

Pierce College Puyallup Campus Master Plan

Puyallup, WA

Updated Traffic Impact Analysis
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FINDINGS/ CONCLUSIONS

This traffic impact analysis (TIA) has been prepared for the proposed expansion of the *Pierce College Puyallup Campus*. The traffic analysis was completed based on comments received from the submitted traffic scoping worksheet as well as scoping discussions with City of Puyallup and WSDOT staff. This is an update to the previous Traffic Impact Analysis dated January 6, 2021, and addresses comments received by City of Puyallup dated October 15, 2021.

Project Proposal. The project proposal includes the addition of up to 72,000 square foot (SF) of building area to the Pierce College Puyallup Campus (currently, the Master Plan identifies 71,688 square-foot in gross new floor area). The existing campus currently has approximately 243,440 SF of building area. Cumulatively, this expansion would result in a total of approximately 315,440 SF of building area as assumed in this study (*it should be noted that the 2,688 SF City of Puyallup Communications Center leased to the City is not included in this total*). For this analysis, a future horizon buildout year of 2032 was used.

Trip Generation. The proposed *Pierce College Puyallup Campus* expansion project is anticipated to generate 1,458 new weekday daily trips, with 149.0 new trips during the weekday AM peak hour (114.7 entering, 34.3 exiting), and 133.9 net new trips during the weekday PM peak hour (66.9 entering, 67.0 exiting).

Intersection Level of Service. Weekday AM and PM peak hour LOS analyses were conducted at 14 study intersections. The results of the LOS analyses indicated that all turn movements at the stop-controlled study intersection as well as all of the signalized study intersections are expected to operate at LOS D or better during the weekday AM and PM peak hour in 2032, without or with the proposed *Pierce College Puyallup Campus* expansion project. Per the City's *2015 Comprehensive Plan*, while the City has a minimum LOS D for all intersections in the City, LOS E operations along the Meridian and Shaw Road corridors are considered acceptable during the PM peak period. As such, all study intersections are anticipated to operate at an acceptable LOS in 2032.

Site Access. Vehicular access to/from the site would continue to be provided at the two existing access points: College Way/39th Ave SE and 7th St SE/College Way. Weekday AM and PM peak hour LOS analysis at the two site access locations indicated that all turn movements at 7th Street SE/College Way as well as the signalized intersection of College Way/39th Ave SE are anticipated to operate at LOS B or better during the weekday AM and PM peak hour in 2032 without or with the proposed expansion. Per the *Amendment to Concomitant Agreement dated May 30, 1986 Between the City of Puyallup and Beim & James Properties II*, there is a requirement to "assess the need for additional access to the campus during the development of each major addition..." Since both access locations are anticipated to operate at LOS B or better with the proposed expansion, the need for an additional access to the campus would not be justified.

Project Mitigation. The following summarizes the measures proposed to mitigate the transportation impacts of the proposed *Pierce College Puyallup Campus* expansion project:

- **Traffic Impact Fees.** To mitigate long-term transportation impacts, the City administers a Transportation Impact Fee (TIF) to new developments to improve the transportation system to accommodate the higher travel demand added by new developments. The City of Puyallup's currently adopted transportation impact fee is \$4,500 per PM peak hour trip. The preliminary estimated transportation impact fee for the proposed project totals **\$602,550** ($\$4,500 \times 133.9$ net new PM peak hour trips). The actual impact fees will be calculated and assessed at the time of building permit issuance.

INTRODUCTION

This traffic impact analysis (TIA) documents the traffic impacts associated with the proposed expansion of the *Pierce College Puyallup Campus* as part of its Master Plan. *The Pierce College Puyallup Campus* is located at 1601 39th Avenue SE in Puyallup, WA as shown in **Figure 1**. This is an update to the previous Traffic Impact Analysis dated January 6, 2021, and addresses comments received by City of Puyallup dated October 15, 2021.

Project Description

The *Pierce College Puyallup Campus* currently has approximately 243,440 square feet (SF) of building area and the proposed project would expand the college campus by an additional 72,000 SF in the context of evaluating traffic impacts. Cumulatively, this expansion would result in a total of approximately 315,440 SF of building area. For this analysis, a buildout horizon year of 2032 was used.

Vehicular access to/from the site would continue to be provided at the two existing access points off of 39th Avenue SE and 7th Street SE. The Campus will continue to have primary access via the signalized intersection of College Way/39th Avenue SE. On the west side of the Campus, a secondary, full access driveway will also continue to provide access at the intersection of 7th Street SE/College Way. A preliminary site plan is included in

Figure 2.

Project Approach

Based on traffic scoping discussions with City of Puyallup staff, the following tasks were undertaken to evaluate and disclose the traffic impacts associated with the Pierce College Puyallup Campus Master Plan project:

- Assessed existing conditions through field reconnaissance and reviewed existing planning documents;
- Assessed and described existing road conditions, pedestrian facilities, and transit facilities in the project vicinity;
- Documented existing traffic volumes and intersection LOS at fourteen (14) study intersections during the weekday AM and PM peak hours;
- Documented future planned roadway improvements in the project vicinity;
- Developed trip generation estimates for weekday daily, AM, and PM peak hour conditions;
- Documented trip distribution and assignment of project-generated traffic;
- Documented traffic forecasts and assumptions for year 2032 AM and PM peak hour conditions without and with the proposed project;
- Analyzed weekday AM and PM peak hour LOS for future conditions without and with the project at fourteen (14) study intersections;
- Evaluated whether additional site access locations would be necessary; and
- Documented proposed traffic mitigation.

Primary Data and Information Sources

- 2021 AM and PM peak hour traffic counts by All Traffic Data.
- City of Puyallup's *2015 Comprehensive Plan*.
- Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition, 2017.
- Pierce Transit Website, January 2022.
- Transportation Research Board (TRB), *Highway Capacity Manual (HCM)*, 6th Edition, 2016.



Figure 1: Project Site Vicinity





Figure 2: Preliminary Site Plan



EXISTING CONDITIONS

This section includes a description of the existing site, an inventory of existing roadway conditions, key intersections in the site vicinity, existing daily and peak hour traffic volumes, intersection levels of service, non-motorized facilities, and planned roadway improvements.

Existing Project Site

The existing *Pierce College Puyallup Campus* site is located at 1601 39th Avenue SE in Puyallup, WA. It sits on a total of eight (8) parcels and is currently made up of about 243,350 SF of building space. The two existing access points off of 39th Avenue SE to the south and 7th Street SE to the west will also provide access to the proposed building area of up to 72,000 SF.

Existing Roadway Conditions

The primary vehicle travel routes to and from the site include 39th Avenue SE, S Meridian (SR 161), Shaw Road E, and 7th Street SE. These roadways serving the project site are described below in terms of the number of lanes, posted speed limits, pedestrian facilities, and shoulder conditions. Their relationships to one another can be seen in **Figure 1**.

S Meridian (SR 161) is a two-way north-southbound street in the project vicinity. It has five to eight lanes (2 to 3 lanes in each direction) with auxiliary turn lanes provided at most intersections in the project vicinity. It has curb, gutter and sidewalks on both sides and a posted speed limit of 35 mph. Per City of Puyallup's *Comprehensive Plan*, S Meridian is classified as a Major Arterial in the project vicinity.

39th Avenue SE is a two-way east-westbound street along the project's southern frontage. It is a four-to-five lane roadway (2 lanes in each direction) with curb, gutter and sidewalks on both sides and a posted speed limit of 35 mph. Auxiliary turn lanes are provided at most intersections in the project vicinity and a two-way left-turn lane is provided along 39th Ave SE west of College Way. Per City of Puyallup's *Comprehensive Plan*, 39th Avenue SE is classified as a Major Arterial in the project vicinity.

Shaw Road E is generally a two-way north-southbound street with a posted speed limit of 35 mph. North of 39th Ave SE, Shaw Rd E widens for a short distance to a 4-lane roadway with curb, gutter, and sidewalks on both sides of the street. After approximately 0.10 miles to the north of 39th Ave SE, the road transitions into a 2-lane roadway with curb, gutter, and sidewalk on the east side of the street and unpaved shoulder on the west side of the street. North of Manorwood Dr, Shaw road widens to a 3-lane roadway with curb, gutter, and sidewalks on both sides of the street. South of 39th Ave SE, paved shoulders are present on both sides of the street, but no sidewalks are provided. Per City of Puyallup's *Comprehensive Plan*, Shaw Road is classified as a Major Arterial in the project vicinity.

7th Street SE is a 3-lane two-way north-southbound street with a two-way left turn lane along the project's western frontage. Curb, gutter, and sidewalks are present on both sides of the street and the posted speed limit is 25 mph. Per City of Puyallup's

Comprehensive Plan, 7th Avenue SE is classified as a Major Collector in the project vicinity.

Transit Service

Transit service to and from the project vicinity is provided by Pierce Transit. Pierce Transit Route #4 which provides weekday and weekend bus service between Lakewood Transit Center, South Hill Mall Transit Center and Pierce College Puyallup Campus has a stop located at the southeastern employee parking lot inside the campus area. Route #4 runs approximately between 5:45 AM and 8:30 PM with 30-minute headways. Outside the campus area, the nearest transit stops can be found within one mile of the campus at the intersection of 10th Street SE and 39th Avenue SE. These bus stops also serve Pierce Transit Route #4 as well as Pierce Transit Route #425 (between Puyallup and South Hill). Additional transit stops that serve Pierce Transit Route #425 are also provided at the campus' West Entrance at the intersection of 7th Street SE and College Way. Route #425 provides weekday and Saturday bus service between approximately 11:30 AM and 5:20 PM with 1-hour headways.

Non-Motorized Transportation Facilities

Non-motorized transportation facilities in the project vicinity include sidewalks on both sides of 39th Avenue SE and 7th Street SE. Crosswalks with pedestrian push buttons are provided at most signalized study intersections along Shaw Rd, 39th Avenue SE, 37th Avenue SE and S Meridian (SR 161). Shaw Road between 23rd Ave SE and Manorwood Dr includes a shared-use path for biking and walking on the east side of the street.

Traffic Study Intersections

To assess the traffic impact of the proposed *Pierce College Puyallup Campus* expansion project, the following off-site study intersections were analyzed during the weekday AM and PM peak hours:

1. 7th Street SE / College Way
2. S Meridian / 31st Ave SW (SR 161)
3. S Meridian (SR 161) / 37th Avenue SE
4. 5th Avenue SE / 37th Avenue SE
5. 39th Avenue SE / 37th Avenue SE
6. 10th Street SE / 39th Avenue SE
7. College Way / 39th Avenue SE
8. Wildwood Park Dr / 39th Avenue SE
9. 25th Street SE / 39th Avenue SE
10. Shaw Road E / 39th Avenue SE
11. Shaw Road E / 23rd Avenue SE (Crystal Ridge Dr SE)
12. S Meridian (SR 161) / 39th Avenue SE
13. 5th Avenue SE / 39th Avenue SE
14. S Meridian (SR 161) / 43rd Avenue SE

Existing Peak Hour Traffic Volumes

Year 2021 existing AM and PM peak hour traffic volumes at the study intersections were estimated based on recent December 2021 turning movement counts collected by All Traffic Data. Based on comments provided by the City of Puyallup, traffic volumes in the study area have largely returned to normal with exception to the current reduced capacity of the Pierce College campus. To account for the currently reduced capacity of the Pierce College campus due to the COVID-19 pandemic, the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition, was used to estimate the trips generated by full capacity of the existing campus. The additional trips associated with full capacity of the campus were assigned through the study intersections and added to the 2021 traffic counts.

The AM peak hour traffic volumes represent the highest hourly volume of vehicles passing through an intersection between 7:00 and 9:00 AM. The PM peak hour traffic volumes represent the highest hourly volume of vehicles passing through an intersection between 4:00 and 6:00 PM.

Figure 3 and **Figure 4** illustrate the resulting 2021 AM and PM peak hour traffic volumes at the study intersections. The existing traffic count datasheets are included in **Appendix A**.

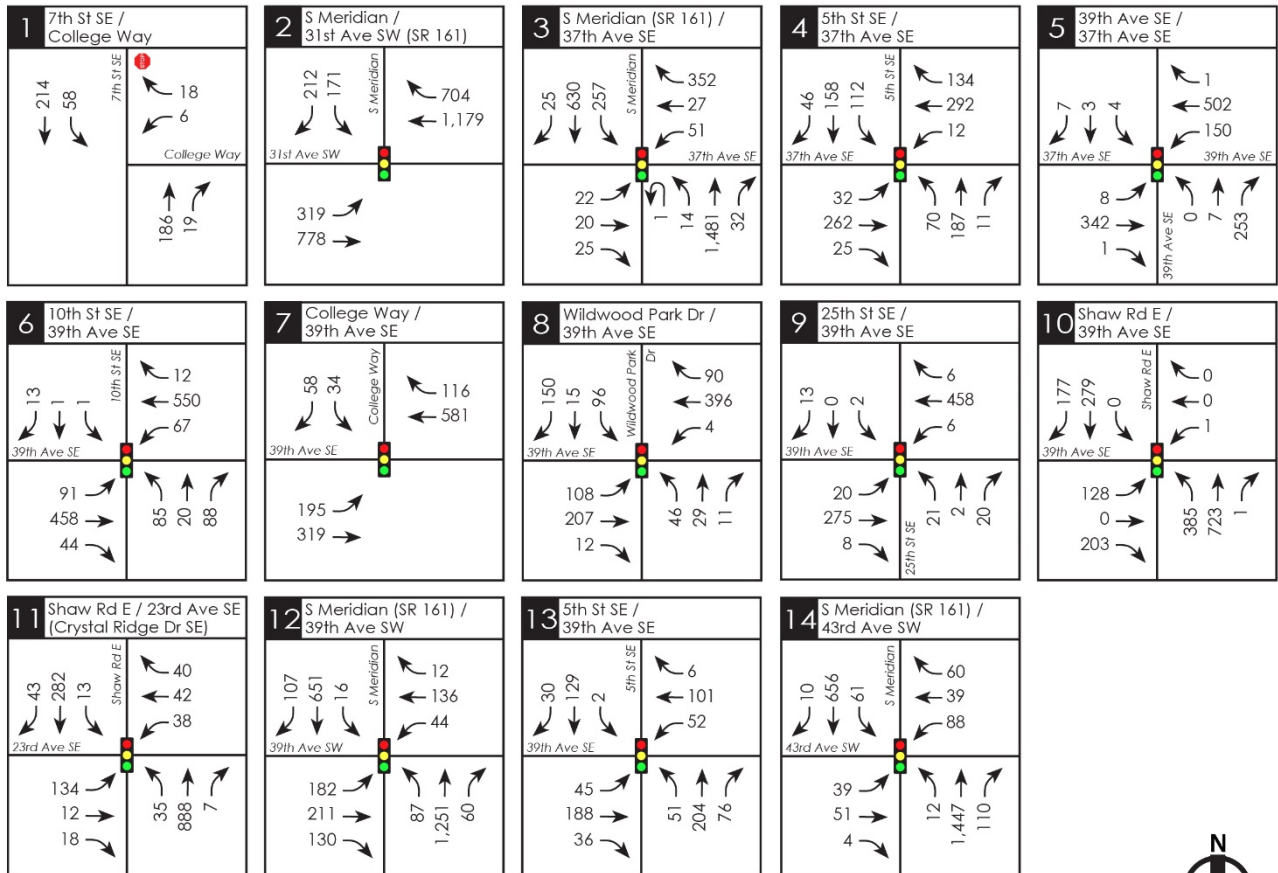


Figure 3: 2021 Existing Weekday AM Peak Hour Traffic Volumes



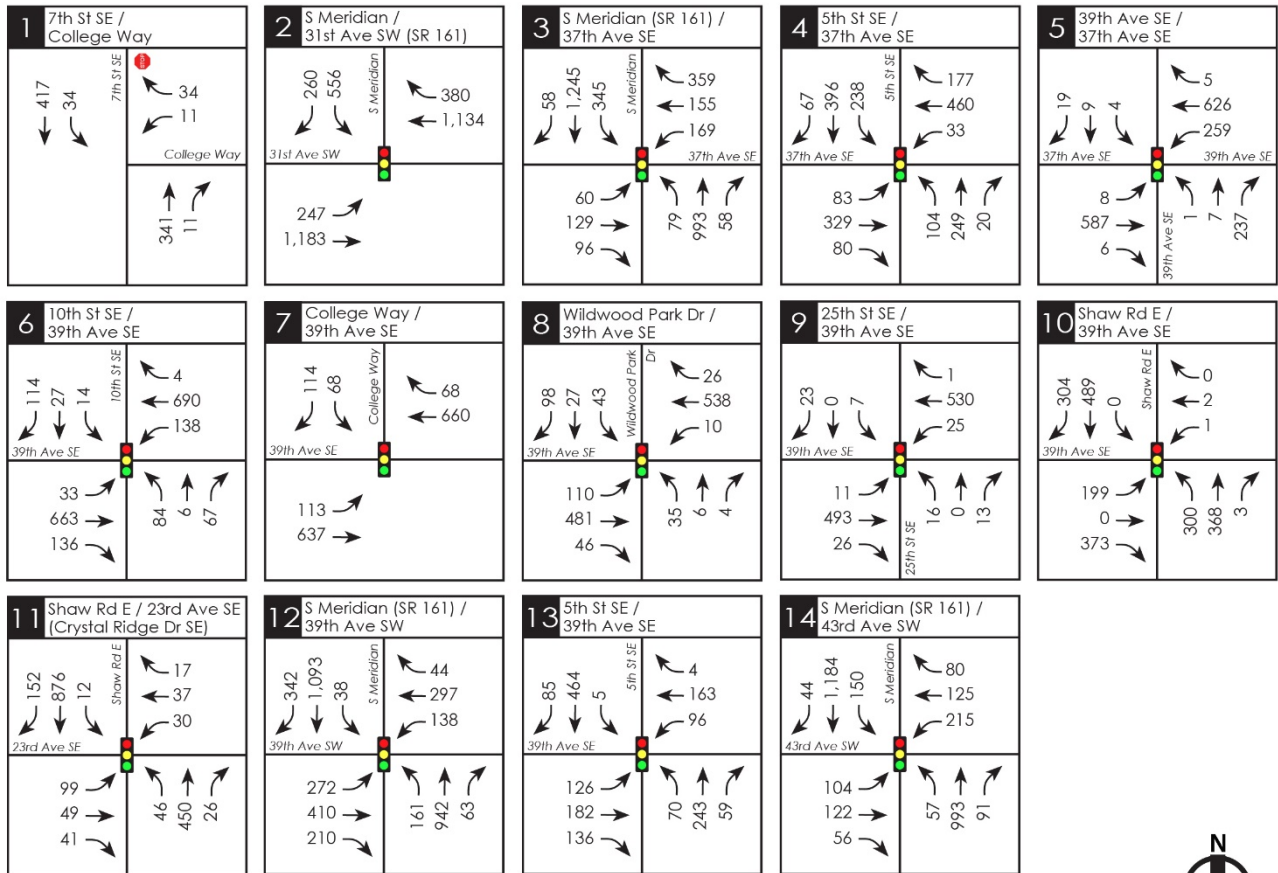


Figure 4: 2021 Existing Weekday PM Peak Hour Traffic Volumes

Existing Intersection Level of Service

An existing AM and PM peak hour level of service (LOS) analysis was conducted at the study intersections. LOS generally refers to the degree of congestion on a roadway or intersection. It is a measure of vehicle operating speed, travel time, travel delays, and driving comfort. A letter scale from A to F generally describes intersection LOS. At signalized intersections, LOS A represents free-flow conditions (motorists experience little or no delays), and LOS F represents forced-flow conditions where motorists experience an average delay in excess of 80 seconds per vehicle.

The LOS reported for signalized intersections and stop controlled intersections represents the average control delay (sec/veh) and can be reported for the overall intersection, for each approach, and for each lane group or movement (additional v/c ratio criteria apply to lane group or movement LOS only). The LOS reported at two-way stop-controlled intersections is based on the average control delay and can be reported for each controlled minor approach, controlled minor lane group, and controlled major-street movement (additional v/c ratio criteria apply to lane group or movement LOS only). **Table 1** outlines the current HCM 6th Edition LOS criteria for signalized and unsignalized intersections based on these methodologies.

Table 1
LOS Criteria for Signalized and Stop-Controlled Intersections¹

SIGNALIZED INTERSECTIONS			STOP-CONTROLLED INTERSECTIONS		
Control Delay (sec/veh)	LOS by Volume-to Capacity (V/C) Ratio ²		Control Delay (sec/veh)	LOS by Volume-to Capacity (V/C) Ratio ³	
	≤ 1.0	> 1.0		≤ 1.0	> 1.0
≤ 10	A	F	≤ 10	A	F
> 10 to ≤ 20	B	F	> 10 to ≤ 15	B	F
> 20 to ≤ 35	C	F	> 15 to ≤ 25	C	F
> 35 to ≤ 55	D	F	> 25 to ≤ 35	D	F
> 55 to ≤ 80	E	F	> 35 to ≤ 50	E	F
> 80	F	F	> 50	F	F

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

2) For approach-based and intersection-wide assessments at signals, LOS is defined solely by control delay.

3) For two-way stop-controlled intersections, the LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole at two-way stop controlled intersections. For approach-based and intersection-wide assessments at all-way stop controlled intersections, LOS is solely defined by control delay.

The analysis was conducted using the methodology and procedures outlined in the 6th Edition of the *Highway Capacity Manual* and *Synchro 10.3* methodology/ traffic analysis software. Existing signal timing information at the signalized study intersections was provided by WSDOT and the City of Puyallup. Phasing patterns were confirmed in the field. The 2021 AM and PM LOS analysis results for the study intersections are summarized in **Table 2**. The detailed LOS worksheets are included in **Appendix B**.

Table 2
Existing AM & PM Peak Hour LOS Summary

Study Intersections	Peak Hour LOS	
	LOS ¹	Delay (sec/veh)
AM Peak Hour		
<i>Stop-Controlled Intersection:</i>		
1. 7 th St SE / College Way		
Westbound Shared Left-Right	B	10.1
Southbound Left Turn	A	7.8
<i>Signalized Intersections:</i>		
2. S Meridian / 31 st Ave SW (SR 161) ²	C	22.5
3. S Meridian (SR 161) / 37 th Ave SE	B	15.3
4. 5 th Ave SE / 37 th Ave SE	B	17.6
5. 39 th Ave SE / 37 th Ave SE	B	17.8
6. 10 th Street SE / 39 th Ave SE	B	15.7
7. College Way / 39 th Ave SE	A	9.7
8. Wildwood Park Dr / 39 th Ave SE	B	18.8
9. 25 th Street SE / 39 th Ave SE	B	13.4
10. Shaw Rd E / 39 th Ave SE	B	15.0
11. Shaw Rd E / 23 rd Ave SE (Crystal Ridge Dr SE)	C	20.0
12. S Meridian (SR 161) / 39 th Ave SE	B	18.5
13. 5 th Ave SE / 39 th Ave SE	B	17.0
14. S Meridian (SR 161) / 43 rd Ave SE	C	22.3
PM Peak Hour		
<i>Stop-Controlled Intersection:</i>		
1. 7 th St SE / College Way		
Westbound Shared Left-Right	B	11.9
Southbound Left Turn	A	8.2
<i>Signalized Intersections:</i>		
2. S Meridian / 31 st Ave SW (SR 161) ²	C	25.5
3. S Meridian (SR 161) / 37 th Ave SE	C	30.2
4. 5 th Ave SE / 37 th Ave SE	C	22.4
5. 39 th Ave SE / 37 th Ave SE	B	18.1
6. 10 th Street SE / 39 th Ave SE	B	17.9
7. College Way / 39 th Ave SE	A	9.7
8. Wildwood Park Dr / 39 th Ave SE	B	17.9
9. 25 th Street SE / 39 th Ave SE	B	14.4
10. Shaw Rd E / 39 th Ave SE	C	28.2
11. Shaw Rd E / 23 rd Ave SE (Crystal Ridge Dr SE)	C	26.0
12. S Meridian (SR 161) / 39 th Ave SE	D	38.8
13. 5 th Ave SE / 39 th Ave SE	C	23.9
14. S Meridian (SR 161) / 43 rd Ave SE	C	34.9

¹ Based on HCM 6th Edition methodologies, unless otherwise noted.

² HCM 2000 LOS results due to non-NEMA phasing.

As shown in **Table 2**, all signalized study intersections and turn movements at the stop-controlled study intersection operate at LOS D or better during the weekday AM and PM peak hours. The City of Puyallup has adopted a minimum LOS D for all intersections in the City.

