

Memo

Date: July 13, 2026

To: Lydia Tan, Oakland Roots and Soul SC

From: Emily Alice Allhart and Sam Tabibnia, Fehr & Peers

Subject: DRAFT Oakland Roots and Soul Interim Sports Facility Traffic Operations Analysis

This memo summarizes the non-CEQA transportation assessment Fehr & Peers completed for the proposed Oakland Roots and Soul Interim Sports Facility (the Project). The transportation assessment evaluates project travel characteristics, forecasts volumes by mode, intersection operations, and provides recommendations to better serve the increased trips associated with the Project during game days. The analysis is intended to support operational planning for event-day conditions and the City's review of the interim sports facility.

This memorandum includes the following sections:

1. Project Description
2. Project Travel Characteristics
3. Intersection Operations Analysis

1. Project Description

Figure 1 shows the location of the proposed Oakland Roots and Soul Interim Sports Facility and the surrounding study area. The Project is located at the existing Oakland Roots training facility at 1220 Harbor Bay Parkway within the Harbor Bay Business Park in the City of Alameda.

Figure 1. Project Vicinity



Figure 2 shows the Project site plan. The Project consists of an interim outdoor sports facility with a spectator capacity of up to 8,000 attendees. The facility would primarily host Oakland Roots home matches, Oakland Soul matches, and other sporting events including rugby and lacrosse. Existing training facility operations would continue onsite.

Figure 2. Project Site Plan



The facility is anticipated to host approximately up to 24 Oakland Roots home and exhibition matches each season, primarily on Saturday evenings, with occasional weekday evening matches as required by league scheduling. Oakland Soul matches and other sporting events would generally attract lower attendance levels than Oakland Roots matches.

2. Project Travel Characteristics

This section describes the anticipated travel characteristics of attendees and employees traveling to and from the proposed Oakland Roots & Soul Interim Sports Facility. The estimated mode splits, trip generation for vehicles, and trip distribution are discussed below.

Attendee Mode Share

The travel characteristics are based on surveys conducted at previous Oakland Roots home matches held at the Oakland Coliseum (2025), California State University, East Bay (CSUEB) (2023), and

Laney College (2022). The survey results were reviewed and adjusted, as appropriate, to reflect the Project location and proposed operating characteristics. **Table 1** summarizes the resulting mode share forecasts for the Project attendees, back-office employees, and game-time employees.

Table 1. Average Forecast Mode Share to/from the Game

Travel Mode	Wednesday Ticket-Holders	Saturday Ticket-Holders	Employees
Drive Alone/ Carpool	91%	88%	97%
TNC (Uber/Lyft/Taxi)	3%	6%	3%
BART	5%	5%	0%
Walk/Bike	1%	1%	0%
Total	100%	100%	100%

Source: Survey data for games at Laney College (2022), CSUEB (2023), and Coliseum (2025); summarized by Fehr & Peers, 2026.

Attendees’ mode share estimates are based primarily on the CSUEB survey data, as that location has the most comparable level of transit accessibility to the Project site. Like the Project site, CSUEB is not within reasonable walking distance of a Bay Area Rapid Transit (BART) station, resulting in the relatively low BART mode share. These riders will utilize the Project shuttles that will operate between the Coliseum Station, satellite parking facilities, and the Project. Transportation Network Company (TNC) mode share (Uber/Lyft/taxi) was revised to align with Coliseum survey data, given the Coliseum’s proximity to the Project site. Drive-alone and carpool mode shares were adjusted proportionately to account for these changes.

Employee mode share is based primarily on the Coliseum survey data, as that site is geographically closest to the Project and the survey data indicate that no employees travel to the Coliseum by BART regardless of game location. The same BART and proportionate drive-alone/carpool adjustments described above were applied. Back-office and game-time employee mode share forecasts are assumed to be similar for Wednesday and Saturday games, as employees are likely traveling from consistent origins regardless of game day. This assumption does not apply to attendees whose trip origins may differ between weekday and weekend games.

Table 2 summarizes the estimated automobile vehicle occupancy (AVO) for attendees and employees. Coliseum survey data serve as the primary basis for AVO estimates, as the Coliseum is the closest surveyed venue to the Project site and visitor origins are therefore likely to be most similar, making it the most relevant benchmark for carpooling behavior.

Table 2. Average Automobile Vehicle Occupancy (AVO) Forecast

	Wednesday Attendees	Saturday Attendees	Back-office Employees	Game-time Employees
Drive-Alone/ Carpool	2.1	2.7	1.3	1.4
Rideshare	2.4	1.9	1.0	–

Source: Surveys at games at Laney College (2022), CSUEB (2023), and Coliseum (2025); summarized by Fehr & Peers, 2026.

For Saturday attendees’ trips, carpool vehicle occupancy is assumed consistent with the Coliseum survey. Adjusting for the Project’s forecast drive-alone and carpool mode shares yields an average of 2.7 people per vehicle. Rideshare (Uber/Lyft/taxi) vehicle occupancy is also based on the Coliseum survey.

Based on data provided by the Roots and summarized in **Table 3**, about 300 staff and vendors, including players for both the home and visiting teams, would be expected at the facility on gamedays with maximum attendance. The gameday staff and vendors are estimated to have a 97 percent drive alone mode share.

Table 3. Game Day Staff and Vendors

Staff Type	Population
Security	60
Concessions/Merchandise Sales	94
Roots/Soul Staff/Support	82
Players/team/Tech/referees	64
Total	300

Source: Oakland Roots; summarized by Fehr & Peers, 2026.

Based on the survey data, the hour with the highest amount of vehicle trips generated is the hour before the start of a game (6:00 to 7:00 PM) when about 65 percent of the attendees are expected to arrive at the site. **Table 4** shows the estimated arrival times for attendees. All attendees are expected to depart within one hour after the game ends. All employees are expected to arrive more than one hour before games start and depart more than one hour after games end.

Table 4. Arrival Times for Attendees

Arrival Time	Drive Alone/ Carpool	TNC	BART	Overall
Arrive more than 1 hour before game	33%	11%	22%	29%
Within 1 hour of game start	59%	85%	75%	65%
After game start	8%	4%	3%	6%
Total	100%	100%	100%	100%

Notes: Based on surveys collected at Coliseum, CSUEB, and Laney College stadium games and accounting for Project location

Source: Fehr & Peers, 2026.

Vehicle Trips Generation

Trip generation is the process of estimating the number of vehicles that would likely access the Project on a day with an event at the facility. Trip generation for Wednesday and Saturday events with maximum attendance is estimated based on the mode split data presented in **Table 1**.

Table 5 summarizes the estimated peak hour trip generation on a gameday for the analysis scenarios. It is estimated that a maximum 8,000 attendance event would generate about 1,490 vehicle trips within 1 hour of game start time on a Wednesday evening and about 2,490 vehicle trips one hour after game end time on a Saturday near the project site. For traffic analysis purposes, these estimates do not include trips related to people parking at the Coliseum Station or other remote locations.

Table 5. Peak Hour (6:00 to 7:00 PM) Vehicle Trip Generation near Harbor Bay Business Park

Game Day	Mode	In	Out	Total
Wednesday (1 hour before)	Attendee Vehicles	1,240	0	1,240
	TNC	85	85	170
	Shuttle	40	40	80
	Total	1,365	125	1,490
Saturday (1 hour after)	Attendee Vehicles	0	1,890	1,890
	TNC	260	260	520
	Shuttle	40	40	80
	Total	300	2,190	2,490

Notes: Total for sold-out game with 8,000 attendees (no employee trips during peak hours), near the project site within Harbor Bay Business Park.

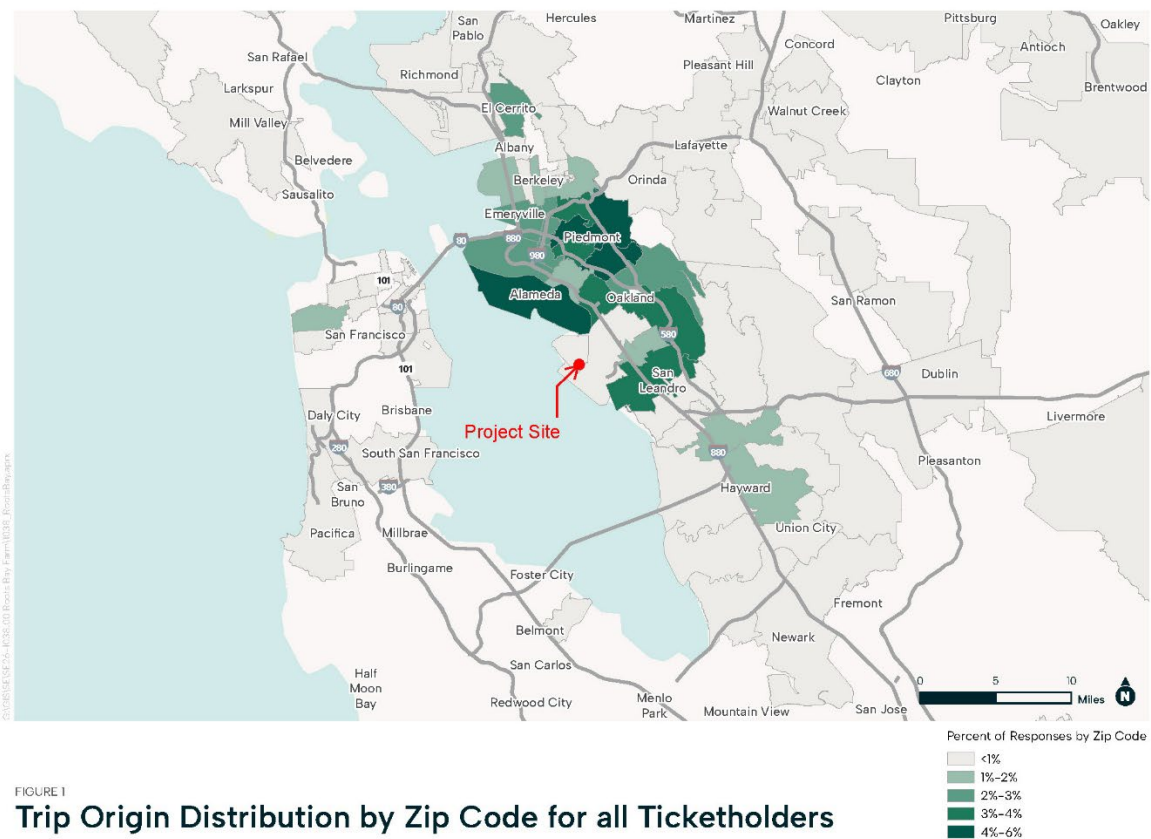
Source: Fehr & Peers, 2026.

It is anticipated that people would prefer to park closest to the venue, so parking near Harbor Bay Business Park would be utilized before remote parking options. If a Wednesday game was capped at 5,000 ticketholders, the Wednesday peak hour vehicle trip generation would similarly be 1,240 total attendee vehicles near Harbor Bay Business Park, with lower parking demand at remote facilities farther from the Project. TNC and shuttle vehicle trip estimates would scale down with the decreased total anticipated attendees.

Trip Distribution

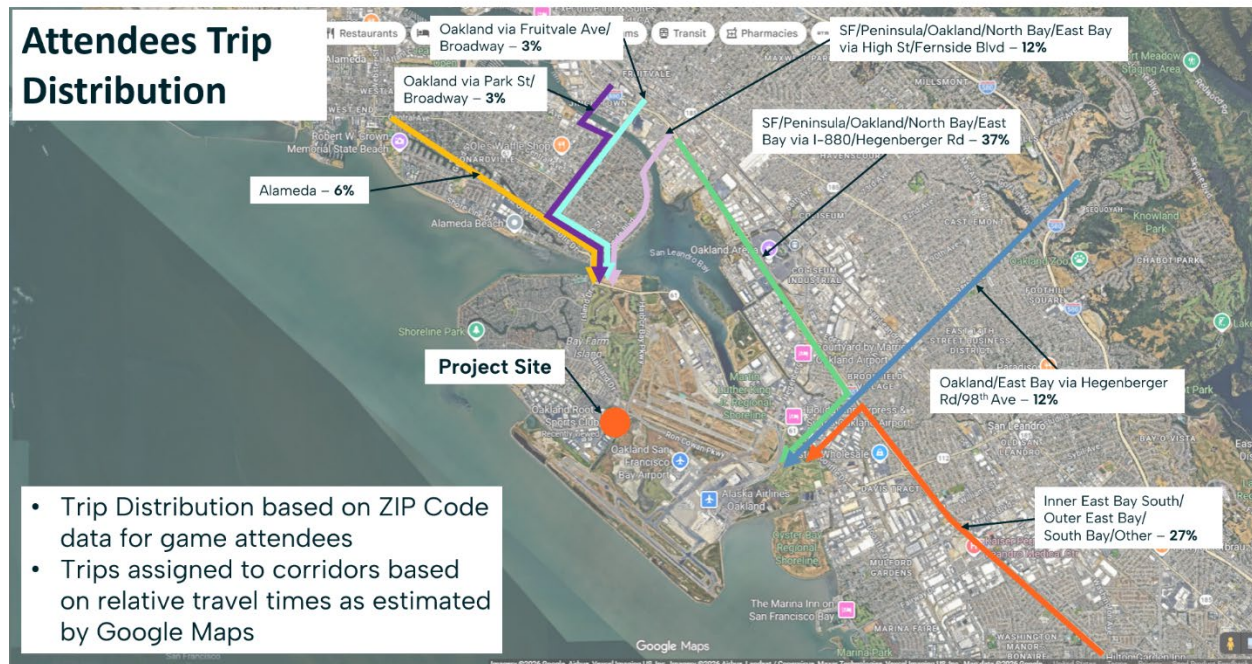
The surveys at the Coliseum site also included ZIP code origin of ticketholders residences. **Figure 3** shows the ZIP Code origin of the ticketholders and **Figure 4** shows the assumed geographic distribution of attendees and travel routes to the Project based on the responses.

Figure 3. Trip Distribution by Zip Code for all Ticketholders



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Figure 4. Attendees Trip Distribution



Source: Fehr & Peers, 2026

The following trip distribution is developed based on the geographic distribution of attendees:

- I-880 from the north = 55%
 - Based on the relative travel times, it is estimated that, without any intervention, about 18% would travel through Alameda via High Street/Bay Farm Bridge and 37% would continue on I-880 to Hegenberger Road.
- I-880 from the south = 27%
- Oakland/East Bay via Hegenberger Road/98th Avenue from the east of Project site = 12%
- Alameda = 6%

3. Intersection Operations

This analysis evaluated intersection operations during the Wednesday and Saturday PM peak hours (the hour with the highest traffic volume between 5:00 and 10:30 PM) at the following six intersections that provide the primary vehicular access to the site and shown in **Figure 5**:

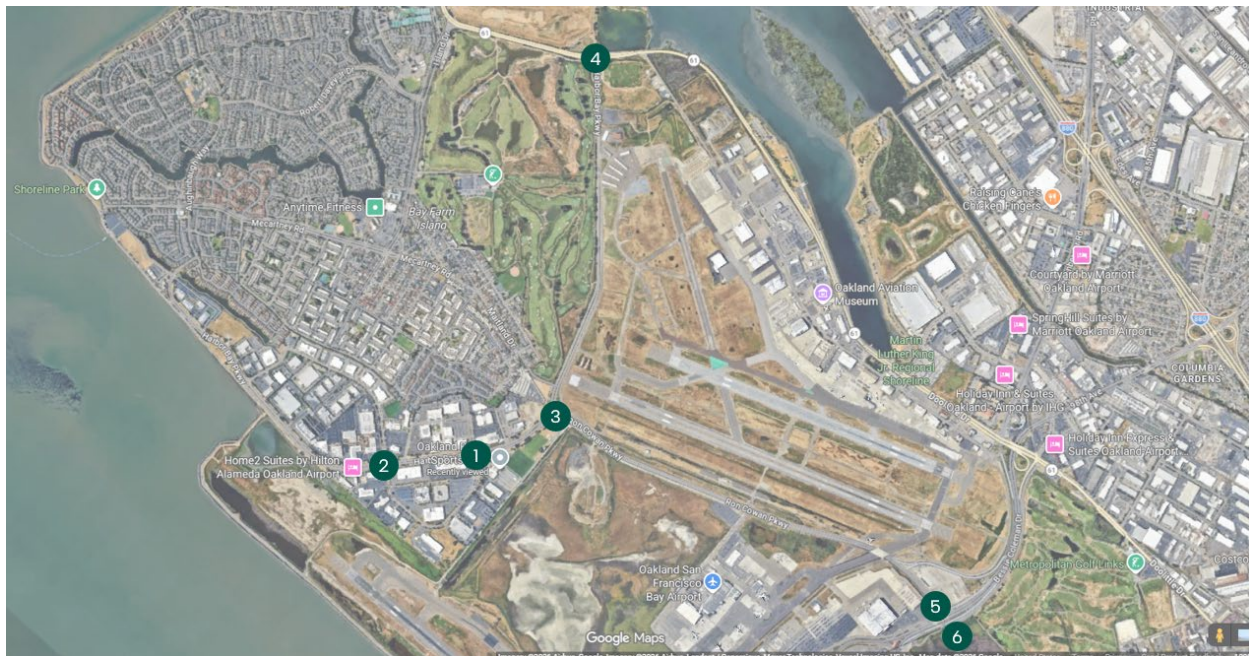
1. South Loop Road/B Street & Harbor Bay Parkway
2. South Loop Road/North Loop Road & Harbor Bay Parkway
3. Ron Cowan Parkway & Harbor Bay Parkway
4. Harbor Bay Parkway & Doolittle Drive (SR 161)
5. Ron Cowan Parkway & John Glenn Drive
6. Ron Cowan Parkway/Neil Armstrong Way & Airport Drive On-Ramp

Analysis Scenarios

For this traffic analysis, a weekday and weekend gameday is evaluated. The most constrained period for the transportation network based on anticipated Project-related traffic was identified as 1 hour before a weekday evening game and 1 hour after a Saturday game ends. The following scenarios were evaluated:

1. Existing Conditions Wednesday PM peak Hour (6 – 7 pm)
2. Existing Conditions Saturday Evening Peak hour (9 – 10 pm)
3. Existing Plus Project – 1 hour before a Wednesday evening game (6–7 pm)
4. Existing Plus Project – 1 hour after a Saturday game end time (approximately 9–10 pm)

Figure 5. Study Intersections



Source: Fehr & Peers, 2026

Intersection operations were evaluated using Highway Capacity Manual (HCM) methodologies to assess operational performance of the study intersections. The HCM method calculates control delay at an intersection based on inputs such as traffic volumes, lane geometry, signal phasing and timing, pedestrian crossing times, and peak hour factors. Control delay is defined as the delay directly associated with the traffic control device (i.e., a traffic signal) and specifically includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. These delay estimates are considered meaningful indicators of driver discomfort and frustration, fuel consumption, and lost travel time. The relationship between LOS and control delay is summarized in **Table 6**. This analysis calculates the average control delay using the Synchro 12 software package and HCM methods.

Table 6. Intersection Level of Service Thresholds

Level of Service	Signalized Intersection Control Delay (sec/veh) ¹	General Description
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A	≤ 10.0	Little to no congestion or delays.
B	> 10.0 and ≤ 20.0	Limited congestion. Short delays.
C	> 20.0 and ≤ 35.0	Some congestion with average delays.
D	> 35.0 and ≤ 55.0	Significant congestion and delays.
E	> 55.0 and ≤ 80.0	Severe congestion and delays.
F	> 80.0	Total breakdown with extreme delays.

