	12%	28%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	208	58	174
LT Vol	25	131	3	22
Through Vol	92	52	39	82
RT Vol	7	25	16	70
Lane Flow Rate	131	219	61	183
Geometry Grp	1	1	1	1
Degree of Util (X)	0.174	0.289	0.081	0.23
Departure Headway (Hd)	4.8	4.757	4.753	4.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	753	749	791
Service Time	2.849	2.803	2.81	2.568
HCM Lane V/C Ratio	0.176	0.291	0.081	0.231
HCM Control Delay	8.9	9.7	8.2	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.2	0.3	0.9

MOVEMENT SUMMARY

Site: 1 [EXAM (Site Folder: General)]

Bay-Hill
Site Category: Proposed Design 1
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Bay Avenue														
3	L2	59	2.0	67	2.0	0.461	8.1	LOS A	3.0	75.7	0.47	0.31	0.47	23.4
8	T1	392	2.0	445	2.0	0.461	8.1	LOS A	3.0	75.7	0.47	0.31	0.47	23.2
18	R2	11	2.0	13	2.0	0.461	8.1	LOS A	3.0	75.7	0.47	0.31	0.47	22.7
Approach		462	2.0	525	2.0	0.461	8.1	LOS A	3.0	75.7	0.47	0.31	0.47	23.2
East: Hill Street														
1	L2	6	2.0	7	2.0	0.260	7.8	LOS A	1.1	28.9	0.62	0.61	0.62	23.5
6	T1	38	2.0	43	2.0	0.260	7.8	LOS A	1.1	28.9	0.62	0.61	0.62	23.3
16	R2	127	2.0	144	2.0	0.260	7.8	LOS A	1.1	28.9	0.62	0.61	0.62	22.8
Approach		171	2.0	194	2.0	0.260	7.8	LOS A	1.1	28.9	0.62	0.61	0.62	22.9
North: Bay Avenue														
7	L2	76	2.0	86	2.0	0.412	7.2	LOS A	2.6	65.8	0.38	0.22	0.38	23.6
4	T1	329	2.0	374	2.0	0.412	7.2	LOS A	2.6	65.8	0.38	0.22	0.38	23.4
14	R2	29	2.0	33	2.0	0.412	7.2	LOS A	2.6	65.8	0.38	0.22	0.38	22.9
Approach		434	2.0	493	2.0	0.412	7.2	LOS A	2.6	65.8	0.38	0.22	0.38	23.4
West: Hill Street														
5	L2	51	2.0	58	2.0	0.134	5.7	LOS A	0.6	14.1	0.53	0.46	0.53	23.6
2	T1	17	2.0	19	2.0	0.134	5.7	LOS A	0.6	14.1	0.53	0.46	0.53	23.3
12	R2	30	2.0	34	2.0	0.134	5.7	LOS A	0.6	14.1	0.53	0.46	0.53	22.9
Approach		98	2.0	111	2.0	0.134	5.7	LOS A	0.6	14.1	0.53	0.46	0.53	23.3
All Vehicles		1165	2.0	1324	2.0	0.461	7.5	LOS A	3.0	75.7	0.46	0.33	0.46	23.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

QUEUE ANALYSIS

Site: 1 [EXAM (Site Folder: General)]

Bay-Hill
Site Category: Proposed Design 1
Roundabout

Lane Queues (Distance)

Lane Number	Contin. Lane	Deg. Satn	Prog. Factor (Queue)	Overflow Queue (ft)	Back of Queue (ft)		Queue at Start of Green (ft)		Cycle Average Queue (ft)		Queue Storage Ratio		Prob. Block.	Prob. SL Ov.	Ov. Lane No.
		v/c			Av.	95%	Av.	95%	Av.	95%	Av.	95%	%	%	
South: Bay Avenue															
Lane 1		0.461	1.000	0.0	30.5	75.7	NA	NA	30.1	54.6	0.02	0.05	0.0	NA	NA
Approach		0.461			30.5	75.7	NA	NA	30.1	54.6	0.02	0.05			
East: Hill Street															
Lane 1		0.260	1.000	0.0	11.6	28.9	NA	NA	10.7	19.4	0.01	0.02	0.0	NA	NA
Approach		0.260			11.6	28.9	NA	NA	10.7	19.4	0.01	0.02			
North: Bay Avenue															
Lane 1		0.412	1.000	0.0	26.5	65.8	NA	NA	24.9	45.2	0.02	0.04	0.0	NA	NA
Approach		0.412			26.5	65.8	NA	NA	24.9	45.2	0.02	0.04			
West: Hill Street															
Lane 1		0.134	1.000	0.0	5.7	14.1	NA	NA	4.5	8.1	0.00	0.01	0.0	NA	NA
Approach		0.134			5.7	14.1	NA	NA	4.5	8.1	0.00	0.01			
Intersection		0.461			30.5	75.7	NA	NA	30.1	54.6	0.02	0.05			

Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.