TRAFFIC IMPACT ANALYSIS

The following section describes projected future baseline traffic growth, new trips generated by the proposed development, distribution and assignment of new project trips, intersection level of service, and identification of transportation mitigation to offset impacts.

Project Trip Generation

Full buildout of the proposed project would include the addition of up to 72,000 square feet building area to the *Pierce College Puyallup Campus*. The trip generation estimates for the proposed expansion were determined based on methodology and procedures documented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition for Land Use Codes (LUC) 540 (Junior/ Community College).

Table 3 summarizes the new weekday trips the proposed Pierce College Puyallup Campus expansion would generate during a typical weekday and during the weekday AM and PM peak hours. The detailed trip generation calculations are provided in **Appendix C**.

Table 3
Trip Generation Summary

Time Period	New Trips Generated		
	In	Out	Total
Weekday Daily	729	729	1,458
Weekday AM Peak Hour	114.7	34.3	149.0
Weekday PM Peak Hour	66.9	67.0	133.9

As shown in **Table 3**, full buildout of the proposed *Pierce College Puyallup Campus* expansion is anticipated to generate 1,458 new weekday daily trips, with 149.0 new trips during the weekday AM peak hour (114.7 entering, 34.3 exiting), and 133.9 net new trips during the weekday PM peak hour (66.9 entering, 67.0 exiting).

Project Trip Distribution and Assignment

The estimated distribution of the project-generated vehicle trips to/from the site was estimated based on anticipated traffic patterns in the vicinity of the site; the distribution patterns were confirmed by the City through the traffic scoping process. **Table 4** summarizes the resulting general trip distribution patterns.

Table 4
Peak Hour Project Trip Distribution

Route (Direction)	Trip Distribution
Shaw Rd E (north)	15%
Shaw Rd E (south)	15%
7 th Street SE (north)	15%
31 st Avenue SW (SR 161) (west)	25%
39 th Avenue SW (west)	10%
S Meridian (SR 161) (south)	20%
TOTAL	100%

Based on the trip distribution percentages shown in **Table 4**, the weekday AM and PM peak hour project trips were assigned through the study intersections. **Figure 5** and **Figure 6** illustrate the resulting distribution and assignment of weekday AM and PM peak hour project trips through the study intersections and site access locations impacted by 25 or more project trips.

Planned Transportation Improvements

A review of the City of Puyallup’s 2020-2026 Transportation Improvement Plan showed the following planned transportation improvement projects in the immediate study area. A review of the WSDOT 2022-2025 STIP did not include any planned improvements in the project vicinity.

- **Project #6 - 2016-066 Bike Lanes – Wildwood Park Drive; 23rd Ave SE to 39th Ave SE.** This project would include a shared use path on the west side of Wildwood Park Drive. The possible construction year for this City project is 2023.
- **Project #13 - 2014-070 Corridor Improvements – Shaw Road Widening – Phase 4 (12th to 23rd).** This project would widen Shaw Road between 12th Ave SE and 23rd Ave SE to include 4 lanes with curb, gutter, sidewalk, bike lane, and street lighting on both sides. The possible construction year for this City project is 2026.
- **Project #15 - 2016-061 Improvements to 43rd Ave SE (between 10th St SE and S Meridian).** This project would include a roundabout or signal at 10th St SE and curb, gutter, sidewalk, and street lighting on the north half of 43rd Ave SE. It would also improve roadway standard to City standard from S Meridian to 5th St with improvements to the 43rd Ave SE/S Meridian intersection that would include adding a right turn lane. This City project was planned for 2021.
- **Project #23 - Intersection Improvements – Adaptive on 5th Street SE.** This project would install adaptive signals along the 5th Street SE corridor, including the intersections of 5th St SE with 23rd Ave, 31st Ave, 35th Ave, 37th Ave, 39th Ave and 43rd Ave (6 signals). The possible construction year for this City project is 2023.

- **Project #31 - 2016-034 Shaw Road Widening – Phase 2 (Manorwood Dr to 39th Ave SE).** This project would widen Shaw Road between Manorwood Dr and 39th Ave SE to have 3 lanes with curb, gutter, sidewalk, bike lane, and street lighting on both sides of the street. This would also include signal upgrades and improvements to the intersection of Shaw Rd E/ 39th Ave SE.

Future Traffic Volumes

To estimate future year 2032 without-project traffic volumes at the study intersections, a 1.5 percent annual growth rate was applied to existing (2021) peak hour volumes to account for new development in the study area and growth in existing traffic. The use of the 1.5 percent growth rate for forecasting future baseline traffic volumes was confirmed through meetings with WSDOT (Development Services Department and the Regional Traffic Engineer). It should be noted that the 2021 baseline traffic volumes used in the future volume forecast were adjusted to account for full capacity of the existing campus. The future 2032 without-project AM and PM peak hour traffic volumes at the study intersections are shown in **Figure 7** and **Figure 8**.

Adding the trip assignment from the proposed project to the future 2032 without-project traffic volumes results in the 2032 with-project traffic volumes at the study intersections. The future 2032 with-project AM and PM peak hour traffic volumes at the study intersections are shown in **Figure 9** and **Figure 10**.

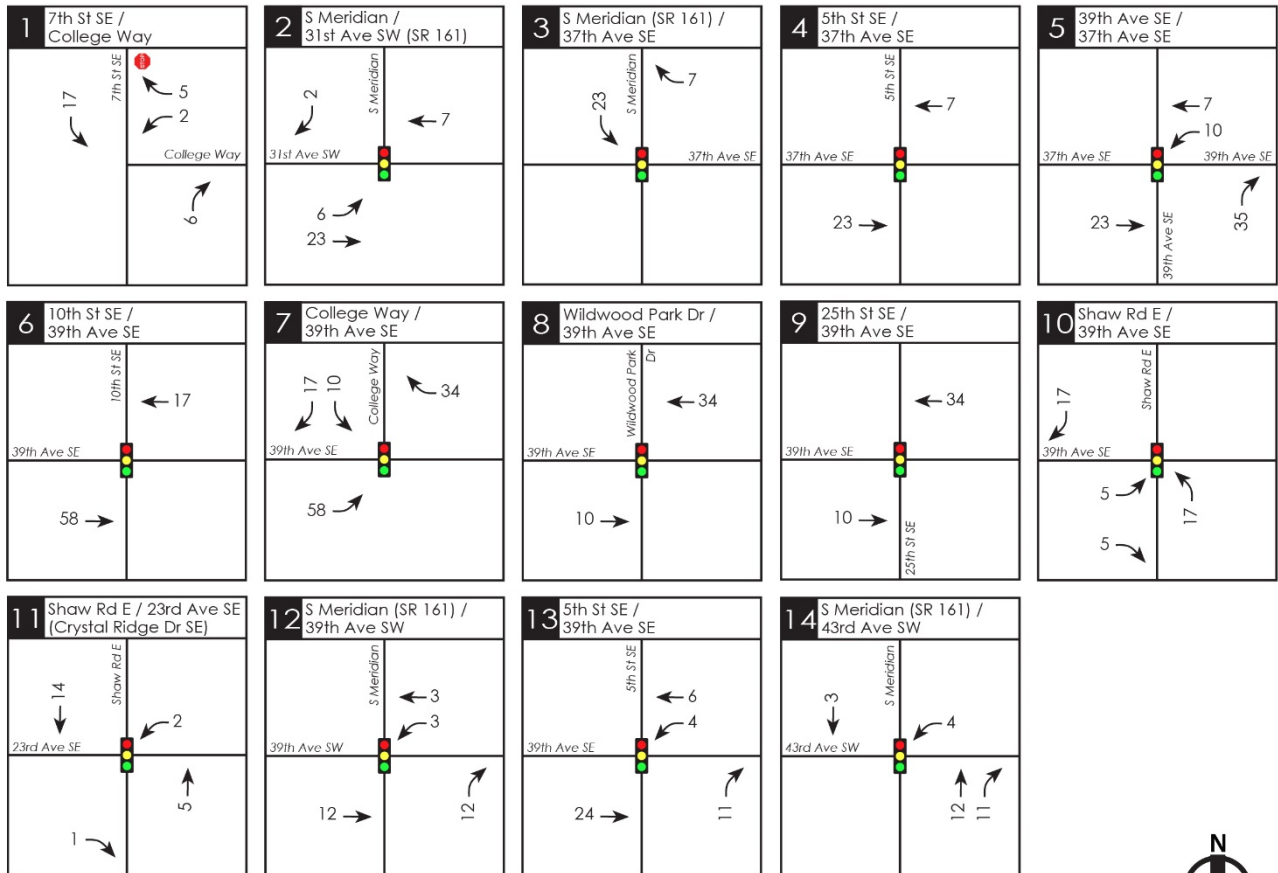
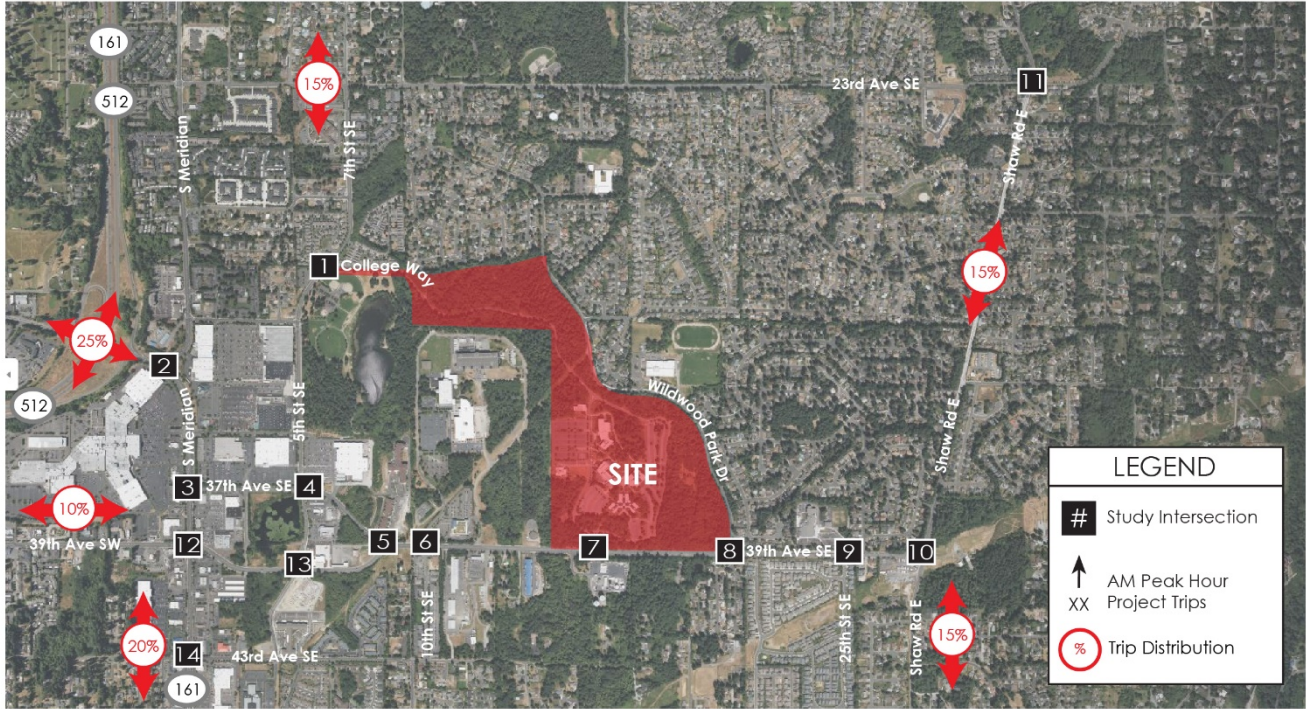


Figure 5: Weekday AM Peak Hour Project Trip Distribution & Assignment

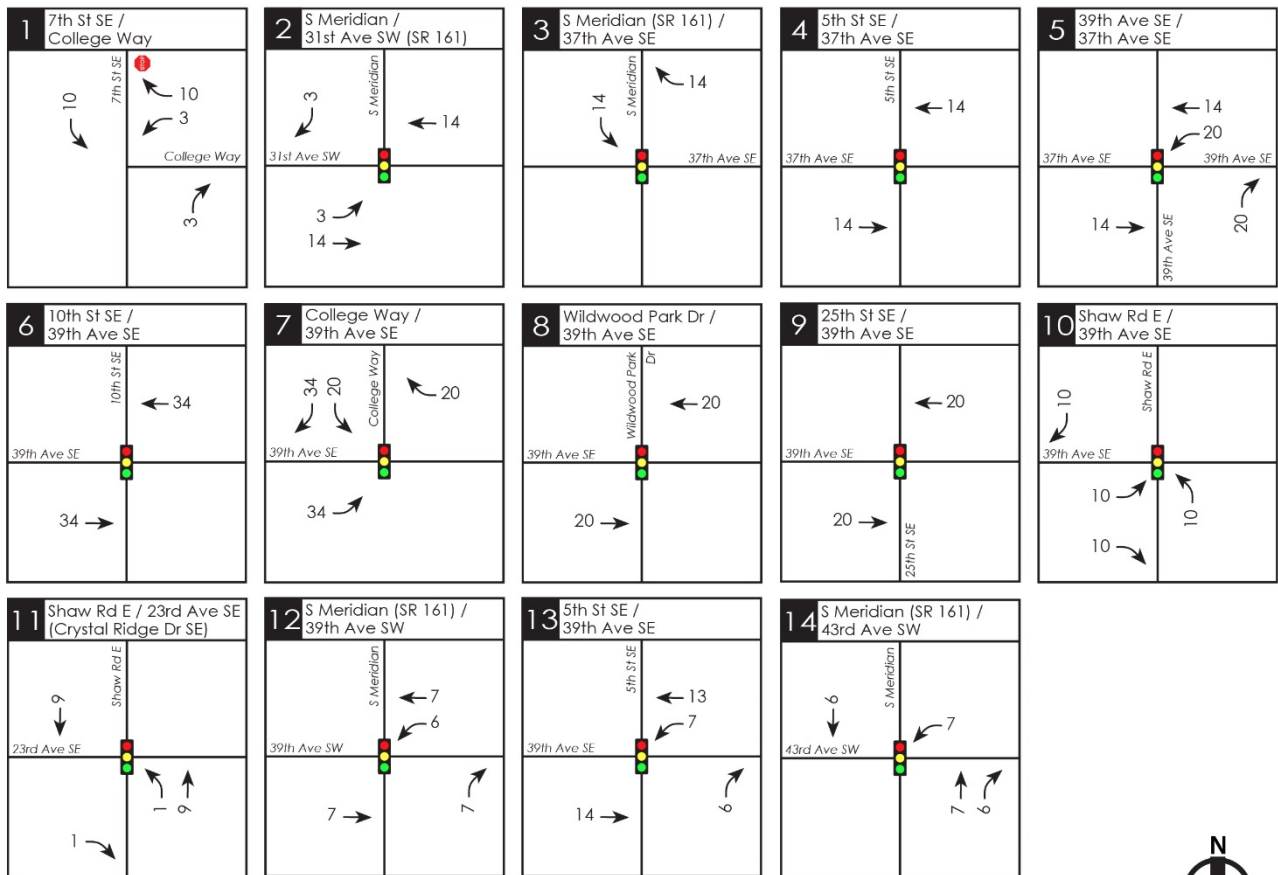
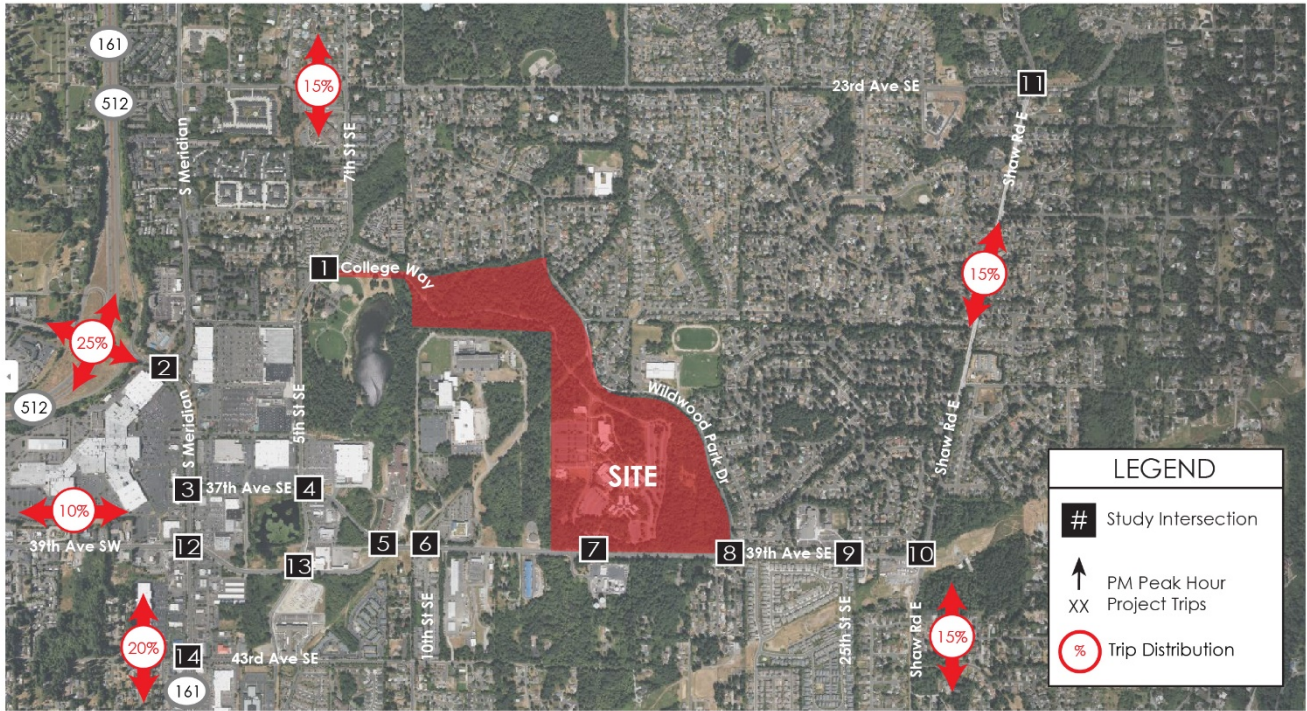