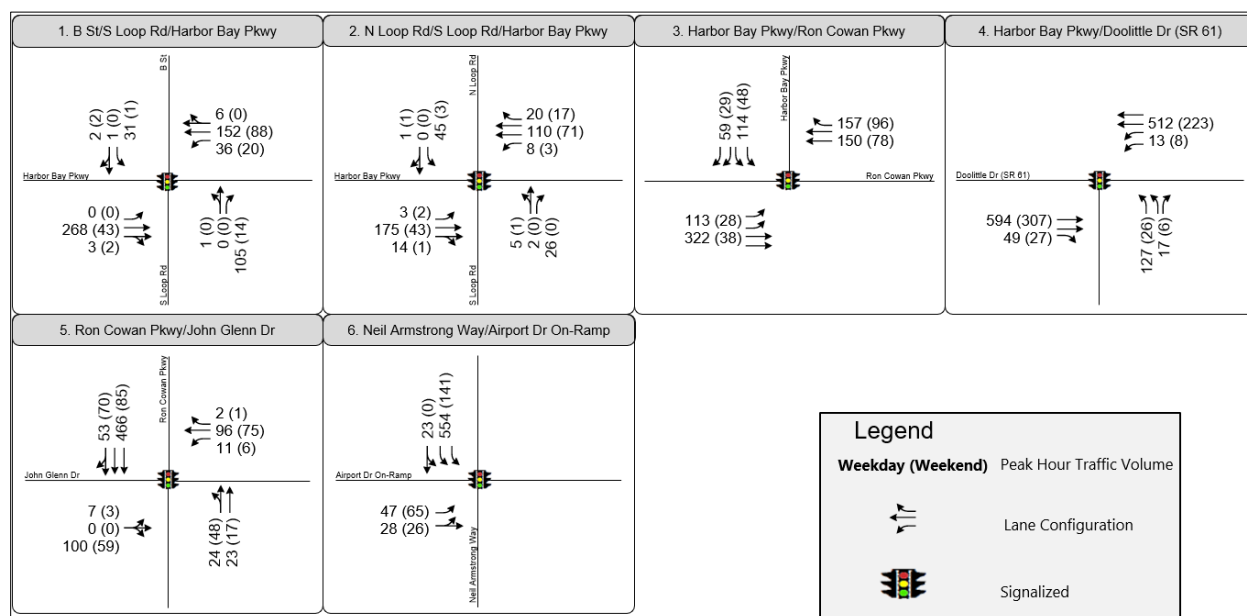
Notes: Control delay includes initial deceleration delay, queue move-up time, stopped delay, and acceleration delay.

Source: Highway Capacity Manual 7th Edition, Chapter 19 (Signalized Intersections), Transportation Research Board, 2022.

Existing Conditions

Vehicle, pedestrian, and bicycle counts were collected in May 2026 at the study intersections during the Wednesday PM peak period from 5:00 PM to 7:00 PM and the Saturday PM peak period from 8:30 PM to 10:30 PM to represent existing (no-event) traffic conditions. These periods were selected because they correspond to the peak trip activity expected for Wednesday pre-event and Saturday post-event conditions and are evaluated under the Existing Plus Project scenarios. **Figure 5** shows the Existing peak hour turning movement counts for the Wednesday analysis period, with corresponding Saturday volumes shown in parentheses.

Figure 6. Existing Peak Hour Intersection Volumes, Lane Configurations, and Traffic Controls



Source: Fehr & Peers, 2026

LOS Analysis

A summary of the analysis results is provided in **Table 7**.

Table 7: Existing Conditions Weekday and Weekend Peak Hour Intersection LOS

Intersection	Wednesday LOS / Delay (s)	Saturday LOS / Delay (s)
1. South Loop Road/B Street & Harbor Bay Parkway	A/10	A/6
2. South Loop Road/North Loop Road & Harbor Bay Parkway	B/11	A/8
3. Ron Cowan Parkway & Harbor Bay Parkway	B/15	B/13
4. Harbor Bay Parkway & Doolittle Drive (SR 161)	B/12	B/11
5. Ron Cowan Parkway & John Glenn Drive	B/17	B/18
6. Ron Cowan Parkway/Neil Armstrong Way & Airport Drive On-Ramp	A/3	A/7

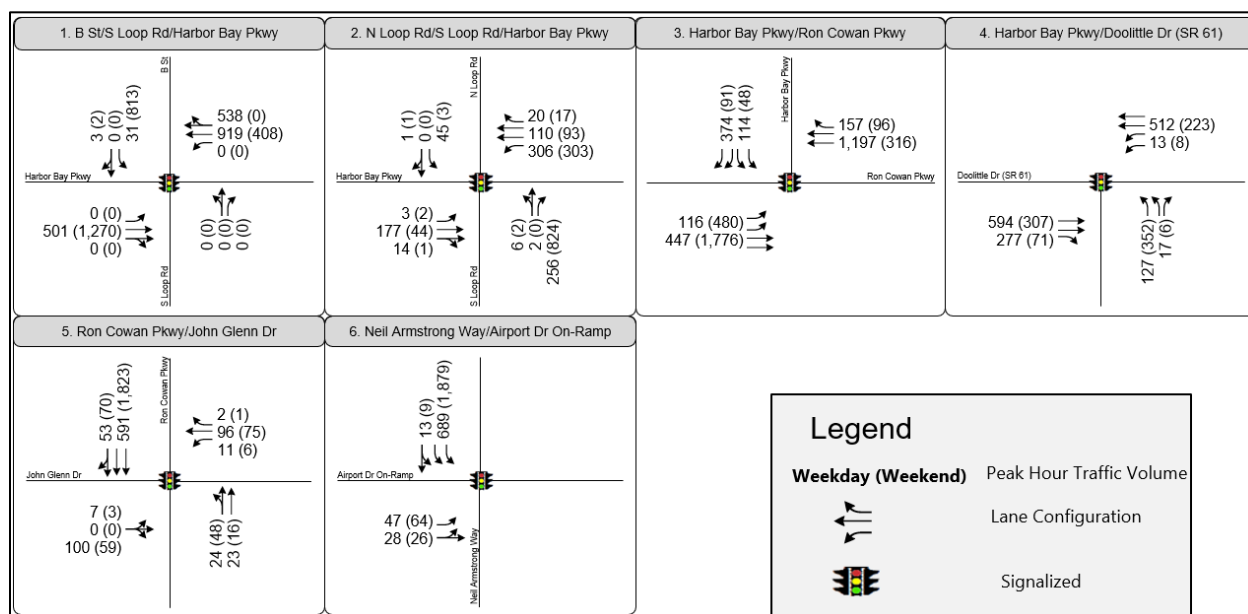
Source: Fehr & Peers, 2026

Under existing conditions, the study intersections operate at LOS A or B during both the weekday and weekend peak hours, with average delays of less than 20 seconds. See **Appendix B. Existing Conditions Synchro Results** for detailed LOS calculations.

Existing Plus Project Conditions

The following section describes the expected traffic operations in the Existing Plus Project conditions at the study intersections. This scenario incorporates the recommended vehicle access and circulation changes documented in the *Draft Oakland Roots and Soul SC Bay Farm Island Site Transportation Management Plan*.

Figure 7. Existing Plus Project Peak Hour Intersection Volumes, Lane Configurations, and Traffic Controls



Source: Fehr & Peers, 2026

LOS Analysis

LOS analysis for the Existing Plus Project condition was performed based on the turning movement volumes shown in **Figure 7**. A summary of the analysis results is provided in **Table 8**. Operations at key intersections are discussed below.

Table 8. Existing Plus Event Conditions Weekday and Weekend Peak Hour Intersection LOS

Intersection	Existing Conditions		Existing Plus Project Conditions	
	Wednesday LOS / Delay (s)	Saturday LOS / Delay (s)	Wednesday LOS / Delay (s)	Saturday LOS / Delay (s)
1. South Loop Road/B Street & Harbor Bay Parkway	A/10	A/6	E/60	F/>180
2. South Loop Road/North Loop Road & Harbor Bay Parkway	B/11	A/8	B/13	B/11
3. Ron Cowan Parkway & Harbor Bay Parkway	B/15	B/13	C/35	E/58
4. Harbor Bay Parkway & Doolittle Drive (SR 161)	B/12	B/11	B/12	B/12
5. Ron Cowan Parkway & John Glenn Drive	B/17	B/18	B/17	B/18
6. Ron Cowan Parkway/Neil Armstrong Way & Airport Drive On-Ramp	A/3	A/7	A/3	A/7

Source: Fehr & Peers, 2026.

South Loop Road/B Street & Harbor Bay Parkway Intersection #1

Under Existing Plus Project conditions, the intersection geometry differs from Existing conditions due to the temporary closure of South Loop Road, which temporarily removes the south approach of the intersection. As a result, all Project traffic traveling to and from the site and other parking lots along South Loop Road would divert to the N/S Loop Road & Harbor Bay Parkway intersection. Thus, the intersection closest to the Project site would experience the greatest increase in project-generated vehicular traffic and pedestrian activity traveling along Harbor Bay Parkway. During the weekday peak hour, additional attendee arrival traffic would increase volumes, especially on the westbound approach, resulting in an approximately 50 second increase in average intersection delay and a change from LOS A to LOS E. During the weekend peak hour, the concentration of post-event departure traffic, especially southbound left-turns from B Street, the eastbound throughs on Harbor Bay Parkway, and pedestrian activity crossing Harbor Bay Parkway, would substantially increase demand at the intersection, degrading the intersection from LOS A to LOS F operation.

To improve operations, temporary traffic management measures should be implemented during peak arrival and departure periods, including the following: Deploy traffic control officers during peak arrival and departure periods to manage vehicle movements, assist pedestrians crossing Harbor Bay Parkway, and facilitate traffic operations.

- Traffic control officers should operate B Street with two southbound left-turns during the post-event departure period to increase outbound vehicle capacity.
- Reallocate green time from the temporarily closed South Loop Road approach to the higher demand Harbor Bay Parkway and B Street approaches.
- Provide additional pedestrian crossing time through a separate pedestrian only phase (i.e., “pedestrian scramble”).

Implementing these measures is estimated to reduce the intersection delay after events from LOS F to LOS C or D. With these temporary traffic measures in place, post-event travel time on Harbor Bay Parkway/Ron Cowan Parkway from South Loop Road to Bessie Coleman Drive could be cut by fifty percent as compared to post-event travel time without traffic management strategies.

South Loop Road/North Loop Road & Harbor Bay Parkway #2

This intersection would continue to operate at LOS B during both the weekday and weekend peak hours. The intersection would accommodate some traffic diverted from the temporary South Loop Road closure on South Loop Road at Harbor Bay Parkway, but the current signal operating parameters can accommodate the added demand at the intersection.

Ron Cowan Parkway & Harbor Bay Parkway #3

This intersection would degrade from LOS B to LOS C during the weekday peak hour and from LOS B to LOS E during the weekend peak hour. During the weekday peak hour, the increase in delay is primarily due to attendee arrivals on the westbound through and southbound left-turn movements. During the weekend peak hour, the intersection experiences substantially higher delay due to post-event departure traffic, with the highest demand on the eastbound through movement as vehicles leave the nearby parking lots.

Other intersections

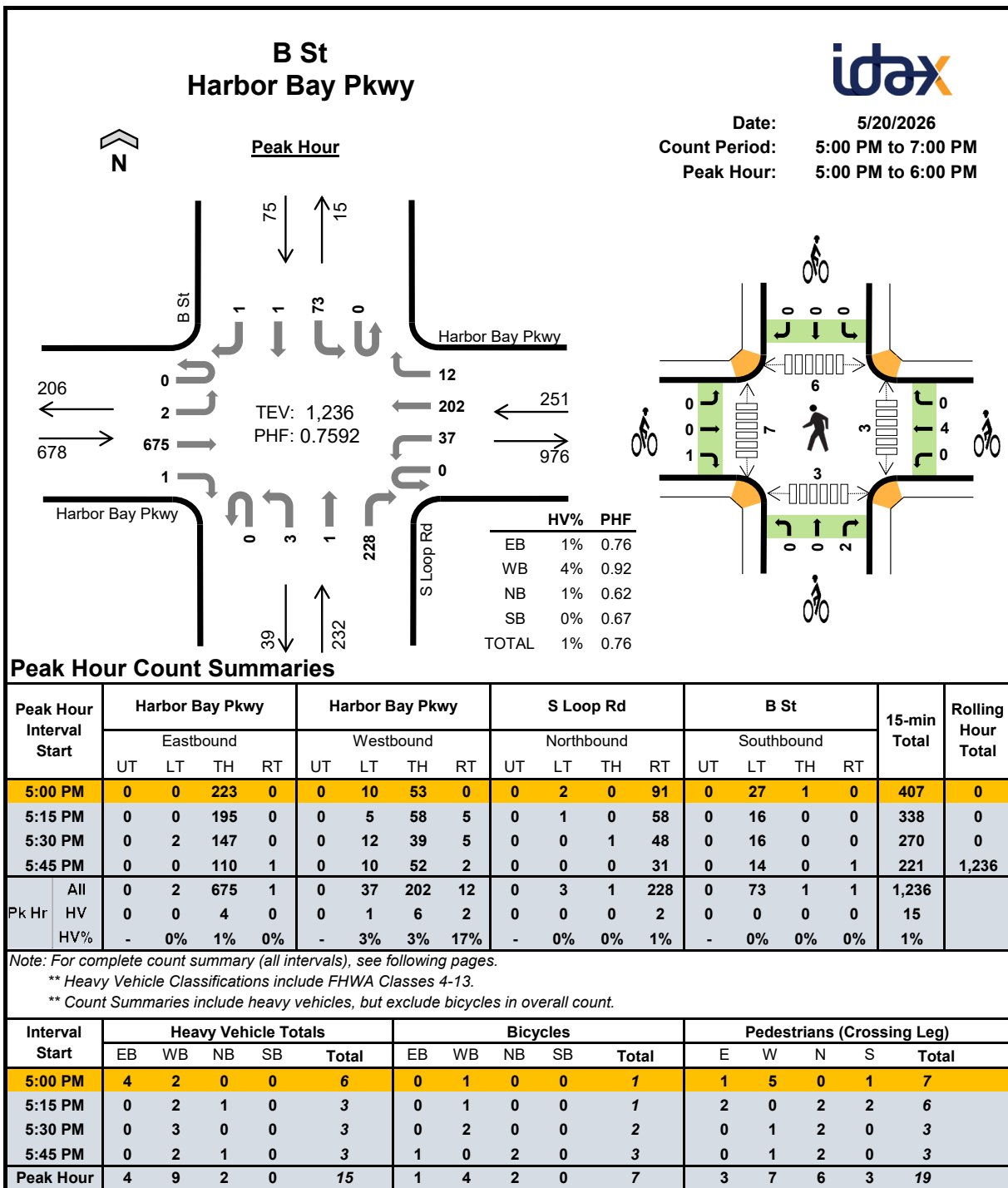
The study intersection farther from the Project Site (Harbor Bay Parkway & Doolittle Drive #4, Ron Cowan Parkway & John Glenn Drive #5, and Ron Cowan Parkway & Airport Drive On-Ramp #6) would also experience an increase in traffic volumes during both peak hours. However, these intersections would continue to operate within their available capacity, and the additional demand would not result in a change in LOS.

See **Appendix C. Existing Plus Project Conditions Synchro Results** for detailed LOS reports.

Appendices

- Appendix A. Existing Conditions Traffic Volumes
- Appendix B. Existing Conditions Synchro Results
- Appendix C. Existing Plus Project Conditions Synchro Results

Appendix A. Existing Conditions Traffic Volumes



Count Summaries - All Vehicles

Interval Start		Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				B St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	0	223	0	0	10	53	0	0	2	0	91	0	27	1	0	407	0
5:15 PM		0	0	195	0	0	5	58	5	0	1	0	58	0	16	0	0	338	0
5:30 PM		0	2	147	0	0	12	39	5	0	0	1	48	0	16	0	0	270	0
5:45 PM		0	0	110	1	0	10	52	2	0	0	0	31	0	14	0	1	221	1,236
6:00 PM		0	0	98	1	0	7	36	0	0	0	0	38	0	8	1	0	189	1,018
6:15 PM		0	0	67	0	0	11	39	3	0	0	0	28	0	8	0	0	156	836
6:30 PM		0	0	56	1	0	8	44	2	0	1	0	21	0	9	0	1	143	709
6:45 PM		0	0	47	1	1	9	33	1	0	0	0	18	0	6	0	1	117	605
Count Total		0	2	943	4	1	72	354	18	0	4	1	333	0	104	2	3	1,841	
Pk Hr	All	0	2	675	1	0	37	202	12	0	3	1	228	0	73	1	1	1,236	
	HV	0	0	4	0	0	1	6	2	0	0	0	2	0	0	0	0	15	
	HV%	-	0%	1%	0%	-	3%	3%	17%	-	0%	0%	1%	-	0%	0%	0%	1%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	4	2	0	0	6	0	1	0	0	1	1	5	0	1	7
5:15 PM	0	2	1	0	3	0	1	0	0	1	2	0	2	2	6
5:30 PM	0	3	0	0	3	0	2	0	0	2	0	1	2	0	3
5:45 PM	0	2	1	0	3	1	0	2	0	3	0	1	2	0	3
6:00 PM	1	3	0	0	4	0	0	0	0	0	1	2	2	2	7
6:15 PM	0	2	0	0	2	2	0	0	0	2	0	0	2	0	2
6:30 PM	1	1	0	0	2	0	1	0	0	1	0	0	1	0	1
6:45 PM	2	0	0	0	2	1	0	0	0	1	2	0	2	1	5
Count Total	8	15	2	0	25	4	5	2	0	11	6	9	13	6	34
Peak Hour	4	9	2	0	15	1	4	2	0	7	3	7	6	3	19

Count Summaries - Heavy Vehicles

Interval Start	Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				B St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	6	0
5:15 PM	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	3	0
5:30 PM	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	0
5:45 PM	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	3	15
6:00 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	13
6:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	12
6:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	11
6:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	10
Count Total	0	0	8	0	0	1	12	2	0	0	0	2	0	0	0	0	25	
Pk Hr Heavy	0	0	4	0	0	1	6	2	0	0	0	2	0	0	0	0	15	

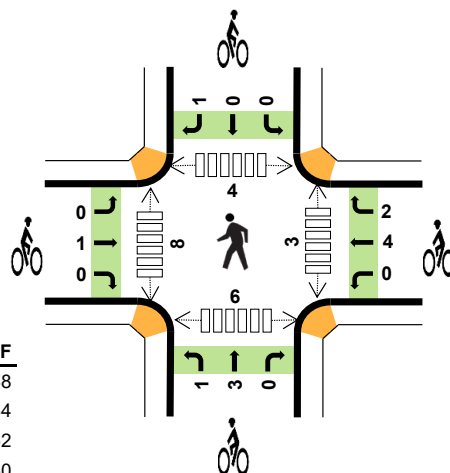
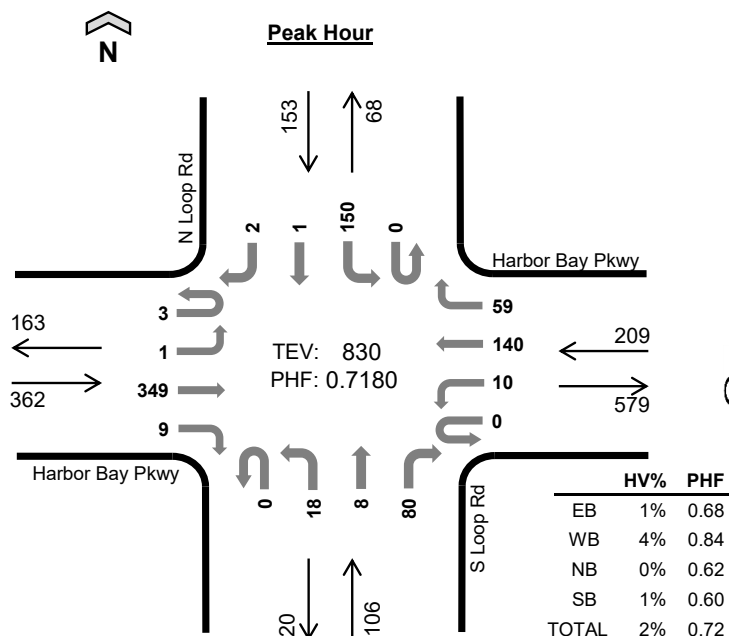
Count Summaries - Bikes