Lane Queues (Vehicles)

Lane Number	Contin. Lane	Deg. Satn	Prog. Factor (Queue)	Overflow Queue (veh)	Back of Queue (veh)		Queue at Start of Green (veh)		Cycle Average Queue (veh)		Queue Storage Ratio		Prob. Block.	Prob. SL Ov.	Ov. Lane No.
		v/c			Av.	95%	Av.	95%	Av.	95%	Av.	95%	%	%	
South: Bay Avenue															
Lane 1		0.461	1.000	0.0	1.2	3.0	NA	NA	1.2	2.2	0.02	0.05	0.0	NA	NA
Approach		0.461			1.2	3.0	NA	NA	1.2	2.2	0.02	0.05			
East: Hill Street															
Lane 1		0.260	1.000	0.0	0.5	1.1	NA	NA	0.4	0.8	0.01	0.02	0.0	NA	NA
Approach		0.260			0.5	1.1	NA	NA	0.4	0.8	0.01	0.02			
North: Bay Avenue															
Lane 1		0.412	1.000	0.0	1.0	2.6	NA	NA	1.0	1.8	0.02	0.04	0.0	NA	NA
Approach		0.412			1.0	2.6	NA	NA	1.0	1.8	0.02	0.04			
West: Hill Street															
Lane 1		0.134	1.000	0.0	0.2	0.6	NA	NA	0.2	0.3	0.00	0.01	0.0	NA	NA
Approach		0.134			0.2	0.6	NA	NA	0.2	0.3	0.00	0.01			
Intersection		0.461			1.2	3.0	NA	NA	1.2	2.2	0.02	0.05			

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

Continuous Lane Performance												
Lane Number	Deg. Satn v/c	Unint. Speed mph	Unint. Travel Delay sec	Hdwy sec	Spacing ft	Aver. Vehicle Length ft	Occup. Time sec	Space Time sec	Space Occup. Ratio %	Time Occup. Ratio %	Density veh/mi	Density pc/mi	LOS (Density Method)
South: Bay Avenue													
This approach does not have any continuous lanes													
East: Hill Street													
This approach does not have any continuous lanes													
North: Bay Avenue													
This approach does not have any continuous lanes													
West: Hill Street													
This approach does not have any continuous lanes													

Midblock Effective Detection Zone Length = 7 ft

MOVEMENT SUMMARY

Site: 1 [EX-Midday (Site Folder: General)]

Bay-Hill
Site Category: Proposed Design 1
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Bay Avenue														
3	L2	60	1.0	67	1.0	0.523	9.9	LOS A	3.7	94.1	0.62	0.53	0.66	23.0
8	T1	402	1.0	447	1.0	0.523	9.9	LOS A	3.7	94.1	0.62	0.53	0.66	22.8
18	R2	23	1.0	26	1.0	0.523	9.9	LOS A	3.7	94.1	0.62	0.53	0.66	22.3
Approach		485	1.0	539	1.0	0.523	9.9	LOS A	3.7	94.1	0.62	0.53	0.66	22.8
East: Hill Street														
1	L2	15	1.0	17	1.0	0.217	7.3	LOS A	0.9	23.3	0.61	0.60	0.61	23.5
6	T1	25	1.0	28	1.0	0.217	7.3	LOS A	0.9	23.3	0.61	0.60	0.61	23.3
16	R2	104	1.0	116	1.0	0.217	7.3	LOS A	0.9	23.3	0.61	0.60	0.61	22.8
Approach		144	1.0	160	1.0	0.217	7.3	LOS A	0.9	23.3	0.61	0.60	0.61	23.0
North: Bay Avenue														
7	L2	124	1.0	138	1.0	0.580	9.9	LOS A	4.8	122.0	0.48	0.28	0.48	22.9
4	T1	458	1.0	509	1.0	0.580	9.9	LOS A	4.8	122.0	0.48	0.28	0.48	22.7
14	R2	53	1.0	59	1.0	0.580	9.9	LOS A	4.8	122.0	0.48	0.28	0.48	22.3
Approach		635	1.0	706	1.0	0.580	9.9	LOS A	4.8	122.0	0.48	0.28	0.48	22.7
West: Hill Street														
5	L2	75	1.0	83	1.0	0.303	9.0	LOS A	1.3	33.6	0.66	0.66	0.66	22.9
2	T1	45	1.0	50	1.0	0.303	9.0	LOS A	1.3	33.6	0.66	0.66	0.66	22.7
12	R2	68	1.0	76	1.0	0.303	9.0	LOS A	1.3	33.6	0.66	0.66	0.66	22.2
Approach		188	1.0	209	1.0	0.303	9.0	LOS A	1.3	33.6	0.66	0.66	0.66	22.6
All Vehicles		1452	1.0	1613	1.0	0.580	9.5	LOS A	4.8	122.0	0.56	0.45	0.58	22.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