Figure 6: Weekday PM Peak Hour Project Trip Distribution & Assignment

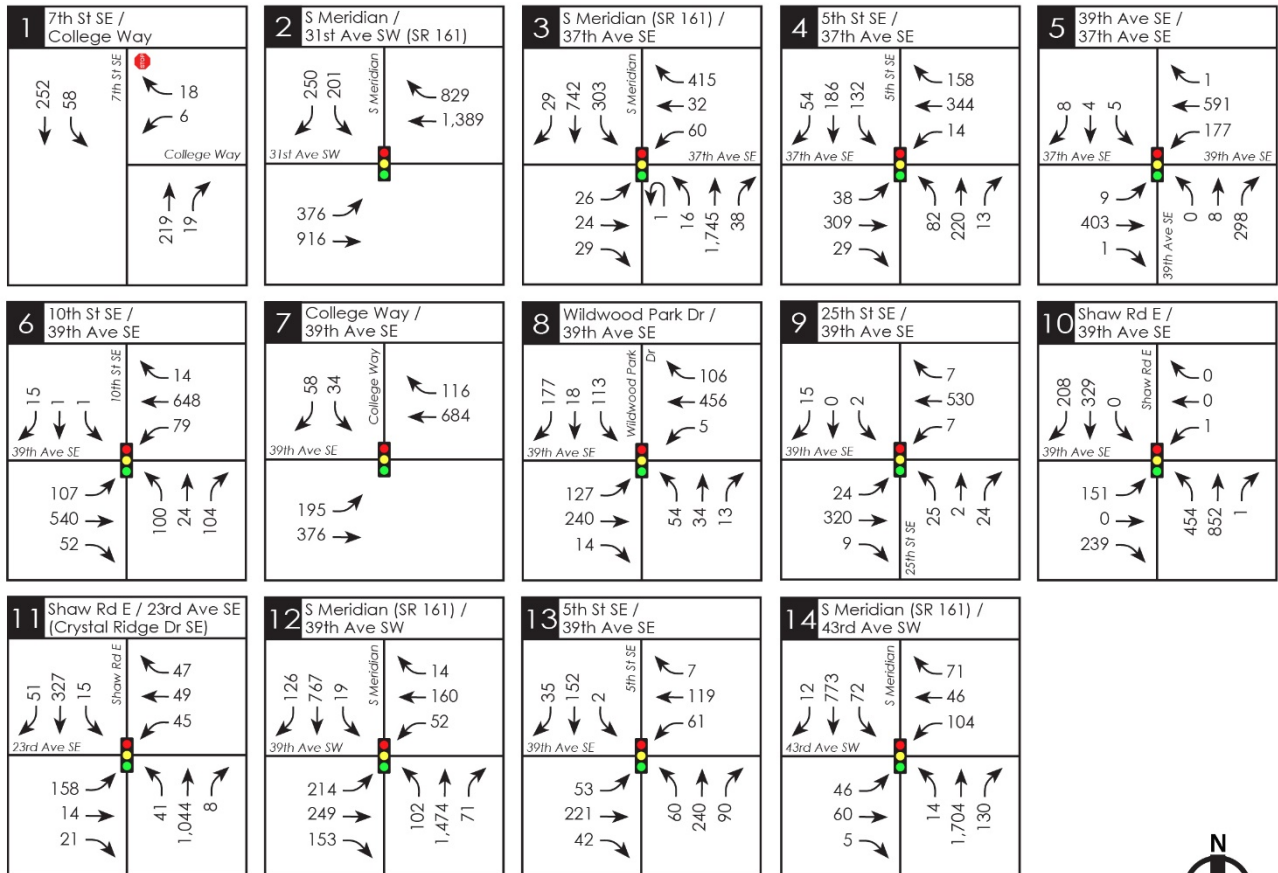


Figure 7: 2032 Without Project Weekday AM Peak Hour Traffic Volumes

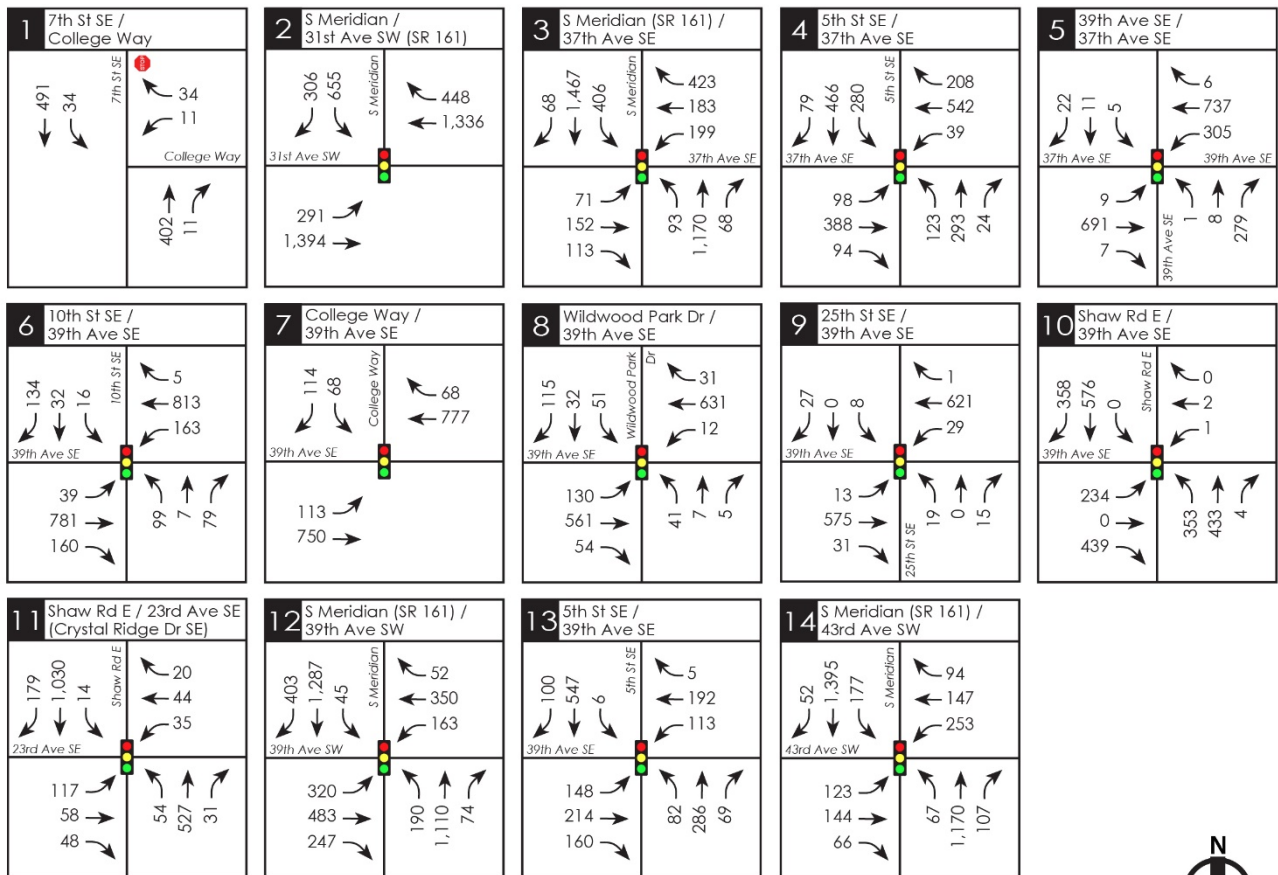


Figure 8: 2032 Without Project Weekday PM Peak Hour Traffic Volumes

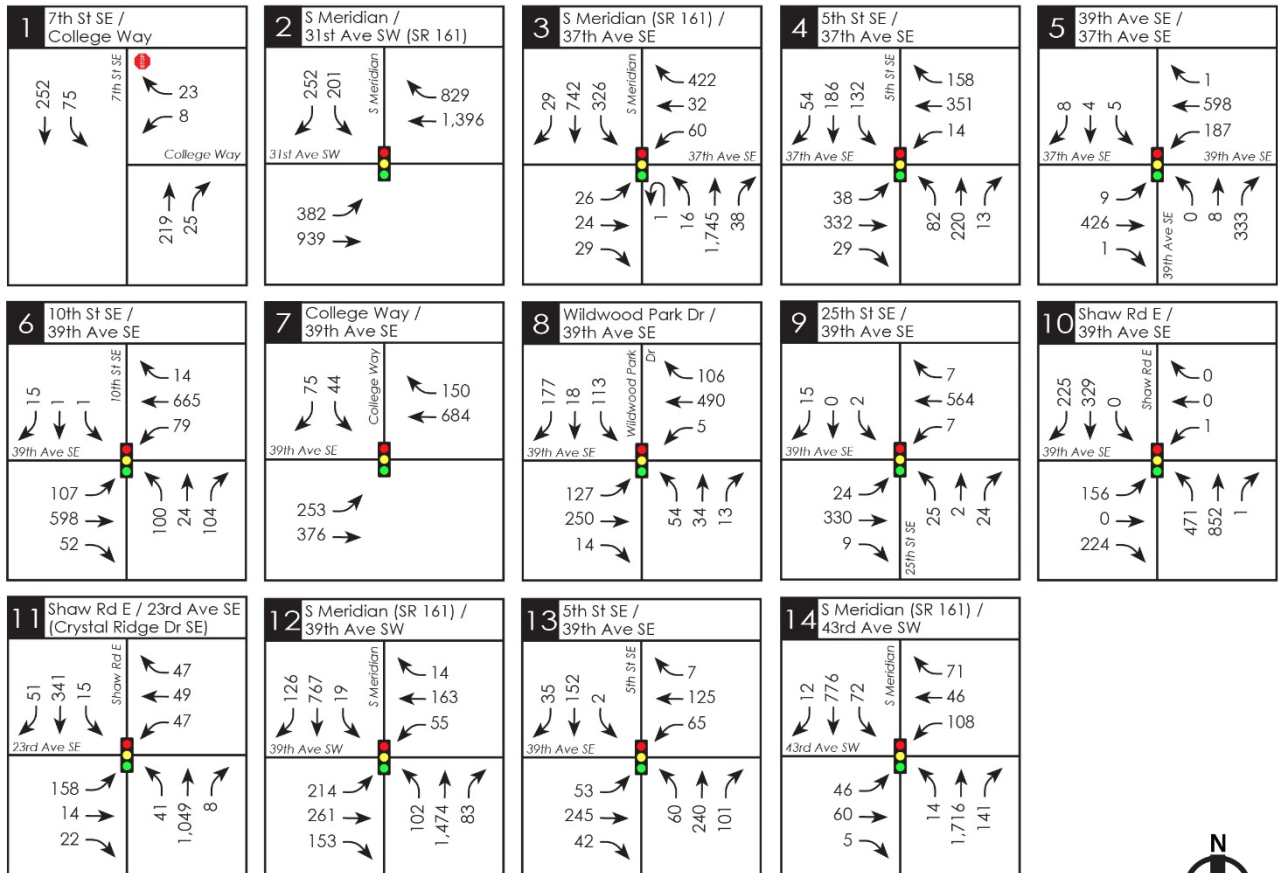


Figure 9: 2032 With Project Weekday AM Peak Hour Traffic Volumes

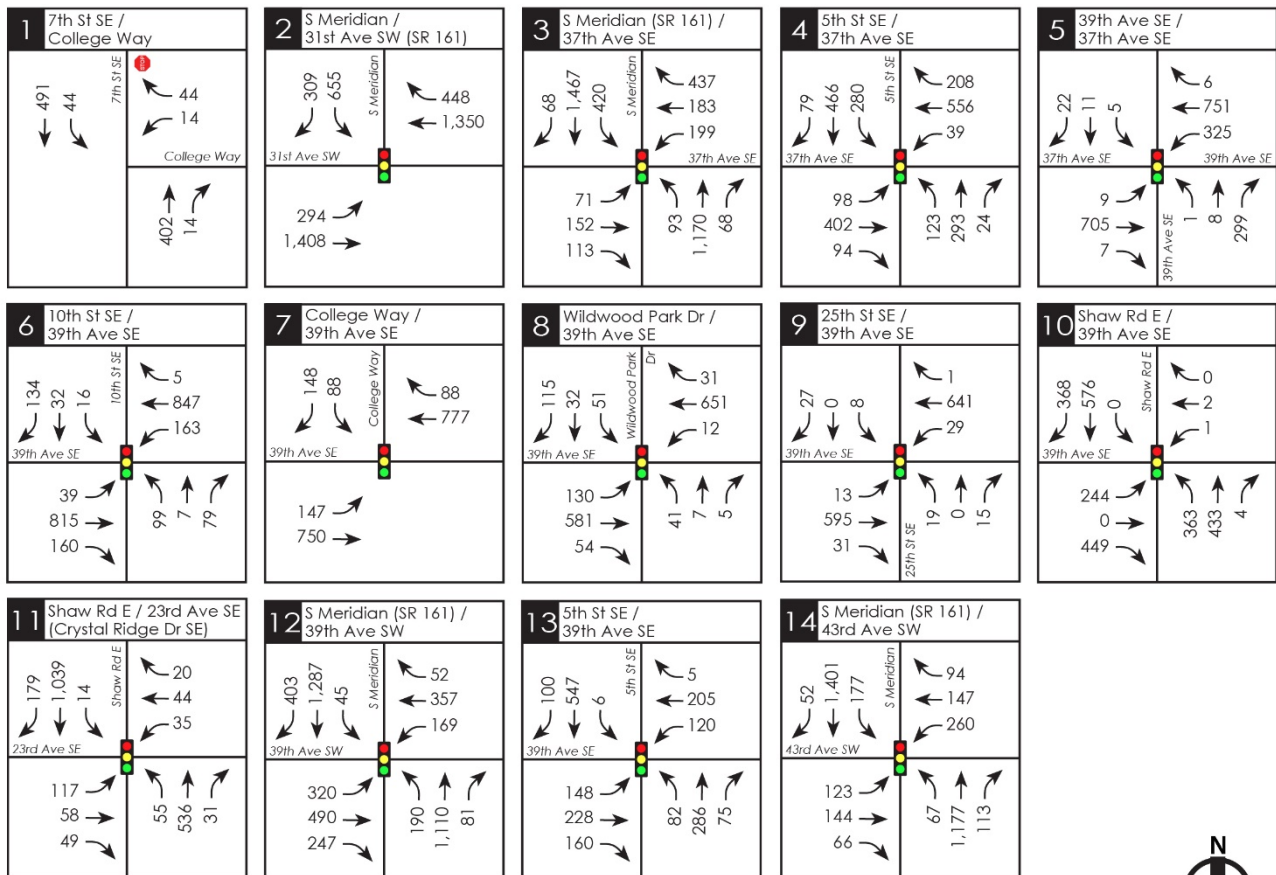


Figure 10: 2032 With Project Weekday PM Peak Hour Traffic Volumes

Future Intersection Level of Service

A future year weekday AM and PM peak hour LOS analysis was conducted at the study intersections without and with the proposed project. The anticipated buildout year for the project is 2032. The roadway network assumed in the year 2032 LOS analysis was based on existing intersection geometry. Existing signal timing was used in the future 2032 LOS analysis. The 2021 existing, 2032 weekday AM and PM peak hour LOS results at the study intersections without and with the proposed *Pierce College Puyallup Campus* expansion are summarized in **Table 5**.

Table 5
Year 2032 AM & PM Peak Hour LOS Summary

Study Intersection	2021 Existing		2032 Without Project		2032 With Project	
	LOS ¹	Delay (sec/veh)	LOS ¹	Delay (sec/veh)	LOS ¹	Delay (sec/veh)
AM Peak Hour						
<u>Stop-Controlled Intersection:</u>						
1. 7 th St SE / College Way						
Westbound Shared Left-Right	B	10.1	B	10.4	B	10.6
Southbound Left Turn	A	7.8	A	7.9	A	8.0
<u>Signalized Intersections:</u>						
2. S Meridian / 31 st Ave SW (SR 161) ²	C	22.5	C	25.9	C	26.0
3. S Meridian (SR 161) / 37 th Ave SE	B	15.3	B	16.0	B	17.9
4. 5 th Ave SE / 37 th Ave SE	B	17.6	B	18.5	B	18.6
5. 39 th Ave SE / 37 th Ave SE	B	17.8	B	19.3	C	20.4
6. 10 th Street SE / 39 th Ave SE	B	15.7	B	16.2	B	16.4
7. College Way / 39 th Ave SE	A	9.7	A	9.6	B	10.9
8. Wildwood Park Dr / 39 th Ave SE	B	18.8	C	20.1	C	20.5
9. 25 th Street SE / 39 th Ave SE	B	13.4	B	14.4	B	14.4
10. Shaw Rd E / 39 th Ave SE	B	15.0	C	20.0	C	21.0
11. Shaw Rd E / 23 rd Ave SE (Crystal Ridge Dr SE)	C	20.0	C	23.6	C	23.7
12. S Meridian (SR 161) / 39 th Ave SE	B	18.5	B	18.7	B	18.9
13. 5 th Ave SE / 39 th Ave SE	B	17.0	B	17.8	B	18.0
14. S Meridian (SR 161) / 43 rd Ave SE	C	22.3	C	26.1	C	26.7

1. Based on HCM 6th Edition methodologies, unless otherwise noted.

2. HCM 2000 LOS results due to non-NEMA phasing.

Table 5 (continued)
Year 2032 AM & PM Peak Hour LOS Summary

Study Intersection	2021 Existing		2032 Without Project		2032 With Project	
	LOS ¹	Delay (sec/veh)	LOS ¹	Delay (sec/veh)	LOS ¹	Delay (sec/veh)
PM Peak Hour						
<u>Stop-Controlled Intersection:</u>						
1. 7 th St SE / College Way						
Westbound Shared Left-Right	B	11.9	B	12.7	B	13.1
Southbound Left Turn	A	8.2	A	8.4	A	8.5
<u>Signalized Intersections:</u>						
2. S Meridian / 31 st Ave SW (SR 161) ²	C	25.5	C	27.9	C	28.0
3. S Meridian (SR 161) / 37 th Ave SE	C	30.2	C	32.2	C	32.5
4. 5 th Ave SE / 37 th Ave SE	C	22.4	C	26.6	C	26.9
5. 39 th Ave SE / 37 th Ave SE	B	18.1	C	20.4	C	21.5
6. 10 th Street SE / 39 th Ave SE	B	17.9	C	20.1	C	20.4
7. College Way / 39 th Ave SE	A	9.7	A	9.7	B	10.9
8. Wildwood Park Dr / 39 th Ave SE	B	17.9	B	19.2	B	19.5
9. 25 th Street SE / 39 th Ave SE	B	14.4	B	15.1	B	15.1
10. Shaw Rd E / 39 th Ave SE	C	28.2	D	49.2	D	53.4
11. Shaw Rd E / 23 rd Ave SE (Crystal Ridge Dr SE)	C	26.0	D	41.1	D	42.3
12. S Meridian (SR 161) / 39 th Ave SE	D	38.8	D	48.8	D	49.1
13. 5 th Ave SE / 39 th Ave SE	C	23.9	C	30.3	C	31.0
14. S Meridian (SR 161) / 43 rd Ave SE	C	34.9	D	41.5	D	42.3

1. Based on HCM 6th Edition methodologies, unless otherwise noted.

2. HCM 2000 LOS results due to non-NEMA phasing.

As shown in **Table 5**, all turn movements at the stop-controlled study intersection as well as all of the signalized study intersections are expected to operate at LOS D or better during the weekday AM and PM peak hour in 2032, without or with the proposed *Pierce College Puyallup Campus* expansion project.

Per the City's *2015 Comprehensive Plan*, the vehicular LOS goal is to "Maintain standards that promote growth where appropriate while preserving and maintaining the existing transportation system. Set LOS D as the standard for PM peak hour intersection performance, with the exception of the Meridian, Shaw Road, and 9th Street SW corridors, where LOS E operations will be considered acceptable during PM period in recognition of the need to balance driver experience with other considerations, such as cost, right of way, and other modes". As such, all study intersections are anticipated to operate at an acceptable LOS in 2032. The detailed LOS worksheets are included in **Appendix C**.

Site Access

Vehicular access to/from the site would continue to be provided at the two existing access points: College Way/ 39th Ave SE and 7th St SE/ College Way. As shown in **Table 5**, weekday AM and PM peak hour LOS analysis at the two site access locations indicated that all turn movements at 7th Street SE/College Way as well as the signalized intersection of College Way/39th Ave SE are anticipated to operate at LOS B or better during the weekday AM and PM peak hour in 2032 without or with the proposed project.

Per the *Amendment to Concomitant Agreement dated May 30, 1986 Between the City of Puyallup and Beim & James Properties II*, there is a requirement to "assess the need for additional access to the campus during the development of each major addition..." Since both access locations are anticipated to operate at LOS B or better with the proposed expansion, the need for an additional access to the campus would not be justified.

PROJECT MITIGATION

The following summarizes the measures proposed to mitigate the transportation impacts of the proposed Pierce College Puyallup Campus expansion project:

- **Traffic Impact Fees.** To mitigate long-term transportation impacts, the City administers a Transportation Impact Fee (TIF) to new developments to improve the transportation system to accommodate the higher travel demand added by new developments. The City of Puyallup's currently adopted transportation impact fee is \$4,500 per PM peak hour trip. The preliminary estimated transportation impact fee for the proposed project totals **\$602,550** ($\$4,500 \times 133.9$ net new PM peak hour trips). The actual impact fees will be calculated and assessed at the time of building permit issuance.

Appendix A

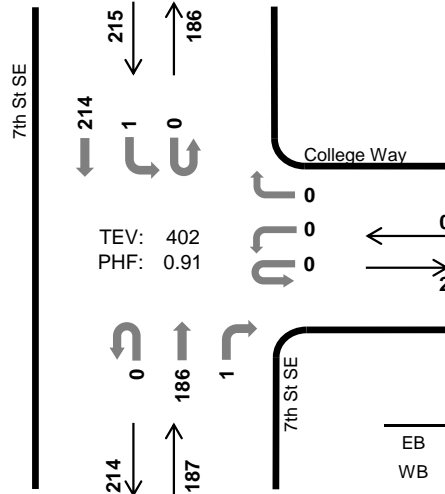
Traffic Count Data

7th St SE College Way

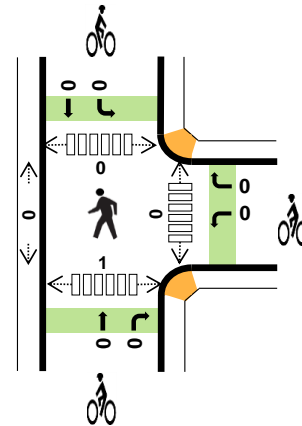


Peak Hour

Date: 12/15/2021
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM



TEV: 402
PHF: 0.91



	HV %:	PHF
EB	-	-
WB	-	-
NB	1.6%	0.94
SB	3.3%	0.90
TOTAL	2.5%	0.91

Two-Hour Count Summaries

Interval Start	0				College Way				7th St SE				7th St SE				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	0	0	0	0	0	43	0	0	0	43	0	86	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	50	0	0	0	60	0	110	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	49	0	0	0	50	0	99	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	45	0	0	0	53	0	98	393	
8:00 AM	0	0	0	0	0	0	0	0	0	0	42	1	0	1	51	0	95	402	
8:15 AM	0	0	0	0	0	0	0	2	0	0	53	0	0	0	45	0	100	392	
8:30 AM	0	0	0	0	0	1	0	1	0	0	43	0	0	1	46	0	92	385	
8:45 AM	0	0	0	0	0	1	0	1	0	0	45	0	0	0	64	0	111	398	
Count Total	0	0	0	0	0	2	0	4	0	0	370	1	0	2	412	0	791	0	
Peak Hour	All	0	0	0	0	0	0	0	0	0	0	186	1	0	1	214	0	402	0
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	7	0	10	0
	HV%	-	-	-	-	-	-	-	-	-	-	2%	0%	-	0%	3%	-	2%	0

Note: Two-hour count summary volumes 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	East	West	North	South	Total
7:00 AM	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	1	2	3	0	0	0	0	0	0	0	0	1	1
8:15 AM	0	0	2	0	2	0	0	0	0	0	3	1	0	0	4
8:30 AM	0	0	2	2	4	0	0	0	0	0	2	1	0	0	3
8:45 AM	0	0	2	3	5	0	0	0	0	0	0	1	0	0	1
Count Total	0	0	11	13	24	0	0	0	0	0	5	3	0	1	9
Peak Hr	0	0	3	7	10	0	0	0	0	0	0	0	0	1	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				College Way				7th St SE				7th St SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	6	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	11
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	9
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	14
Count Total	0	0	0	0	0	0	0	0	0	0	11	0	0	0	13	0	24	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	0	0	7	0	10	0

Two-Hour Count Summaries - Bikes																	
Interval Start	0			College Way			7th St SE			7th St SE			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

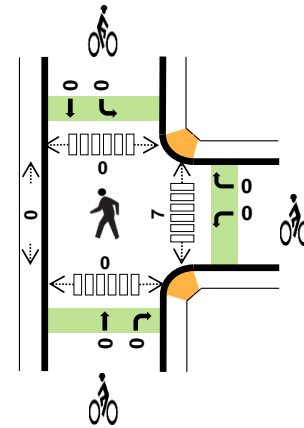
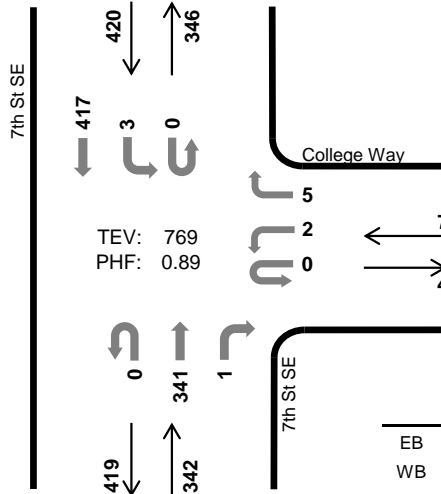
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

7th St SE College Way



Peak Hour

Date: 12/15/2021
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.58
NB	1.5%	0.93
SB	1.7%	0.85
TOTAL	1.6%	0.89

Two-Hour Count Summaries

Interval Start	0			College Way			7th St SE			7th St SE			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT					
4:00 PM	0	0	0	0	0	1	0	1	0	0	82	1	0	0	123	0	
4:15 PM	0	0	0	0	0	0	0	1	0	0	84	0	0	1	83	0	
4:30 PM	0	0	0	0	0	1	0	2	0	0	92	0	0	1	121	0	
4:45 PM	0	0	0	0	0	0	0	1	0	0	83	0	0	1	90	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	85	0	0	1	87	0	
5:15 PM	0	0	0	0	0	1	0	0	0	0	82	0	0	2	80	0	
5:30 PM	0	0	0	0	0	1	0	0	0	0	84	1	0	1	74	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	68	0	0	0	98	0	
Count Total	0	0	0	0	0	4	0	5	0	0	660	2	0	7	756	0	
Peak Hour	All	0	0	0	0	0	2	0	5	0	0	341	1	0	3	417	0
	HV	0	0	0	0	0	0	0	0	0	0	4	1	0	0	7	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	1%	100%	-	0%	2%	-

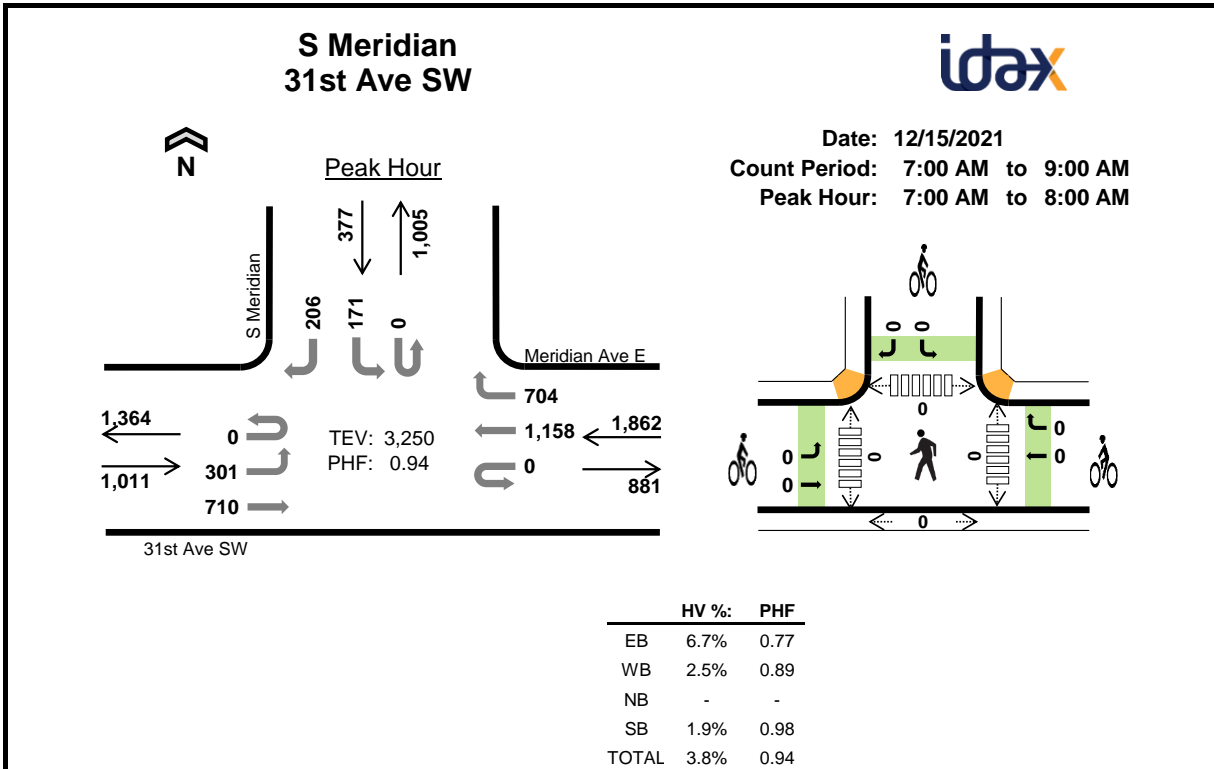
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	1	4	5	0	0	0	0	0	1	0	0	0	1
4:15 PM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	3	3	0	0	0	0	0	5	0	0	0	5
4:45 PM	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1
5:00 PM	0	0	1	1	2	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
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	6	9	15	0	0	0	0	0	7	0	0	0	7
Peak Hr	0	0	5	7	12	0	0	0	0	0	7	0	0	0	7

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				College Way				7th St SE				7th St SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	0	5	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	12
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	9
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
Count Total	0	0	0	0	0	0	0	0	0	0	5	1	0	0	9	0	15	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	4	1	0	0	7	0	12	0