Interval Start	Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				B St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0
5:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	3	7
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
6:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
6:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	6
6:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
Count Total	0	0	3	1	0	0	5	0	0	0	0	2	0	0	0	0	11	
Pk Hr Bike	0	0	0	1	0	0	4	0	0	0	0	2	0	0	0	0	7	

N Loop Rd Harbor Bay Pkwy



Date: 5/20/2026
Count Period: 5:00 PM to 7:00 PM
Peak Hour: 5:00 PM to 6:00 PM



Peak Hour Count Summaries

Peak Hour Interval Start		Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				N Loop Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		1	0	129	3	0	3	40	14	0	8	1	26	0	63	1	0	289	0
5:15 PM		1	0	90	2	0	3	41	18	0	9	5	29	0	35	0	1	234	0
5:30 PM		0	1	76	2	0	2	20	15	0	1	2	16	0	26	0	1	162	0
5:45 PM		1	0	54	2	0	2	39	12	0	0	0	9	0	26	0	0	145	830
Pk Hr	All	3	1	349	9	0	10	140	59	0	18	8	80	0	150	1	2	830	
	HV	0	0	2	2	0	0	4	5	0	0	0	0	0	2	0	0	15	
	HV%	0%	0%	1%	22%	-	0%	3%	8%	-	0%	0%	0%	-	1%	0%	0%	2%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	2	3	0	2	7	0	2	1	0	3	3	0	0	2	5
5:15 PM	1	2	0	0	3	0	1	0	1	2	0	4	0	3	7
5:30 PM	0	3	0	0	3	1	1	1	0	3	0	1	1	1	3
5:45 PM	1	1	0	0	2	1	2	2	0	5	0	3	3	0	6
Peak Hour	4	9	0	2	15	2	6	4	1	13	3	8	4	6	21

Count Summaries - All Vehicles

Interval Start		Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				N Loop Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		1	0	129	3	0	3	40	14	0	8	1	26	0	63	1	0	289	0
5:15 PM		1	0	90	2	0	3	41	18	0	9	5	29	0	35	0	1	234	0
5:30 PM		0	1	76	2	0	2	20	15	0	1	2	16	0	26	0	1	162	0
5:45 PM		1	0	54	2	0	2	39	12	0	0	0	9	0	26	0	0	145	830
6:00 PM		0	0	64	11	0	2	29	5	0	1	1	8	0	15	0	1	137	678
6:15 PM		1	1	44	0	0	3	20	6	0	2	0	9	0	6	0	0	92	536
6:30 PM		0	0	30	2	1	1	35	4	0	0	1	5	0	15	0	0	94	468
6:45 PM		1	0	37	1	0	1	26	5	0	2	0	4	0	9	0	0	86	409
Count Total		5	2	524	23	1	17	250	79	0	23	10	106	0	195	1	3	1,239	
Pk Hr	All	3	1	349	9	0	10	140	59	0	18	8	80	0	150	1	2	830	
	HV	0	0	2	2	0	0	4	5	0	0	0	0	0	2	0	0	15	
	HV%	0%	0%	1%	22%	-	0%	3%	8%	-	0%	0%	0%	-	1%	0%	0%	2%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	2	3	0	2	7	0	2	1	0	3	3	0	0	2	5
5:15 PM	1	2	0	0	3	0	1	0	1	2	0	4	0	3	7
5:30 PM	0	3	0	0	3	1	1	1	0	3	0	1	1	1	3
5:45 PM	1	1	0	0	2	1	2	2	0	5	0	3	3	0	6
6:00 PM	0	2	1	0	3	0	1	1	0	2	0	1	2	2	5
6:15 PM	0	2	0	0	2	2	0	0	0	2	0	0	0	0	0
6:30 PM	1	1	0	0	2	0	1	1	0	2	0	3	3	0	6
6:45 PM	0	0	1	1	2	2	1	0	0	3	0	0	0	0	0
Count Total	5	14	2	3	24	6	9	6	1	22	3	12	9	8	32
Peak Hour	4	9	0	2	15	2	6	4	1	13	3	8	4	6	21

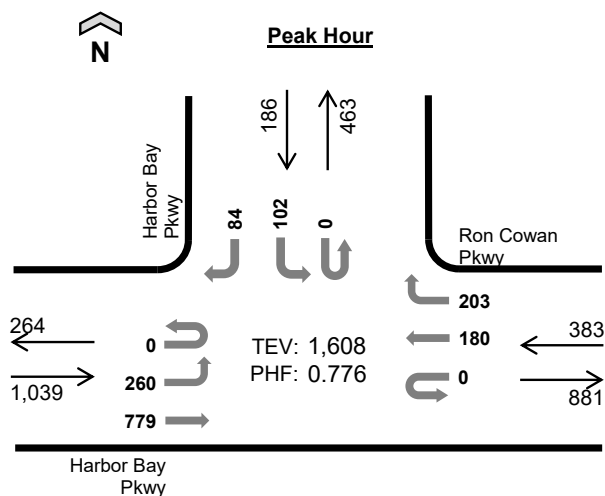
Count Summaries - Heavy Vehicles

Interval Start	Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				N Loop Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	0	2	0	0	0	1	2	0	0	0	0	0	2	0	0	7	0
5:15 PM	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	3	0
5:30 PM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	0
5:45 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	15
6:00 PM	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	3	11
6:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	10
6:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	9
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	9
Count Total	0	0	3	2	0	0	6	8	0	0	0	2	0	3	0	0	24	
Pk Hr Heavy	0	0	2	2	0	0	4	5	0	0	0	0	0	2	0	0	15	

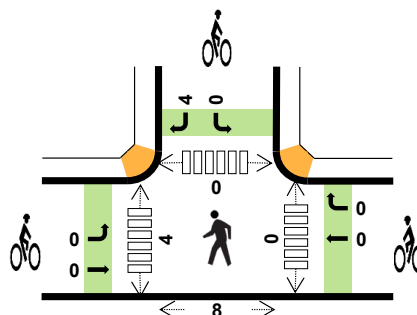
Count Summaries - Bikes

Interval Start	Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				N Loop Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	3	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	0
5:30 PM	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3	0
5:45 PM	0	0	1	0	0	0	2	0	0	1	1	0	0	0	0	0	5	13
6:00 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	12
6:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12
6:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	11
6:45 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	9
Count Total	1	0	5	0	0	0	7	2	0	1	5	0	0	0	0	1	22	
Pk Hr Bike	1	0	1	0	0	0	4	2	0	1	3	0	0	0	0	1	13	

Harbor Bay Pkwy Ron Cowan Pkwy



Date: 5/20/2026
Count Period: 5:00 PM to 7:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV%	PHF
EB	1%	0.69
WB	4%	0.95
NB	--	--
SB	5%	0.95
TOTAL	2%	0.78

Peak Hour Count Summaries

Peak Hour Interval Start		Harbor Bay Pkwy				Ron Cowan Pkwy				n/a				Harbor Bay Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	83	292	0	0	0	51	44	0	0	0	0	0	29	0	19	518	0
5:15 PM		0	61	214	0	0	0	46	54	0	0	0	0	0	26	0	23	424	0
5:30 PM		0	63	164	0	0	0	41	46	0	0	0	0	0	18	0	24	356	0
5:45 PM		0	53	109	0	0	0	42	59	0	0	0	0	0	29	0	18	310	1,608
Pk Hr	All	0	260	779	0	0	0	180	203	0	0	0	0	0	102	0	84	1,608	
	HV	0	1	5	0	0	0	7	9	0	0	0	0	0	8	0	1	31	
	HV%	-	0%	1%	-	-	-	4%	4%	-	-	-	-	-	8%	-	1%	2%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	4	5	0	3	12	0	0	0	1	1	0	1	0	2	3
5:15 PM	1	2	0	4	7	0	0	0	1	1	0	1	0	4	5
5:30 PM	0	3	0	1	4	0	0	0	1	1	0	2	0	2	4
5:45 PM	1	6	0	1	8	0	0	0	1	1	0	0	0	0	0
Peak Hour	6	16	0	9	31	0	0	0	4	4	0	4	0	8	12

Count Summaries - All Vehicles

Interval Start		Harbor Bay Pkwy				Ron Cowan Pkwy				n/a				Harbor Bay Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	83	292	0	0	0	51	44	0	0	0	0	0	29	0	19	518	0
5:15 PM		0	61	214	0	0	0	46	54	0	0	0	0	0	26	0	23	424	0
5:30 PM		0	63	164	0	0	0	41	46	0	0	0	0	0	18	0	24	356	0
5:45 PM		0	53	109	0	0	0	42	59	0	0	0	0	0	29	0	18	310	1,608
6:00 PM		0	35	123	0	0	0	37	44	0	0	0	0	0	34	0	12	285	1,375
6:15 PM		0	34	83	0	0	0	35	45	0	0	0	0	0	30	0	20	247	1,198
6:30 PM		0	24	64	0	0	0	44	26	0	0	0	0	0	31	0	11	200	1,042
6:45 PM		0	20	52	0	0	0	34	42	0	0	0	0	0	19	0	16	183	915
Count Total		0	373	1,101	0	0	0	330	360	0	0	0	0	0	216	0	143	2,523	
Pk Hr	All	0	260	779	0	0	0	180	203	0	0	0	0	0	102	0	84	1,608	
	HV	0	1	5	0	0	0	7	9	0	0	0	0	0	8	0	1	31	
	HV%	-	0%	1%	-	-	-	4%	4%	-	-	-	-	-	8%	-	1%	2%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	4	5	0	3	12	0	0	0	1	1	0	1	0	2	3
5:15 PM	1	2	0	4	7	0	0	0	1	1	0	1	0	4	5
5:30 PM	0	3	0	1	4	0	0	0	1	1	0	2	0	2	4
5:45 PM	1	6	0	1	8	0	0	0	1	1	0	0	0	0	0
6:00 PM	1	3	0	2	6	0	0	0	1	1	0	2	0	3	5
6:15 PM	0	4	0	2	6	0	0	0	0	0	0	0	0	2	2
6:30 PM	1	1	0	1	3	0	0	0	0	0	0	0	0	3	3
6:45 PM	2	0	0	1	3	0	0	0	0	0	0	2	0	1	3
Count Total	10	24	0	15	49	0	0	0	5	5	0	8	0	17	25
Peak Hour	6	16	0	9	31	0	0	0	4	4	0	4	0	8	12

Count Summaries - Heavy Vehicles

Interval Start	Harbor Bay Pkwy				Ron Cowan Pkwy				n/a				Harbor Bay Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	1	3	0	0	0	1	4	0	0	0	0	0	3	0	0	12	0
5:15 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	4	0	0	7	0
5:30 PM	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	1	4	0
5:45 PM	0	0	1	0	0	0	2	4	0	0	0	0	0	1	0	0	8	31
6:00 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	2	0	0	6	25
6:15 PM	0	0	0	0	0	0	2	2	0	0	0	0	0	2	0	0	6	24
6:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	3	23
6:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	3	18
Count Total	0	1	9	0	0	0	13	11	0	0	0	0	0	14	0	1	49	
Pk Hr Heavy	0	1	5	0	0	0	7	9	0	0	0	0	0	8	0	1	31	

Count Summaries - Bikes

Interval Start	Harbor Bay Pkwy				Ron Cowan Pkwy				n/a				Harbor Bay Pkwy				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	

Harbor Bay Pkwy Doolittle Dr

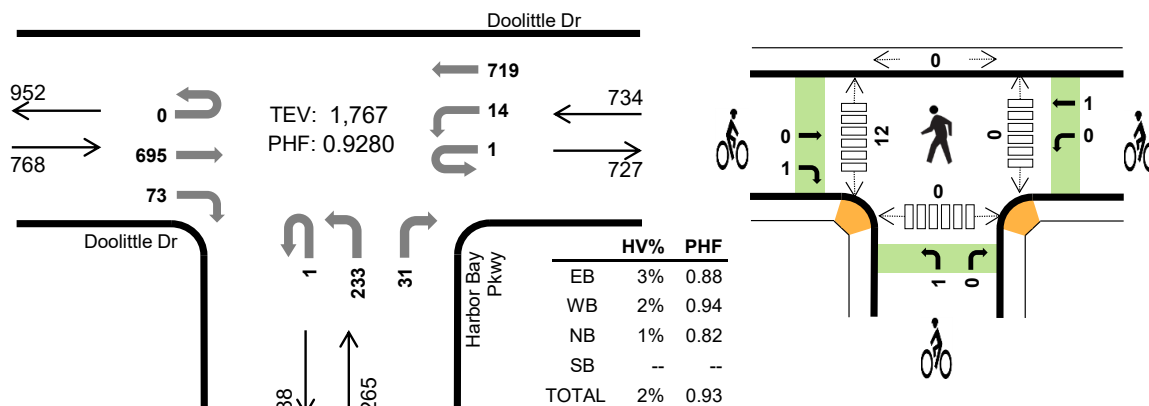


Peak Hour

Date: 5/20/2026

Count Period: 5:00 PM to 7:00 PM

Peak Hour: 5:00 PM to 6:00 PM



Peak Hour Count Summaries

Peak Hour Interval Start		Doolittle Dr				Doolittle Dr				Harbor Bay Pkwy				n/a				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	0	167	19	0	5	183	0	0	69	0	12	0	0	0	0	455	0
5:15 PM		0	0	197	21	0	4	192	0	0	52	0	10	0	0	0	0	476	0
5:30 PM		0	0	191	12	0	2	173	0	0	53	0	4	0	0	0	0	435	0
5:45 PM		0	0	140	21	1	3	171	0	1	59	0	5	0	0	0	0	401	1,767
Pk Hr	All	0	0	695	73	1	14	719	0	1	233	0	31	0	0	0	0	1,767	
	HV	0	0	24	0	0	3	10	0	0	0	0	3	0	0	0	0	40	
	HV%	-	-	3%	0%	0%	21%	1%	-	0%	0%	-	10%	-	-	-	-	2%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	3	4	2	0	9	0	0	1	0	1	0	2	0	0	2
5:15 PM	8	4	0	0	12	1	0	0	0	1	0	2	0	0	2
5:30 PM	6	2	0	0	8	0	1	0	0	1	0	6	0	0	6
5:45 PM	7	3	1	0	11	0	0	0	0	0	0	2	0	0	2
Peak Hour	24	13	3	0	40	1	1	1	0	3	0	12	0	0	12

Count Summaries - All Vehicles

Interval Start		Doolittle Dr				Doolittle Dr				Harbor Bay Pkwy				n/a				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	0	167	19	0	5	183	0	0	69	0	12	0	0	0	0	455	0
5:15 PM		0	0	197	21	0	4	192	0	0	52	0	10	0	0	0	0	476	0
5:30 PM		0	0	191	12	0	2	173	0	0	53	0	4	0	0	0	0	435	0
5:45 PM		0	0	140	21	1	3	171	0	1	59	0	5	0	0	0	0	401	1,767
6:00 PM		0	0	163	12	0	3	150	0	1	37	0	6	0	0	0	0	372	1,684
6:15 PM		0	0	162	14	1	7	127	0	0	42	0	1	0	0	0	0	354	1,562
6:30 PM		0	0	144	12	0	0	106	0	0	23	0	5	0	0	0	0	290	1,417
6:45 PM		0	0	125	11	0	2	129	0	0	24	0	5	0	0	0	0	296	1,312
Count Total		0	0	1,289	122	2	26	1,231	0	2	359	0	48	0	0	0	0	3,079	
Pk Hr	All	0	0	695	73	1	14	719	0	1	233	0	31	0	0	0	0	1,767	
	HV	0	0	24	0	0	3	10	0	0	0	0	3	0	0	0	0	40	
	HV%	-	-	3%	0%	0%	21%	1%	-	0%	0%	-	10%	-	-	-	-	2%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	3	4	2	0	9	0	0	1	0	1	0	2	0	0	2
5:15 PM	8	4	0	0	12	1	0	0	0	1	0	2	0	0	2
5:30 PM	6	2	0	0	8	0	1	0	0	1	0	6	0	0	6
5:45 PM	7	3	1	0	11	0	0	0	0	0	0	2	0	0	2
6:00 PM	3	4	3	0	10	0	0	0	0	0	0	2	0	0	2
6:15 PM	3	0	0	0	3	0	0	0	0	0	0	4	0	0	4
6:30 PM	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0
6:45 PM	6	1	0	0	7	1	0	0	0	1	0	0	0	0	0
Count Total	39	20	6	0	65	2	1	1	0	4	0	18	0	0	18
Peak Hour	24	13	3	0	40	1	1	1	0	3	0	12	0	0	12

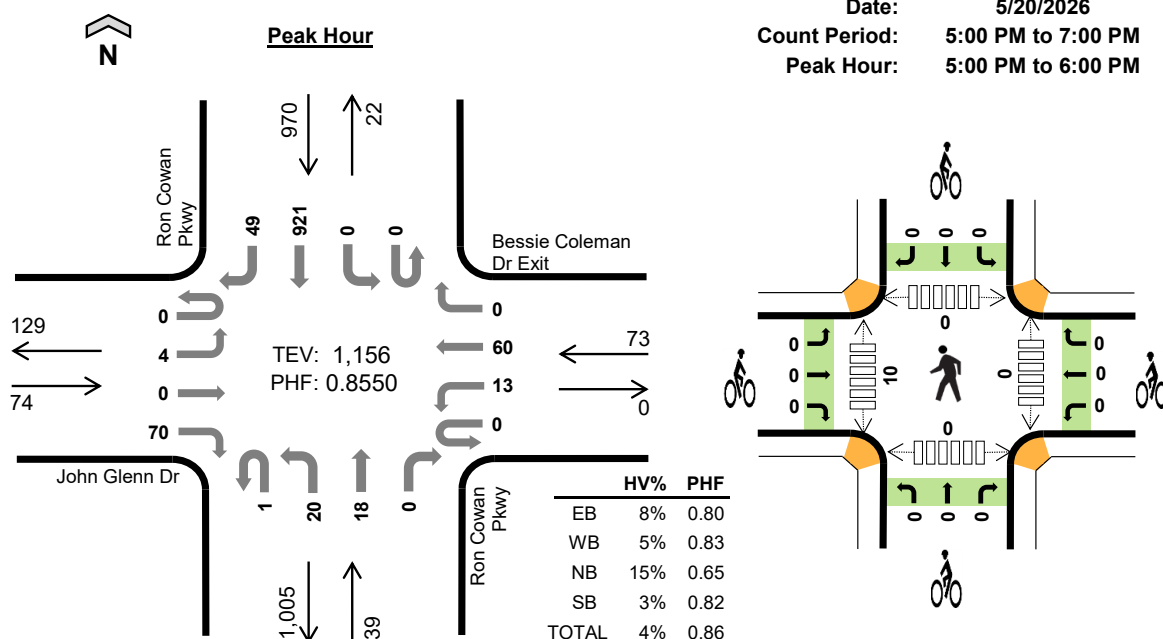
Count Summaries - Heavy Vehicles

Interval Start	Doolittle Dr				Doolittle Dr				Harbor Bay Pkwy				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	0	3	0	0	2	2	0	0	0	0	2	0	0	0	0	9	0
5:15 PM	0	0	8	0	0	1	3	0	0	0	0	0	0	0	0	0	12	0
5:30 PM	0	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	8	0
5:45 PM	0	0	7	0	0	0	3	0	0	0	0	1	0	0	0	0	11	40
6:00 PM	0	0	3	0	0	1	3	0	0	0	0	3	0	0	0	0	10	41
6:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	32
6:30 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	29
6:45 PM	0	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	7	25
Count Total	0	0	39	0	0	4	16	0	0	0	0	6	0	0	0	0	65	
Pk Hr Heavy	0	0	24	0	0	3	10	0	0	0	0	3	0	0	0	0	40	