QUEUE ANALYSIS

Site: 1 [EX-Midday (Site Folder: General)]

Bay-Hill
Site Category: Proposed Design 1
Roundabout

Lane Queues (Distance)

Lane Number	Contin. Lane	Deg. Satn	Prog. Factor (Queue)	Overflow Queue (ft)	Back of Queue (ft)		Queue at Start of Green (ft)		Cycle Average Queue (ft)		Queue Storage Ratio		Prob. Block.	Prob. SL Ov.	Ov. Lane No.
		v/c			Av.	95%	Av.	95%	Av.	95%	Av.	95%	%	%	
South: Bay Avenue															
Lane 1		0.523	1.000	2.1	37.9	94.1	NA	NA	37.3	67.7	0.02	0.06	0.0	NA	NA
Approach		0.523			37.9	94.1	NA	NA	37.3	67.7	0.02	0.06			
East: Hill Street															
Lane 1		0.217	1.000	0.0	9.4	23.3	NA	NA	8.2	14.9	0.01	0.01	0.0	NA	NA
Approach		0.217			9.4	23.3	NA	NA	8.2	14.9	0.01	0.01			
North: Bay Avenue															
Lane 1		0.580	1.000	0.0	49.1	122.0	NA	NA	48.7	88.3	0.03	0.08	0.0	NA	NA
Approach		0.580			49.1	122.0	NA	NA	48.7	88.3	0.03	0.08			
West: Hill Street															
Lane 1		0.303	1.000	0.0	13.5	33.6	NA	NA	13.2	23.9	0.01	0.02	0.0	NA	NA
Approach		0.303			13.5	33.6	NA	NA	13.2	23.9	0.01	0.02			
Intersection		0.580			49.1	122.0	NA	NA	48.7	88.3	0.03	0.08			

Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.

Lane Queues (Vehicles)

Lane Number	Contin. Lane	Deg. Satn	Prog. Factor (Queue)	Overflow Queue (veh)	Back of Queue (veh)		Queue at Start of Green (veh)		Cycle Average Queue (veh)		Queue Storage Ratio		Prob. Block.	Prob. SL Ov.	Ov. Lane No.
		v/c			Av.	95%	Av.	95%	Av.	95%	Av.	95%	%	%	
South: Bay Avenue															
Lane 1		0.523	1.000	0.1	1.5	3.7	NA	NA	1.5	2.7	0.02	0.06	0.0	NA	NA
Approach		0.523			1.5	3.7	NA	NA	1.5	2.7	0.02	0.06			
East: Hill Street															
Lane 1		0.217	1.000	0.0	0.4	0.9	NA	NA	0.3	0.6	0.01	0.01	0.0	NA	NA
Approach		0.217			0.4	0.9	NA	NA	0.3	0.6	0.01	0.01			
North: Bay Avenue															
Lane 1		0.580	1.000	0.0	1.9	4.8	NA	NA	1.9	3.5	0.03	0.08	0.0	NA	NA
Approach		0.580			1.9	4.8	NA	NA	1.9	3.5	0.03	0.08			
West: Hill Street															
Lane 1		0.303	1.000	0.0	0.5	1.3	NA	NA	0.5	0.9	0.01	0.02	0.0	NA	NA
Approach		0.303			0.5	1.3	NA	NA	0.5	0.9	0.01	0.02			
Intersection		0.580			1.9	4.8	NA	NA	1.9	3.5	0.03	0.08			

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

Continuous Lane Performance

Lane Number	Deg. Satn v/c	Unint. Speed mph	Unint. Travel Delay sec	Hdwy sec	Spacing ft	Aver. Vehicle Length ft	Occup. Time sec	Space Time sec	Space Occup. Ratio %	Time Occup. Ratio %	Density veh/mi	Density pc/mi	LOS (Density Method)
South: Bay Avenue													
This approach does not have any continuous lanes													
East: Hill Street													
This approach does not have any continuous lanes													
North: Bay Avenue													
This approach does not have any continuous lanes													
West: Hill Street													
This approach does not have any continuous lanes													

Midblock Effective Detection Zone Length = 7 ft

MOVEMENT SUMMARY

Site: 1 [EXPM (Site Folder: General)]