Two-Hour Count Summaries - Bikes																	
Interval Start	0			College Way			7th St SE			7th St SE			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	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
5:30 PM	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
Count Total	0	0	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	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	31st Ave SW				Meridian Ave E				0				S Meridian				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		Eastbound		Westbound		Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	75	151	0	0	0	271	145	0	0	0	0	0	33	0	60	735	0	
7:15 AM	0	75	164	0	0	0	315	210	0	0	0	0	0	40	0	56	860	0	
7:30 AM	0	70	148	0	0	0	311	205	0	0	0	0	0	49	0	43	826	0	
7:45 AM	0	81	247	0	0	0	261	144	0	0	0	0	0	49	0	47	829	3,250	
8:00 AM	0	54	159	0	0	0	287	136	0	0	0	0	0	49	0	45	730	3,245	
8:15 AM	0	37	231	0	0	0	318	85	0	0	0	0	0	62	0	34	767	3,152	
8:30 AM	0	47	207	0	0	0	295	102	0	0	0	0	0	82	0	40	773	3,099	
8:45 AM	0	38	224	0	0	0	283	96	0	0	0	0	0	52	0	36	729	2,999	
Count Total	0	477	1,531	0	0	0	2,341	1,123	0	0	0	0	0	416	0	361	6,249	0	
Peak Hour	All	0	301	710	0	0	0	1,158	704	0	0	0	0	0	171	0	206	3,250	0
	HV	0	6	62	0	0	0	35	12	0	0	0	0	0	3	0	4	122	0
	HV%	-	2%	9%	-	-	-	3%	2%	-	-	-	-	-	2%	-	2%	4%	0

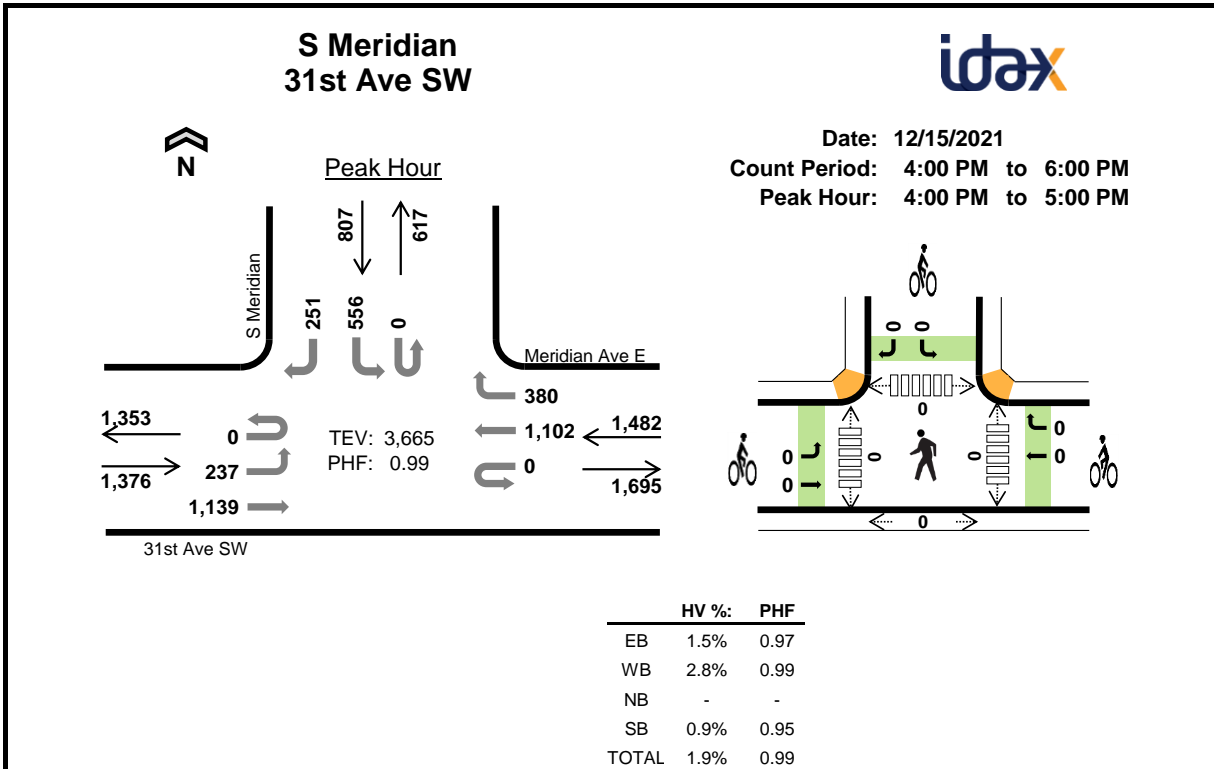
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	14	9	0	0	23	0	0	0	0	0	0	0	0	0	0
7:15 AM	16	16	0	4	36	0	0	0	0	0	0	0	0	0	0
7:30 AM	19	11	0	2	32	0	0	0	0	0	0	0	0	0	0
7:45 AM	19	11	0	1	31	0	0	0	0	0	0	0	0	0	0
8:00 AM	16	18	0	1	35	0	0	0	0	0	0	0	0	0	0
8:15 AM	13	15	0	5	33	0	0	0	0	0	0	0	0	0	0
8:30 AM	14	26	0	4	44	0	0	0	0	0	0	0	0	0	0
8:45 AM	15	21	0	2	38	0	0	0	0	0	0	0	0	0	0
Count Total	126	127	0	19	272	0	0	0	0	0	0	0	0	0	0
Peak Hr	68	47	0	7	122	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles														15-min Total	Rolling One Hour			
Interval Start	31st Ave SW				Meridian Ave E				0				S Meridian					
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	14	0	0	0	7	2	0	0	0	0	0	0	0	0	23	0
7:15 AM	0	3	13	0	0	0	11	5	0	0	0	0	0	2	0	2	36	0
7:30 AM	0	2	17	0	0	0	9	2	0	0	0	0	0	1	0	1	32	0
7:45 AM	0	1	18	0	0	0	8	3	0	0	0	0	0	0	0	1	31	122
8:00 AM	0	1	15	0	0	0	15	3	0	0	0	0	0	1	0	0	35	134
8:15 AM	0	0	13	0	0	0	14	1	0	0	0	0	0	3	0	2	33	131
8:30 AM	0	3	11	0	0	0	24	2	0	0	0	0	0	1	0	3	44	143
8:45 AM	0	0	15	0	0	0	20	1	0	0	0	0	0	2	0	0	38	150
Count Total	0	10	116	0	0	0	108	19	0	0	0	0	0	10	0	9	272	0
Peak Hour	0	6	62	0	0	0	35	12	0	0	0	0	0	3	0	4	122	0

Two-Hour Count Summaries - Bikes														15-min Total	Rolling One Hour			
Interval Start	31st Ave SW			Meridian Ave E			0			S Meridian								
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	31st Ave SW				Meridian Ave E				0				S Meridian				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Westbound		Eastbound		Northbound		Northbound		Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	64	270	0	0	0	280	95	0	0	0	0	0	134	0	78	921	0	
4:15 PM	0	67	286	0	0	0	281	93	0	0	0	0	0	132	0	53	912	0	
4:30 PM	0	61	288	0	0	0	268	104	0	0	0	0	0	140	0	63	924	0	
4:45 PM	0	45	295	0	0	0	273	88	0	0	0	0	0	150	0	57	908	3,665	
5:00 PM	0	53	272	0	0	0	284	73	0	0	0	0	0	112	0	56	850	3,594	
5:15 PM	0	58	285	0	0	0	285	85	0	0	0	0	0	119	0	47	879	3,561	
5:30 PM	0	50	246	0	0	0	258	93	0	0	0	0	0	115	0	54	816	3,453	
5:45 PM	0	63	273	0	0	0	247	76	0	0	0	0	0	110	0	50	819	3,364	
Count Total	0	461	2,215	0	0	0	2,176	707	0	0	0	0	0	1,012	0	458	7,029	0	
Peak Hour	All	0	237	1,139	0	0	0	1,102	380	0	0	0	0	0	556	0	251	3,665	0
	HV	0	4	17	0	0	0	30	11	0	0	0	0	0	3	0	4	69	0
	HV%	-	2%	1%	-	-	-	3%	3%	-	-	-	-	-	1%	-	2%	2%	0

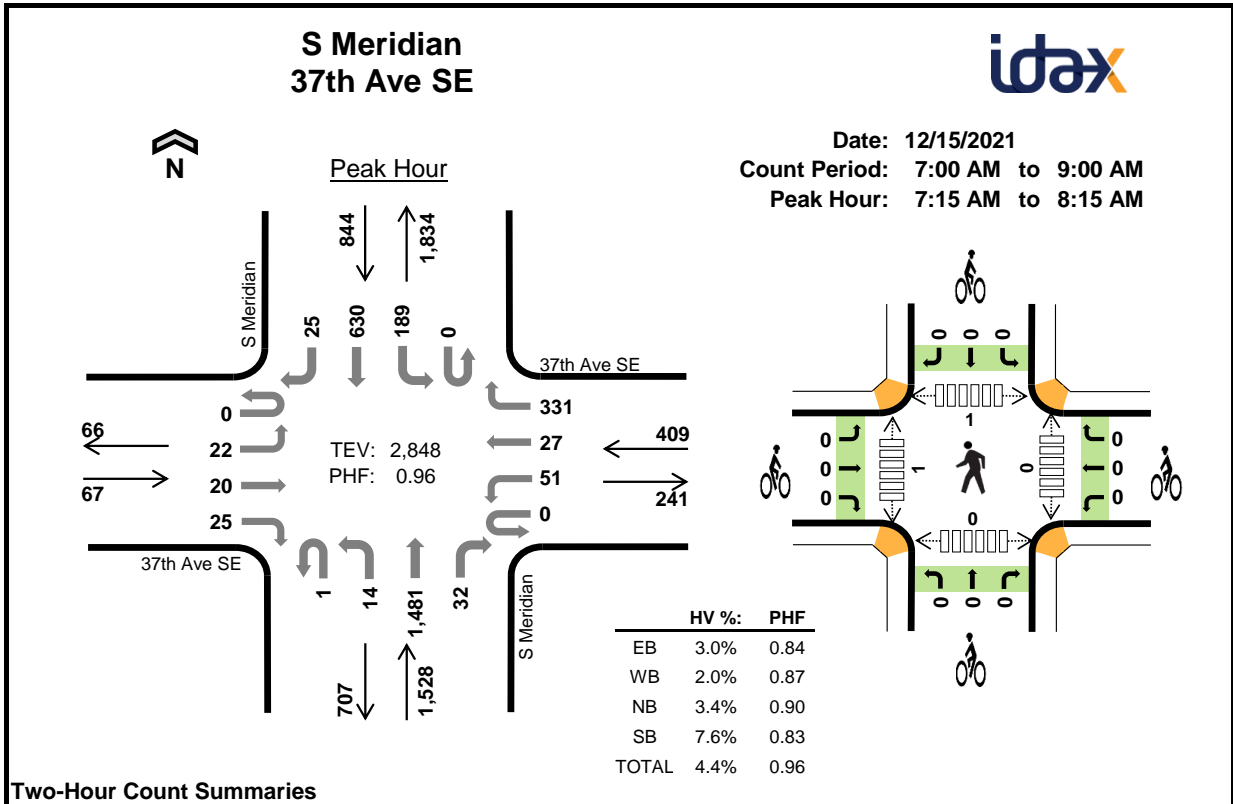
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	5	9	0	1	15	0	0	0	0	0	0	0	0	0	0
4:15 PM	5	9	0	2	16	0	0	0	0	0	0	0	0	0	0
4:30 PM	9	11	0	1	21	0	0	0	0	0	0	0	0	0	0
4:45 PM	2	12	0	3	17	0	0	0	0	0	0	0	0	0	0
5:00 PM	5	12	0	0	17	0	0	0	0	0	0	0	0	0	0
5:15 PM	6	12	0	1	19	0	0	0	0	0	0	0	0	0	0
5:30 PM	6	12	0	1	19	0	0	0	0	0	0	0	0	0	0
5:45 PM	4	4	0	1	9	0	0	0	0	0	0	0	0	0	0
Count Total	42	81	0	10	133	0	0	0	0	0	0	0	0	0	0
Peak Hr	21	41	0	7	69	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles														15-min Total	Rolling One Hour			
Interval Start	31st Ave SW				Meridian Ave E				0				S Meridian					
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	4	0	0	0	7	2	0	0	0	0	0	0	0	1	15	0
4:15 PM	0	2	3	0	0	0	9	0	0	0	0	0	0	0	0	2	16	0
4:30 PM	0	1	8	0	0	0	5	6	0	0	0	0	0	1	0	0	21	0
4:45 PM	0	0	2	0	0	0	9	3	0	0	0	0	0	2	0	1	17	69
5:00 PM	0	0	5	0	0	0	10	2	0	0	0	0	0	0	0	0	17	71
5:15 PM	0	0	6	0	0	0	12	0	0	0	0	0	0	0	0	1	19	74
5:30 PM	0	1	5	0	0	0	11	1	0	0	0	0	0	1	0	0	19	72
5:45 PM	0	0	4	0	0	0	3	1	0	0	0	0	0	0	0	1	9	64
Count Total	0	5	37	0	0	0	66	15	0	0	0	0	0	4	0	6	133	0
Peak Hour	0	4	17	0	0	0	30	11	0	0	0	0	0	3	0	4	69	0

Two-Hour Count Summaries - Bikes														15-min Total	Rolling One Hour			
Interval Start	31st Ave SW			Meridian Ave E			0			S Meridian								
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
Count Total	0	0	0	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	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	37th Ave SE Eastbound				37th Ave SE Westbound				S Meridian Northbound				S Meridian Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	2	4	1	0	6	3	78	0	3	376	9	0	57	126	4	669	0	
7:15 AM	0	9	2	9	0	11	5	92	0	2	413	8	0	42	146	2	741	0	
7:30 AM	0	6	8	3	0	11	9	97	0	4	400	9	0	32	158	6	743	0	
7:45 AM	0	6	4	3	0	18	11	74	0	1	306	8	0	72	176	7	686	2,839	
8:00 AM	0	1	6	10	0	11	2	68	1	7	362	7	0	43	150	10	678	2,848	
8:15 AM	0	10	14	8	0	15	15	79	1	6	301	9	0	65	186	6	715	2,822	
8:30 AM	0	5	9	5	0	9	10	74	0	11	339	10	0	54	187	11	724	2,803	
8:45 AM	0	7	8	7	0	20	17	59	0	2	311	19	0	51	171	14	686	2,803	
Count Total	0	46	55	46	0	101	72	621	2	36	2,808	79	0	416	1,300	60	5,642	0	
Peak Hour	All	0	22	20	25	0	51	27	331	1	14	1,481	32	0	189	630	25	2,848	0
	HV	0	1	0	1	0	3	0	5	0	0	51	1	0	7	55	2	126	0
	HV%	-	5%	0%	4%	-	6%	0%	2%	0%	0%	3%	3%	-	4%	9%	8%	4%	0

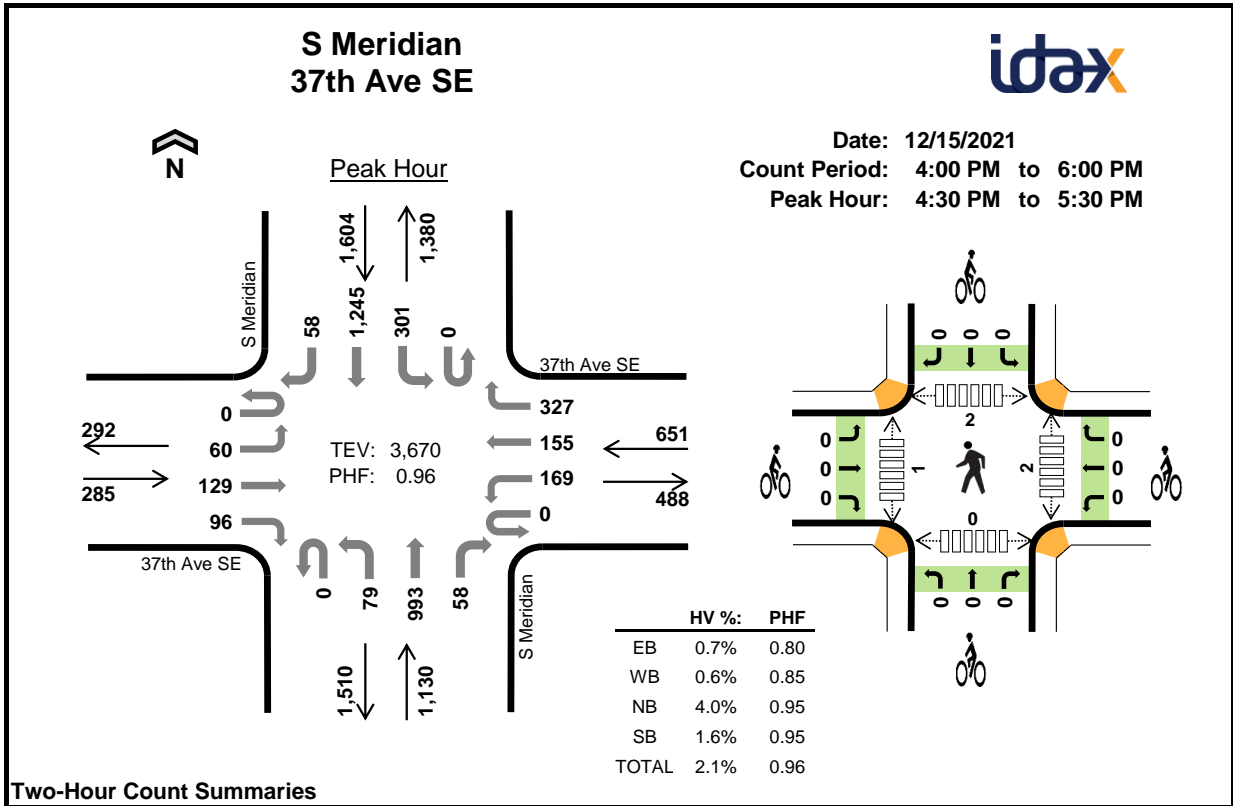
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	2	8	9	19	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	3	14	11	28	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	10	18	30	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	2	8	20	31	0	0	0	0	0	0	1	1	0	2
8:00 AM	1	1	20	15	37	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	4	14	15	33	0	0	0	0	0	0	1	1	0	2
8:30 AM	0	3	22	10	35	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	2	20	16	39	0	0	0	0	0	1	0	0	0	1
Count Total	3	19	116	114	252	0	0	0	0	0	1	2	2	0	5
Peak Hour	2	8	52	64	126	0	0	0	0	0	0	1	1	0	2

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	37th Ave SE				37th Ave SE				S Meridian				S Meridian				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	2	0	0	7	1	0	3	5	1	19	0
7:15 AM	0	0	0	0	0	0	0	3	0	0	14	0	0	0	11	0	28	0
7:30 AM	0	0	0	0	0	0	0	2	0	0	10	0	0	3	14	1	30	0
7:45 AM	0	1	0	0	0	2	0	0	0	0	8	0	0	2	17	1	31	108
8:00 AM	0	0	0	1	0	1	0	0	0	0	19	1	0	2	13	0	37	126
8:15 AM	0	0	0	0	0	1	0	3	0	0	14	0	0	3	12	0	33	131
8:30 AM	0	0	0	0	0	0	1	2	0	0	22	0	0	2	8	0	35	136
8:45 AM	0	1	0	0	0	0	1	1	0	0	20	0	0	5	10	1	39	144
Count Total	0	2	0	1	0	4	2	13	0	0	114	2	0	20	90	4	252	0
Peak Hour	0	1	0	1	0	3	0	5	0	0	51	1	0	7	55	2	126	0

Two-Hour Count Summaries - Bikes																	
Interval Start	37th Ave SE			37th Ave SE			S Meridian			S Meridian			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	37th Ave SE Eastbound				37th Ave SE Westbound				S Meridian Northbound				S Meridian Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	13	17	19	0	43	34	69	0	23	259	16	0	72	297	17	879	0	
4:15 PM	0	19	36	23	0	46	32	73	0	24	241	22	0	48	283	15	862	0	
4:30 PM	0	25	42	22	0	42	45	104	0	20	229	17	0	87	304	14	951	0	
4:45 PM	0	13	29	31	0	40	37	75	0	18	250	18	0	76	329	18	934	3,626	
5:00 PM	0	11	36	18	0	49	38	76	0	24	266	6	0	63	309	12	908	3,655	
5:15 PM	0	11	22	25	0	38	35	72	0	17	248	17	0	75	303	14	877	3,670	
5:30 PM	0	11	30	28	0	37	27	58	0	19	249	14	0	62	275	14	824	3,543	
5:45 PM	0	9	38	23	0	34	33	59	0	11	215	21	0	61	308	15	827	3,436	
Count Total	0	112	250	189	0	329	281	586	0	156	1,957	131	0	544	2,408	119	7,062	0	
Peak Hour	All	0	60	129	96	0	169	155	327	0	79	993	58	0	301	1,245	58	3,670	0
	HV	0	2	0	0	0	1	0	3	0	0	43	2	0	2	23	0	76	0
	HV%	-	3%	0%	0%	-	1%	0%	1%	-	0%	4%	3%	-	1%	2%	0%	2%	0

Note: Two-hour count summary volumes 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	East	West	North	South	Total
4:00 PM	1	2	7	6	16	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	11	3	14	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	2	7	7	16	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	15	5	21	0	0	0	0	0	0	1	1	0	2
5:00 PM	0	1	11	8	20	0	0	0	0	0	2	0	1	0	3
5:15 PM	1	1	12	5	19	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	10	5	15	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	1	2	4	8	0	0	0	0	0	0	0	0	0	0
Count Total	4	7	75	43	129	0	0	0	0	0	2	1	2	0	5
Peak Hour	2	4	45	25	76	0	0	0	0	0	2	1	2	0	5

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	37th Ave SE				37th Ave SE				S Meridian				S Meridian				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	1	1	0	0	7	0	0	1	5	0	16	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	3	0	14	0
4:30 PM	0	0	0	0	0	0	0	2	0	0	6	1	0	2	5	0	16	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	14	1	0	0	5	0	21	67
5:00 PM	0	0	0	0	0	1	0	0	0	0	11	0	0	0	8	0	20	71
5:15 PM	0	1	0	0	0	0	0	1	0	0	12	0	0	0	5	0	19	76
5:30 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	2	3	0	15	75
5:45 PM	0	1	0	0	0	1	0	0	0	0	2	0	0	0	4	0	8	62
Count Total	0	3	1	0	0	2	1	4	0	0	73	2	0	5	38	0	129	0
Peak Hour	0	2	0	0	0	1	0	3	0	0	43	2	0	2	23	0	76	0