Count Summaries - Bikes

Interval Start	Doolittle Dr				Doolittle Dr				Harbor Bay Pkwy				n/a				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Count Total	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	4	
Pk Hr Bike	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	3	

Ron Cowan Pkwy John Glenn Dr



Peak Hour Count Summaries

Peak Hour Interval Start		John Glenn Dr				Bessie Coleman Dr Exit				Ron Cowan Pkwy				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	0	0	14	0	4	18	0	0	5	1	0	0	0	285	9	336	0
5:15 PM		0	1	0	22	0	6	11	0	1	8	5	0	0	0	275	9	338	0
5:30 PM		0	1	0	18	0	2	15	0	0	5	10	0	0	0	206	12	269	0
5:45 PM		0	2	0	16	0	1	16	0	0	2	2	0	0	0	155	19	213	1,156
Pk Hr	All	0	4	0	70	0	13	60	0	1	20	18	0	0	0	921	49	1,156	
	HV	0	0	0	6	0	0	4	0	0	6	0	0	0	0	24	6	46	
	HV%	-	0%	-	9%	-	0%	7%	-	0%	30%	0%	-	-	-	3%	12%	4%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	1	1	2	8	12	0	0	0	0	0	0	4	0	0	4
5:15 PM	1	1	1	7	10	0	0	0	0	0	0	5	0	0	5
5:30 PM	2	0	2	9	13	0	0	0	0	0	0	0	0	0	0
5:45 PM	2	2	1	6	11	0	0	0	0	0	0	1	0	0	1
Peak Hour	6	4	6	30	46	0	0	0	0	0	0	10	0	0	10

Count Summaries - All Vehicles

Interval Start		John Glenn Dr				Bessie Coleman Dr Exit				Ron Cowan Pkwy				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	0	0	14	0	4	18	0	0	5	1	0	0	0	285	9	336	0
5:15 PM		0	1	0	22	0	6	11	0	1	8	5	0	0	0	275	9	338	0
5:30 PM		0	1	0	18	0	2	15	0	0	5	10	0	0	0	206	12	269	0
5:45 PM		0	2	0	16	0	1	16	0	0	2	2	0	0	0	155	19	213	1,156
6:00 PM		0	4	0	27	0	3	23	0	0	8	8	0	0	0	146	13	232	1,052
6:15 PM		0	1	0	20	0	3	20	0	0	7	7	0	0	0	124	15	197	911
6:30 PM		0	1	0	26	0	3	27	1	0	5	5	0	0	0	114	12	194	836
6:45 PM		0	1	0	27	0	2	26	1	0	4	3	0	0	0	82	13	159	782
Count Total		0	11	0	170	0	24	156	2	1	44	41	0	0	0	1,387	102	1,938	
Pk Hr	All	0	4	0	70	0	13	60	0	1	20	18	0	0	0	921	49	1,156	
	HV	0	0	0	6	0	0	4	0	0	6	0	0	0	0	24	6	46	
	HV%	-	0%	-	9%	-	0%	7%	-	0%	30%	0%	-	-	-	3%	12%	4%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	1	1	2	8	12	0	0	0	0	0	0	4	0	0	4
5:15 PM	1	1	1	7	10	0	0	0	0	0	0	5	0	0	5
5:30 PM	2	0	2	9	13	0	0	0	0	0	0	0	0	0	0
5:45 PM	2	2	1	6	11	0	0	0	0	0	0	1	0	0	1
6:00 PM	7	1	2	11	21	0	0	0	0	0	0	0	0	0	0
6:15 PM	5	0	2	4	11	0	0	0	0	0	0	2	0	0	2
6:30 PM	11	0	2	9	22	0	0	0	0	0	0	3	0	0	3
6:45 PM	8	1	1	9	19	0	0	0	0	0	0	0	0	0	0
Count Total	37	6	13	63	119	0	0	0	0	0	0	15	0	0	15
Peak Hour	6	4	6	30	46	0	0	0	0	0	0	10	0	0	10

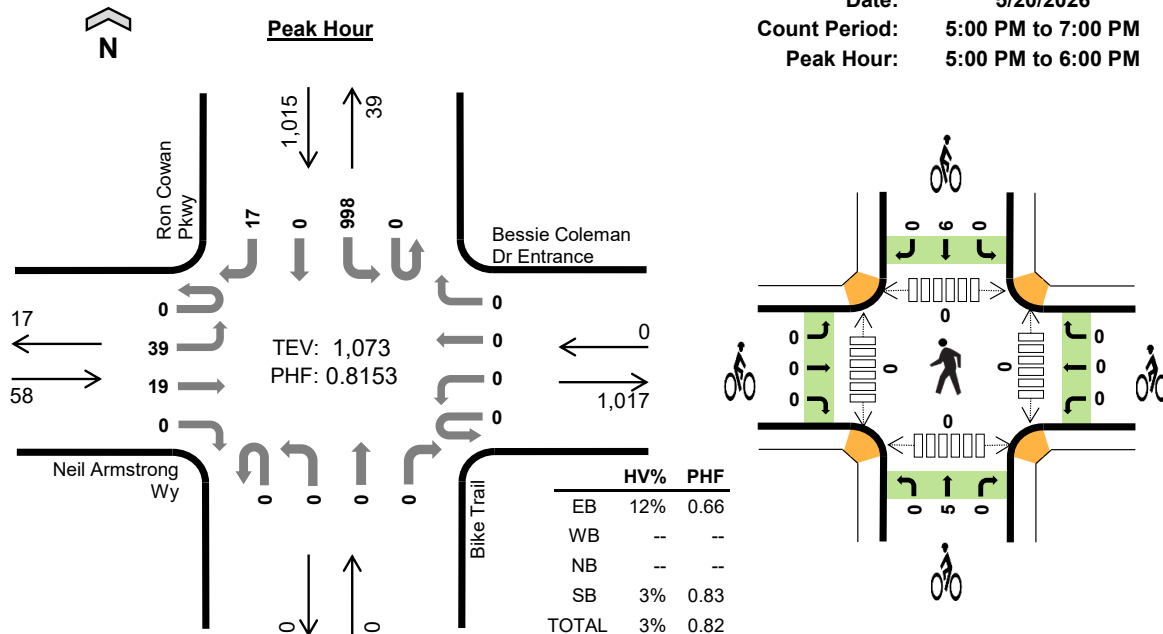
Count Summaries - Heavy Vehicles

Interval Start	John Glenn Dr				Bessie Coleman Dr Exit				Ron Cowan Pkwy				Ron Cowan Pkwy				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
5:00 PM	0	0	0	1	0	0	1	0	0	2	0	0	0	0	0	7	1	12	0
5:15 PM	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	5	2	10	0
5:30 PM	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	8	1	13	0
5:45 PM	0	0	0	2	0	0	2	0	0	0	1	0	0	0	0	4	2	11	46
6:00 PM	0	0	0	7	0	0	1	0	0	0	2	0	0	0	0	10	1	21	55
6:15 PM	0	0	0	5	0	0	0	0	0	0	1	1	0	0	0	1	3	11	56
6:30 PM	0	0	0	11	0	0	0	0	0	0	2	0	0	0	0	8	1	22	65
6:45 PM	0	0	0	8	0	0	1	0	0	0	1	0	0	0	0	7	2	19	73
Count Total	0	0	0	37	0	0	6	0	0	0	12	1	0	0	0	50	13	119	
Pk Hr Heavy	0	0	0	6	0	0	4	0	0	0	6	0	0	0	0	24	6	46	

Count Summaries - Bikes

Interval Start	John Glenn Dr				Bessie Coleman Dr Exit				Ron Cowan Pkwy				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Ron Cowan Pkwy Neil Armstrong Wy



Peak Hour Count Summaries

Peak Hour Interval Start		Neil Armstrong Wy				Bessie Coleman Dr Entrance				Bike Trail				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	6	6	0	0	0	0	0	0	0	0	0	0	296	0	7	315	0
5:15 PM		0	14	8	0	0	0	0	0	0	0	0	0	0	301	0	6	329	0
5:30 PM		0	15	3	0	0	0	0	0	0	0	0	0	0	228	0	4	250	0
5:45 PM		0	4	2	0	0	0	0	0	0	0	0	0	0	173	0	0	179	1,073
Pk Hr	All	0	39	19	0	0	0	0	0	0	0	0	0	0	998	0	17	1,073	
	HV	0	6	1	0	0	0	0	0	0	0	0	0	0	29	0	1	37	
	HV%	-	15%	5%	-	-	-	-	-	-	-	-	-	-	3%	-	6%	3%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	2	0	0	9	11	0	0	2	2	4	0	0	0	0	0
5:15 PM	2	0	0	6	8	0	0	2	1	3	0	0	0	0	0
5:30 PM	2	0	0	9	11	0	0	0	2	2	0	0	0	0	0
5:45 PM	1	0	0	6	7	0	0	1	1	2	0	0	0	0	0
Peak Hour	7	0	0	30	37	0	0	5	6	11	0	0	0	0	0

Count Summaries - All Vehicles

Interval Start		Neil Armstrong Wy				Bessie Coleman Dr Entrance				Bike Trail				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	6	6	0	0	0	0	0	0	0	0	0	0	296	0	7	315	0
5:15 PM		0	14	8	0	0	0	0	0	0	0	0	0	0	301	0	6	329	0
5:30 PM		0	15	3	0	0	0	0	0	0	0	0	0	0	228	0	4	250	0
5:45 PM		0	4	2	0	0	0	0	0	0	0	0	0	0	173	0	0	179	1,073
6:00 PM		0	16	4	0	0	0	0	0	0	0	0	0	0	165	0	5	190	948
6:15 PM		0	15	9	0	0	0	0	0	0	0	0	0	0	147	0	4	175	794
6:30 PM		0	9	11	0	0	0	0	0	0	0	0	0	0	136	0	2	158	702
6:45 PM		0	7	4	0	0	0	0	0	0	0	0	0	0	106	0	2	119	642
Count Total		0	86	47	0	0	0	0	0	0	0	0	0	0	1,552	0	30	1,715	
Pk Hr	All	0	39	19	0	0	0	0	0	0	0	0	0	0	998	0	17	1,073	
	HV	0	6	1	0	0	0	0	0	0	0	0	0	0	29	0	1	37	
	HV%	-	15%	5%	-	-	-	-	-	-	-	-	-	-	3%	-	6%	3%	

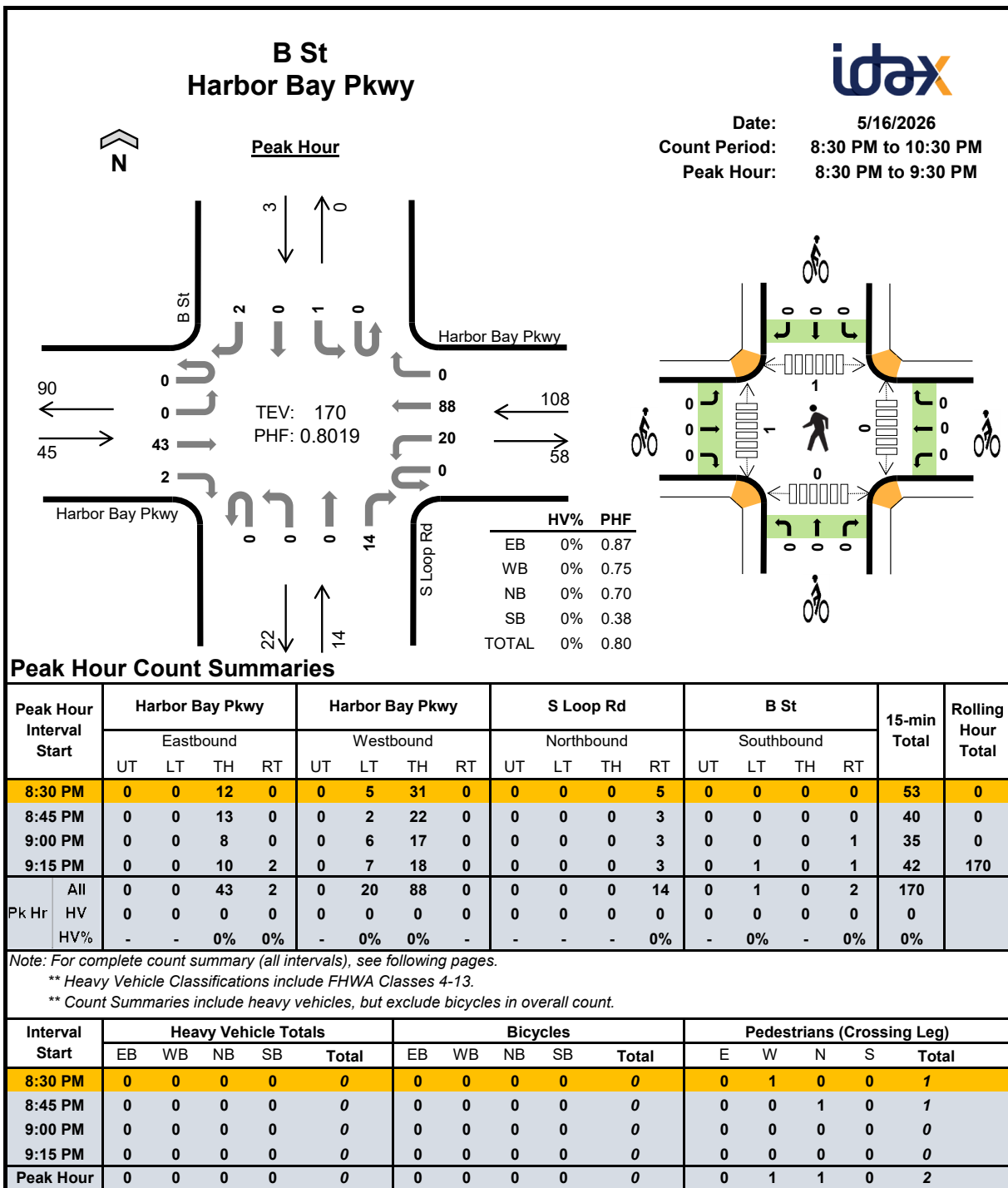
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
5:00 PM	2	0	0	9	11	0	0	2	2	4	0	0	0	0	0
5:15 PM	2	0	0	6	8	0	0	2	1	3	0	0	0	0	0
5:30 PM	2	0	0	9	11	0	0	0	2	2	0	0	0	0	0
5:45 PM	1	0	0	6	7	0	0	1	1	2	0	0	0	0	0
6:00 PM	2	0	0	16	18	0	0	0	0	0	0	0	0	0	0
6:15 PM	2	0	0	7	9	0	0	0	3	3	0	0	0	0	0
6:30 PM	2	0	0	19	21	0	0	1	2	3	0	0	0	0	0
6:45 PM	1	0	0	15	16	0	0	0	0	0	0	0	0	0	0
Count Total	14	0	0	87	101	0	0	6	11	17	0	0	0	0	0
Peak Hour	7	0	0	30	37	0	0	5	6	11	0	0	0	0	0

Count Summaries - Heavy Vehicles

Interval Start	Neil Armstrong Wy				Bessie Coleman Dr Entrance				Bike Trail				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	8	0	1	11	0
5:15 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	6	0	0	8	0
5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	9	0	0	11	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	6	0	0	7	37
6:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	16	0	0	18	44
6:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	7	0	0	9	45
6:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	19	0	0	21	55
6:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	15	0	0	16	64
Count Total	0	13	1	0	0	0	0	0	0	0	0	0	0	86	0	1	101	
Pk Hr Heavy	0	6	1	0	0	0	0	0	0	0	0	0	0	29	0	1	37	

Count Summaries - Bikes

Interval Start	Neil Armstrong Wy				Bessie Coleman Dr Entrance				Bike Trail				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	11
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	7
6:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	8
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Count Total	0	0	0	0	0	0	0	0	0	0	6	0	0	0	11	0	17	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	11	



Count Summaries - All Vehicles

Interval Start		Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				B St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM		0	0	12	0	0	5	31	0	0	0	0	5	0	0	0	0	53	0
8:45 PM		0	0	13	0	0	2	22	0	0	0	0	3	0	0	0	0	40	0
9:00 PM		0	0	8	0	0	6	17	0	0	0	0	3	0	0	0	1	35	0
9:15 PM		0	0	10	2	0	7	18	0	0	0	0	3	0	1	0	1	42	170
9:30 PM		0	0	8	0	0	4	18	0	0	0	0	3	0	1	0	0	34	151
9:45 PM		0	0	10	0	0	8	22	0	0	0	0	4	0	0	0	0	44	155
10:00 PM		0	0	15	0	0	3	21	0	0	0	0	5	0	0	0	0	44	164
10:15 PM		0	0	6	0	0	2	12	0	0	0	0	0	0	0	0	1	21	143
Count Total		0	0	82	2	0	37	161	0	0	0	0	26	0	2	0	3	313	
Pk Hr	All	0	0	43	2	0	20	88	0	0	0	0	14	0	1	0	2	170	
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	HV%	-	-	0%	0%	-	0%	0%	-	-	-	-	0%	-	0%	-	0%	0%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	1	0	0	1	1	1	1	0	3
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2

Count Summaries - Heavy Vehicles

Interval Start	Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				B St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Heavy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

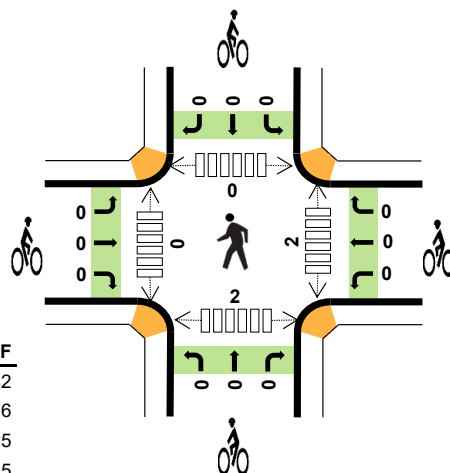
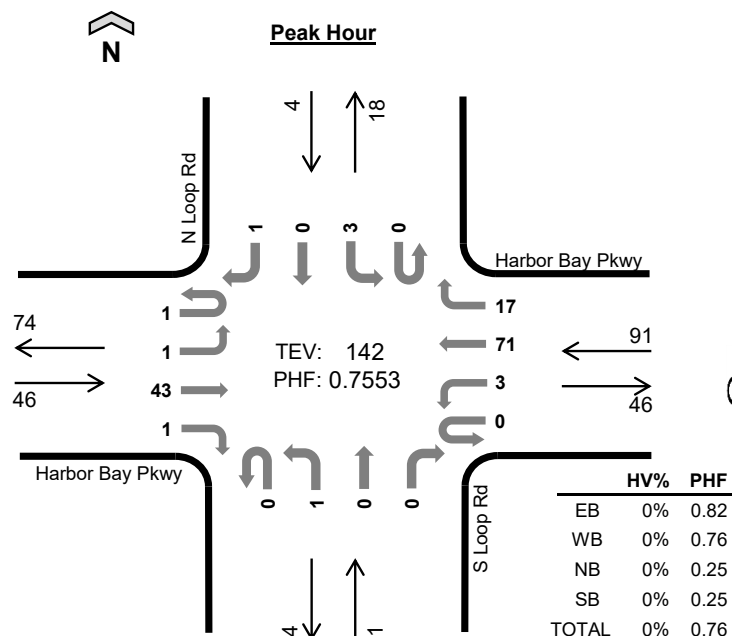
Count Summaries - Bikes