Bay-Hill
Site Category: Proposed Design 1
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Bay Avenue														
3	L2	86	1.0	88	1.0	0.389	7.7	LOS A	2.2	54.6	0.54	0.43	0.54	23.4
8	T1	290	1.0	296	1.0	0.389	7.7	LOS A	2.2	54.6	0.54	0.43	0.54	23.2
18	R2	13	1.0	13	1.0	0.389	7.7	LOS A	2.2	54.6	0.54	0.43	0.54	22.7
Approach		389	1.0	397	1.0	0.389	7.7	LOS A	2.2	54.6	0.54	0.43	0.54	23.2
East: Hill Street														
1	L2	22	1.0	22	1.0	0.174	6.1	LOS A	0.8	18.9	0.55	0.49	0.55	23.8
6	T1	45	1.0	46	1.0	0.174	6.1	LOS A	0.8	18.9	0.55	0.49	0.55	23.6
16	R2	76	1.0	78	1.0	0.174	6.1	LOS A	0.8	18.9	0.55	0.49	0.55	23.1
Approach		143	1.0	146	1.0	0.174	6.1	LOS A	0.8	18.9	0.55	0.49	0.55	23.4
North: Bay Avenue														
7	L2	142	1.0	145	1.0	0.555	9.7	LOS A	4.2	106.4	0.53	0.35	0.53	23.0
4	T1	438	1.0	447	1.0	0.555	9.7	LOS A	4.2	106.4	0.53	0.35	0.53	22.7
14	R2	52	1.0	53	1.0	0.555	9.7	LOS A	4.2	106.4	0.53	0.35	0.53	22.3
Approach		632	1.0	645	1.0	0.555	9.7	LOS A	4.2	106.4	0.53	0.35	0.53	22.7
West: Hill Street														
5	L2	89	1.0	91	1.0	0.298	8.6	LOS A	1.3	33.6	0.65	0.65	0.65	23.0
2	T1	44	1.0	45	1.0	0.298	8.6	LOS A	1.3	33.6	0.65	0.65	0.65	22.7
12	R2	79	1.0	81	1.0	0.298	8.6	LOS A	1.3	33.6	0.65	0.65	0.65	22.3
Approach		212	1.0	216	1.0	0.298	8.6	LOS A	1.3	33.6	0.65	0.65	0.65	22.7
All Vehicles		1376	1.0	1404	1.0	0.555	8.6	LOS A	4.2	106.4	0.55	0.43	0.55	22.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

QUEUE ANALYSIS

Site: 1 [EXPM (Site Folder: General)]

Bay-Hill
Site Category: Proposed Design 1
Roundabout

Lane Queues (Distance)

Lane Number	Contin. Lane	Deg. Satn	Prog. Factor (Queue)	Overflow Queue (ft)	Back of Queue (ft)		Queue at Start of Green (ft)		Cycle Average Queue (ft)		Queue Storage Ratio		Prob. Block.	Prob. SL Ov.	Ov. Lane No.
		v/c			Av.	95%	Av.	95%	Av.	95%	Av.	95%	%	%	
South: Bay Avenue															
Lane 1		0.389	1.000	0.0	22.0	54.6	NA	NA	21.4	38.8	0.01	0.03	0.0	NA	NA
Approach		0.389			22.0	54.6	NA	NA	21.4	38.8	0.01	0.03			
East: Hill Street															
Lane 1		0.174	1.000	0.0	7.6	18.9	NA	NA	6.2	11.3	0.00	0.01	0.0	NA	NA
Approach		0.174			7.6	18.9	NA	NA	6.2	11.3	0.00	0.01			
North: Bay Avenue															
Lane 1		0.555	1.000	0.0	42.8	106.4	NA	NA	43.7	79.3	0.03	0.07	0.0	NA	NA
Approach		0.555			42.8	106.4	NA	NA	43.7	79.3	0.03	0.07			
West: Hill Street															
Lane 1		0.298	1.000	0.0	13.5	33.6	NA	NA	13.0	23.5	0.01	0.02	0.0	NA	NA
Approach		0.298			13.5	33.6	NA	NA	13.0	23.5	0.01	0.02			
Intersection		0.555			42.8	106.4	NA	NA	43.7	79.3	0.03	0.07			

Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.

Lane Queues (Vehicles)

Lane Number	Contin. Lane	Deg. Satn	Prog. Factor (Queue)	Overflow Queue (veh)	Back of Queue (veh)		Queue at Start of Green (veh)		Cycle Average Queue (veh)		Queue Storage Ratio		Prob. Block.	Prob. SL Ov.	Ov. Lane No.
		v/c			Av.	95%	Av.	95%	Av.	95%	Av.	95%	%	%	
South: Bay Avenue															
Lane 1		0.389	1.000	0.0	0.9	2.2	NA	NA	0.8	1.5	0.01	0.03	0.0	NA	NA
Approach		0.389			0.9	2.2	NA	NA	0.8	1.5	0.01	0.03			
East: Hill Street															
Lane 1		0.174	1.000	0.0	0.3	0.8	NA	NA	0.2	0.4	0.00	0.01	0.0	NA	NA
Approach		0.174			0.3	0.8	NA	NA	0.2	0.4	0.00	0.01			
North: Bay Avenue															
Lane 1		0.555	1.000	0.0	1.7	4.2	NA	NA	1.7	3.1	0.03	0.07	0.0	NA	NA
Approach		0.555			1.7	4.2	NA	NA	1.7	3.1	0.03	0.07			
West: Hill Street															
Lane 1		0.298	1.000	0.0	0.5	1.3	NA	NA	0.5	0.9	0.01	0.02	0.0	NA	NA
Approach		0.298			0.5	1.3	NA	NA	0.5	0.9	0.01	0.02			
Intersection		0.555			1.7	4.2	NA	NA	1.7	3.1	0.03	0.07			