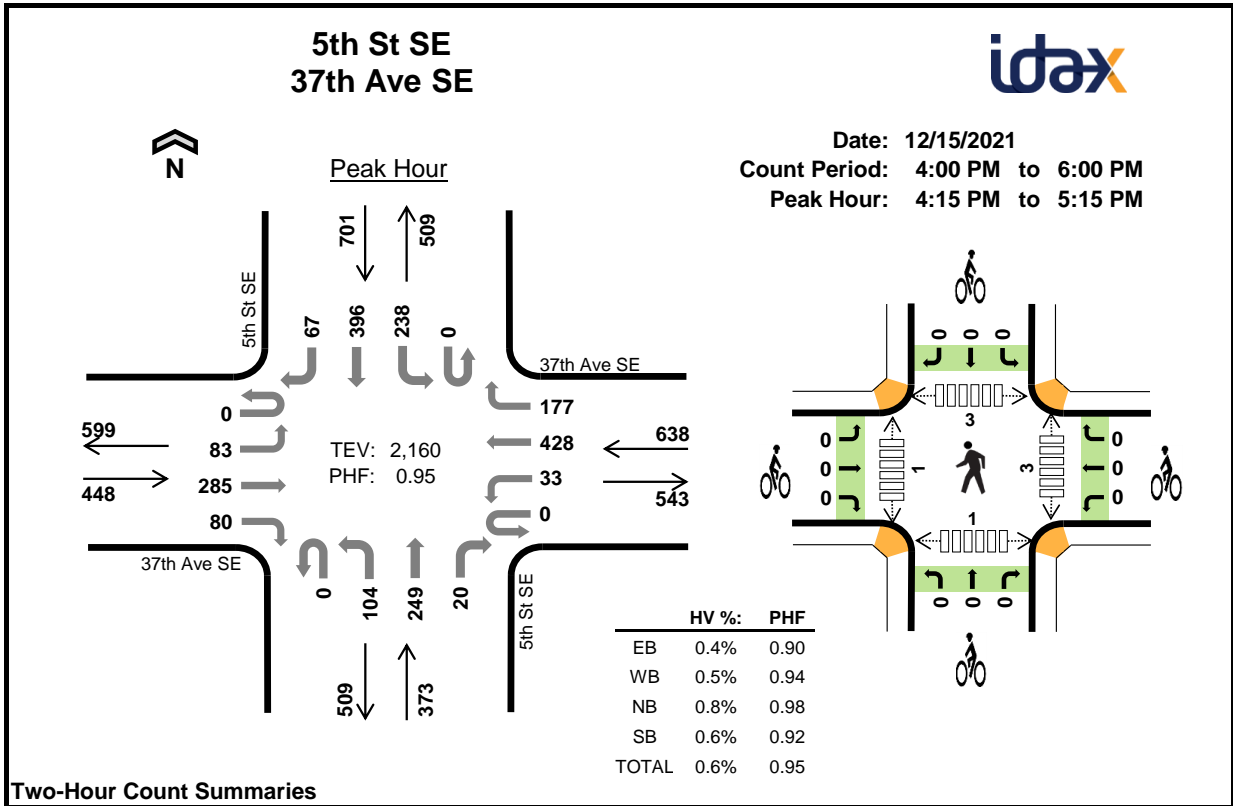
Two-Hour Count Summaries - Bikes																		
Interval Start	37th Ave SE			37th Ave SE			S Meridian			S Meridian			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
Count Total	0	0	0	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	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	37th Ave SE				37th Ave SE				5th St SE				5th St SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	2	0	0	0	2	0	0	0	0	0	0	1	0	0	6	0
7:15 AM	0	0	1	0	0	0	2	2	0	1	1	0	0	2	1	0	10	0
7:30 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	1	0	0	6	0
7:45 AM	0	1	0	0	0	0	1	4	0	0	0	0	0	0	0	1	7	29
8:00 AM	0	1	1	1	0	0	0	1	0	0	1	1	0	2	0	1	9	32
8:15 AM	0	1	1	0	0	2	4	3	0	0	1	0	0	2	0	0	14	36
8:30 AM	0	0	1	0	0	0	0	1	0	0	1	0	0	2	0	0	5	35
8:45 AM	0	0	4	1	0	0	2	0	0	0	2	0	0	2	2	1	14	42
Count Total	0	4	13	2	0	2	13	11	0	1	6	1	0	12	3	3	71	0
Peak Hour	0	2	7	2	0	2	6	5	0	0	5	1	0	8	2	2	42	0

Two-Hour Count Summaries - Bikes																		
Interval Start	37th Ave SE			37th Ave SE			5th St SE			5th St SE			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	37th Ave SE Eastbound				37th Ave SE Westbound				5th St SE Northbound				5th St SE Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	20	77	19	0	7	103	50	0	18	55	3	0	54	98	20	524	0	
4:15 PM	0	17	54	23	0	4	111	40	0	27	60	7	0	55	111	12	521	0	
4:30 PM	0	25	83	16	0	7	114	48	0	22	67	6	0	60	102	17	567	0	
4:45 PM	0	19	75	21	0	10	86	50	0	30	59	2	0	78	90	22	542	2,154	
5:00 PM	0	22	73	20	0	12	117	39	0	25	63	5	0	45	93	16	530	2,160	
5:15 PM	0	11	66	20	0	13	70	32	0	24	64	10	0	54	100	13	477	2,116	
5:30 PM	0	14	58	21	0	15	80	25	0	18	51	3	0	47	86	16	434	1,983	
5:45 PM	0	21	67	14	0	8	86	30	0	16	43	1	0	45	84	15	430	1,871	
Count Total	0	149	553	154	0	76	767	314	0	180	462	37	0	438	764	131	4,025	0	
Peak Hour	All	0	83	285	80	0	33	428	177	0	104	249	20	0	238	396	67	2,160	0
	HV	0	2	0	0	0	0	1	2	0	0	3	0	0	1	2	1	12	0
	HV%	-	2%	0%	0%	-	0%	0%	1%	-	0%	1%	0%	-	0%	1%	1%	1%	0

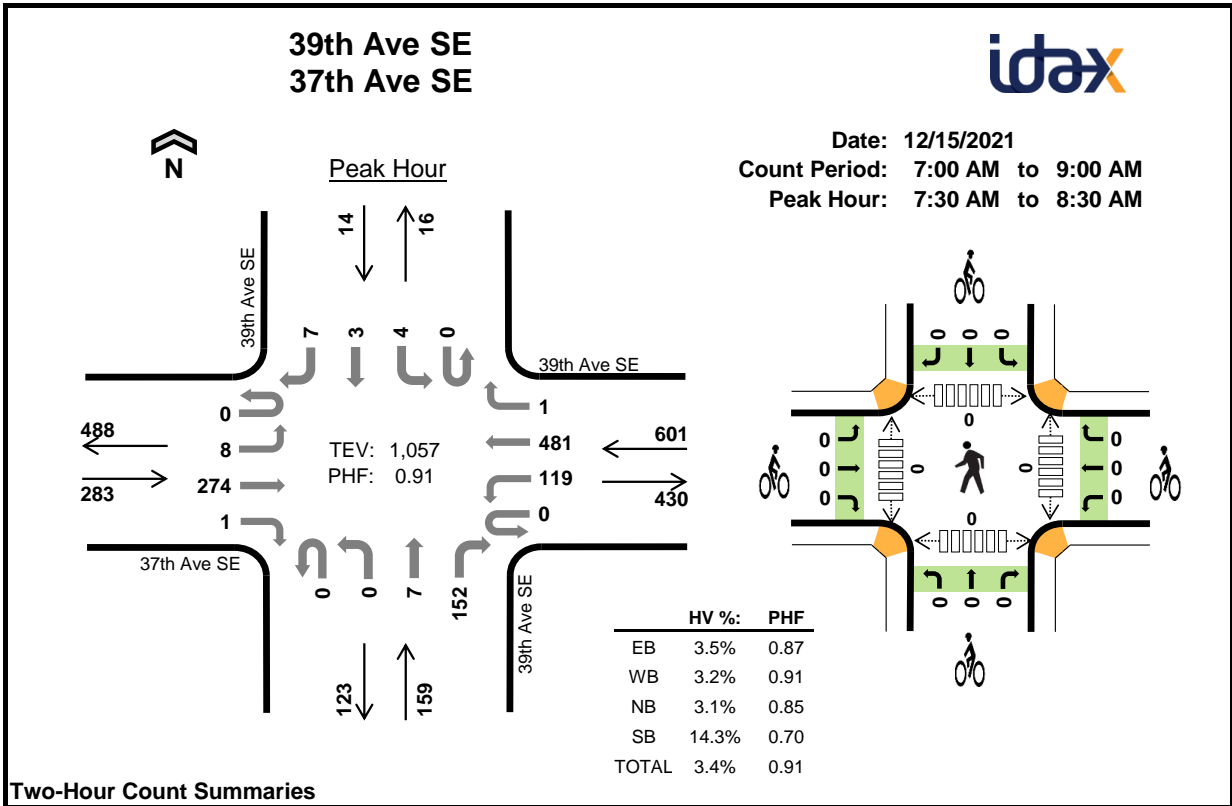
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	4	3	4	11	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	2	0	2	0	0	0	0	0	1	1	1	1	4
4:30 PM	1	1	0	2	4	0	0	0	0	0	2	0	1	0	3
4:45 PM	1	2	1	1	5	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	1	0	1
5:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	2	0	1	3	0	0	0	0	0	1	0	0	0	1
Count Total	4	10	6	10	30	0	0	0	0	0	4	1	3	1	9
Peak Hour	2	3	3	4	12	0	0	0	0	0	3	1	3	1	8

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	37th Ave SE				37th Ave SE				5th St SE				5th St SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	2	2	0	0	3	0	0	1	3	0	11	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
4:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	4	0
4:45 PM	0	1	0	0	0	0	0	2	0	0	1	0	0	0	0	1	5	22
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	12
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	11
5:30 PM	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	3	10
5:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	3	8
Count Total	0	2	2	0	0	1	4	5	0	0	6	0	0	2	6	2	30	0
Peak Hour	0	2	0	0	0	0	1	2	0	0	3	0	0	1	2	1	12	0

Two-Hour Count Summaries - Bikes																	
Interval Start	37th Ave SE			37th Ave SE			5th St SE			5th St SE			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	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
5:30 PM	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
Count Total	0	0	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	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	37th Ave SE				39th Ave SE				39th Ave SE				39th Ave SE				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	2	84	0	0	21	89	1	0	0	0	42	0	0	1	0	240	0	
7:15 AM	0	2	61	0	0	28	124	1	0	0	2	33	0	1	0	0	252	0	
7:30 AM	0	1	56	0	0	27	137	1	0	0	1	33	0	0	0	1	257	0	
7:45 AM	0	4	77	0	0	43	122	0	0	0	3	37	0	1	2	1	290	1,039	
8:00 AM	0	0	75	0	0	22	98	0	0	0	1	46	0	1	1	2	246	1,045	
8:15 AM	0	3	66	1	0	27	124	0	0	0	2	36	0	2	0	3	264	1,057	
8:30 AM	0	3	77	0	0	23	98	0	0	0	1	31	0	1	0	1	235	1,035	
8:45 AM	0	7	85	1	0	23	109	2	0	0	0	31	0	2	0	2	262	1,007	
Count Total	0	22	581	2	0	214	901	5	0	0	10	289	0	8	4	10	2,046	0	
Peak Hour	All	0	8	274	1	0	119	481	1	0	0	7	152	0	4	3	7	1,057	0
	HV	0	0	10	0	0	3	16	0	0	0	0	5	0	1	0	1	36	0
	HV%	-	0%	4%	0%	-	3%	3%	0%	-	-	0%	3%	-	25%	0%	14%	3%	0

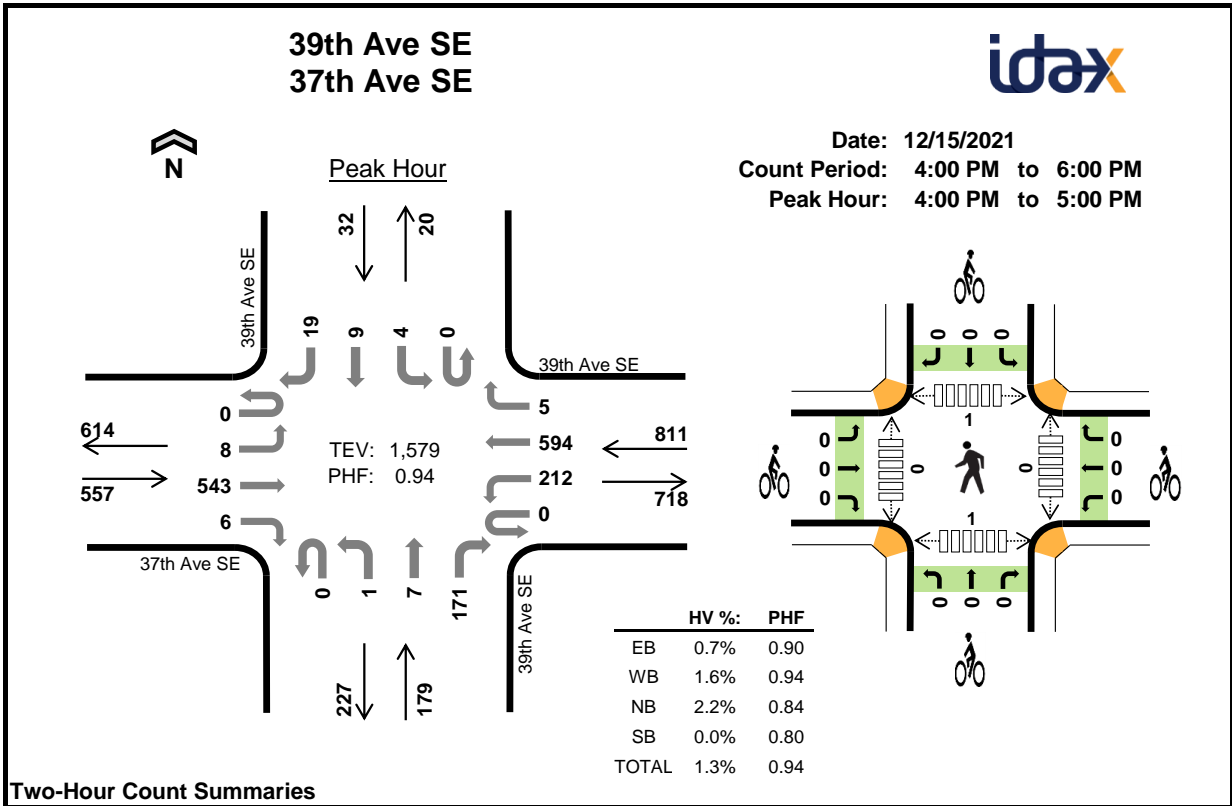
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	4	4	6	0	14	0	0	0	0	0	0	0	0	0	0
7:15 AM	2	9	0	0	11	0	0	0	0	0	0	0	0	0	0
7:30 AM	3	1	2	1	7	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	8	1	0	9	0	0	0	0	0	0	0	0	0	0
8:00 AM	4	3	2	1	10	0	0	0	0	0	0	0	0	0	0
8:15 AM	3	7	0	0	10	0	0	0	0	0	0	0	0	0	0
8:30 AM	3	2	1	0	6	0	0	0	0	0	0	0	0	0	0
8:45 AM	7	2	3	0	12	0	0	0	0	0	0	0	0	0	0
Count Total	26	36	15	2	79	0	0	0	0	0	0	0	0	0	0
Peak Hour	10	19	5	2	36	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	37th Ave SE				39th Ave SE				39th Ave SE				39th Ave SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	3	0	0	1	3	0	0	0	0	6	0	0	0	0	14	0
7:15 AM	0	0	2	0	0	7	2	0	0	0	0	0	0	0	0	0	11	0
7:30 AM	0	0	3	0	0	0	1	0	0	0	0	2	0	0	0	1	7	0
7:45 AM	0	0	0	0	0	2	6	0	0	0	0	1	0	0	0	0	9	41
8:00 AM	0	0	4	0	0	1	2	0	0	0	0	2	0	1	0	0	10	37
8:15 AM	0	0	3	0	0	0	7	0	0	0	0	0	0	0	0	0	10	36
8:30 AM	0	0	3	0	0	0	2	0	0	0	0	1	0	0	0	0	6	35
8:45 AM	0	1	6	0	0	0	2	0	0	0	0	3	0	0	0	0	12	38
Count Total	0	2	24	0	0	11	25	0	0	0	0	15	0	1	0	1	79	0
Peak Hour	0	0	10	0	0	3	16	0	0	0	0	5	0	1	0	1	36	0

Two-Hour Count Summaries - Bikes																		
Interval Start	37th Ave SE			39th Ave SE			39th Ave SE			39th Ave SE			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	37th Ave SE				39th Ave SE				39th Ave SE				39th Ave SE				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	3	126	2	0	53	156	2	0	0	0	53	0	0	2	8	405	0	
4:15 PM	0	1	117	4	0	47	147	1	0	1	0	35	0	2	3	4	362	0	
4:30 PM	0	1	149	0	0	59	156	1	0	0	6	38	0	1	2	6	419	0	
4:45 PM	0	3	151	0	0	53	135	1	0	0	1	45	0	1	2	1	393	1,579	
5:00 PM	0	1	123	0	0	45	156	0	0	1	2	53	0	1	1	1	384	1,558	
5:15 PM	0	2	122	0	0	42	112	2	0	0	2	48	0	0	1	0	331	1,527	
5:30 PM	0	1	110	1	0	35	117	0	0	0	2	42	0	1	4	1	314	1,422	
5:45 PM	0	2	116	2	0	34	121	1	0	1	2	29	0	1	1	3	313	1,342	
Count Total	0	14	1,014	9	0	368	1,100	8	0	3	15	343	0	7	16	24	2,921	0	
Peak Hour	All	0	8	543	6	0	212	594	5	0	1	7	171	0	4	9	19	1,579	0
	HV	0	0	4	0	0	6	7	0	0	0	0	4	0	0	0	0	21	0
	HV%	-	0%	1%	0%	-	3%	1%	0%	-	0%	0%	2%	-	0%	0%	0%	1%	0

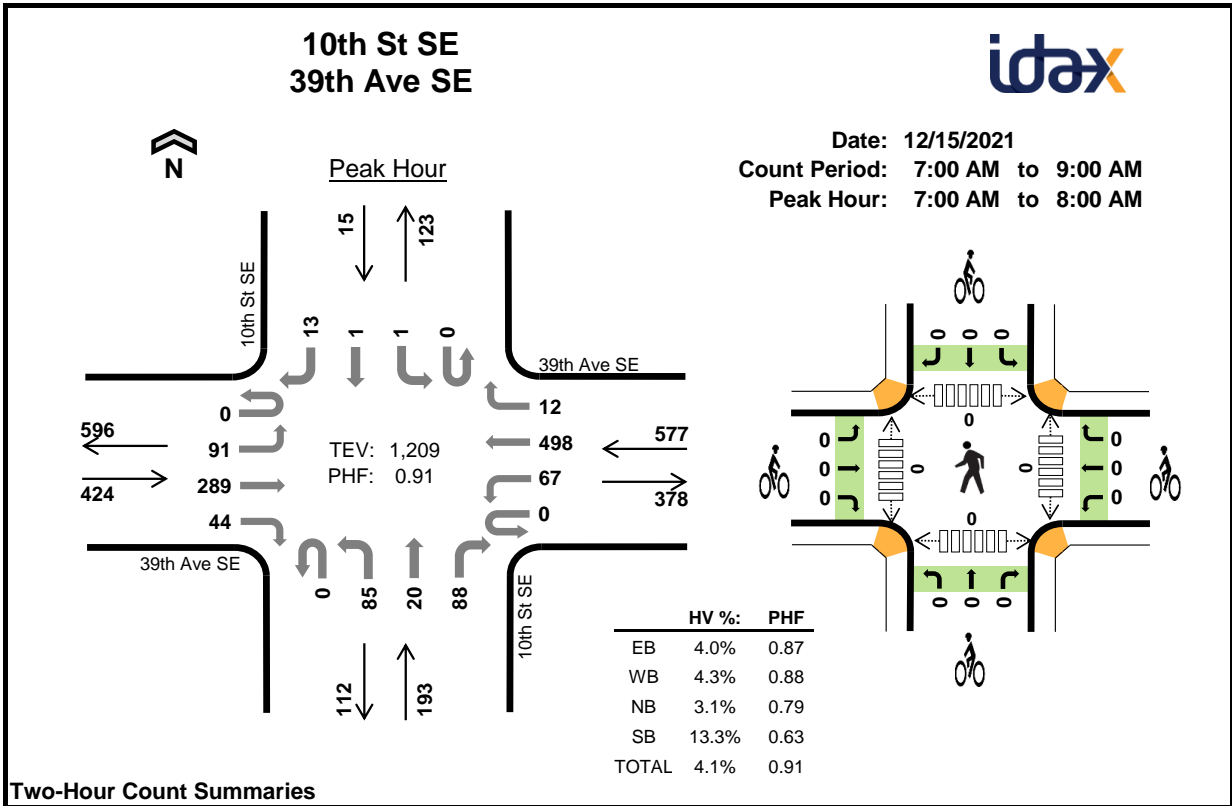
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	5	1	0	7	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	2	1	0	4	0	0	0	0	0	0	0	0	1	1
4:30 PM	2	2	1	0	5	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:15 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
5:30 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0
Count Total	8	15	4	0	27	0	0	0	0	0	0	0	1	2	3
Peak Hour	4	13	4	0	21	0	0	0	0	0	0	0	1	1	2

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	37th Ave SE				39th Ave SE				39th Ave SE				39th Ave SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	1	4	0	0	0	0	1	0	0	0	0	7	0
4:15 PM	0	0	1	0	0	2	0	0	0	0	0	1	0	0	0	0	4	0
4:30 PM	0	0	2	0	0	1	1	0	0	0	0	1	0	0	0	0	5	0
4:45 PM	0	0	0	0	0	2	2	0	0	0	0	1	0	0	0	0	5	21
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
5:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12
5:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9
5:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	6
Count Total	0	0	8	0	0	7	8	0	0	0	0	4	0	0	0	0	27	0
Peak Hour	0	0	4	0	0	6	7	0	0	0	0	4	0	0	0	0	21	0

Two-Hour Count Summaries - Bikes																	
Interval Start	37th Ave SE			39th Ave SE			39th Ave SE			39th Ave SE			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	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
5:30 PM	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
Count Total	0	0	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	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				10th St SE Northbound				10th St SE Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	22	86	14	0	9	89	2	0	23	5	33	0	0	0	1	284	0	
7:15 AM	0	22	67	9	0	17	139	2	0	17	3	19	0	0	0	3	298	0	
7:30 AM	0	15	64	6	0	20	132	4	0	23	5	22	0	1	1	3	296	0	
7:45 AM	0	32	72	15	0	21	138	4	0	22	7	14	0	0	0	6	331	1,209	
8:00 AM	0	36	59	19	0	15	98	2	0	17	3	9	0	2	0	5	265	1,190	
8:15 AM	0	26	77	11	0	7	133	4	0	13	4	7	0	1	0	3	286	1,178	
8:30 AM	0	23	74	16	0	9	101	6	0	9	7	16	0	3	1	8	273	1,155	
8:45 AM	0	19	79	19	0	10	108	4	0	18	6	34	0	1	1	9	308	1,132	
Count Total	0	195	578	109	0	108	938	28	0	142	40	154	0	8	3	38	2,341	0	
Peak Hour	All	0	91	289	44	0	67	498	12	0	85	20	88	0	1	1	13	1,209	0
	HV	0	0	15	2	0	5	19	1	0	1	0	5	0	0	0	2	50	0
	HV%	-	0%	5%	5%	-	7%	4%	8%	-	1%	0%	6%	-	0%	0%	15%	4%	0

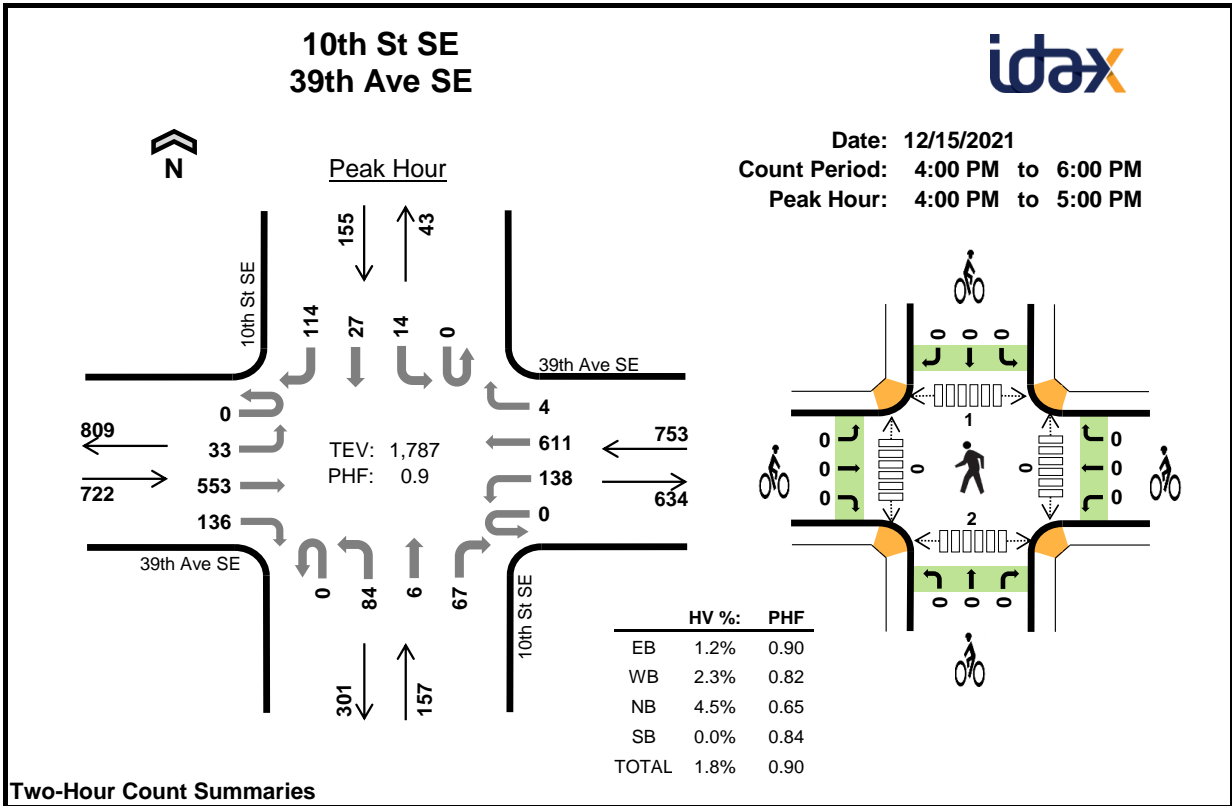
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	7	5	2	0	14	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	9	2	0	14	0	0	0	0	0	0	0	0	0	0
7:30 AM	6	4	0	0	10	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	7	2	2	12	0	0	0	0	0	0	0	0	0	0
8:00 AM	6	3	1	0	10	0	0	0	0	0	0	0	0	0	0
8:15 AM	2	6	2	0	10	0	0	0	0	0	0	0	0	0	0
8:30 AM	5	4	1	0	10	0	0	0	0	0	0	0	0	1	1
8:45 AM	9	2	6	1	18	0	0	0	0	0	0	0	0	0	0
Count Total	39	40	16	3	98	0	0	0	0	0	0	0	0	1	1
Peak Hour	17	25	6	2	50	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	39th Ave SE				39th Ave SE				10th St SE				10th St SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	6	1	0	1	4	0	0	0	0	2	0	0	0	0	14	0
7:15 AM	0	0	3	0	0	0	9	0	0	0	0	2	0	0	0	0	14	0
7:30 AM	0	0	5	1	0	2	1	1	0	0	0	0	0	0	0	0	10	0
7:45 AM	0	0	1	0	0	2	5	0	0	1	0	1	0	0	0	2	12	50
8:00 AM	0	0	5	1	0	1	2	0	0	0	0	1	0	0	0	0	10	46
8:15 AM	0	0	2	0	0	0	6	0	0	1	0	1	0	0	0	0	10	42
8:30 AM	0	1	3	1	0	2	2	0	0	0	0	1	0	0	0	0	10	42
8:45 AM	0	0	9	0	0	1	1	0	0	0	1	5	0	0	0	1	18	48
Count Total	0	1	34	4	0	9	30	1	0	2	1	13	0	0	0	3	98	0
Peak Hour	0	0	15	2	0	5	19	1	0	1	0	5	0	0	0	2	50	0