Interval Start	Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				B St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

N Loop Rd Harbor Bay Pkwy



Date: 5/16/2026
Count Period: 8:30 PM to 10:30 PM
Peak Hour: 8:30 PM to 9:30 PM



Peak Hour Count Summaries

Peak Hour Interval Start		Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				N Loop Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM		1	1	9	1	0	1	25	4	0	1	0	0	0	3	0	1	47	0
8:45 PM		0	0	12	0	0	2	13	7	0	0	0	0	0	0	0	0	34	0
9:00 PM		0	0	8	0	0	0	14	4	0	0	0	0	0	0	0	0	26	0
9:15 PM		0	0	14	0	0	0	19	2	0	0	0	0	0	0	0	0	35	142
Pk Hr	All	1	1	43	1	0	3	71	17	0	1	0	0	0	3	0	1	142	
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	HV%	0%	0%	0%	0%	-	0%	0%	0%	-	0%	-	-	-	0%	-	0%	0%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4

Count Summaries - All Vehicles

Interval Start		Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				N Loop Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM		1	1	9	1	0	1	25	4	0	1	0	0	0	3	0	1	47	0
8:45 PM		0	0	12	0	0	2	13	7	0	0	0	0	0	0	0	0	34	0
9:00 PM		0	0	8	0	0	0	14	4	0	0	0	0	0	0	0	0	26	0
9:15 PM		0	0	14	0	0	0	19	2	0	0	0	0	0	0	0	0	35	142
9:30 PM		0	0	8	1	0	0	18	0	0	0	0	0	0	0	0	0	27	122
9:45 PM		1	0	7	0	0	1	19	1	0	1	0	0	0	1	0	0	31	119
10:00 PM		0	0	14	0	0	1	21	0	0	1	0	2	0	1	0	0	40	133
10:15 PM		0	0	6	0	0	0	13	0	0	1	1	0	0	0	1	0	22	120
Count Total		2	1	78	2	0	5	142	18	0	4	1	2	0	5	1	1	262	
Pk Hr	All	1	1	43	1	0	3	71	17	0	1	0	0	0	3	0	1	142	
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	HV%	0%	0%	0%	0%	-	0%	0%	0%	-	0%	-	-	-	0%	-	0%	0%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	1	0	0	1	2	0	0	2	4
Peak Hour	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4

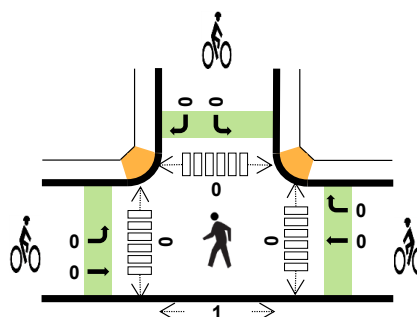
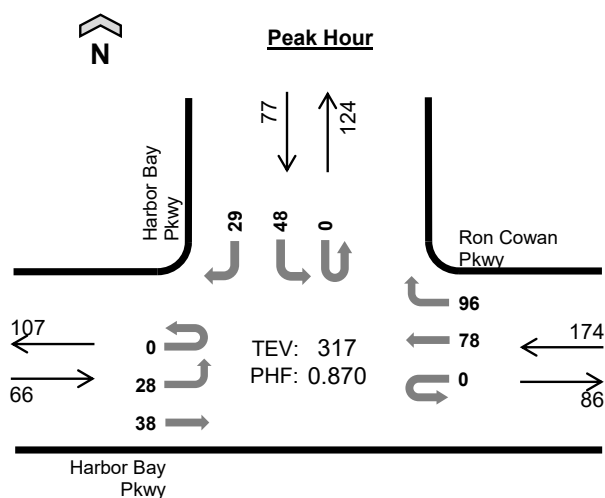
Count Summaries - Heavy Vehicles

Interval Start	Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				N Loop Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Heavy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Count Summaries - Bikes

Interval Start	Harbor Bay Pkwy				Harbor Bay Pkwy				S Loop Rd				N Loop Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Harbor Bay Pkwy Ron Cowan Pkwy



	HV%	PHF
EB	0%	0.83
WB	0%	0.82
NB	--	--
SB	0%	0.77
TOTAL	0%	0.87

Peak Hour Count Summaries

Peak Hour Interval Start		Harbor Bay Pkwy				Ron Cowan Pkwy				n/a				Harbor Bay Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM		0	9	9	0	0	0	24	29	0	0	0	0	0	12	0	8	91	0
8:45 PM		0	6	11	0	0	0	18	23	0	0	0	0	0	7	0	6	71	0
9:00 PM		0	4	7	0	0	0	14	24	0	0	0	0	0	10	0	9	68	0
9:15 PM		0	9	11	0	0	0	22	20	0	0	0	0	0	19	0	6	87	317
Pk Hr	All	0	28	38	0	0	0	78	96	0	0	0	0	0	48	0	29	317	
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	HV%	-	0%	0%	-	-	-	0%	0%	-	-	-	-	-	0%	-	0%	0%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

Count Summaries - All Vehicles

Interval Start		Harbor Bay Pkwy				Ron Cowan Pkwy				n/a				Harbor Bay Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM		0	9	9	0	0	0	24	29	0	0	0	0	0	12	0	8	91	0
8:45 PM		0	6	11	0	0	0	18	23	0	0	0	0	0	7	0	6	71	0
9:00 PM		0	4	7	0	0	0	14	24	0	0	0	0	0	10	0	9	68	0
9:15 PM		0	9	11	0	0	0	22	20	0	0	0	0	0	19	0	6	87	317
9:30 PM		0	3	9	0	0	0	16	12	0	0	0	0	0	10	0	6	56	282
9:45 PM		0	3	11	0	0	0	24	20	0	0	0	0	0	12	0	9	79	290
10:00 PM		0	8	13	0	0	0	18	17	0	0	0	0	0	15	0	5	76	298
10:15 PM		0	4	6	0	0	0	11	23	0	0	0	0	0	5	0	5	54	265
Count Total		0	46	77	0	0	0	147	168	0	0	0	0	0	90	0	54	582	
Pk Hr	All	0	28	38	0	0	0	78	96	0	0	0	0	0	48	0	29	317	
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	HV%	-	0%	0%	-	-	-	0%	0%	-	-	-	-	-	0%	-	0%	0%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

Count Summaries - Heavy Vehicles

Interval Start	Harbor Bay Pkwy				Ron Cowan Pkwy				n/a				Harbor Bay Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Heavy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Count Summaries - Bikes

Interval Start	Harbor Bay Pkwy				Ron Cowan Pkwy				n/a				Harbor Bay Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Harbor Bay Pkwy Doolittle Dr

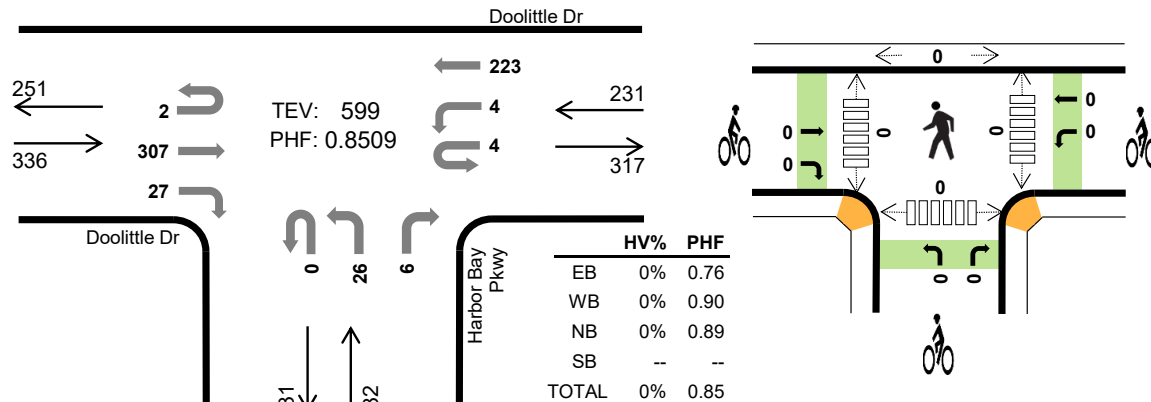


Peak Hour

Date: 5/16/2026

Count Period: 8:30 PM to 10:30 PM

Peak Hour: 8:30 PM to 9:30 PM



Peak Hour Count Summaries

Peak Hour Interval Start		Doolittle Dr				Doolittle Dr				Harbor Bay Pkwy				n/a				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM		1	0	102	7	0	1	57	0	0	4	0	4	0	0	0	0	176	0
8:45 PM		0	0	80	8	0	0	55	0	0	6	0	2	0	0	0	0	151	0
9:00 PM		1	0	70	6	1	1	52	0	0	9	0	0	0	0	0	0	140	0
9:15 PM		0	0	55	6	3	2	59	0	0	7	0	0	0	0	0	0	132	599
Pk Hr	All	2	0	307	27	4	4	223	0	0	26	0	6	0	0	0	0	599	
	HV	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	HV%	0%	-	0%	0%	0%	0%	0%	-	-	0%	-	0%	-	-	-	-	0%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Peak Hour	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0

Count Summaries - All Vehicles

Interval Start		Doolittle Dr				Doolittle Dr				Harbor Bay Pkwy				n/a				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM		1	0	102	7	0	1	57	0	0	4	0	4	0	0	0	0	176	0
8:45 PM		0	0	80	8	0	0	55	0	0	6	0	2	0	0	0	0	151	0
9:00 PM		1	0	70	6	1	1	52	0	0	9	0	0	0	0	0	0	140	0
9:15 PM		0	0	55	6	3	2	59	0	0	7	0	0	0	0	0	0	132	599
9:30 PM		1	0	57	7	0	3	42	0	0	7	0	2	0	0	0	0	119	542
9:45 PM		1	0	59	4	1	0	48	0	0	4	0	1	0	0	0	0	118	509
10:00 PM		1	0	64	7	1	0	31	0	1	8	0	0	0	0	0	0	113	482
10:15 PM		0	0	40	2	0	0	51	0	0	3	0	0	0	0	0	0	96	446
Count Total		5	0	527	47	6	7	395	0	1	48	0	9	0	0	0	0	1,045	
Pk Hr	All	2	0	307	27	4	4	223	0	0	26	0	6	0	0	0	0	599	
	HV	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	HV%	0%	-	0%	0%	0%	0%	0%	-	-	0%	-	0%	-	-	-	-	0%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:15 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
Count Total	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0
Peak Hour	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0

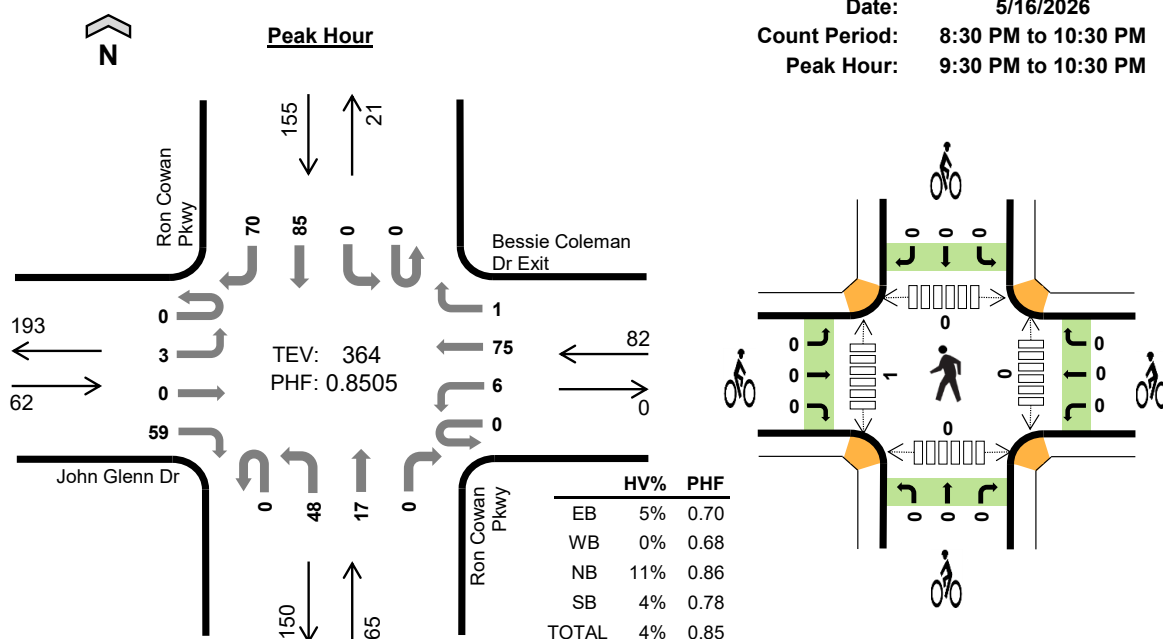
Count Summaries - Heavy Vehicles

Interval Start	Doolittle Dr				Doolittle Dr				Harbor Bay Pkwy				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
10:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	3
Count Total	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	
Pk Hr Heavy	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	

Count Summaries - Bikes

Interval Start	Doolittle Dr				Doolittle Dr				Harbor Bay Pkwy				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Ron Cowan Pkwy John Glenn Dr



Peak Hour Count Summaries

Peak Hour Interval Start	John Glenn Dr				Bessie Coleman Dr Exit				Ron Cowan Pkwy				Ron Cowan Pkwy				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
9:30 PM	0	1	0	14	0	1	20	0	0	11	2	0	0	0	18	14	81	0	
9:45 PM	0	0	0	8	0	0	30	0	0	15	4	0	0	0	22	28	107	0	
10:00 PM	0	0	0	17	0	2	10	1	0	12	7	0	0	0	31	12	92	0	
10:15 PM	0	2	0	20	0	3	15	0	0	10	4	0	0	0	14	16	84	364	
Pk Hr	All	0	3	0	59	0	6	75	1	0	48	17	0	0	0	85	70	364	
	HV	0	0	0	3	0	0	0	0	0	7	0	0	0	0	0	6	16	
	HV%	-	0%	-	5%	-	0%	0%	0%	-	15%	0%	-	-	-	0%	9%	4%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
9:30 PM	1	0	2	1	4	0	0	0	0	0	0	0	0	0	0
9:45 PM	1	0	1	2	4	0	0	0	0	0	0	1	0	0	1
10:00 PM	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0
10:15 PM	1	0	1	2	4	0	0	0	0	0	0	0	0	0	0
Peak Hour	3	0	7	6	16	0	0	0	0	0	0	1	0	0	1

Count Summaries - All Vehicles

Interval Start		John Glenn Dr				Bessie Coleman Dr Exit				Ron Cowan Pkwy				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM		0	0	0	9	0	6	20	2	0	7	1	0	0	0	23	16	84	0
8:45 PM		0	0	0	12	0	0	14	1	0	9	3	0	0	0	19	27	85	0
9:00 PM		0	0	0	12	0	2	14	0	0	4	7	0	0	0	16	9	64	0
9:15 PM		0	1	0	6	0	1	15	0	0	2	2	0	0	0	31	10	68	301
9:30 PM		0	1	0	14	0	1	20	0	0	11	2	0	0	0	18	14	81	298
9:45 PM		0	0	0	8	0	0	30	0	0	15	4	0	0	0	22	28	107	320
10:00 PM		0	0	0	17	0	2	10	1	0	12	7	0	0	0	31	12	92	348
10:15 PM		0	2	0	20	0	3	15	0	0	10	4	0	0	0	14	16	84	364
Count Total		0	4	0	98	0	15	138	4	0	70	30	0	0	0	174	132	665	
Pk Hr	All	0	3	0	59	0	6	75	1	0	48	17	0	0	0	85	70	364	
	HV	0	0	0	3	0	0	0	0	0	7	0	0	0	0	0	6	16	
	HV%	-	0%	-	5%	-	0%	0%	0%	-	15%	0%	-	-	-	0%	9%	4%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:30 PM	0	0	3	5	8	0	0	0	0	0	0	1	0	0	1
8:45 PM	0	1	1	2	4	0	0	0	0	0	0	1	0	0	1
9:00 PM	1	0	2	1	4	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	1	1	3	5	0	0	0	0	0	0	0	0	0	0
9:30 PM	1	0	2	1	4	0	0	0	0	0	0	0	0	0	0
9:45 PM	1	0	1	2	4	0	0	0	0	0	0	1	0	0	1
10:00 PM	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0
10:15 PM	1	0	1	2	4	0	0	0	0	0	0	0	0	0	0
Count Total	4	2	14	17	37	0	0	0	0	0	0	3	0	0	3
Peak Hour	3	0	7	6	16	0	0	0	0	0	0	1	0	0	1

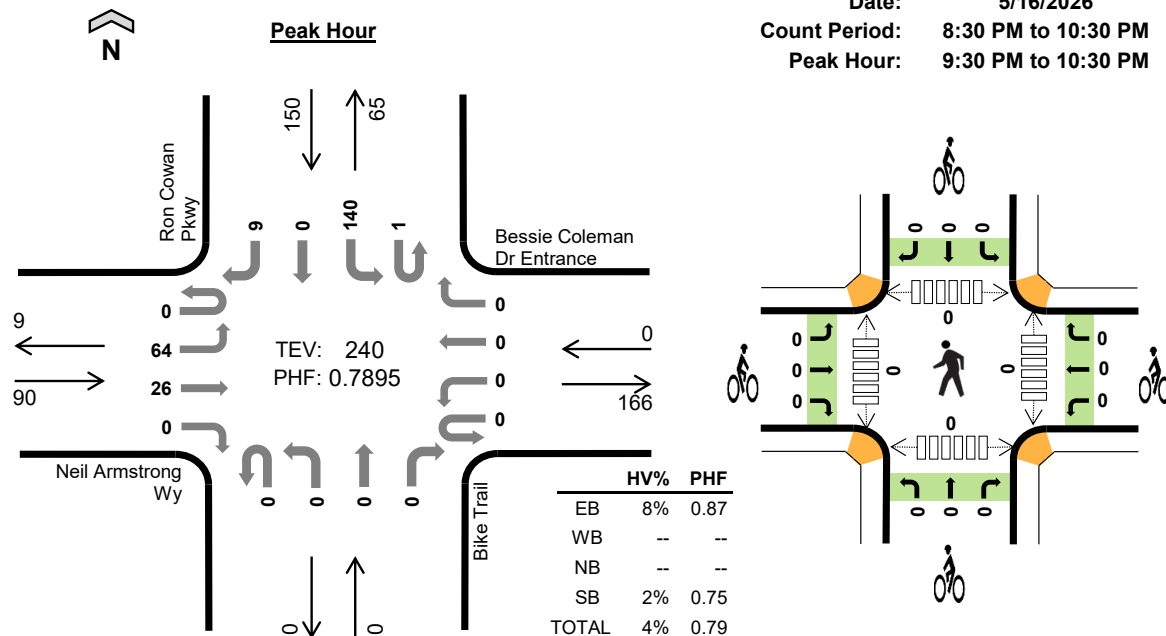
Count Summaries - Heavy Vehicles

Interval Start	John Glenn Dr				Bessie Coleman Dr Exit				Ron Cowan Pkwy				Ron Cowan Pkwy				15-min Total	Rolling Hour Total	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
8:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	4	1	8	0
8:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	4	0
9:00 PM	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	1	4	0
9:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	2	5	21
9:30 PM	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	1	4	17
9:45 PM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2	4	17
10:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	1	4	17
10:15 PM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2	4	16
Count Total	0	0	0	4	0	0	2	0	0	14	0	0	0	0	0	5	12	37	
Pk Hr Heavy	0	0	0	3	0	0	0	0	0	7	0	0	0	0	0	0	6	16	

Count Summaries - Bikes

Interval Start	John Glenn Dr				Bessie Coleman Dr Exit				Ron Cowan Pkwy				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Ron Cowan Pkwy Neil Armstrong Wy



Peak Hour Count Summaries

Peak Hour Interval Start	Neil Armstrong Wy				Bessie Coleman Dr Entrance				Bike Trail				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
9:30 PM	0	15	6	0	0	0	0	0	0	0	0	0	0	30	0	3	54	0
9:45 PM	0	17	5	0	0	0	0	0	0	0	0	0	0	30	0	0	52	0
10:00 PM	0	17	9	0	0	0	0	0	0	0	0	0	1	49	0	0	76	0
10:15 PM	0	15	6	0	0	0	0	0	0	0	0	0	0	31	0	6	58	240
Pk Hr	All	0	64	26	0	0	0	0	0	0	0	0	1	140	0	9	240	
	HV	0	7	0	0	0	0	0	0	0	0	0	0	3	0	0	10	
	HV%	-	11%	0%	-	-	-	-	-	-	-	-	0%	2%	-	0%	4%	

Note: For complete count summary (all intervals), see following pages.