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

Continuous Lane Performance												
Lane Number	Deg. Satn v/c	Unint. Speed mph	Unint. Travel Delay sec	Hdwy sec	Spacing ft	Aver. Vehicle Length ft	Occup. Time sec	Space Time sec	Space Occup. Ratio %	Time Occup. Ratio %	Density veh/mi	Density pc/mi	LOS (Density Method)
South: Bay Avenue													
This approach does not have any continuous lanes													
East: Hill Street													
This approach does not have any continuous lanes													
North: Bay Avenue													
This approach does not have any continuous lanes													
West: Hill Street													
This approach does not have any continuous lanes													

Midblock Effective Detection Zone Length = 7 ft

Attachment D – Synchro Queuing Results

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	192	66	263	75	76	496	496
Average Queue (ft)	48	26	195	23	27	158	296
95th Queue (ft)	106	52	287	58	66	418	487
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			8			1	2
Queuing Penalty (veh)			23			0	0
Storage Bay Dist (ft)	180						
Storage Blk Time (%)	1						
Queuing Penalty (veh)	2						

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	376	85	272	321	159	117	78
Average Queue (ft)	122	227	57	141	165	91	64	37
95th Queue (ft)	217	386	112	243	288	136	104	74
Link Distance (ft)				662	662	235	235	235
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	2	53	1					
Queuing Penalty (veh)	8	153	4					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	89	70	116	83	86	120	79	205	123
Average Queue (ft)	36	14	53	31	37	43	44	91	33
95th Queue (ft)	78	44	84	61	72	80	74	175	82
Link Distance (ft)	95		348		313	313		662	662
Upstream Blk Time (%)	0								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)		45		60			55		
Storage Blk Time (%)	5	0		1	1		6	12	
Queuing Penalty (veh)	1	0		3	1		10	10	

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	127	94	205	65	28	92
Average Queue (ft)	58	23	70	32	10	47
95th Queue (ft)	109	83	140	52	31	80
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	5	0	29	1		
Queuing Penalty (veh)	4	0	6	0		

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	95	58	55	88
Average Queue (ft)	39	34	35	53
95th Queue (ft)	71	52	50	81
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 225

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	133	84	246	73	73	533	520
Average Queue (ft)	71	35	137	25	26	408	459
95th Queue (ft)	115	66	235	58	59	692	601
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			1			51	62
Queuing Penalty (veh)			2			0	0
Storage Bay Dist (ft)	180						
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	347	85	293	354	246	160	133
Average Queue (ft)	102	244	72	132	188	124	92	61
95th Queue (ft)	217	402	121	222	307	227	141	99
Link Distance (ft)				662	662	235	235	235
Upstream Blk Time (%)						1		
Queuing Penalty (veh)						4		
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	0	62	1					
Queuing Penalty (veh)	0	153	5					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	135	70	76	84	90	120	80	336	275
Average Queue (ft)	57	41	46	38	47	56	63	154	72
95th Queue (ft)	98	83	76	71	86	100	97	250	182
Link Distance (ft)	95		348		313	313		662	662
Upstream Blk Time (%)	1								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)		45		60			55		
Storage Blk Time (%)	14	1		1	3		16	27	
Queuing Penalty (veh)	9	1		2	2		36	33	

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	650	95	405	173	80	150
Average Queue (ft)	258	73	178	73	16	58
95th Queue (ft)	544	135	354	130	59	111
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	56	0	66	18	0	
Queuing Penalty (veh)	77	2	11	3	0	

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	74	55	74	75
Average Queue (ft)	49	28	34	44
95th Queue (ft)	68	49	54	69
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 340

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	161	123	245	68	73	405	451
Average Queue (ft)	60	44	157	20	24	139	240
95th Queue (ft)	119	80	248	55	61	337	444
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			5				
Queuing Penalty (veh)			10				
Storage Bay Dist (ft)	180						
Storage Blk Time (%)	0						
Queuing Penalty (veh)	0						