Two-Hour Count Summaries - Bikes																		
Interval Start	39th Ave SE			39th Ave SE			10th St SE			10th St SE			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				10th St SE Northbound				10th St SE Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	12	134	34	0	28	156	1	0	20	2	10	0	3	8	32	440	0	
4:15 PM	0	10	113	30	0	20	133	0	0	31	1	28	0	5	5	30	406	0	
4:30 PM	0	7	152	30	0	53	176	1	0	16	1	14	0	4	8	34	496	0	
4:45 PM	0	4	154	42	0	37	146	2	0	17	2	15	0	2	6	18	445	1,787	
5:00 PM	0	2	148	26	0	32	147	2	0	17	0	15	0	4	4	35	432	1,779	
5:15 PM	0	1	132	37	0	35	128	0	0	13	0	9	0	3	2	18	378	1,751	
5:30 PM	0	0	118	39	0	31	116	0	0	20	0	14	0	3	5	13	359	1,614	
5:45 PM	0	0	125	19	0	21	130	0	0	14	0	14	0	1	4	9	337	1,506	
Count Total	0	36	1,076	257	0	257	1,132	6	0	148	6	119	0	25	42	189	3,293	0	
Peak Hour	All	0	33	553	136	0	138	611	4	0	84	6	67	0	14	27	114	1,787	0
	HV	0	0	8	1	0	5	12	0	0	1	0	6	0	0	0	0	33	0
	HV%	-	0%	1%	1%	-	4%	2%	0%	-	1%	0%	9%	-	0%	0%	0%	2%	0

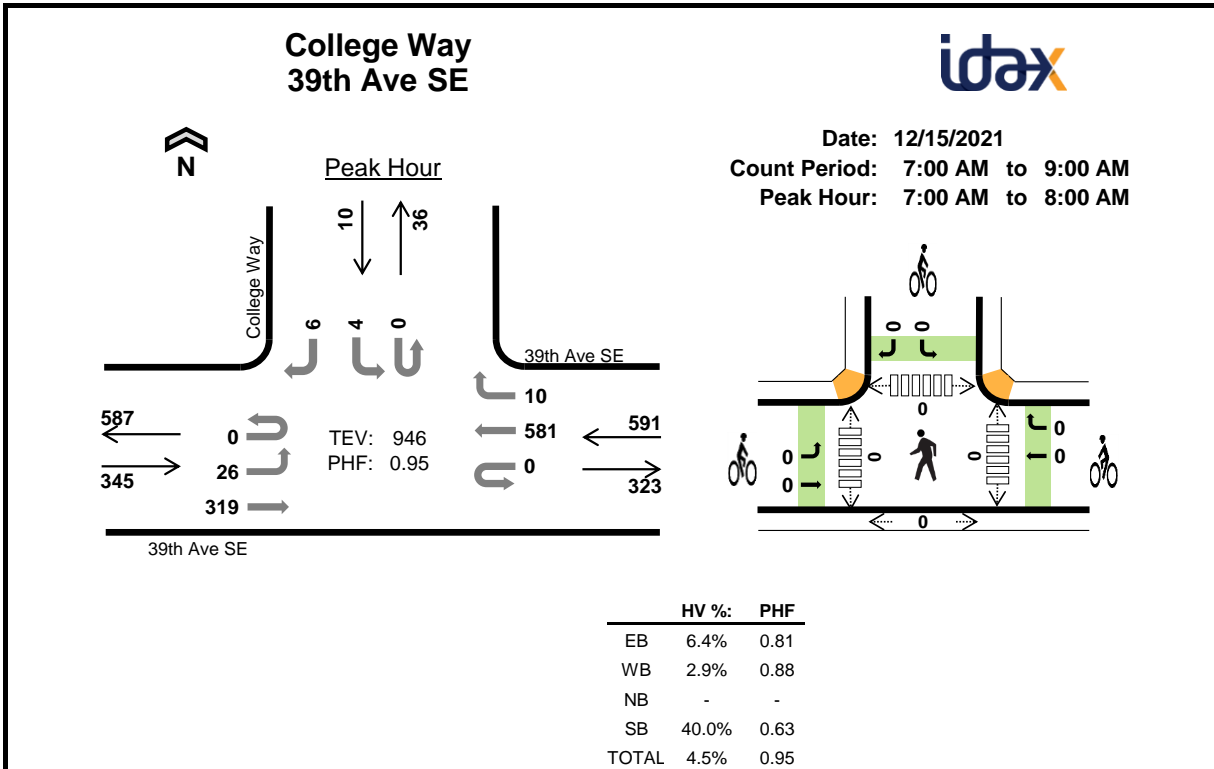
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total	
4:00 PM	2	7	3	0	12	0	0	0	0	0	0	0	0	0	1	1
4:15 PM	3	2	2	0	7	0	0	0	0	0	0	0	0	0	1	1
4:30 PM	3	4	0	0	7	0	0	0	0	0	0	0	1	0	1	
4:45 PM	1	4	2	0	7	0	0	0	0	0	0	0	0	0	0	
5:00 PM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	
5:15 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	1	1	
5:30 PM	3	1	1	0	5	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	
Count Total	14	23	9	0	46	0	0	0	0	0	0	0	1	3	4	
Peak Hour	9	17	7	0	33	0	0	0	0	0	0	0	1	2	3	

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	39th Ave SE				39th Ave SE				10th St SE				10th St SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	2	0	0	2	5	0	0	0	0	3	0	0	0	0	12	0
4:15 PM	0	0	3	0	0	0	2	0	0	0	0	2	0	0	0	0	7	0
4:30 PM	0	0	2	1	0	2	2	0	0	0	0	0	0	0	0	0	7	0
4:45 PM	0	0	1	0	0	1	3	0	0	1	0	1	0	0	0	0	7	33
5:00 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	3	24
5:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	19
5:30 PM	0	0	3	0	0	1	0	0	0	0	0	1	0	0	0	0	5	17
5:45 PM	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	3	13
Count Total	0	0	13	1	0	8	15	0	0	1	0	8	0	0	0	0	46	0
Peak Hour	0	0	8	1	0	5	12	0	0	1	0	6	0	0	0	0	33	0

Two-Hour Count Summaries - Bikes																	
Interval Start	39th Ave SE			39th Ave SE			10th St SE			10th St SE			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	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
5:30 PM	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
Count Total	0	0	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	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				0 Northbound				College Way Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
	7:00 AM	0	2	105	0	0	0	105	1	0	0	0	0	0	1	0			1
7:15 AM	0	6	74	0	0	0	163	0	0	0	0	0	0	1	0	1	245	0	
7:30 AM	0	7	71	0	0	0	164	4	0	0	0	0	0	2	0	2	250	0	
7:45 AM	0	11	69	0	0	0	149	5	0	0	0	0	0	0	0	2	236	946	
8:00 AM	0	6	61	0	0	0	118	1	0	0	0	0	0	0	0	3	189	920	
8:15 AM	0	10	66	0	0	0	139	3	0	0	0	0	0	0	0	4	222	897	
8:30 AM	0	7	86	0	0	0	111	1	0	0	0	0	0	2	0	2	209	856	
8:45 AM	0	8	102	0	0	0	119	1	0	0	0	0	0	0	0	6	236	856	
Count Total	0	57	634	0	0	0	1,068	16	0	0	0	0	0	6	0	21	1,802	0	
Peak Hour	All	0	26	319	0	0	0	581	10	0	0	0	0	0	4	0	6	946	0
	HV	0	3	19	0	0	0	17	0	0	0	0	0	0	1	0	3	43	0
	HV%	-	12%	6%	-	-	-	3%	0%	-	-	-	-	-	25%	-	50%	5%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

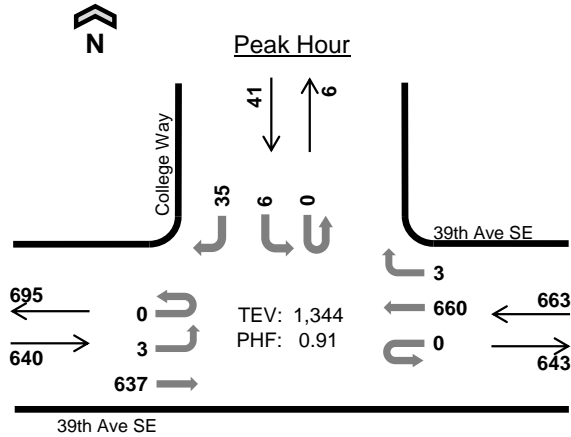
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
7:00 AM	8	4	0	2	14	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	6	8	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	4	4	0	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	3	2	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	3	4	0	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	4	2	0	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	12	1	0	0	13	0	0	0	0	0	0	0	0	0	0	1	1	1
Count Total	44	26	0	7	77	0	0	0	0	0	0	0	0	0	1	1	1	1
Peak Hr	22	17	0	4	43	0	0	0	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	39th Ave SE				39th Ave SE				0				College Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	8	0	0	0	4	0	0	0	0	0	0	1	0	1	14	0
7:15 AM	0	2	4	0	0	0	8	0	0	0	0	0	0	0	0	0	14	0
7:30 AM	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	2	10	0
7:45 AM	0	1	3	0	0	0	1	0	0	0	0	0	0	0	0	0	5	43
8:00 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	1	6	35
8:15 AM	0	2	1	0	0	0	4	0	0	0	0	0	0	0	0	1	8	29
8:30 AM	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	1	7	26
8:45 AM	0	1	11	0	0	0	1	0	0	0	0	0	0	0	0	0	13	34
Count Total	0	6	38	0	0	0	26	0	0	0	0	0	0	1	0	6	77	0
Peak Hour	0	3	19	0	0	0	17	0	0	0	0	0	0	1	0	3	43	0

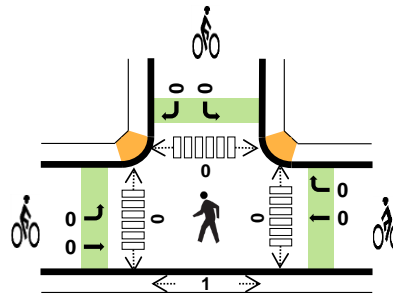
Two-Hour Count Summaries - Bikes																	
Interval Start	39th Ave SE			39th Ave SE			0			College Way			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

College Way 39th Ave SE



Date: 12/15/2021
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	0.9%	0.95
WB	1.1%	0.88
NB	-	-
SB	4.9%	0.51
TOTAL	1.1%	0.91

Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				0 Northbound				College Way Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	3	131	0	0	0	176	1	0	0	0	0	0	1	0	7	319	0	
4:15 PM	0	4	144	0	0	0	145	2	0	0	0	0	0	3	0	6	304	0	
4:30 PM	0	1	167	0	0	0	188	1	0	0	0	0	0	2	0	9	368	0	
4:45 PM	0	1	151	0	0	0	172	2	0	0	0	0	0	1	0	4	331	1,322	
5:00 PM	0	1	162	0	0	0	148	0	0	0	0	0	0	3	0	17	331	1,334	
5:15 PM	0	0	157	0	0	0	152	0	0	0	0	0	0	0	0	5	314	1,344	
5:30 PM	0	1	136	0	0	0	149	0	0	0	0	0	0	2	0	4	292	1,268	
5:45 PM	0	3	135	0	0	0	137	0	0	0	0	0	0	0	0	3	278	1,215	
Count Total	0	14	1,183	0	0	0	1,267	6	0	0	0	0	0	12	0	55	2,537	0	
Peak Hour	All	0	3	637	0	0	0	660	3	0	0	0	0	0	6	0	35	1,344	0
	HV	0	1	5	0	0	0	7	0	0	0	0	0	0	0	0	2	15	0
	HV%	-	33%	1%	-	-	-	1%	0%	-	-	-	-	-	0%	-	6%	1%	0

Note: Two-hour count summary volumes 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	East	West	North	South	Total
4:00 PM	5	7	0	1	13	0	0	0	0	0	0	0	0	1	1
4:15 PM	3	1	0	0	4	0	0	0	0	0	0	0	1	0	1
4:30 PM	1	3	0	1	5	0	0	0	0	0	0	0	0	1	1
4:45 PM	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0
5:00 PM	2	0	0	1	3	0	0	0	0	0	0	0	0	0	0
5:15 PM	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0
5:30 PM	4	0	0	1	5	0	0	0	0	0	0	0	0	0	0
5:45 PM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0
Count Total	20	17	0	4	41	0	0	0	0	0	0	0	1	2	3
Peak Hr	6	7	0	2	15	0	0	0	0	0	0	0	0	1	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	39th Ave SE				39th Ave SE				0				College Way				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	5	0	0	0	7	0	0	0	0	0	0	0	0	1	13	0
4:15 PM	0	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0
4:30 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	1	5	0
4:45 PM	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	4	26
5:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	3	16
5:15 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	15
5:30 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1	5	15
5:45 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	4	15
Count Total	0	5	15	0	0	0	17	0	0	0	0	0	0	0	0	4	41	0
Peak Hour	0	1	5	0	0	0	7	0	0	0	0	0	0	0	0	2	15	0

Two-Hour Count Summaries - Bikes																	
Interval Start	39th Ave SE			39th Ave SE			0			College Way			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	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
5:30 PM	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
Count Total	0	0	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	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

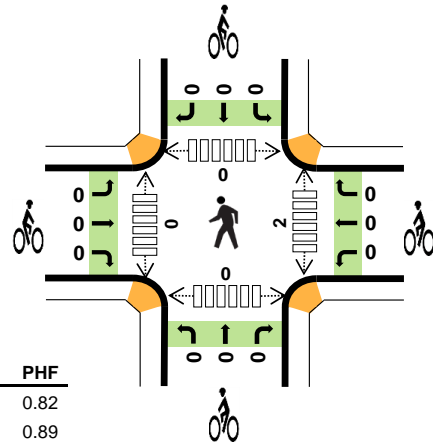
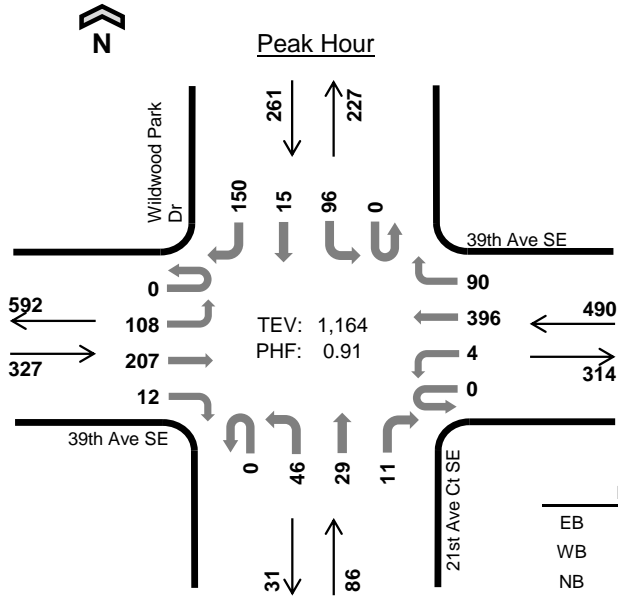


21st Ave Ct SE 39th Ave SE

Date: 12/15/2021

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	5.8%	0.82
WB	2.2%	0.89
NB	2.3%	0.93
SB	5.4%	0.67
TOTAL	4.0%	0.91

Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				21st Ave Ct SE Northbound				21st Ave Ct SE Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	50	50	0	0	1	77	59	0	7	13	2	0	26	6	29	320	0	
7:15 AM	0	30	52	2	0	2	93	17	0	10	7	4	0	36	2	60	315	0	
7:30 AM	0	19	49	5	0	0	117	8	0	14	5	4	0	18	5	37	281	0	
7:45 AM	0	9	56	5	0	1	109	6	0	15	4	1	0	16	2	24	248	1,164	
8:00 AM	0	12	46	3	0	1	94	8	0	4	4	2	0	7	1	17	199	1,043	
8:15 AM	0	12	48	7	0	1	120	2	0	8	1	2	0	4	3	16	224	952	
8:30 AM	0	13	69	2	0	1	90	7	0	9	0	3	0	5	2	12	213	884	
8:45 AM	0	20	71	4	0	0	97	11	0	6	3	3	0	10	0	24	249	885	
Count Total	0	165	441	28	0	7	797	118	0	73	37	21	0	122	21	219	2,049	0	
Peak Hour	All	0	108	207	12	0	4	396	90	0	46	29	11	0	96	15	150	1,164	0
	HV	0	9	8	2	0	0	6	5	0	0	0	2	0	4	0	10	46	0
	HV%	-	8%	4%	17%	-	0%	2%	6%	-	0%	0%	18%	-	4%	0%	7%	4%	0

Note: Two-hour count summary volumes 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	East	West	North	South	Total
7:00 AM	10	7	0	6	23	0	0	0	0	0	1	0	0	0	1
7:15 AM	3	2	0	6	11	0	0	0	0	0	0	0	0	0	0
7:30 AM	3	2	2	1	8	0	0	0	0	0	1	0	0	0	1
7:45 AM	3	0	0	1	4	0	0	0	0	0	0	0	0	0	0
8:00 AM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0
8:30 AM	4	2	0	2	8	0	0	0	0	0	0	0	0	0	0
8:45 AM	11	4	0	1	16	0	0	0	0	0	0	0	0	0	0
Count Total	39	20	2	17	78	0	0	0	0	0	2	0	0	0	2
Peak Hour	19	11	2	14	46	0	0	0	0	0	2	0	0	0	2

Two-Hour Count Summaries - Heavy Vehicles														15-min Total	Rolling One Hour			
Interval Start	39th Ave SE				39th Ave SE				21st Ave Ct SE				Wildwood Park Dr					
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	9	1	0	0	0	3	4	0	0	0	0	0	3	0	3	23	0
7:15 AM	0	0	2	1	0	0	1	1	0	0	0	0	0	1	0	5	11	0
7:30 AM	0	0	2	1	0	0	2	0	0	0	0	2	0	0	0	1	8	0
7:45 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	4	46
8:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	27
8:15 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	20
8:30 AM	0	0	3	1	0	0	1	1	0	0	0	0	0	1	1	0	8	20
8:45 AM	0	4	7	0	0	0	3	1	0	0	0	0	0	0	0	1	16	32
Count Total	0	15	19	5	0	0	13	7	0	0	0	2	0	5	1	11	78	0
Peak Hour	0	9	8	2	0	0	6	5	0	0	0	2	0	4	0	10	46	0

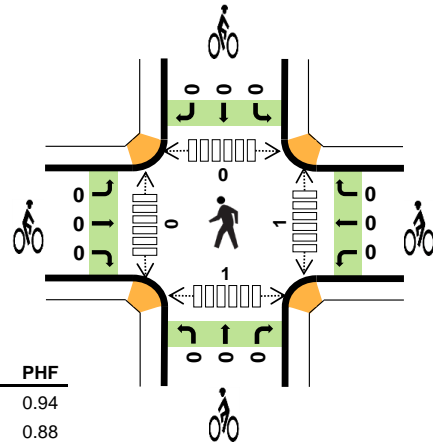
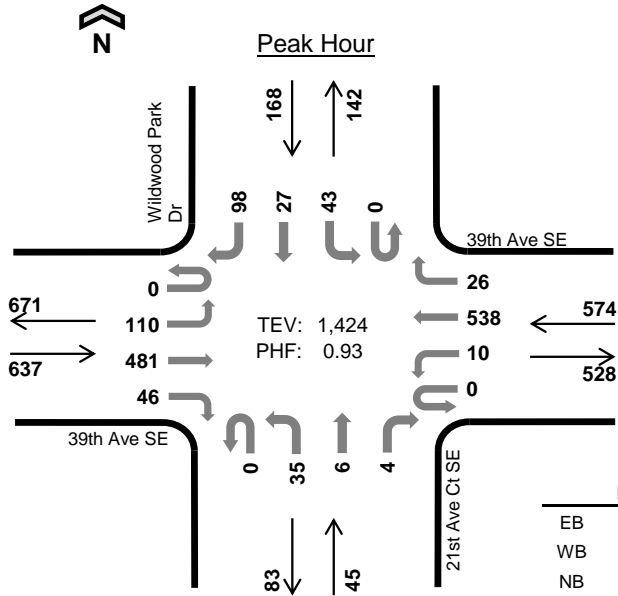
Two-Hour Count Summaries - Bikes														15-min Total	Rolling One Hour			
Interval Start	39th Ave SE			39th Ave SE			21st Ave Ct SE			Wildwood Park Dr								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

21st Ave Ct SE 39th Ave SE



Date: 12/15/2021
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	0.8%	0.94
WB	0.7%	0.88
NB	0.0%	0.75
SB	1.8%	0.76
TOTAL	0.8%	0.93

Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				21st Ave Ct SE Northbound				Wildwood Park Dr Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	21	100	9	0	1	136	10	0	6	2	0	0	5	8	29	327	0	
4:15 PM	0	29	110	11	0	4	127	8	0	8	2	1	0	6	8	18	332	0	
4:30 PM	0	27	133	10	0	1	155	7	0	8	0	0	0	15	4	22	382	0	
4:45 PM	0	25	119	12	0	1	130	8	0	11	2	2	0	10	8	37	365	1,406	
5:00 PM	0	29	119	13	0	4	126	3	0	8	2	1	0	12	7	21	345	1,424	
5:15 PM	0	22	122	12	0	3	119	4	0	8	1	2	0	3	7	20	323	1,415	
5:30 PM	0	21	104	10	0	3	115	3	0	5	0	3	0	10	4	29	307	1,340	
5:45 PM	0	32	94	8	0	2	100	7	0	7	1	3	0	15	6	24	299	1,274	
Count Total	0	206	901	85	0	19	1,008	50	0	61	10	12	0	76	52	200	2,680	0	
Peak Hour	All	0	110	481	46	0	10	538	26	0	35	6	4	0	43	27	98	1,424	0
	HV	0	0	4	1	0	0	4	0	0	0	0	0	0	0	1	2	12	0
	HV%	-	0%	1%	2%	-	0%	1%	0%	-	0%	0%	0%	-	0%	4%	2%	1%	0