** Heavy Vehicle Classifications include FHWA Classes 4-13.

** Count Summaries include heavy vehicles, but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
9:30 PM	2	0	0	1	3	0	0	0	0	0	0	0	0	0	0
9:45 PM	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0
10:00 PM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0
10:15 PM	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0
Peak Hour	7	0	0	3	10	0	0	0	0	0	0	0	0	0	0

Count Summaries - All Vehicles

Interval Start		Neil Armstrong Wy				Bessie Coleman Dr Entrance				Bike Trail				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM		0	8	5	0	0	0	0	0	0	0	0	0	0	32	0	6	51	0
8:45 PM		0	12	8	0	0	0	0	0	0	0	0	0	0	31	0	0	51	0
9:00 PM		0	11	14	0	0	0	0	0	0	0	0	0	0	30	0	1	56	0
9:15 PM		0	4	7	0	0	0	0	0	0	0	0	0	0	36	0	1	48	206
9:30 PM		0	15	6	0	0	0	0	0	0	0	0	0	0	30	0	3	54	209
9:45 PM		0	17	5	0	0	0	0	0	0	0	0	0	0	30	0	0	52	210
10:00 PM		0	17	9	0	0	0	0	0	0	0	0	0	1	49	0	0	76	230
10:15 PM		0	15	6	0	0	0	0	0	0	0	0	0	0	31	0	6	58	240
Count Total		0	99	60	0	0	0	0	0	0	0	0	0	1	269	0	17	446	
Pk Hr	All	0	64	26	0	0	0	0	0	0	0	0	0	1	140	0	9	240	
	HV	0	7	0	0	0	0	0	0	0	0	0	0	0	3	0	0	10	
	HV%	-	11%	0%	-	-	-	-	-	-	-	-	-	0%	2%	-	0%	4%	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:30 PM	3	0	0	4	7	0	0	0	0	0	0	1	0	0	1
8:45 PM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1
9:00 PM	2	0	0	1	3	0	0	0	0	0	0	0	0	0	0
9:15 PM	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0
9:30 PM	2	0	0	1	3	0	0	0	0	0	0	0	0	0	0
9:45 PM	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0
10:00 PM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0
10:15 PM	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0
Count Total	14	0	0	9	23	0	0	0	0	0	0	2	0	0	2
Peak Hour	7	0	0	3	10	0	0	0	0	0	0	0	0	0	0

Count Summaries - Heavy Vehicles

Interval Start	Neil Armstrong Wy				Bessie Coleman Dr Entrance				Bike Trail				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	7	0
8:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0
9:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	13
9:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	9
9:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	10
10:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10
10:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	10
Count Total	0	14	0	0	0	0	0	0	0	0	0	0	0	9	0	0	23	
Pk Hr Heavy	0	7	0	0	0	0	0	0	0	0	0	0	0	3	0	0	10	

Count Summaries - Bikes

Interval Start	Neil Armstrong Wy				Bessie Coleman Dr Entrance				Bike Trail				Ron Cowan Pkwy				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Appendix B. Existing Conditions Synchro Results

HCM 7th Signalized Intersection Summary

1: S Loop Rd/B St & Harbor Bay Pkwy

Existing Condition

Weekday No Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	268	3	36	152	6	1	0	105	31	1	2
Future Volume (veh/h)	0	268	3	36	152	6	1	0	105	31	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	0	335	4	45	190	8	1	0	0	39	1	2
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	482	805	10	525	1530	64	33	0	30	169	53	105
Arrive On Green	0.00	0.22	0.22	0.09	0.44	0.44	0.02	0.00	0.00	0.09	0.09	0.09
Sat Flow, veh/h	1795	3623	43	1795	3498	146	1795	0	1598	1795	560	1119
Grp Volume(v), veh/h	0	165	174	45	97	101	1	0	0	39	0	3
Grp Sat Flow(s),veh/h/ln	1795	1791	1875	1795	1791	1854	1795	0	1598	1795	0	1679
Q Serve(g_s), s	0.0	2.7	2.7	0.5	1.1	1.1	0.0	0.0	0.0	0.7	0.0	0.1
Cycle Q Clear(g_c), s	0.0	2.7	2.7	0.5	1.1	1.1	0.0	0.0	0.0	0.7	0.0	0.1
Prop In Lane	1.00		0.02	1.00		0.08	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	482	398	417	525	783	811	33	0	30	169	0	158
V/C Ratio(X)	0.00	0.42	0.42	0.09	0.12	0.12	0.03	0.00	0.00	0.23	0.00	0.02
Avail Cap(c_a), veh/h	1005	2003	2097	889	2003	2073	2008	0	1786	1057	0	988
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.3	11.3	7.2	5.7	5.7	16.4	0.0	0.0	14.3	0.0	14.0
Incr Delay (d2), s/veh	0.0	0.5	0.5	0.0	0.1	0.1	0.1	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.9	0.1	0.2	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	11.8	11.8	7.2	5.7	5.7	16.5	0.0	0.0	14.5	0.0	14.0
LnGrp LOS		B	B	A	A	A	B			B		B
Approach Vol, veh/h	339			243			1			42		
Approach Delay, s/veh	11.8			6.0			16.5			14.5		
Approach LOS	B			A			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	20.0		5.7	7.3	12.7		8.3				
Change Period (Y+Rc), s	4.2	5.1		5.1	4.2	5.1		5.1				
Max Green Setting (Gmax), s	10.0	38.0		38.0	10.0	38.0		20.0				
Max Q Clear Time (g_c+l1), s	0.0	3.1		2.0	2.5	4.7		2.7				
Green Ext Time (p_c), s	0.0	0.9		0.0	0.0	1.6		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh	9.8
HCM 7th LOS	A

Notes

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

HCM 7th Signalized Intersection Summary

2: S Loop Rd/N Loop Rd & Harbor Bay Pkwy

Existing Condition
Weekday No Event

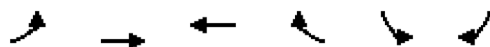
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	175	14	8	110	20	5	2	26	45	0	1
Future Volume (veh/h)	3	175	14	8	110	20	5	2	26	45	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.96	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	233	19	11	147	7	7	3	0	60	0	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	481	729	59	443	849	365	44	19	55	262	0	229
Arrive On Green	0.01	0.22	0.22	0.03	0.24	0.24	0.03	0.03	0.00	0.15	0.00	0.15
Sat Flow, veh/h	1781	3318	268	1781	3554	1527	1265	542	1585	1781	0	1557
Grp Volume(v), veh/h	4	124	128	11	147	7	10	0	0	60	0	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1810	1781	1777	1527	1807	0	1585	1781	0	1557
Q Serve(g_s), s	0.1	2.0	2.0	0.2	1.1	0.1	0.2	0.0	0.0	1.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	2.0	2.0	0.2	1.1	0.1	0.2	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.15	1.00		1.00	0.70		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	481	390	398	443	849	365	63	0	55	262	0	229
V/C Ratio(X)	0.01	0.32	0.32	0.02	0.17	0.02	0.16	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	1777	2358	2401	1705	4716	2026	2132	0	1870	2101	0	1837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.1	11.1	11.1	9.7	10.2	9.9	15.9	0.0	0.0	12.8	0.0	12.3
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	0.1	0.0	0.4	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.6	0.0	0.3	0.0	0.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.1	11.4	11.5	9.7	10.3	9.9	16.3	0.0	0.0	12.9	0.0	12.3
LnGrp LOS	B	B	B	A	B	A	B			B		B
Approach Vol, veh/h	256			165			10			61		
Approach Delay, s/veh	11.4			10.3			16.3			12.9		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.3	13.2		6.3	5.0	12.6		10.1				
Change Period (Y+Rc), s	4.0	5.1		5.1	4.0	5.1		5.1				
Max Green Setting (Gmax), s	25.0	45.0		40.0	25.0	45.0		40.0				
Max Q Clear Time (g_c+I1), s	2.1	3.1		2.2	2.2	4.0		3.0				
Green Ext Time (p_c), s	0.0	0.8		0.0	0.0	1.2		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh	11.3											
HCM 7th LOS	B											

HCM Signalized Intersection Capacity Analysis

Existing Condition

3: Harbor Bay Pkwy/Ron Cowan Pkwy/Ron Cowan Pkwy & Harbor Bay Pkwy

Weekday No Event



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	113	322	150	157	114	59
Future Volume (vph)	113	322	150	157	114	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.0	6.0	5.3	5.3	5.3
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	3539	3539	1583	3433	2787
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	3539	3539	1583	3433	2787
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	141	402	188	196	142	74
RTOR Reduction (vph)	0	0	0	79	0	0
Lane Group Flow (vph)	141	403	188	117	143	74
Confl. Peds. (#/hr)						4
Confl. Bikes (#/hr)						1
Turn Type	Prot	NA	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	6	3 4	3 4	3 5
Permitted Phases				6		
Actuated Green, G (s)	11.2	30.7	14.2	40.2	26.0	21.2
Effective Green, g (s)	11.2	30.7	14.2	40.2	26.0	21.2
Actuated g/C Ratio	0.17	0.45	0.21	0.60	0.39	0.31
Clearance Time (s)	5.3	6.0	6.0			
Vehicle Extension (s)	2.5	3.2	3.2			
Lane Grp Cap (vph)	569	1609	744	942	1322	875
v/s Ratio Prot	0.04	c0.11	0.05	c0.05	0.04	0.03
v/s Ratio Perm				0.03		
v/c Ratio	0.25	0.25	0.25	0.12	0.11	0.08
Uniform Delay, d1	24.5	11.3	22.2	6.0	13.3	16.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1	0.2	0.1	0.0	0.0
Delay (s)	24.7	11.4	22.4	6.0	13.4	16.4
Level of Service	C	B	C	A	B	B
Approach Delay (s/veh)		14.8	14.1		14.4	
Approach LOS		B	B		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			14.5		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.24			
Actuated Cycle Length (s)			67.5		Sum of lost time (s)	21.4
Intersection Capacity Utilization			38.0%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Harbor Bay Pkwy & Doolittle Dr (SR 61)

Existing Condition
Weekday No Event

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘↙	↑
Traffic Volume (vph)	594	49	13	512	127	17
Future Volume (vph)	594	49	13	512	127	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2	6.2	5.8	6.2	5.8	5.8
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	0.99	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1583	3433	3539	3412	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1583	3433	3539	3412	1583
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	675	56	15	582	144	19
RTOR Reduction (vph)	0	36	0	0	0	14
Lane Group Flow (vph)	675	20	15	582	144	5
Confl. Peds. (#/hr)	6					
Turn Type	NA	Perm	Prot	NA	Perm	Perm
Protected Phases	2		1	6		
Permitted Phases		2			8	8
Actuated Green, G (s)	18.0	18.0	1.1	24.9	13.9	13.9
Effective Green, g (s)	18.0	18.0	1.1	24.9	13.9	13.9
Actuated g/C Ratio	0.35	0.35	0.02	0.49	0.27	0.27
Clearance Time (s)	6.2	6.2	5.8	6.2	5.8	5.8
Vehicle Extension (s)	4.0	4.0	2.2	4.0	5.0	5.0
Lane Grp Cap (vph)	1253	560	74	1734	933	433
v/s Ratio Prot	c0.19		0.00	c0.16		
v/s Ratio Perm		0.01			c0.04	0.00
v/c Ratio	0.54	0.04	0.20	0.34	0.15	0.01
Uniform Delay, d1	13.1	10.7	24.4	7.9	14.0	13.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	0.7	0.2	0.2	0.0
Delay (s)	13.7	10.8	25.1	8.1	14.2	13.5
Level of Service	B	B	C	A	B	B
Approach Delay (s/veh)	13.4			8.5	14.1	
Approach LOS	B			A	B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			11.5		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.40			
Actuated Cycle Length (s)			50.8		Sum of lost time (s)	17.8
Intersection Capacity Utilization			35.6%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

5: Ron Cowan Pkwy & John Glenn Dr

Existing Condition

Weekday No Event

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	7	0	100	11	96	2	24	23	0	0	466	53	
Future Volume (vph)	7	0	100	11	96	2	24	23	0	0	466	53	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.5		4.5	4.5	4.5		5.0			5.0		
Lane Util. Factor		1.00		1.00	1.00	1.00		0.95			0.91		
Frpb, ped/bikes		1.00		1.00	1.00	1.00		1.00			1.00		
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00			1.00		
Frt		0.87		1.00	1.00	0.85		1.00			0.98		
Flt Protected		1.00		0.95	1.00	1.00		0.97			1.00		
Satd. Flow (prot)		1591		1736	1827	1553		3378			4895		
Flt Permitted		1.00		0.95	1.00	1.00		0.78			1.00		
Satd. Flow (perm)		1591		1736	1827	1553		2702			4895		
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	
Adj. Flow (vph)	8	0	119	13	114	2	29	27	0	0	555	63	
RTOR Reduction (vph)	0	120	0	0	0	2	0	0	0	0	11	0	
Lane Group Flow (vph)	0	7	0	13	114	0	0	56	0	0	607	0	
Confl. Peds. (#/hr)							5					5	
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	
Turn Type	Split	NA		Split	NA	Perm	pm+pt	NA			NA		
Protected Phases	3	3		4	4		1	6			2		
Permitted Phases						4	6						
Actuated Green, G (s)		4.2		7.5	7.5	7.5		50.3			40.8		
Effective Green, g (s)		4.2		7.5	7.5	7.5		50.3			40.8		
Actuated g/C Ratio		0.06		0.10	0.10	0.10		0.66			0.54		
Clearance Time (s)		4.5		4.5	4.5	4.5		5.0			5.0		
Vehicle Extension (s)		2.0		2.0	2.0	2.0		2.0			2.0		
Lane Grp Cap (vph)		87		171	180	153		1828			2627		
v/s Ratio Prot		c0.00		0.01	c0.06			c0.00			c0.12		
v/s Ratio Perm						0.00		0.02					
v/c Ratio		0.08		0.08	0.63	0.00		0.03			0.23		
Uniform Delay, d1		34.1		31.1	32.9	30.9		4.4			9.3		
Progression Factor		1.00		1.00	1.00	1.00		1.39			1.00		
Incremental Delay, d2		0.1		0.1	5.3	0.0		0.0			0.2		
Delay (s)		34.2		31.2	38.2	30.9		6.2			9.5		
Level of Service		C		C	D	C		A			A		
Approach Delay (s/veh)		34.2			37.4			6.2			9.5		
Approach LOS		C			D			A			A		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			16.5				HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.26										
Actuated Cycle Length (s)			76.0				Sum of lost time (s)				19.0		
Intersection Capacity Utilization			41.2%				ICU Level of Service				A		
Analysis Period (min)			15										
c Critical Lane Group													

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Neil Armstrong Way/Ron Cowan Pkwy & Airport Dr On-Ramp

Existing Condition
Weekday No Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	28	0	0	0	0	0	0	0	564	13	0
Future Volume (vph)	47	28	0	0	0	0	0	0	0	564	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0								4.0	4.0	
Lane Util. Factor	0.95	0.95								0.91	0.91	
Frpb, ped/bikes	1.00	1.00								1.00	1.00	
Flpb, ped/bikes	1.00	1.00								1.00	1.00	
Frt	1.00	1.00								1.00	1.00	
Flt Protected	0.95	0.99								0.95	0.96	
Satd. Flow (prot)	1665	1729								3189	1604	
Flt Permitted	0.95	0.99								0.95	0.96	
Satd. Flow (perm)	1665	1729								3189	1604	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	56	33	0	0	0	0	0	0	0	671	15	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	44	45	0	0	0	0	0	0	0	456	230	0
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	3%	3%	3%	0%	0%	0%	0%	0%	0%	3%	3%	3%
Turn Type	Perm	NA								Prot	NA	
Protected Phases		4								2	5	
Permitted Phases	4											
Actuated Green, G (s)	3.7	3.7								26.3	26.3	
Effective Green, g (s)	3.7	3.7								26.3	26.3	
Actuated g/C Ratio	0.10	0.10								0.69	0.69	
Clearance Time (s)	4.0	4.0								4.0	4.0	
Vehicle Extension (s)	2.0	2.0								2.0	2.0	
Lane Grp Cap (vph)	162	168								2207	1110	
v/s Ratio Prot										0.14	c0.14	
v/s Ratio Perm	c0.03	0.03										
v/c Ratio	0.27	0.27								0.21	0.21	
Uniform Delay, d1	15.9	15.9								2.1	2.1	
Progression Factor	1.00	1.00								0.65	0.68	
Incremental Delay, d2	0.3	0.3								0.2	0.4	
Delay (s)	16.2	16.2								1.6	1.8	
Level of Service	B	B								A	A	
Approach Delay (s/veh)		16.2			0.0			0.0			1.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			3.3									
HCM 2000 Volume to Capacity ratio			0.25									
Actuated Cycle Length (s)			38.0							12.0		
Intersection Capacity Utilization			21.6%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 7th Signalized Intersection Summary

1: S Loop Rd/B St & Harbor Bay Pkwy

Existing Condition

Weekend No Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	43	2	20	88	0	0	0	14	1	0	2
Future Volume (veh/h)	0	43	2	20	88	0	0	0	14	1	0	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	0	54	2	25	110	0	0	0	1	1	0	2
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	527	682	25	618	1462	0	0	15	13	18	0	16
Arrive On Green	0.00	0.19	0.19	0.06	0.41	0.00	0.00	0.00	0.01	0.01	0.00	0.01
Sat Flow, veh/h	1795	3523	130	1795	3676	0	0	1885	1596	1795	0	1596
Grp Volume(v), veh/h	0	27	29	25	110	0	0	0	1	1	0	2
Grp Sat Flow(s),veh/h/ln	1795	1791	1861	1795	1791	0	0	1885	1596	1795	0	1596
Q Serve(g_s), s	0.0	0.3	0.3	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.3	0.3	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	527	346	360	618	1462	0	0	15	13	18	0	16
V/C Ratio(X)	0.00	0.08	0.08	0.04	0.08	0.00	0.00	0.00	0.08	0.05	0.00	0.12
Avail Cap(c_a), veh/h	1194	2553	2653	1189	5105	0	0	2687	2275	1347	0	1197
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.8	8.8	6.3	4.8	0.0	0.0	0.0	13.1	13.1	0.0	13.1
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	8.9	8.9	6.3	4.8	0.0	0.0	0.0	14.1	13.5	0.0	14.3
LnGrp LOS		A	A	A	A				B	B		B
Approach Vol, veh/h	56			135			1			3		
Approach Delay, s/veh	8.9			5.1			14.1			14.0		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	16.0		5.3	5.7	10.3		5.4				
Change Period (Y+Rc), s	4.2	5.1		5.1	4.2	5.1		5.1				
Max Green Setting (Gmax), s	10.0	38.0		38.0	10.0	38.0		20.0				
Max Q Clear Time (g_c+I1), s	0.0	2.5		2.0	2.3	2.3		2.0				
Green Ext Time (p_c), s	0.0	0.5		0.0	0.0	0.2		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh	6.4
HCM 7th LOS	A