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	358	85	205	256	242	146	120
Average Queue (ft)	132	332	84	94	158	139	82	47
95th Queue (ft)	238	375	88	144	232	200	127	85
Link Distance (ft)				662	662	235	235	235
Upstream Blk Time (%)						1		
Queuing Penalty (veh)						2		
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	0	77	1					
Queuing Penalty (veh)	0	195	6					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	100	70	118	75	76	107	80	242	216
Average Queue (ft)	54	37	49	40	30	52	64	119	54
95th Queue (ft)	90	74	89	73	61	84	92	204	143
Link Distance (ft)	95		348		313	313		662	662
Upstream Blk Time (%)	0								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)		45		60			55		
Storage Blk Time (%)	11	1		3	1		20	21	
Queuing Penalty (veh)	9	2		4	1		44	33	

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	304	95	115	107	49	86
Average Queue (ft)	81	26	41	44	18	42
95th Queue (ft)	186	79	88	83	42	73
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	12	0	14	5	0	
Queuing Penalty (veh)	15	0	2	1	0	

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	76	56	56	72
Average Queue (ft)	50	34	36	41
95th Queue (ft)	69	48	51	62
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 324

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	109	96	248	51	78	496	496
Average Queue (ft)	43	43	171	28	31	237	352
95th Queue (ft)	81	76	273	56	70	534	573
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			7			4	11
Queuing Penalty (veh)			22			0	0
Storage Bay Dist (ft)	180						
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	339	85	268	339	200	128	80
Average Queue (ft)	101	183	57	115	177	90	73	23
95th Queue (ft)	200	292	115	219	300	149	116	54
Link Distance (ft)				448	448	235	235	235
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	0	49	1					
Queuing Penalty (veh)	0	140	3					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	54	97	98	86
Average Queue (ft)	18	30	31	31
95th Queue (ft)	49	65	79	82
Link Distance (ft)	88	342	300	143
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	73	90	308	68	28	134
Average Queue (ft)	40	12	107	31	14	70
95th Queue (ft)	77	52	228	58	36	115
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	1	0	46	1		
Queuing Penalty (veh)	1	0	10	0		

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	78	54	67	139
Average Queue (ft)	39	37	37	55
95th Queue (ft)	63	54	59	91
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 177

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	134	110	246	26	29	496	496
Average Queue (ft)	67	52	171	8	2	359	423
95th Queue (ft)	118	95	252	28	14	602	604
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			1			11	23
Queuing Penalty (veh)			3			0	0
Storage Bay Dist (ft)	180						
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	339	85	242	308	261	183	83
Average Queue (ft)	110	270	59	117	185	168	72	13
95th Queue (ft)	216	386	119	202	271	239	126	47
Link Distance (ft)				448	448	235	235	235
Upstream Blk Time (%)						1		
Queuing Penalty (veh)						3		
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	0	59	0					
Queuing Penalty (veh)	0	145	1					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	109	54	119	210
Average Queue (ft)	40	25	51	56
95th Queue (ft)	87	57	97	150
Link Distance (ft)	88	342	300	143
Upstream Blk Time (%)	1			2
Queuing Penalty (veh)	0			12
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	328	95	281	174	80	152
Average Queue (ft)	112	41	108	65	15	65
95th Queue (ft)	260	112	227	135	45	121
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	28	0	49	15		
Queuing Penalty (veh)	37	1	8	3		

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	57	32	57	55
Average Queue (ft)	42	23	35	39
95th Queue (ft)	61	46	55	56
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 214

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	TR
Maximum Queue (ft)	134	124	244	26	315	361
Average Queue (ft)	54	49	149	3	114	224
95th Queue (ft)	111	92	230	16	243	355
Link Distance (ft)			235	235	481	481
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			1			
Storage Bay Dist (ft)	180					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	339	85	217	303	226	161	138
Average Queue (ft)	120	339	63	96	164	155	75	24
95th Queue (ft)	237	339	118	189	264	211	135	75
Link Distance (ft)				448	448	235	235	235
Upstream Blk Time (%)						0		
Queuing Penalty (veh)						0		
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)		73	6					
Queuing Penalty (veh)		185	28					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	WB	NB	SB	B9
Directions Served	LTR	LTR	LTR	LTR	T
Maximum Queue (ft)	78	77	98	214	76
Average Queue (ft)	37	26	42	99	4
95th Queue (ft)	67	56	82	206	31
Link Distance (ft)	88	342	300	143	448
Upstream Blk Time (%)	0			4	
Queuing Penalty (veh)	0			30	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	166	95	208	85	52	66
Average Queue (ft)	58	21	70	42	20	34
95th Queue (ft)	123	77	146	70	47	59
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	8	0	28	2	0	
Queuing Penalty (veh)	11	0	3	1	0	

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	73	55	56	56
Average Queue (ft)	41	30	37	40
95th Queue (ft)	64	45	53	60
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 259