Note: Two-hour count summary volumes 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	East	West	North	South	Total	
4:00 PM	4	6	0	0	10	0	0	0	0	0	0	0	0	0	1	1
4:15 PM	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	2	2	0	2	6	0	0	0	0	0	1	0	0	0	1	1
4:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
5:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
5:30 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0	0
Count Total	12	11	0	5	28	0	0	0	0	0	1	0	0	3	4	4
Peak Hour	5	4	0	3	12	0	0	0	0	0	1	0	0	1	2	2

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	39th Ave SE				39th Ave SE				21st Ave Ct SE				Wildwood Park Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	4	0	0	0	6	0	0	0	0	0	0	0	0	10	0	
4:15 PM	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	3	0	
4:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	1	1	6	0	
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	21	
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	12	
5:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	10	
5:30 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	6	
5:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	3	7	
Count Total	0	1	9	2	0	0	11	0	0	0	0	0	0	2	3	28	0	
Peak Hour	0	0	4	1	0	0	4	0	0	0	0	0	0	1	2	12	0	

Two-Hour Count Summaries - Bikes																
Interval Start	39th Ave SE			39th Ave SE			21st Ave Ct SE			Wildwood Park Dr			15-min Total	Rolling One Hour		
	Eastbound			Westbound			Northbound			Southbound						
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT				
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	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
5:30 PM	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
Count Total	0	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	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

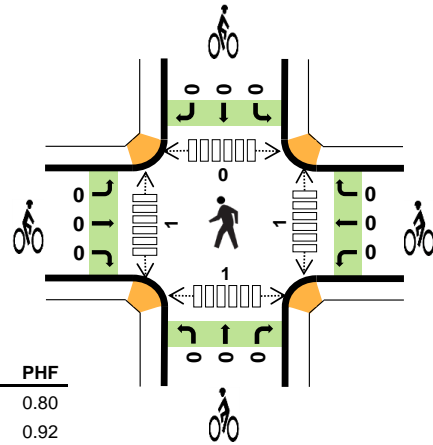
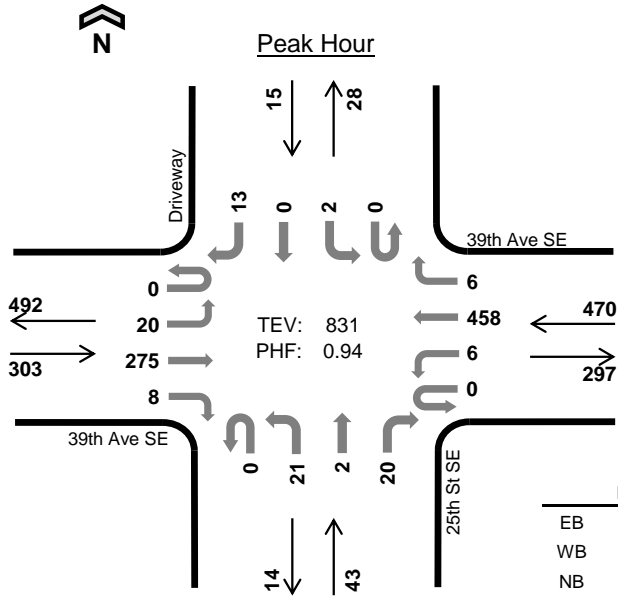


25th St SE 39th Ave SE

Date: 12/15/2021

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	5.9%	0.80
WB	2.1%	0.92
NB	4.7%	0.63
SB	0.0%	0.63
TOTAL	3.6%	0.94

Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				25th St SE Northbound				Driveway Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	4	66	1	0	0	125	3	0	8	1	8	0	1	0	5	222	0	
7:15 AM	0	5	86	4	0	2	108	0	0	2	1	7	0	0	0	4	219	0	
7:30 AM	0	5	59	1	0	2	115	0	0	5	0	5	0	1	0	1	194	0	
7:45 AM	0	6	64	2	0	2	110	3	0	6	0	0	0	0	0	3	196	831	
8:00 AM	0	4	49	1	0	2	104	5	0	4	1	7	0	1	0	1	179	788	
8:15 AM	0	4	45	1	0	2	117	7	0	2	0	6	0	1	0	0	185	754	
8:30 AM	0	8	59	2	0	2	93	11	0	6	2	4	0	3	0	1	191	751	
8:45 AM	0	22	56	2	0	3	95	22	0	5	6	9	0	2	0	6	228	783	
Count Total	0	58	484	14	0	15	867	51	0	38	11	46	0	9	0	21	1,614	0	
Peak Hour	All	0	20	275	8	0	6	458	6	0	21	2	20	0	2	0	13	831	0
	HV	0	0	18	0	0	0	10	0	0	1	0	1	0	0	0	0	30	0
	HV%	-	0%	7%	0%	-	0%	2%	0%	-	5%	0%	5%	-	0%	-	0%	4%	0

Note: Two-hour count summary volumes 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	East	West	North	South	Total
7:00 AM	3	6	2	0	11	0	0	0	0	0	0	1	0	0	1
7:15 AM	5	3	0	0	8	0	0	0	0	0	0	0	0	0	1
7:30 AM	5	1	0	0	6	0	0	0	0	0	1	0	0	0	1
7:45 AM	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	4	0	0	5	0	0	0	0	0	0	0	1	0	1
8:30 AM	4	3	0	1	8	0	0	0	0	0	2	0	0	0	2
8:45 AM	2	3	2	0	7	0	0	0	0	0	9	0	0	0	9
Count Total	25	22	5	1	53	0	0	0	0	0	12	1	1	1	15
Peak Hour	18	10	2	0	30	0	0	0	0	0	1	1	0	1	3

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	39th Ave SE				39th Ave SE				25th St SE				Driveway				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	3	0	0	0	6	0	0	1	0	1	0	0	0	0	11	0
7:15 AM	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	8	0
7:30 AM	0	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	6	0
7:45 AM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	30
8:00 AM	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	3	22
8:15 AM	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	5	19
8:30 AM	0	1	2	1	0	0	3	0	0	0	0	0	0	1	0	0	8	21
8:45 AM	0	0	2	0	0	1	2	0	0	1	0	1	0	0	0	0	7	23
Count Total	0	1	23	1	0	1	21	0	0	2	0	3	0	1	0	0	53	0
Peak Hour	0	0	18	0	0	0	10	0	0	1	0	1	0	0	0	0	30	0

Two-Hour Count Summaries - Bikes																
Interval Start	39th Ave SE			39th Ave SE			25th St SE			Driveway			15-min Total	Rolling One Hour		
	Eastbound			Westbound			Northbound			Southbound						
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT				
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	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		
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

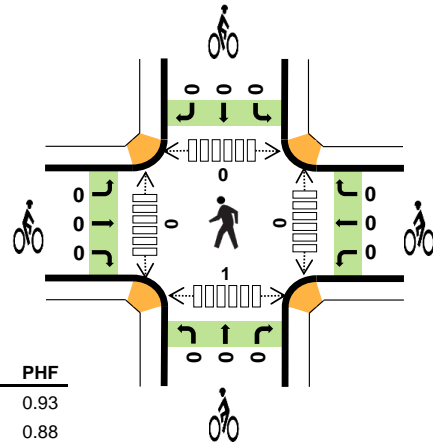
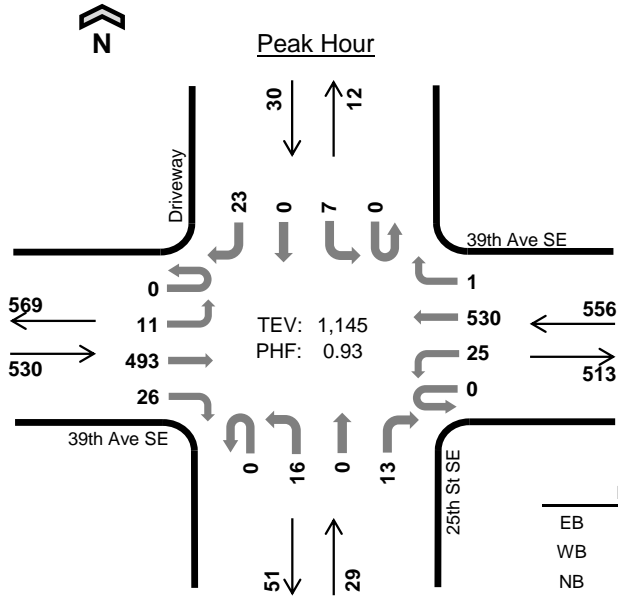


25th St SE 39th Ave SE

Date: 12/15/2021

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	0.6%	0.93
WB	0.7%	0.88
NB	0.0%	0.73
SB	0.0%	0.58
TOTAL	0.6%	0.93

Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				25th St SE Northbound				Driveway Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	3	104	6	0	11	121	1	0	5	1	6	0	4	2	13	277	0	
4:15 PM	0	2	111	5	0	6	122	0	0	6	0	4	0	4	0	9	269	0	
4:30 PM	0	1	126	8	0	4	154	0	0	5	0	2	0	2	0	6	308	0	
4:45 PM	0	1	134	7	0	6	131	1	0	3	0	0	0	0	0	4	287	1,141	
5:00 PM	0	7	122	6	0	9	123	0	0	2	0	7	0	1	0	4	281	1,145	
5:15 PM	0	1	119	6	0	6	108	2	0	3	0	5	0	0	2	6	258	1,134	
5:30 PM	0	1	115	5	0	7	117	0	0	3	0	1	0	2	0	1	252	1,078	
5:45 PM	0	4	108	2	0	12	106	1	0	3	0	2	0	0	1	1	240	1,031	
Count Total	0	20	939	45	0	61	982	5	0	30	1	27	0	13	5	44	2,172	0	
Peak Hour	All	0	11	493	26	0	25	530	1	0	16	0	13	0	7	0	23	1,145	0
	HV	0	0	3	0	0	1	3	0	0	0	0	0	0	0	0	0	7	0
	HV%	-	0%	1%	0%	-	4%	1%	0%	-	0%	-	0%	-	0%	-	0%	1%	0

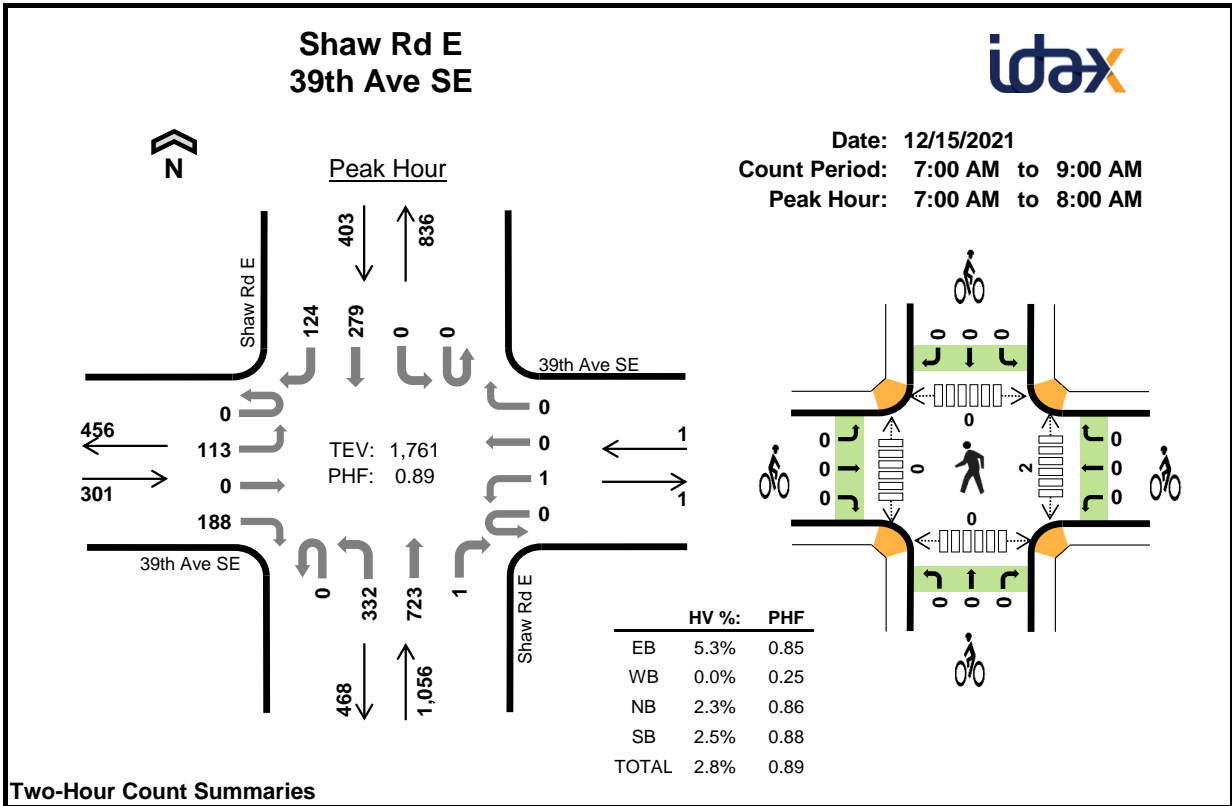
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	3	5	2	1	11	0	0	0	0	0	0	0	0	0	1
4:15 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	1	1
5:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Count Total	8	10	3	1	22	0	0	0	0	0	0	0	0	2	2
Peak Hour	3	4	0	0	7	0	0	0	0	0	0	0	0	1	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	39th Ave SE				39th Ave SE				25th St SE				Driveway				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	2	1	0	1	4	0	0	1	0	1	0	1	0	0	11	0
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0
4:45 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	17
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	6
5:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
5:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	5
Count Total	0	0	7	1	0	2	8	0	0	2	0	1	0	1	0	0	22	0
Peak Hour	0	0	3	0	0	1	3	0	0	0	0	0	0	0	0	0	7	0

Two-Hour Count Summaries - Bikes																	
Interval Start	39th Ave SE			39th Ave SE			25th St SE			Driveway			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	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
5:30 PM	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
Count Total	0	0	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	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				Shaw Rd E Northbound				Shaw Rd E Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	34	0	43	0	0	0	0	0	105	168	0	0	0	54	24	428	0	
7:15 AM	0	35	0	54	0	0	0	0	0	80	225	1	0	0	74	27	496	0	
7:30 AM	0	21	0	47	0	1	0	0	0	79	164	0	0	0	74	36	422	0	
7:45 AM	0	23	0	44	0	0	0	0	0	68	166	0	0	0	77	37	415	1,761	
8:00 AM	0	32	0	20	0	0	0	0	0	79	137	0	0	0	57	43	368	1,701	
8:15 AM	0	23	0	30	0	0	0	0	0	83	151	0	0	0	69	34	390	1,595	
8:30 AM	0	32	0	35	0	0	0	0	0	67	143	0	0	0	81	43	401	1,574	
8:45 AM	0	31	0	30	0	0	0	1	0	69	115	1	0	0	57	40	344	1,503	
Count Total	0	231	0	303	0	1	0	1	0	630	1,269	2	0	0	543	284	3,264	0	
Peak Hour	All	0	113	0	188	0	1	0	0	0	332	723	1	0	0	279	124	1,761	0
	HV	0	4	0	12	0	0	0	0	0	8	16	0	0	0	9	1	50	0
	HV%	-	4%	-	6%	-	0%	-	-	-	2%	2%	0%	-	-	3%	1%	3%	0

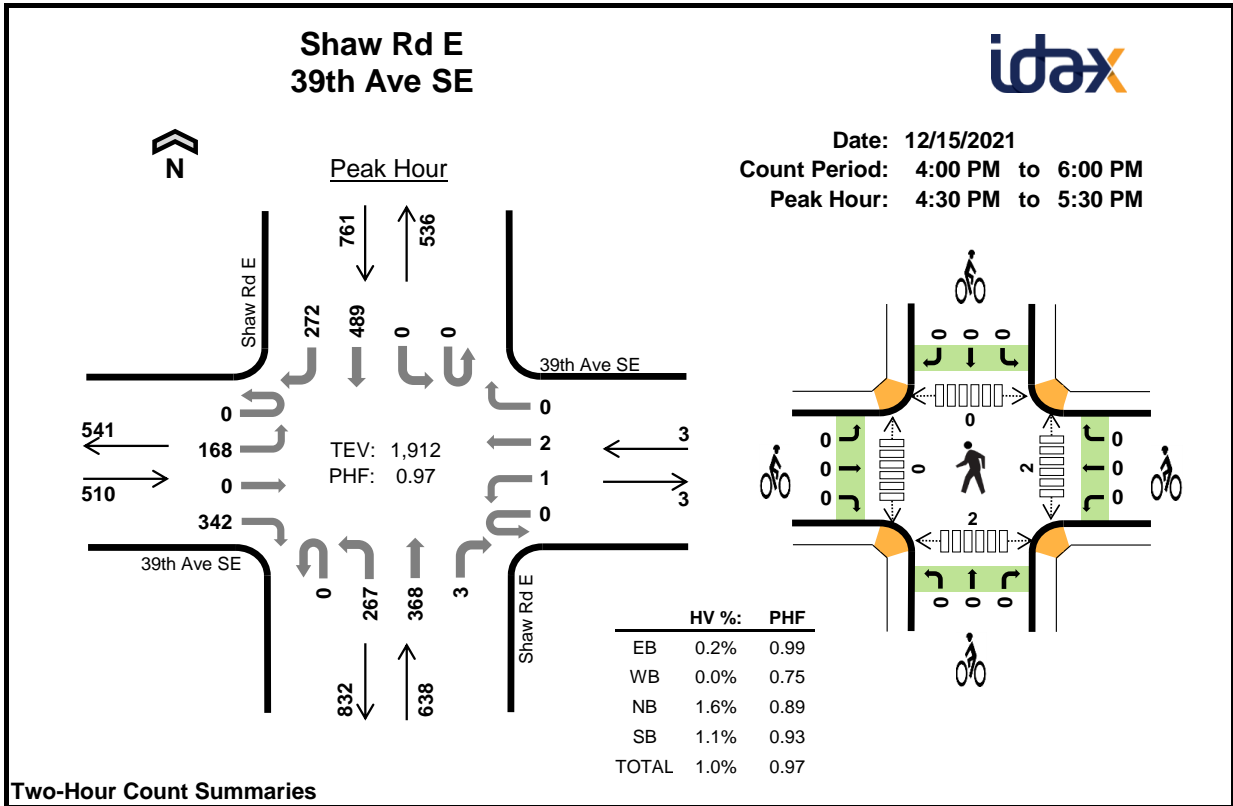
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	4	0	10	1	15	0	0	0	0	0	0	0	0	0	0
7:15 AM	4	0	5	3	12	0	0	0	0	0	0	0	0	0	0
7:30 AM	5	0	5	5	15	0	0	0	0	0	0	0	0	0	0
7:45 AM	3	0	4	1	8	0	0	0	0	0	2	0	0	0	2
8:00 AM	2	0	7	4	13	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	12	3	16	0	0	0	0	0	0	0	0	0	0
8:30 AM	2	0	8	3	13	0	0	0	0	0	0	0	0	0	0
8:45 AM	2	0	6	7	15	0	0	0	0	0	2	0	0	0	2
Count Total	23	0	57	27	107	0	0	0	0	0	4	0	0	0	4
Peak Hour	16	0	24	10	50	0	0	0	0	0	2	0	0	0	2

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	39th Ave SE				39th Ave SE				Shaw Rd E				Shaw Rd E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	0	3	0	0	0	0	0	6	4	0	0	0	0	1	15	0
7:15 AM	0	1	0	3	0	0	0	0	0	2	3	0	0	0	3	0	12	0
7:30 AM	0	1	0	4	0	0	0	0	0	0	5	0	0	0	5	0	15	0
7:45 AM	0	1	0	2	0	0	0	0	0	0	4	0	0	0	1	0	8	50
8:00 AM	0	1	0	1	0	0	0	0	0	0	7	0	0	0	2	2	13	48
8:15 AM	0	0	0	1	0	0	0	0	0	6	6	0	0	0	2	1	16	52
8:30 AM	0	0	0	2	0	0	0	0	0	2	6	0	0	0	3	0	13	50
8:45 AM	0	0	0	2	0	0	0	0	0	1	5	0	0	0	7	0	15	57
Count Total	0	5	0	18	0	0	0	0	0	17	40	0	0	0	23	4	107	0
Peak Hour	0	4	0	12	0	0	0	0	0	8	16	0	0	0	9	1	50	0

Two-Hour Count Summaries - Bikes																		
Interval Start	39th Ave SE			39th Ave SE			Shaw Rd E			Shaw Rd E			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	39th Ave SE				39th Ave SE				Shaw Rd E				Shaw Rd E				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT		LT		TH		RT				
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	47	1	64	0	0	0	0	0	70	94	0	0	0	144	51	471	0	
4:15 PM	0	51	0	66	0	0	0	0	0	63	110	0	0	1	110	65	466	0	
4:30 PM	0	42	0	86	0	1	0	0	0	92	86	1	0	0	112	73	493	0	
4:45 PM	0	34	0	90	0	0	1	0	0	63	108	0	0	0	106	72	474	1,904	
5:00 PM	0	41	0	88	0	0	0	0	0	66	71	1	0	0	137	67	471	1,904	
5:15 PM	0	51	0	78	0	0	1	0	0	46	103	1	0	0	134	60	474	1,912	
5:30 PM	0	42	1	68	0	0	0	0	0	53	99	1	0	0	124	77	465	1,884	
5:45 PM	0	38	1	76	0	0	0	0	0	56	82	0	0	0	130	61	444	1,854	
Count Total	0	346	3	616	0	1	2	0	0	509	753	4	0	1	997	526	3,758	0	
Peak Hour	All	0	168	0	342	0	1	2	0	0	267	368	3	0	0	489	272	1,912	0
	HV	0	0	0	1	0	0	0	0	0	1	9	0	0	0	7	1	19	0
	HV%	-	0%	-	0%	-	0%	0%	-	-	0%	2%	0%	-	-	1%	0%	1%	0

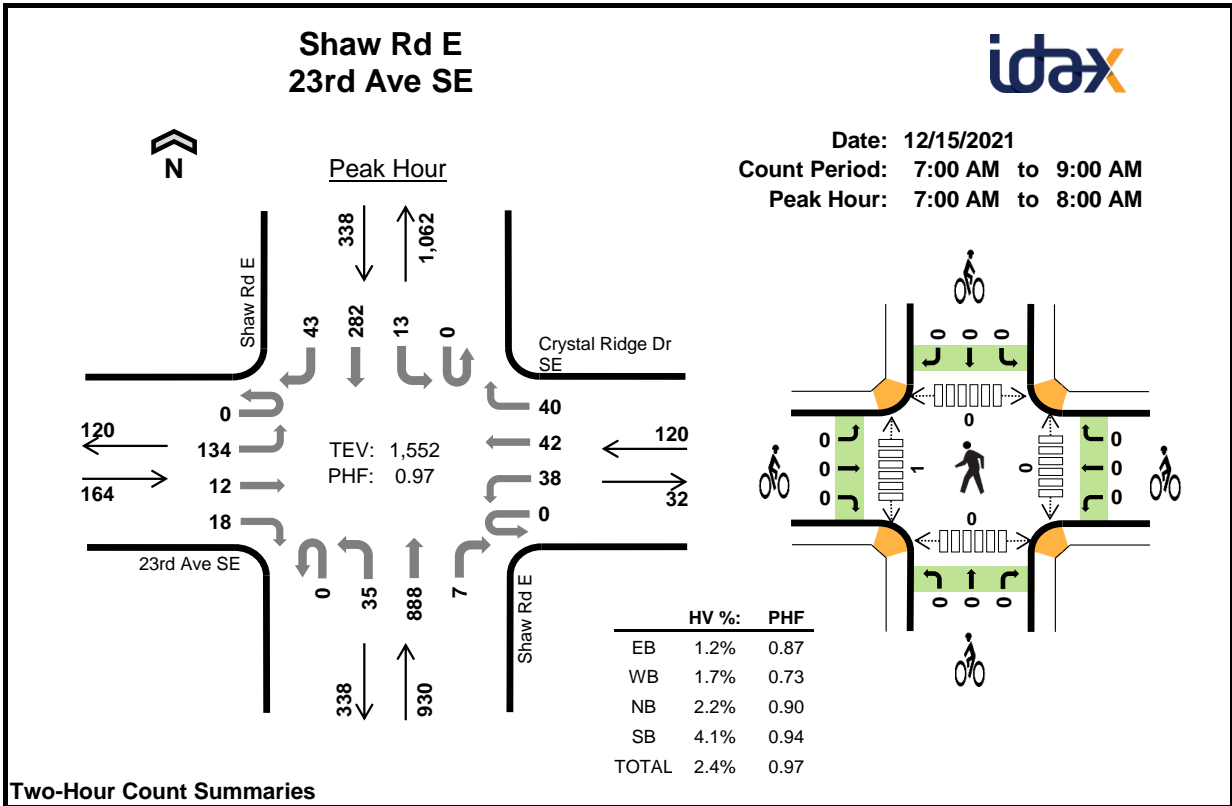
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	4	0	3	3	10	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	3	1	5	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	2	2	5	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	4	1	5	0	0	0	0	0	2	0	0	2	4
5:30 PM	2	0	2	0	4	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	2	2	5	0	0	0	0	0	0	0	0	0	0
Count Total	9	0	20	14	43	0	0	0	0	0	2	0	0	2	4
Peak Hour	1	0	10	8	19	0	0	0	0	0	2	0	0	2	4