Notes

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

HCM 7th Signalized Intersection Summary

2: S Loop Rd/N Loop Rd & Harbor Bay Pkwy

Existing Condition
Weekend No Event

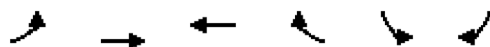
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	43	1	3	71	17	1	0	0	3	0	1
Future Volume (veh/h)	2	43	1	3	71	17	1	0	0	3	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	3	57	1	4	93	10	1	0	0	4	0	1
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	585	926	16	610	934	415	25	0	22	43	0	38
Arrive On Green	0.01	0.26	0.26	0.01	0.26	0.26	0.01	0.00	0.00	0.02	0.00	0.02
Sat Flow, veh/h	1795	3601	63	1795	3582	1591	1795	0	1598	1795	0	1595
Grp Volume(v), veh/h	3	28	30	4	93	10	1	0	0	4	0	1
Grp Sat Flow(s),veh/h/ln	1795	1791	1874	1795	1791	1591	1795	0	1598	1795	0	1595
Q Serve(g_s), s	0.0	0.3	0.3	0.0	0.5	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.3	0.3	0.0	0.5	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	585	461	482	610	934	415	25	0	22	43	0	38
V/C Ratio(X)	0.01	0.06	0.06	0.01	0.10	0.02	0.04	0.00	0.00	0.09	0.00	0.03
Avail Cap(c_a), veh/h	2186	2899	3033	2205	5798	2576	2583	0	2299	2583	0	2295
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.5	7.8	7.8	7.5	7.8	7.6	13.5	0.0	0.0	13.3	0.0	13.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.5	7.8	7.8	7.5	7.8	7.7	13.8	0.0	0.0	13.6	0.0	13.4
LnGrp LOS	A	A	A	A	A	A	B			B		B
Approach Vol, veh/h	61			107			1			5		
Approach Delay, s/veh	7.8			7.8			13.8			13.6		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.2	12.3		5.5	4.3	12.2		5.8				
Change Period (Y+Rc), s	4.0	5.1		5.1	4.0	5.1		5.1				
Max Green Setting (Gmax), s	25.0	45.0		40.0	25.0	45.0		40.0				
Max Q Clear Time (g_c+I1), s	2.0	2.5		2.0	2.0	2.3		2.1				
Green Ext Time (p_c), s	0.0	0.5		0.0	0.0	0.2		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	8.0											
HCM 7th LOS	A											

HCM Signalized Intersection Capacity Analysis

Existing Condition

3: Harbor Bay Pkwy/Ron Cowan Pkwy/Ron Cowan Pkwy & Harbor Bay Pkwy

Weekend No Event



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	28	38	78	96	48	29
Future Volume (vph)	28	38	78	96	48	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.0	6.0	5.3	5.3	5.3
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3467	3574	3574	1599	3467	2814
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3467	3574	3574	1599	3467	2814
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	32	44	90	110	55	33
RTOR Reduction (vph)	0	0	0	37	0	0
Lane Group Flow (vph)	32	44	90	73	55	33
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	Prot	NA	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	6	3 4	3 4	3 5
Permitted Phases				6		
Actuated Green, G (s)	5.8	28.5	17.4	43.6	26.2	15.9
Effective Green, g (s)	5.8	28.5	17.4	43.6	26.2	15.9
Actuated g/C Ratio	0.09	0.44	0.27	0.67	0.40	0.24
Clearance Time (s)	5.3	6.0	6.0			
Vehicle Extension (s)	2.5	3.2	3.2			
Lane Grp Cap (vph)	307	1555	949	1064	1386	683
v/s Ratio Prot	c0.01	0.01	c0.03	c0.03	0.02	0.01
v/s Ratio Perm				0.02		
v/c Ratio	0.10	0.03	0.09	0.07	0.04	0.05
Uniform Delay, d1	27.5	10.6	18.1	3.8	12.0	19.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.0	0.0	0.0	0.0	0.0
Delay (s)	27.6	10.6	18.2	3.9	12.0	19.0
Level of Service	C	B	B	A	B	B
Approach Delay (s/veh)		17.7	10.3		14.6	
Approach LOS		B	B		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			12.9		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.09			
Actuated Cycle Length (s)			65.5		Sum of lost time (s)	21.4
Intersection Capacity Utilization			25.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

4: Harbor Bay Pkwy & Doolittle Dr (SR 61)

Existing Condition
Weekend No Event

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘↙	↑
Traffic Volume (vph)	307	27	8	223	26	6
Future Volume (vph)	307	27	8	223	26	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2	6.2	5.8	6.2	5.8	5.8
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3574	1599	3467	3574	3467	1599
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3574	1599	3467	3574	3467	1599
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	361	32	9	262	31	7
RTOR Reduction (vph)	0	22	0	0	0	5
Lane Group Flow (vph)	361	10	9	262	31	2
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	NA	Perm	Prot	NA	Perm	Perm
Protected Phases	2		1	6		
Permitted Phases		2			8	8
Actuated Green, G (s)	14.4	14.4	1.0	21.2	14.2	14.2
Effective Green, g (s)	14.4	14.4	1.0	21.2	14.2	14.2
Actuated g/C Ratio	0.30	0.30	0.02	0.45	0.30	0.30
Clearance Time (s)	6.2	6.2	5.8	6.2	5.8	5.8
Vehicle Extension (s)	4.0	4.0	2.2	4.0	5.0	5.0
Lane Grp Cap (vph)	1085	485	73	1598	1038	479
v/s Ratio Prot	c0.10		0.00	c0.07		
v/s Ratio Perm		0.01			c0.01	0.00
v/c Ratio	0.33	0.02	0.12	0.16	0.03	0.00
Uniform Delay, d1	12.8	11.6	22.8	7.8	11.7	11.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.0	0.4	0.1	0.0	0.0
Delay (s)	13.0	11.6	23.2	7.9	11.8	11.6
Level of Service	B	B	C	A	B	B
Approach Delay (s/veh)	12.9			8.4	11.7	
Approach LOS	B			A	B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			11.1		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.20			
Actuated Cycle Length (s)			47.4		Sum of lost time (s)	17.8
Intersection Capacity Utilization			27.7%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

5: Ron Cowan Pkwy & John Glenn Dr

Existing Condition

Weekend No Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↗		↖			↑↑↑	
Traffic Volume (vph)	3	0	59	6	75	1	48	17	0	0	85	70
Future Volume (vph)	3	0	59	6	75	1	48	17	0	0	85	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00	1.00		0.95			0.91	
Frpb, ped/bikes		1.00		1.00	1.00	1.00		1.00			0.99	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00			1.00	
Frt		0.87		1.00	1.00	0.85		1.00			0.93	
Flt Protected		1.00		0.95	1.00	1.00		0.96			1.00	
Satd. Flow (prot)		1589		1736	1827	1553		3345			4604	
Flt Permitted		1.00		0.95	1.00	1.00		0.77			1.00	
Satd. Flow (perm)		1589		1736	1827	1553		2660			4604	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	4	0	69	7	88	1	56	20	0	0	100	82
RTOR Reduction (vph)	0	70	0	0	0	1	0	0	0	0	37	0
Lane Group Flow (vph)	0	3	0	7	88	0	0	76	0	0	145	0
Confl. Peds. (#/hr)							1					1
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Split	NA		Split	NA	Perm	pm+pt	NA			NA	
Protected Phases	3	3		4	4		1	6			2	
Permitted Phases						4	6					
Actuated Green, G (s)		3.6		6.9	6.9	6.9		51.5			42.0	
Effective Green, g (s)		3.6		6.9	6.9	6.9		51.5			42.0	
Actuated g/C Ratio		0.05		0.09	0.09	0.09		0.68			0.55	
Clearance Time (s)		4.5		4.5	4.5	4.5		5.0			5.0	
Vehicle Extension (s)		2.0		2.0	2.0	2.0		2.0			2.0	
Lane Grp Cap (vph)		75		157	165	140		1843			2544	
v/s Ratio Prot		c0.00		0.00	c0.05			c0.00			c0.03	
v/s Ratio Perm						0.00		0.03				
v/c Ratio		0.05		0.04	0.53	0.00		0.04			0.06	
Uniform Delay, d1		34.6		31.5	33.0	31.4		4.1			7.9	
Progression Factor		1.00		1.00	1.00	1.00		1.49			1.00	
Incremental Delay, d2		0.1		0.0	1.7	0.0		0.0			0.0	
Delay (s)		34.7		31.6	34.7	31.4		6.1			7.9	
Level of Service		C		C	C	C		A			A	
Approach Delay (s/veh)		34.7			34.4			6.1			7.9	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			18.1				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.11									
Actuated Cycle Length (s)			76.0				Sum of lost time (s)			19.0		
Intersection Capacity Utilization			40.2%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Neil Armstrong Way/Ron Cowan Pkwy & Airport Dr On-Ramp

Existing Condition
Weekend No Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	26	0	0	0	0	0	0	0	141	0	9
Future Volume (vph)	65	26	0	0	0	0	0	0	0	141	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0								4.0	4.0	
Lane Util. Factor	0.95	0.95								0.91	0.91	
Frt	1.00	1.00								1.00	0.97	
Flt Protected	0.95	0.98								0.95	0.96	
Satd. Flow (prot)	1649	1698								3159	1552	
Flt Permitted	0.95	0.98								0.95	0.96	
Satd. Flow (perm)	1649	1698								3159	1552	
Peak-hour factor, PHF	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	83	33	0	0	0	0	0	0	0	181	0	12
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	9	0
Lane Group Flow (vph)	57	59	0	0	0	0	0	0	0	130	54	0
Heavy Vehicles (%)	4%	4%	4%	0%	0%	0%	0%	0%	0%	4%	4%	4%
Turn Type	Perm	NA								Prot	NA	
Protected Phases		4								2	5	
Permitted Phases	4											
Actuated Green, G (s)	4.0	4.0								26.0	26.0	
Effective Green, g (s)	4.0	4.0								26.0	26.0	
Actuated g/C Ratio	0.11	0.11								0.68	0.68	
Clearance Time (s)	4.0	4.0								4.0	4.0	
Vehicle Extension (s)	2.0	2.0								2.0	2.0	
Lane Grp Cap (vph)	173	178								2161	1061	
v/s Ratio Prot										0.04	0.03	
v/s Ratio Perm	0.03	0.03										
v/c Ratio	0.33	0.33								0.06	0.05	
Uniform Delay, d1	15.8	15.8								2.0	2.0	
Progression Factor	1.00	1.00								0.91	0.87	
Incremental Delay, d2	0.4	0.4								0.1	0.1	
Delay (s)	16.2	16.2								1.9	1.8	
Level of Service	B	B								A	A	
Approach Delay (s/veh)		16.2			0.0			0.0			1.8	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			7.2									
HCM 2000 Volume to Capacity ratio			0.11									
Actuated Cycle Length (s)			38.0							12.0		
Intersection Capacity Utilization			15.0%									
Analysis Period (min)			15									
c Critical Lane Group												

Appendix C. Existing Plus Project Conditions Synchro Results

HCM 7th Signalized Intersection Summary

1: Harbor Bay Pkwy & B St

Existing Plus Project Condition

Weekday With Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	501	0	0	919	538	1	0	0	31	0	3
Future Volume (veh/h)	0	501	0	0	919	538	1	0	0	31	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.46
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	0	1870	1885	1885	1870	1870	1870	1885	1870	1885
Adj Flow Rate, veh/h	0	589	0	0	1081	633	1	0	0	36	0	4
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	1	1	0	2	1	1	2	2	2	1	2	1
Cap, veh/h	90	1654	0	384	1027	568	195	0	173	436	0	179
Arrive On Green	0.00	0.46	0.00	0.00	0.46	0.46	0.11	0.00	0.00	0.24	0.00	0.24
Sat Flow, veh/h	1795	3676	0	1781	2224	1231	1781	0	1585	1795	0	735
Grp Volume(v), veh/h	0	589	0	0	858	856	1	0	0	36	0	4
Grp Sat Flow(s),veh/h/ln	1795	1791	0	1781	1791	1664	1781	0	1585	1795	0	735
Q Serve(g_s), s	0.0	8.7	0.0	0.0	38.0	38.0	0.0	0.0	0.0	1.3	0.0	0.3
Cycle Q Clear(g_c), s	0.0	8.7	0.0	0.0	38.0	38.0	0.0	0.0	0.0	1.3	0.0	0.3
Prop In Lane	1.00		0.00	1.00		0.74	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	1654	0	384	827	768	195	0	173	436	0	179
V/C Ratio(X)	0.00	0.36	0.00	0.00	1.04	1.11	0.01	0.00	0.00	0.08	0.00	0.02
Avail Cap(c_a), veh/h	306	1654	0	598	827	768	822	0	732	436	0	179
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.3	0.0	0.0	22.1	22.2	32.7	0.0	0.0	24.1	0.0	23.7
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	41.6	68.4	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.3	0.0	0.0	23.7	27.7	0.0	0.0	0.0	0.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.4	0.0	0.0	63.7	90.6	32.7	0.0	0.0	24.1	0.0	23.7
LnGrp LOS	B			F			C				C	C
Approach Vol, veh/h	589			1714			1			40		
Approach Delay, s/veh	14.4			77.1			32.7			24.1		
Approach LOS	B			E			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	43.1		14.1	0.0	43.1		25.1				
Change Period (Y+Rc), s	4.2	5.1		5.1	4.2	5.1		5.1				
Max Green Setting (Gmax), s	10.0	38.0		38.0	10.0	38.0		20.0				
Max Q Clear Time (g_c+I1), s	0.0	40.0		2.0	0.0	10.7		3.3				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	3.3		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 60.4

HCM 7th LOS E

Notes

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

HCM 7th Signalized Intersection Summary

2: S Loop Rd/N Loop Rd & Harbor Bay Pkwy

Existing Plus Project Condition
Weekday With Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	177	14	306	110	20	6	2	256	45	0	1
Future Volume (veh/h)	3	177	14	306	110	20	6	2	256	45	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	208	16	360	129	9	7	2	12	53	0	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	385	562	43	680	1344	581	80	23	90	226	0	197
Arrive On Green	0.01	0.17	0.17	0.22	0.38	0.38	0.06	0.06	0.06	0.13	0.00	0.13
Sat Flow, veh/h	1781	3334	254	1781	3554	1536	1400	400	1580	1781	0	1554
Grp Volume(v), veh/h	4	110	114	360	129	9	9	0	12	53	0	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1811	1781	1777	1536	1800	0	1580	1781	0	1554
Q Serve(g_s), s	0.1	2.5	2.5	6.5	1.1	0.2	0.2	0.0	0.3	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.1	2.5	2.5	6.5	1.1	0.2	0.2	0.0	0.3	1.2	0.0	0.0
Prop In Lane	1.00		0.14	1.00		1.00	0.78		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	299	305	680	1344	581	102	0	90	226	0	197
V/C Ratio(X)	0.01	0.37	0.37	0.53	0.10	0.02	0.09	0.00	0.13	0.23	0.00	0.01
Avail Cap(c_a), veh/h	1356	1774	1808	1277	3548	1534	1598	0	1402	1581	0	1380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	16.6	16.6	9.4	9.0	8.8	20.1	0.0	20.2	17.7	0.0	17.2
Incr Delay (d2), s/veh	0.0	0.6	0.6	0.2	0.0	0.0	0.1	0.0	0.2	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.9	0.9	1.8	0.3	0.0	0.1	0.0	0.1	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.3	17.2	17.2	9.7	9.1	8.8	20.3	0.0	20.4	17.9	0.0	17.2
LnGrp LOS	B	B	B	A	A	A	C		C	B		B
Approach Vol, veh/h	228			498			21			54		
Approach Delay, s/veh	17.1			9.5			20.4			17.9		
Approach LOS	B			A			C			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	22.1		7.7	13.9	12.7		10.8				
Change Period (Y+Rc), s	4.0	5.1		5.1	4.0	5.1		5.1				
Max Green Setting (Gmax), s	25.0	45.0		40.0	25.0	45.0		40.0				
Max Q Clear Time (g_c+I1), s	2.1	3.1		2.3	8.5	4.5		3.2				
Green Ext Time (p_c), s	0.0	0.7		0.0	0.3	1.0		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh	12.5											
HCM 7th LOS	B											

HCM Signalized Intersection Capacity Analysis

3: Harbor Bay Pkwy/Ron Cowan Pkwy & Harbor Bay Pkwy

Existing Plus Project Condition
Weekday With Event



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	116	447	1197	157	114	374
Future Volume (vph)	116	447	1197	157	114	374
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.0	6.0	5.3	5.3	5.3
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	3539	3539	1583	3433	2787
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	3539	3539	1583	3433	2787
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	136	526	1408	185	134	440
RTOR Reduction (vph)	0	0	0	50	0	0
Lane Group Flow (vph)	136	526	1408	135	134	440
Confl. Peds. (#/hr)						4
Confl. Bikes (#/hr)						1
Turn Type	Prot	NA	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	6	3 4	3 4	3 5
Permitted Phases				6		
Actuated Green, G (s)	11.5	58.2	41.4	74.3	32.9	27.7
Effective Green, g (s)	11.5	58.2	41.4	74.3	32.9	27.7
Actuated g/C Ratio	0.11	0.57	0.41	0.73	0.32	0.27
Clearance Time (s)	5.3	6.0	6.0			
Vehicle Extension (s)	2.5	3.2	3.2			
Lane Grp Cap (vph)	387	2021	1437	1154	1108	757
v/s Ratio Prot	0.04	0.15	c0.40	0.04	c0.04	c0.16
v/s Ratio Perm				0.05		
v/c Ratio	0.35	0.26	0.98	0.12	0.12	0.58
Uniform Delay, d1	41.8	11.0	29.8	4.1	24.3	32.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	18.9	0.0	0.1	1.2
Delay (s)	42.2	11.1	48.7	4.1	24.4	33.3
Level of Service	D	B	D	A	C	C
Approach Delay (s/veh)		17.5	43.5		31.2	
Approach LOS		B	D		C	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			34.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.72			
Actuated Cycle Length (s)			101.9		Sum of lost time (s)	21.4
Intersection Capacity Utilization			62.8%		ICU Level of Service	B
Analysis Period (min)			15			

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Harbor Bay Pkwy & Doolittle Dr (SR 61)