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	175	81	239	69	88	489	496
Average Queue (ft)	53	32	176	24	31	106	210
95th Queue (ft)	124	58	252	57	78	296	381
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			3			0	1
Queuing Penalty (veh)			10			0	0
Storage Bay Dist (ft)	180						
Storage Blk Time (%)	1						
Queuing Penalty (veh)	1						

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	376	85	352	368	179	122	112
Average Queue (ft)	116	237	61	101	172	103	75	32
95th Queue (ft)	198	408	117	212	317	166	103	88
Link Distance (ft)				412	412	235	235	235
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	0	59	2					
Queuing Penalty (veh)	1	172	8					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	75	70	55	84	178	80	166
Average Queue (ft)	32	26	46	26	64	36	78
95th Queue (ft)	54	54	63	59	116	77	131
Link Distance (ft)	107		361		312		192
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		45		60		55	
Storage Blk Time (%)	2	1		0	6	0	14
Queuing Penalty (veh)	1	0		0	4	0	12

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	149	32	395	68	28	101
Average Queue (ft)	41	3	121	34	8	54
95th Queue (ft)	88	16	291	59	28	91
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	2		46	1		
Queuing Penalty (veh)	2		10	0		

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	68	56	55	90
Average Queue (ft)	31	32	36	52
95th Queue (ft)	52	48	55	77
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 221

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	136	82	254	68	72	515	496
Average Queue (ft)	69	41	146	31	36	376	430
95th Queue (ft)	115	69	231	59	71	620	596
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			2			17	27
Queuing Penalty (veh)			5			0	0
Storage Bay Dist (ft)	180						
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	376	85	247	237	244	171	125
Average Queue (ft)	156	313	71	100	158	135	104	49
95th Queue (ft)	234	424	116	177	228	214	144	104
Link Distance (ft)				412	412	235	235	235
Upstream Blk Time (%)						1		
Queuing Penalty (veh)						2		
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	2	76	2					
Queuing Penalty (veh)	10	187	10					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	EB	WB	NB	NB	SB	SB	B9
Directions Served	LT	R	LTR	L	TR	L	TR	T
Maximum Queue (ft)	78	70	92	84	204	80	264	89
Average Queue (ft)	48	39	48	30	82	66	138	9
95th Queue (ft)	78	68	78	71	157	100	238	47
Link Distance (ft)	107		361		312		192	412
Upstream Blk Time (%)							4	
Queuing Penalty (veh)							28	
Storage Bay Dist (ft)		45		60		55		
Storage Blk Time (%)	7	2		0	19	2	42	
Queuing Penalty (veh)	4	2		0	12	11	52	

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	504	95	234	172	80	136
Average Queue (ft)	149	48	106	72	14	64
95th Queue (ft)	358	119	197	134	44	115
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	32	0	53	18		
Queuing Penalty (veh)	43	1	9	3		

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	79	56	74	74
Average Queue (ft)	48	30	36	39
95th Queue (ft)	70	57	56	61
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 379

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	92	86	253	74	71	496	496
Average Queue (ft)	55	41	122	20	31	165	273
95th Queue (ft)	93	75	197	52	68	385	480
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			1			1	3
Queuing Penalty (veh)			3			0	0
Storage Bay Dist (ft)	180						
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	358	85	222	240	246	135	99
Average Queue (ft)	131	339	79	96	157	142	99	40
95th Queue (ft)	247	345	112	174	224	220	133	82
Link Distance (ft)				412	412	235	235	235
Upstream Blk Time (%)						1		
Queuing Penalty (veh)						3		
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	0	80	1					
Queuing Penalty (veh)	0	203	3					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	EB	WB	NB	NB	SB	SB	B9
Directions Served	LT	R	LTR	L	TR	L	TR	T
Maximum Queue (ft)	95	70	96	84	129	80	264	151
Average Queue (ft)	45	39	45	29	51	73	154	12
95th Queue (ft)	74	68	74	55	74	95	267	69
Link Distance (ft)	107		361		312		192	412
Upstream Blk Time (%)	0						7	
Queuing Penalty (veh)	0						52	
Storage Bay Dist (ft)		45		60		55		
Storage Blk Time (%)	7	2		0	5	2	40	
Queuing Penalty (veh)	6	2		1	4	11	61	

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	133	95	197	149	80	110
Average Queue (ft)	50	12	54	55	20	43
95th Queue (ft)	97	52	121	107	52	80
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	4	0	20	10	0	
Queuing Penalty (veh)	4	0	2	3	0	

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	55	56	54	88
Average Queue (ft)	38	34	33	47
95th Queue (ft)	55	47	50	75
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 360