Existing Plus Project Condition
Weekday With Event

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘↙	↑
Traffic Volume (vph)	594	277	13	512	127	17
Future Volume (vph)	594	277	13	512	127	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2	6.2	5.8	6.2	5.8	5.8
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	0.99	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1583	3433	3539	3411	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1583	3433	3539	3411	1583
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	699	326	15	602	149	20
RTOR Reduction (vph)	0	200	0	0	0	15
Lane Group Flow (vph)	699	126	15	602	149	5
Confl. Peds. (#/hr)	6					
Turn Type	NA	Perm	Prot	NA	Perm	Perm
Protected Phases	2		1	6		
Permitted Phases		2			8	8
Actuated Green, G (s)	20.6	20.6	1.1	27.5	13.8	13.8
Effective Green, g (s)	20.6	20.6	1.1	27.5	13.8	13.8
Actuated g/C Ratio	0.39	0.39	0.02	0.52	0.26	0.26
Clearance Time (s)	6.2	6.2	5.8	6.2	5.8	5.8
Vehicle Extension (s)	4.0	4.0	2.2	4.0	5.0	5.0
Lane Grp Cap (vph)	1367	611	70	1825	883	409
v/s Ratio Prot	c0.20		0.00	c0.17		
v/s Ratio Perm		0.08			c0.04	0.00
v/c Ratio	0.51	0.21	0.21	0.33	0.17	0.01
Uniform Delay, d1	12.5	10.9	25.7	7.5	15.3	14.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.2	0.8	0.1	0.2	0.0
Delay (s)	12.9	11.1	26.5	7.7	15.5	14.7
Level of Service	B	B	C	A	B	B
Approach Delay (s/veh)	12.4			8.1	15.4	
Approach LOS	B			A	B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			11.2		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.40			
Actuated Cycle Length (s)			53.3		Sum of lost time (s)	17.8
Intersection Capacity Utilization			35.6%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

5: Ron Cowan Pkwy & John Glenn Dr

Existing Plus Project Condition
Weekday With Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	100	11	96	2	24	23	0	0	591	53
Future Volume (vph)	7	0	100	11	96	2	24	23	0	0	591	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00	1.00		0.95			0.91	
Frpb, ped/bikes		1.00		1.00	1.00	1.00		1.00			1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00			1.00	
Frt		0.87		1.00	1.00	0.85		1.00			0.99	
Flt Protected		1.00		0.95	1.00	1.00		0.98			1.00	
Satd. Flow (prot)		1591		1736	1827	1553		3381			4913	
Flt Permitted		1.00		0.95	1.00	1.00		0.77			1.00	
Satd. Flow (perm)		1591		1736	1827	1553		2673			4913	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	8	0	118	13	113	2	28	27	0	0	695	62
RTOR Reduction (vph)	0	119	0	0	0	2	0	0	0	0	8	0
Lane Group Flow (vph)	0	7	0	13	113	0	0	55	0	0	749	0
Confl. Peds. (#/hr)							5					5
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Split	NA		Split	NA	Perm	pm+pt	NA			NA	
Protected Phases	3	3		4	4		1	6			2	
Permitted Phases						4	6					
Actuated Green, G (s)		4.2		7.5	7.5	7.5		50.3			40.8	
Effective Green, g (s)		4.2		7.5	7.5	7.5		50.3			40.8	
Actuated g/C Ratio		0.06		0.10	0.10	0.10		0.66			0.54	
Clearance Time (s)		4.5		4.5	4.5	4.5		5.0			5.0	
Vehicle Extension (s)		2.0		2.0	2.0	2.0		2.0			2.0	
Lane Grp Cap (vph)		87		171	180	153		1811			2637	
v/s Ratio Prot		c0.00		0.01	c0.06			c0.00			c0.15	
v/s Ratio Perm						0.00		0.02				
v/c Ratio		0.08		0.08	0.63	0.00		0.03			0.28	
Uniform Delay, d1		34.1		31.1	32.9	30.9		4.4			9.6	
Progression Factor		1.00		1.00	1.00	1.00		0.72			1.00	
Incremental Delay, d2		0.1		0.1	4.9	0.0		0.0			0.3	
Delay (s)		34.2		31.2	37.8	30.9		3.2			9.9	
Level of Service		C		C	D	C		A			A	
Approach Delay (s/veh)		34.2			37.0			3.2			9.9	
Approach LOS		C			D			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)		15.7										
HCM 2000 Volume to Capacity ratio		0.30										
Actuated Cycle Length (s)		76.0										
Intersection Capacity Utilization		41.2%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: Neil Armstrong Way/Ron Cowan Pkwy & Airport Dr On-Ramp

Existing Plus Project Condition
Weekday With Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	28	0	0	0	0	0	0	0	689	13	0
Future Volume (vph)	47	28	0	0	0	0	0	0	0	689	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0								4.0	4.0	
Lane Util. Factor	0.95	0.95								0.91	0.91	
Frpb, ped/bikes	1.00	1.00								1.00	1.00	
Flpb, ped/bikes	1.00	1.00								1.00	1.00	
Frt	1.00	1.00								1.00	1.00	
Flt Protected	0.95	0.99								0.95	0.95	
Satd. Flow (prot)	1665	1729								3189	1603	
Flt Permitted	0.95	0.99								0.95	0.95	
Satd. Flow (perm)	1665	1729								3189	1603	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	55	33	0	0	0	0	0	0	0	811	15	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	43	45	0	0	0	0	0	0	0	551	275	0
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	3%	3%	3%	0%	0%	0%	0%	0%	0%	3%	3%	3%
Turn Type	Perm	NA								Prot	NA	
Protected Phases		4								2	5	
Permitted Phases	4											
Actuated Green, G (s)	3.7	3.7								26.3	26.3	
Effective Green, g (s)	3.7	3.7								26.3	26.3	
Actuated g/C Ratio	0.10	0.10								0.69	0.69	
Clearance Time (s)	4.0	4.0								4.0	4.0	
Vehicle Extension (s)	2.0	2.0								2.0	2.0	
Lane Grp Cap (vph)	162	168								2207	1109	
v/s Ratio Prot										0.17	0.17	
v/s Ratio Perm	0.03	0.03										
v/c Ratio	0.27	0.27								0.25	0.25	
Uniform Delay, d1	15.9	15.9								2.2	2.2	
Progression Factor	1.00	1.00								0.58	0.62	
Incremental Delay, d2	0.3	0.3								0.3	0.5	
Delay (s)	16.2	16.2								1.5	1.9	
Level of Service	B	B								A	A	
Approach Delay (s/veh)		16.2			0.0			0.0			1.6	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			3.0									
HCM 2000 Volume to Capacity ratio			0.29									
Actuated Cycle Length (s)			38.0							12.0		
Intersection Capacity Utilization			23.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM 7th Signalized Intersection Summary

1: Harbor Bay Pkwy & B St

Existing Plus Project Condition

Weekend With Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1270	0	1	408	0	1	1	0	813	1	2
Future Volume (veh/h)	0	1270	0	1	408	0	1	1	0	813	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.46
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	0	1870	1885	1885	1870	1870	1870	1885	1870	1885
Adj Flow Rate, veh/h	0	1494	0	1	480	0	1	1	0	956	1	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	1	1	0	2	1	1	2	2	2	1	2	1
Cap, veh/h	463	1561	0	97	1752	0	95	95	165	414	70	141
Arrive On Green	0.00	0.44	0.00	0.00	0.49	0.00	0.10	0.10	0.00	0.23	0.23	0.23
Sat Flow, veh/h	1795	3676	0	1781	3676	0	912	912	1585	1795	305	610
Grp Volume(v), veh/h	0	1494	0	1	480	0	2	0	0	956	0	3
Grp Sat Flow(s),veh/h/ln	1795	1791	0	1781	1791	0	1825	0	1585	1795	0	915
Q Serve(g_s), s	0.0	35.0	0.0	0.0	6.9	0.0	0.1	0.0	0.0	20.0	0.0	0.2
Cycle Q Clear(g_c), s	0.0	35.0	0.0	0.0	6.9	0.0	0.1	0.0	0.0	20.0	0.0	0.2
Prop In Lane	1.00		0.00	1.00		0.00	0.50		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	463	1561	0	97	1752	0	189	0	165	414	0	211
V/C Ratio(X)	0.00	0.96	0.00	0.01	0.27	0.00	0.01	0.00	0.00	2.31	0.00	0.01
Avail Cap(c_a), veh/h	668	1570	0	294	1752	0	800	0	695	414	0	211
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.7	0.0	20.6	13.1	0.0	34.9	0.0	0.0	33.4	0.0	25.7
Incr Delay (d2), s/veh	0.0	13.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	596.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	16.4	0.0	0.0	2.6	0.0	0.0	0.0	0.0	76.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	37.5	0.0	20.6	13.1	0.0	34.9	0.0	0.0	629.7	0.0	25.8
LnGrp LOS	D			C			C			F		
Approach Vol, veh/h	1494			481			2			959		
Approach Delay, s/veh	37.5			13.1			34.9			627.9		
Approach LOS	D			B			C			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	47.5		14.1	4.6	42.9		25.1				
Change Period (Y+Rc), s	4.2	5.1		5.1	4.5	5.1		5.1				
Max Green Setting (Gmax), s	10.0	38.0		38.0	9.7	38.0		20.0				
Max Q Clear Time (g_c+I1), s	0.0	8.9		2.1	2.0	37.0		22.0				
Green Ext Time (p_c), s	0.0	2.7		0.0	0.0	0.8		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh 226.3

HCM 7th LOS F

Notes

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

HCM 7th Signalized Intersection Summary

2: S Loop Rd/N Loop Rd & Harbor Bay Pkwy

Existing Plus Project Condition
Weekend With Event

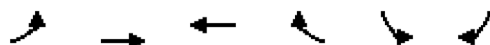
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	44	1	303	93	17	2	0	824	3	0	1
Future Volume (veh/h)	2	44	1	303	93	17	2	0	824	3	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	2	52	1	356	109	7	2	0	85	4	0	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	385	595	11	778	1383	615	258	0	229	43	0	38
Arrive On Green	0.00	0.17	0.17	0.23	0.39	0.39	0.14	0.00	0.14	0.02	0.00	0.02
Sat Flow, veh/h	1795	3594	69	1795	3582	1593	1795	0	1593	1795	0	1593
Grp Volume(v), veh/h	2	26	27	356	109	7	2	0	85	4	0	1
Grp Sat Flow(s),veh/h/ln	1795	1791	1872	1795	1791	1593	1795	0	1593	1795	0	1593
Q Serve(g_s), s	0.0	0.5	0.5	6.1	0.8	0.1	0.0	0.0	2.1	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.5	0.5	6.1	0.8	0.1	0.0	0.0	2.1	0.1	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	296	310	778	1383	615	258	0	229	43	0	38
V/C Ratio(X)	0.01	0.09	0.09	0.46	0.08	0.01	0.01	0.00	0.37	0.09	0.00	0.03
Avail Cap(c_a), veh/h	1403	1843	1927	1399	3686	1640	1642	0	1457	1642	0	1457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.1	15.5	15.5	8.8	8.5	8.3	16.0	0.0	16.9	20.9	0.0	20.9
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.4	0.3	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.2	1.7	0.2	0.0	0.0	0.0	0.7	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.1	15.5	15.5	8.9	8.5	8.3	16.0	0.0	17.3	21.2	0.0	21.0
LnGrp LOS	B	B	B	A	A	A	B		B	C		C
Approach Vol, veh/h	55				472				87			
Approach Delay, s/veh	15.5				8.8				17.3			
Approach LOS	B				A				B			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.2	22.0		11.4	13.9	12.3		6.1				
Change Period (Y+Rc), s	4.0	5.1		5.1	4.0	5.1		5.1				
Max Green Setting (Gmax), s	25.0	45.0		40.0	25.0	45.0		40.0				
Max Q Clear Time (g_c+I1), s	2.0	2.8		4.1	8.1	2.5		2.1				
Green Ext Time (p_c), s	0.0	0.6		0.1	0.3	0.2		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	10.7											
HCM 7th LOS	B											

HCM Signalized Intersection Capacity Analysis

Existing Plus Project Condition

3: Harbor Bay Pkwy/Ron Cowan Pkwy/Ron Cowan Pkwy & Harbor Bay Pkwy

Weekend With Event



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	480	1776	316	96	48	91
Future Volume (vph)	480	1776	316	96	48	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	6.0	6.0	5.3	5.3	5.3
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3467	3574	3574	1599	3467	2814
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3467	3574	3574	1599	3467	2814
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	565	2089	372	113	56	107
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	565	2089	372	113	56	107
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	Prot	NA	NA	pm+ov	Prot	pt+ov
Protected Phases	5	2	6	3 4	3 4	3 5
Permitted Phases				6		
Actuated Green, G (s)	19.2	40.4	15.9	41.7	25.8	28.8
Effective Green, g (s)	19.2	40.4	15.9	41.7	25.8	28.8
Actuated g/C Ratio	0.25	0.52	0.21	0.54	0.34	0.37
Clearance Time (s)	5.3	6.0	6.0			
Vehicle Extension (s)	2.5	3.2	3.2			
Lane Grp Cap (vph)	864	1875	738	865	1161	1052
v/s Ratio Prot	0.16	c0.58	0.10	c0.04	0.02	0.04
v/s Ratio Perm				0.03		
v/c Ratio	0.65	1.11	0.50	0.13	0.05	0.10
Uniform Delay, d1	25.9	18.3	27.1	8.7	17.3	15.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	59.5	0.6	0.1	0.0	0.0
Delay (s)	27.5	77.8	27.6	8.8	17.3	15.7
Level of Service	C	E	C	A	B	B
Approach Delay (s/veh)		67.1	23.2		16.3	
Approach LOS		E	C		B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			58.1		HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio			0.87			
Actuated Cycle Length (s)			77.0		Sum of lost time (s)	21.4
Intersection Capacity Utilization			66.0%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

4: Harbor Bay Pkwy & Doolittle Dr (SR 61)

Existing Plus Project Condition
Weekend With Event

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘↙	↑
Traffic Volume (vph)	307	71	8	223	352	6
Future Volume (vph)	307	71	8	223	352	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2	6.2	5.8	6.2	5.8	5.8
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3574	1599	3467	3574	3467	1599
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3574	1599	3467	3574	3467	1599
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	361	84	9	262	414	7
RTOR Reduction (vph)	0	58	0	0	0	5
Lane Group Flow (vph)	361	26	9	262	414	2
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	NA	Perm	Prot	NA	Perm	Perm
Protected Phases	2		1	6		
Permitted Phases		2			8	8
Actuated Green, G (s)	14.7	14.7	1.0	21.5	14.8	14.8
Effective Green, g (s)	14.7	14.7	1.0	21.5	14.8	14.8
Actuated g/C Ratio	0.30	0.30	0.02	0.45	0.31	0.31
Clearance Time (s)	6.2	6.2	5.8	6.2	5.8	5.8
Vehicle Extension (s)	4.0	4.0	2.2	4.0	5.0	5.0
Lane Grp Cap (vph)	1087	486	71	1590	1062	489
v/s Ratio Prot	c0.10		0.00	c0.07		
v/s Ratio Perm		0.02			c0.12	0.00
v/c Ratio	0.33	0.05	0.13	0.16	0.39	0.00
Uniform Delay, d1	13.0	11.9	23.2	8.0	13.2	11.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1	0.4	0.1	0.5	0.0
Delay (s)	13.2	11.9	23.6	8.1	13.7	11.6
Level of Service	B	B	C	A	B	B
Approach Delay (s/veh)	13.0			8.6	13.7	
Approach LOS	B			A	B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			12.2		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.37			
Actuated Cycle Length (s)			48.3		Sum of lost time (s)	17.8
Intersection Capacity Utilization			28.5%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

5: Ron Cowan Pkwy & John Glenn Dr

Existing Plus Project Condition
Weekend With Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	59	6	75	1	48	16	0	0	1823	70
Future Volume (vph)	3	0	59	6	75	1	48	16	0	0	1823	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5	4.5		5.0			5.0	
Lane Util. Factor		1.00		1.00	1.00	1.00		0.95			0.91	
Frpb, ped/bikes		1.00		1.00	1.00	1.00		1.00			1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00		1.00			1.00	
Frt		0.87		1.00	1.00	0.85		1.00			0.99	
Flt Protected		1.00		0.95	1.00	1.00		0.96			1.00	
Satd. Flow (prot)		1589		1736	1827	1553		3346			4956	
Flt Permitted		1.00		0.95	1.00	1.00		0.61			1.00	
Satd. Flow (perm)		1589		1736	1827	1553		2118			4956	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	4	0	69	7	88	1	56	19	0	0	2145	82
RTOR Reduction (vph)	0	70	0	0	0	1	0	0	0	0	3	0
Lane Group Flow (vph)	0	3	0	7	88	0	0	75	0	0	2224	0
Confl. Peds. (#/hr)							1					1
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Split	NA		Split	NA	Perm	pm+pt	NA			NA	
Protected Phases	3	3		4	4		1	6			2	
Permitted Phases						4	6					
Actuated Green, G (s)		3.6		6.9	6.9	6.9		51.5			42.0	
Effective Green, g (s)		3.6		6.9	6.9	6.9		51.5			42.0	
Actuated g/C Ratio		0.05		0.09	0.09	0.09		0.68			0.55	
Clearance Time (s)		4.5		4.5	4.5	4.5		5.0			5.0	
Vehicle Extension (s)		2.0		2.0	2.0	2.0		2.0			2.0	
Lane Grp Cap (vph)		75		157	165	140		1507			2738	
v/s Ratio Prot		c0.00		0.00	c0.05			c0.00			c0.45	
v/s Ratio Perm						0.00		0.03				
v/c Ratio		0.05		0.04	0.53	0.00		0.05			0.81	
Uniform Delay, d1		34.6		31.5	33.0	31.4		4.1			13.8	
Progression Factor		1.00		1.00	1.00	1.00		0.20			1.00	
Incremental Delay, d2		0.1		0.0	1.7	0.0		0.0			2.8	
Delay (s)		34.7		31.6	34.7	31.4		0.8			16.6	
Level of Service		C		C	C	C		A			B	
Approach Delay (s/veh)		34.7			34.4			0.8			16.6	
Approach LOS		C			C			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.3				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			76.0				Sum of lost time (s)			19.0		
Intersection Capacity Utilization			55.7%				ICU Level of Service			B		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Neil Armstrong Way/Ron Cowan Pkwy & Airport Dr On-Ramp

Existing Plus Project Condition
Weekend With Event

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	26	0	0	0	0	0	0	0	1879	9	0
Future Volume (vph)	64	26	0	0	0	0	0	0	0	1879	9	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0								4.0	4.0	
Lane Util. Factor	0.95	0.95								0.91	0.91	
Frt	1.00	1.00								1.00	1.00	
Flt Protected	0.95	0.98								0.95	0.95	
Satd. Flow (prot)	1649	1699								3159	1584	
Flt Permitted	0.95	0.98								0.95	0.95	
Satd. Flow (perm)	1649	1699								3159	1584	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	75	31	0	0	0	0	0	0	0	2211	11	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	52	54	0	0	0	0	0	0	0	1481	741	0
Heavy Vehicles (%)	4%	4%	4%	0%	0%	0%	0%	0%	0%	4%	4%	4%
Turn Type	Perm	NA								Prot	NA	
Protected Phases		4								2	5	
Permitted Phases	4											
Actuated Green, G (s)	3.9	3.9								26.1	26.1	
Effective Green, g (s)	3.9	3.9								26.1	26.1	
Actuated g/C Ratio	0.10	0.10								0.69	0.69	
Clearance Time (s)	4.0	4.0								4.0	4.0	
Vehicle Extension (s)	2.0	2.0								2.0	2.0	
Lane Grp Cap (vph)	169	174								2169	1087	
v/s Ratio Prot										0.47	0.47	
v/s Ratio Perm	0.03	0.03										
v/c Ratio	0.31	0.31								0.68	0.68	
Uniform Delay, d1	15.8	15.8								3.5	3.5	
Progression Factor	1.00	1.00								1.32	1.40	
Incremental Delay, d2	0.4	0.4								1.1	2.2	
Delay (s)	16.2	16.2								5.8	7.1	
Level of Service	B	B								A	A	
Approach Delay (s/veh)		16.2			0.0			0.0			6.2	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			6.7									
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			38.0							12.0		
Intersection Capacity Utilization			46.6%									
Analysis Period (min)			15									
c Critical Lane Group												