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	91	119	252	108	113	496	496
Average Queue (ft)	41	33	176	22	24	215	350
95th Queue (ft)	70	70	275	51	62	491	540
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			10			5	9
Queuing Penalty (veh)			30			0	0
Storage Bay Dist (ft)	180						
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	363	85	301	288	147	130	55
Average Queue (ft)	125	260	68	132	166	88	58	36
95th Queue (ft)	229	412	115	245	272	133	97	59
Link Distance (ft)				662	662	235	235	235
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	0	61	1					
Queuing Penalty (veh)	0	176	7					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	74	55	98	48	66	68	79	121	130
Average Queue (ft)	30	17	46	26	32	38	41	74	36
95th Queue (ft)	54	44	74	43	53	62	81	108	81
Link Distance (ft)	95		348		313	313		662	662
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		45		60			55		
Storage Blk Time (%)	2	0		0	1		1	12	
Queuing Penalty (veh)	1	0		0	0		1	10	

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	112	95	327	70	29	117
Average Queue (ft)	43	12	101	36	11	45
95th Queue (ft)	81	50	241	59	32	78
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	2	0	41	1		
Queuing Penalty (veh)	2	0	9	0		

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	55	79	55	75
Average Queue (ft)	31	34	31	53
95th Queue (ft)	45	54	54	74
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 236

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	154	86	237	67	69	520	520
Average Queue (ft)	69	47	153	35	32	497	497
95th Queue (ft)	123	84	235	62	61	505	504
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			2			68	85
Queuing Penalty (veh)			5			0	0
Storage Bay Dist (ft)	180						
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	339	85	251	326	240	230	124
Average Queue (ft)	85	246	69	115	154	138	94	61
95th Queue (ft)	194	405	118	199	231	224	155	98
Link Distance (ft)				662	662	235	235	235
Upstream Blk Time (%)						0	0	
Queuing Penalty (veh)						0	0	
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	0	57	1					
Queuing Penalty (veh)	0	141	5					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	112	70	74	50	66	106	80	277	125
Average Queue (ft)	44	44	39	25	34	46	69	120	58
95th Queue (ft)	76	68	61	44	60	83	98	191	111
Link Distance (ft)	95		348		313	313		662	662
Upstream Blk Time (%)	0								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)		45		60			55		
Storage Blk Time (%)	6	2		0	1		3	36	
Queuing Penalty (veh)	4	3		0	0		7	44	

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	441	95	703	192	80	157
Average Queue (ft)	208	68	339	70	19	68
95th Queue (ft)	426	137	719	139	58	122
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	59	0	74	20	0	
Queuing Penalty (veh)	80	2	12	4	0	

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	69	56	56	75
Average Queue (ft)	44	29	37	42
95th Queue (ft)	64	52	55	64
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 308

Intersection: 1: Bay Ave & Hwy 1 NB Off-Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	T	T	T	TR
Maximum Queue (ft)	114	90	241	73	73	330	431
Average Queue (ft)	52	48	106	37	33	146	244
95th Queue (ft)	94	79	182	70	69	296	417
Link Distance (ft)			235	235	235	481	481
Upstream Blk Time (%)			1				
Queuing Penalty (veh)			1				
Storage Bay Dist (ft)	180						
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Bay Ave & Hwy 1 SB Off-Ramp

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	LTR	R	T	TR	L	T	T
Maximum Queue (ft)	175	363	85	159	272	221	160	115
Average Queue (ft)	133	332	84	87	158	140	94	58
95th Queue (ft)	245	384	89	143	247	206	136	100
Link Distance (ft)				662	662	235	235	235
Upstream Blk Time (%)						0		
Queuing Penalty (veh)						0		
Storage Bay Dist (ft)	150		60					
Storage Blk Time (%)	0	77	1					
Queuing Penalty (veh)	0	195	7					

Intersection: 3: Bay Ave & Retail Dwy/Hill St

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	78	70	82	51	46	79	80	288	247
Average Queue (ft)	43	34	46	31	26	38	68	129	72
95th Queue (ft)	74	67	72	47	40	67	97	237	168
Link Distance (ft)	95		348		313	313		662	662
Upstream Blk Time (%)	0								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)		45		60			55		
Storage Blk Time (%)	8	1		0	0		5	33	
Queuing Penalty (veh)	6	2		0	0		11	51	

Intersection: 4: Capitola Ave & Bay Ave

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	LT	R	LTR
Maximum Queue (ft)	213	95	136	127	80	86
Average Queue (ft)	67	18	50	55	26	43
95th Queue (ft)	146	76	102	99	56	72
Link Distance (ft)	684		1089	771		981
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		70			55	
Storage Blk Time (%)	15	0	18	6	0	
Queuing Penalty (veh)	18	0	2	1	0	

Intersection: 5: Capitola Ave & Hill St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	55	32	56	73
Average Queue (ft)	35	28	36	43
95th Queue (ft)	49	44	56	63
Link Distance (ft)	516	1007	981	402
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 296