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	39th Ave SE				39th Ave SE				Shaw Rd E				Shaw Rd E				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	2	0	2	0	0	0	0	0	3	0	0	0	0	0	1	2	10	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	5	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1	5	0
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	2	0	5	25
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	19
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	19
5:30 PM	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	4	18
5:45 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	1	5	18
Count Total	0	3	0	6	0	0	0	0	0	4	16	0	0	0	0	10	4	43	0
Peak Hour	0	0	0	1	0	0	0	0	0	0	1	9	0	0	0	7	1	19	0

Two-Hour Count Summaries - Bikes																			
Interval Start	39th Ave SE			39th Ave SE			Shaw Rd E			Shaw Rd E			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	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	0
5:30 PM	0	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	0
Count Total	0	0	0	0	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	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	23rd Ave SE				Crystal Ridge Dr SE				Shaw Rd E				Shaw Rd E				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Westbound		Northbound		Northbound		Southbound		Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	21	2	3	0	4	7	11	0	5	253	0	0	2	64	9	381	0	
7:15 AM	0	43	1	2	0	8	7	14	0	8	194	2	0	6	75	9	369	0	
7:30 AM	0	39	5	3	0	11	8	9	0	9	234	1	0	2	70	11	402	0	
7:45 AM	0	31	4	10	0	15	20	6	0	13	207	4	0	3	73	14	400	1,552	
8:00 AM	0	20	5	11	0	2	10	9	0	7	171	2	0	1	73	9	320	1,491	
8:15 AM	0	29	7	4	0	5	9	3	0	8	193	3	0	2	81	22	366	1,488	
8:30 AM	0	25	5	6	0	5	3	4	0	10	161	1	0	4	105	12	341	1,427	
8:45 AM	0	19	2	2	0	10	5	12	0	12	143	6	0	1	70	11	293	1,320	
Count Total	0	227	31	41	0	60	69	68	0	72	1,556	19	0	21	611	97	2,872	0	
Peak Hour	All	0	134	12	18	0	38	42	40	0	35	888	7	0	13	282	43	1,552	0
	HV	0	0	0	2	0	1	1	0	0	1	19	0	0	1	8	5	38	0
	HV%	-	0%	0%	11%	-	3%	2%	0%	-	3%	2%	0%	-	8%	3%	12%	2%	0

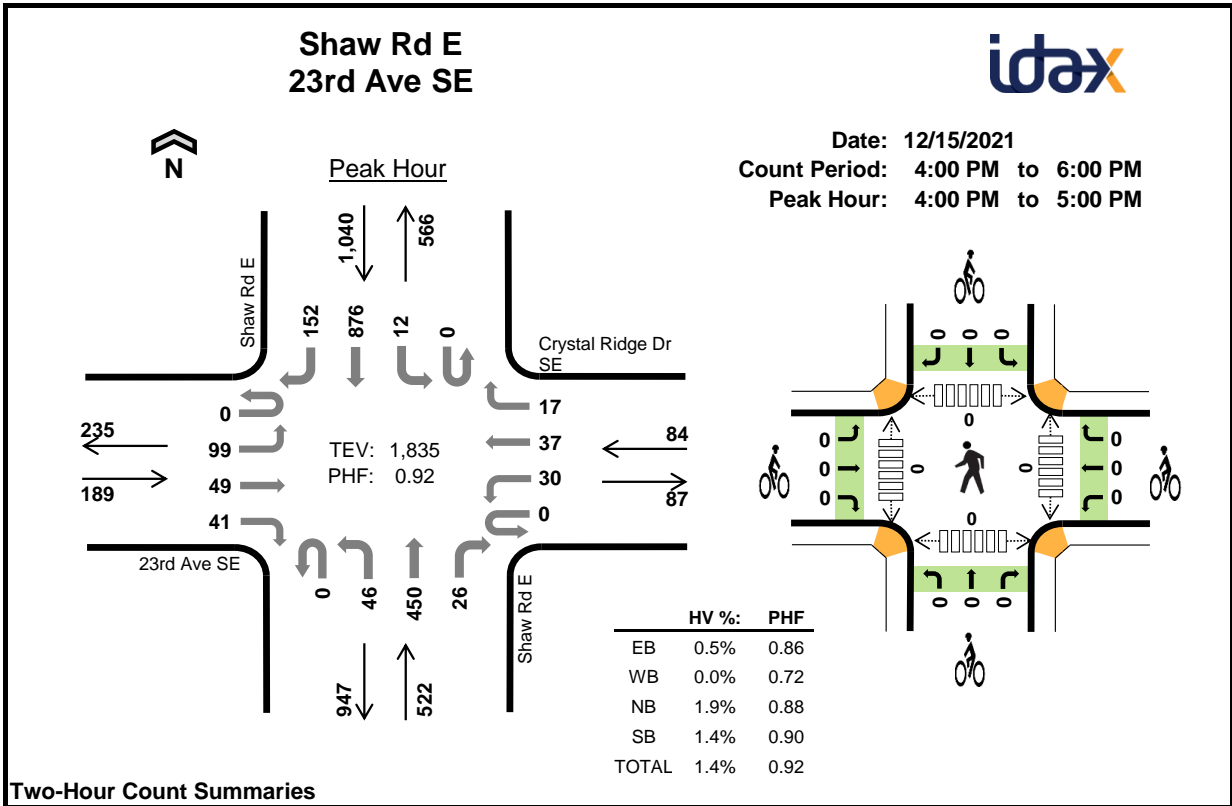
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	6	2	8	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	1	2	5	9	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	6	5	12	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	6	2	9	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	6	4	10	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	6	7	13	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	3	6	10	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	5	6	12	0	0	0	0	0	0	0	0	0	0
Count Total	4	2	40	37	83	0	0	0	0	0	0	1	0	0	1
Peak Hour	2	2	20	14	38	0	0	0	0	0	0	1	0	0	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	23rd Ave SE				Crystal Ridge Dr SE				Shaw Rd E				Shaw Rd E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	1	1	8	0
7:15 AM	0	0	0	1	0	0	1	0	0	0	2	0	0	0	3	2	9	0
7:30 AM	0	0	0	1	0	0	0	0	0	1	5	0	0	1	2	2	12	0
7:45 AM	0	0	0	0	0	1	0	0	0	0	6	0	0	0	2	0	9	38
8:00 AM	0	0	0	0	0	0	0	0	0	1	5	0	0	0	4	0	10	40
8:15 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	5	2	13	44
8:30 AM	0	1	0	0	0	0	0	0	0	0	3	0	0	0	6	0	10	42
8:45 AM	0	1	0	0	0	0	0	0	0	0	4	1	0	1	5	0	12	45
Count Total	0	2	0	2	0	1	1	0	0	2	37	1	0	2	28	7	83	0
Peak Hour	0	0	0	2	0	1	1	0	0	1	19	0	0	1	8	5	38	0

Two-Hour Count Summaries - Bikes																		
Interval Start	23rd Ave SE			Crystal Ridge Dr SE			Shaw Rd E			Shaw Rd E			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	23rd Ave SE				Crystal Ridge Dr SE				Shaw Rd E				Shaw Rd E				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	20	19	16	0	16	9	4	0	15	108	4	0	4	251	34	500	0	
4:15 PM	0	29	14	9	0	2	7	4	0	14	125	9	0	3	200	43	459	0	
4:30 PM	0	19	7	4	0	6	10	6	0	10	120	7	0	2	220	36	447	0	
4:45 PM	0	31	9	12	0	6	11	3	0	7	97	6	0	3	205	39	429	1,835	
5:00 PM	0	21	12	11	0	4	9	1	0	4	84	8	0	2	181	42	379	1,714	
5:15 PM	0	30	12	7	0	4	4	1	0	5	126	14	0	2	220	29	454	1,709	
5:30 PM	0	20	20	5	0	6	6	6	0	6	111	8	0	5	200	41	434	1,696	
5:45 PM	0	17	7	4	0	7	7	14	0	7	111	6	0	5	214	28	427	1,694	
Count Total	0	187	100	68	0	51	63	39	0	68	882	62	0	26	1,691	292	3,529	0	
Peak Hour	All	0	99	49	41	0	30	37	17	0	46	450	26	0	12	876	152	1,835	0
	HV	0	1	0	0	0	0	0	0	0	0	10	0	0	0	13	2	26	0
	HV%	-	1%	0%	0%	-	0%	0%	0%	-	0%	2%	0%	-	0%	1%	1%	1%	0

Note: Two-hour count summary volumes 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	East	West	North	South	Total
4:00 PM	0	0	3	7	10	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	3	2	6	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	2	1	4	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	1	1	3	6	0	0	0	0	0	0	0	0	0	0
Count Total	2	2	15	21	40	0	0	0	0	0	0	0	0	0	0
Peak Hour	1	0	10	15	26	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	23rd Ave SE				Crystal Ridge Dr SE				Shaw Rd E				Shaw Rd E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	1	10	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	3	0	0	0	2	0	6	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	5	26
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	18
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	14
5:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	1	4	13
5:45 PM	0	1	0	0	0	0	0	1	0	0	1	0	0	1	2	0	6	14
Count Total	0	2	0	0	0	0	0	2	0	0	15	0	0	1	17	3	40	0
Peak Hour	0	1	0	0	0	0	0	0	0	0	10	0	0	0	13	2	26	0

Two-Hour Count Summaries - Bikes																
Interval Start	23rd Ave SE			Crystal Ridge Dr SE			Shaw Rd E			Shaw Rd E			15-min Total	Rolling One Hour		
	Eastbound			Westbound			Northbound			Southbound						
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT				
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM	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		
5:30 PM	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		
Count Total	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	0		

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Two-Hour Count Summaries

Interval Start	39th Ave SE					39th Ave SE					S Meridian					S Meridian					Driveway					15-min Total	Rolling One Hour	
	Eastbound					Westbound					Northbound					Southbound					Southwestbound							
	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR			
7:00 AM	0	26	6	35	18	0	3	22	2	0	0	22	363	3	8	0	1	0	127	17	0	0	0	0	0	653	0	
7:15 AM	0	31	8	37	17	0	12	34	1	0	0	21	379	4	10	0	0	2	148	15	0	0	0	0	0	719	0	
7:30 AM	0	31	5	37	19	0	4	28	2	0	0	16	365	3	7	0	0	0	145	23	0	0	0	0	0	685	0	
7:45 AM	0	41	11	48	37	0	12	51	1	0	0	21	264	6	5	0	2	3	153	27	0	0	0	0	0	682	2,739	
8:00 AM	0	31	6	42	32	0	4	37	2	0	0	17	346	12	5	0	0	5	153	20	0	0	0	0	0	712	2,798	
8:15 AM	0	36	11	51	33	0	9	23	1	0	0	18	275	5	8	0	1	1	177	22	0	0	0	0	0	671	2,750	
8:30 AM	0	41	7	34	31	0	10	32	7	0	0	24	312	5	6	0	1	2	161	26	0	0	0	0	0	699	2,764	
8:45 AM	0	34	16	50	34	0	11	34	2	0	0	28	289	7	7	0	3	3	160	39	0	0	0	0	0	717	2,799	
Count Total	0	271	70	334	221	0	65	261	18	0	0	167	2,593	45	56	0	8	16	1,224	189	0	0	0	0	0	5,538	0	
Peak Hour	All	0	142	40	177	130	0	34	126	12	0	0	87	1,222	29	26	0	5	11	651	107	0	0	0	0	0	2,799	0
	HV	0	12	0	5	11	0	1	4	0	0	0	5	64	0	2	0	0	1	41	6	0	0	0	0	0	152	0
	HV%	-	8%	0%	3%	8%	-	3%	3%	0%	-	-	6%	5%	0%	8%	-	0%	9%	6%	6%	-	-	-	-	-	5%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)														
	EB	WB	NB	SB	SWB	Total	EB	WB	NB	SB	SWB	Total	East	West	North	South	Northeast	Total									
7:00 AM	6	1	9	10	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	7	9	13	11	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	7	0	8	16	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	6	2	9	17	0	34	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	3
8:00 AM	11	1	16	16	0	44	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
8:15 AM	4	2	14	14	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	6	1	24	8	0	39	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
8:45 AM	7	1	17	10	0	35	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Count Total	54	17	110	102	0	283	0	0	0	0	0	0	0	0	0	0	4	1	0	2	0	0	0	0	0	0	7
Peak Hr	28	5	71	48	0	152	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4

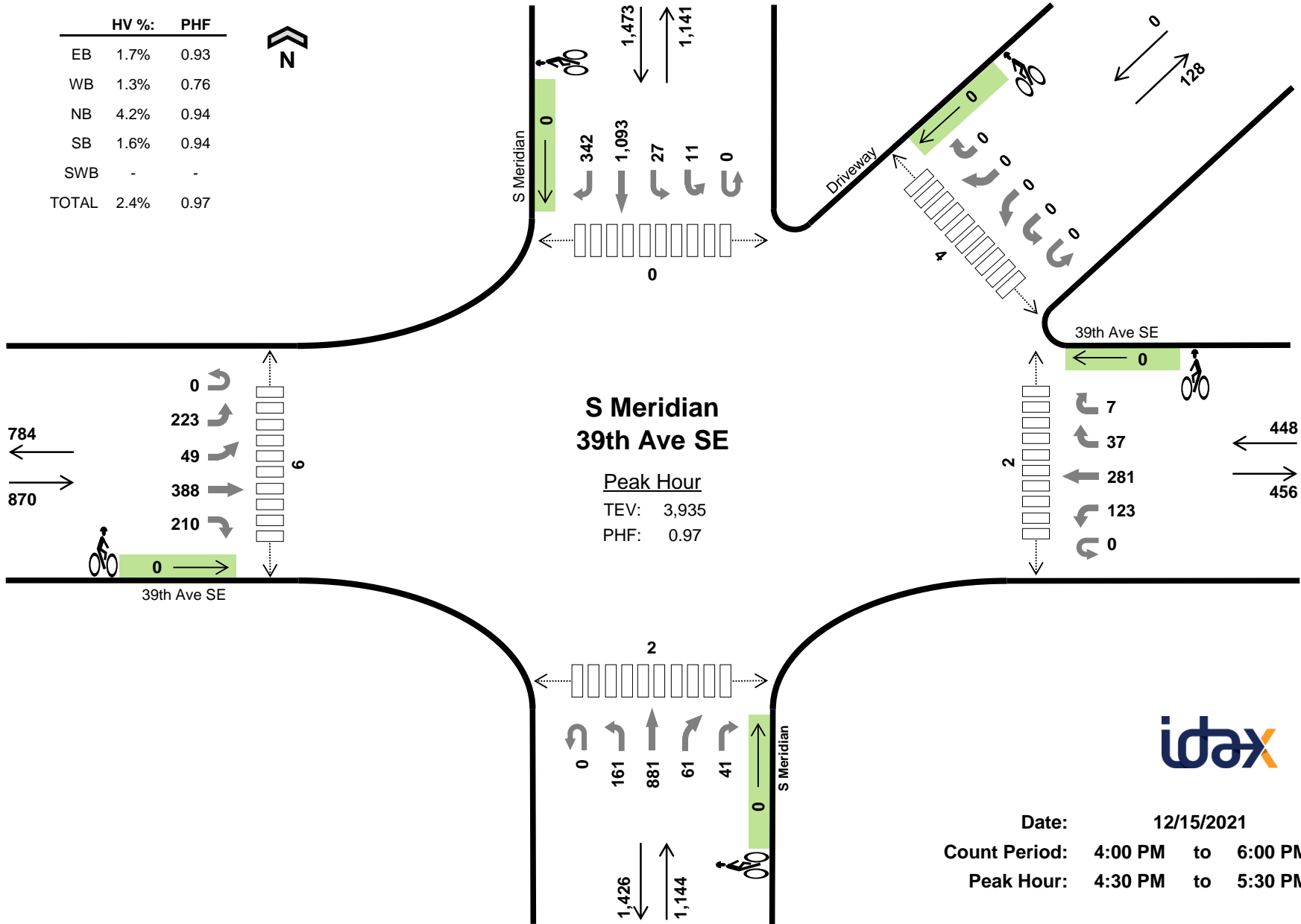
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	39th Ave SE Eastbound					39th Ave SE Westbound					S Meridian Northbound					S Meridian Southbound					Driveway Southwestbound					15-min Total	Rolling One Hour
	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR		
7:00 AM	0	2	0	2	2	0	0	1	0	0	0	1	5	0	3	0	0	0	9	1	0	0	0	0	26	0	
7:15 AM	0	0	0	3	4	0	2	7	0	0	0	1	12	0	0	0	0	0	10	1	0	0	0	0	40	0	
7:30 AM	0	3	0	3	1	0	0	0	0	0	0	1	6	0	1	0	0	0	16	0	0	0	0	0	31	0	
7:45 AM	0	0	0	1	5	0	0	2	0	0	0	1	8	0	0	0	0	0	16	1	0	0	0	0	34	131	
8:00 AM	0	5	0	1	5	0	0	1	0	0	0	1	15	0	0	0	0	1	14	1	0	0	0	0	44	149	
8:15 AM	0	2	0	0	2	0	0	2	0	0	0	1	13	0	0	0	0	0	14	0	0	0	0	0	34	143	
8:30 AM	0	3	0	2	1	0	0	1	0	0	0	3	20	0	1	0	0	0	6	2	0	0	0	0	39	151	
8:45 AM	0	2	0	2	3	0	1	0	0	0	0	0	16	0	1	0	0	0	7	3	0	0	0	0	35	152	
Count Total	0	17	0	14	23	0	3	14	0	0	0	9	95	0	6	0	0	1	92	9	0	0	0	0	283	0	
Peak Hour	0	12	0	5	11	0	1	4	0	0	0	5	64	0	2	0	0	1	41	6	0	0	0	0	152	0	

Two-Hour Count Summaries - Bikes

Interval Start	39th Ave SE Eastbound					39th Ave SE Westbound					S Meridian Northbound					S Meridian Southbound					Driveway Southwestbound					15-min Total	Rolling One Hour
	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	HV %:	PHF
EB	1.7%	0.93
WB	1.3%	0.76
NB	4.2%	0.94
SB	1.6%	0.94
SWB	-	-
TOTAL	2.4%	0.97



**S Meridian
39th Ave SE**

Peak Hour
TEV: 3,935
PHF: 0.97



Date: 12/15/2021
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM

Two-Hour Count Summaries

Interval Start	39th Ave SE					39th Ave SE					S Meridian					S Meridian					Driveway					15-min Total	Rolling One Hour	
	Eastbound					Westbound					Northbound					Southbound					Southwestbound							
	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR			
4:00 PM	0	60	14	93	52	0	28	84	5	1	0	42	215	29	6	0	4	5	274	66	0	0	0	0	0	978	0	
4:15 PM	0	37	8	46	44	0	18	48	6	1	0	54	232	21	7	0	2	6	273	90	0	0	0	0	0	893	0	
4:30 PM	0	56	7	123	47	0	32	100	13	3	0	40	194	13	11	0	1	7	248	85	0	0	0	0	0	980	0	
4:45 PM	0	58	11	92	57	0	35	65	10	0	0	42	231	13	9	0	3	6	299	82	0	0	0	0	0	1,013	3,864	
5:00 PM	0	52	20	78	51	0	29	56	4	1	0	40	234	19	10	0	6	9	271	73	0	0	0	0	0	953	3,839	
5:15 PM	0	57	11	95	55	0	27	60	10	3	0	39	222	16	11	0	1	5	275	102	0	0	0	0	0	989	3,935	
5:30 PM	0	47	5	58	49	0	30	53	8	1	0	38	221	13	5	0	1	4	265	67	0	0	0	0	0	865	3,820	
5:45 PM	0	45	11	67	57	0	26	50	7	0	0	42	201	12	6	0	2	7	285	62	0	0	0	0	0	880	3,687	
Count Total	0	412	87	652	412	0	225	516	63	10	0	337	1,750	136	65	0	20	49	2,190	627	0	0	0	0	0	7,551	0	
Peak Hour	All	0	223	49	388	210	0	123	281	37	7	0	161	881	61	41	0	11	27	1,093	342	0	0	0	0	0	3,935	0
	HV	0	5	0	4	6	0	2	2	2	0	0	6	42	0	0	0	2	1	17	4	0	0	0	0	0	93	0
	HV%	-	2%	0%	1%	3%	-	2%	1%	5%	0%	-	4%	5%	0%	0%	-	18%	4%	2%	1%	-	-	-	-	-	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	SWB	Total	EB	WB	NB	SB	SWB	Total	East	West	North	South	Northeast	Total
4:00 PM	3	6	7	5	0	21	0	0	0	0	0	0	1	0	0	0	1	2
4:15 PM	3	3	7	3	0	16	0	0	0	0	0	0	1	1	0	0	0	2
4:30 PM	5	3	8	6	0	22	0	0	0	0	0	0	2	3	0	0	1	6
4:45 PM	5	1	16	2	0	24	0	0	0	0	0	0	0	2	0	1	0	3
5:00 PM	1	1	11	11	0	24	0	0	0	0	0	0	0	0	0	0	1	1
5:15 PM	4	1	13	5	0	23	0	0	0	0	0	0	0	1	0	1	2	4
5:30 PM	1	0	10	2	0	13	0	0	0	0	0	0	0	1	0	0	0	1
5:45 PM	1	1	3	3	0	8	0	0	0	0	0	0	0	1	0	1	0	2
Count Total	23	16	75	37	0	151	0	0	0	0	0	0	4	9	0	3	5	21
Peak Hr	15	6	48	24	0	93	0	0	0	0	0	0	2	6	0	2	4	14

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	39th Ave SE Eastbound					39th Ave SE Westbound					S Meridian Northbound					S Meridian Southbound					Driveway Southwestbound					15-min Total	Rolling One Hour
	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR		
4:00 PM	0	1	0	2	0	0	0	6	0	0	0	2	5	0	0	0	0	0	5	0	0	0	0	0	21	0	
4:15 PM	0	1	0	1	1	0	0	3	0	0	0	1	5	0	1	0	0	0	3	0	0	0	0	0	16	0	
4:30 PM	0	2	0	2	1	0	2	1	0	0	0	2	6	0	0	0	0	0	6	0	0	0	0	0	22	0	
4:45 PM	0	2	0	2	1	0	0	0	1	0	0	3	13	0	0	0	0	1	1	0	0	0	0	0	24	83	
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	1	10	0	0	0	1	0	6	4	0	0	0	0	24	86	
5:15 PM	0	1	0	0	3	0	0	0	1	0	0	0	13	0	0	0	1	0	4	0	0	0	0	0	23	93	
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	1	9	0	0	0	0	0	2	0	0	0	0	0	13	84	
5:45 PM	0	0	0	0	1	0	0	1	0	0	0	1	2	0	0	0	0	0	3	0	0	0	0	0	8	68	
Count Total	0	8	0	7	8	0	2	12	2	0	0	11	63	0	1	0	2	1	30	4	0	0	0	0	151	0	
Peak Hour	0	5	0	4	6	0	2	2	2	0	0	6	42	0	0	0	2	1	17	4	0	0	0	0	93	0	

Two-Hour Count Summaries - Bikes

Interval Start	39th Ave SE Eastbound					39th Ave SE Westbound					S Meridian Northbound					S Meridian Southbound					Driveway Southwestbound					15-min Total	Rolling One Hour
	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	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	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	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	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0

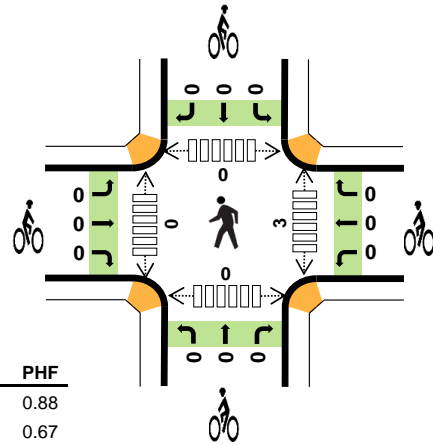
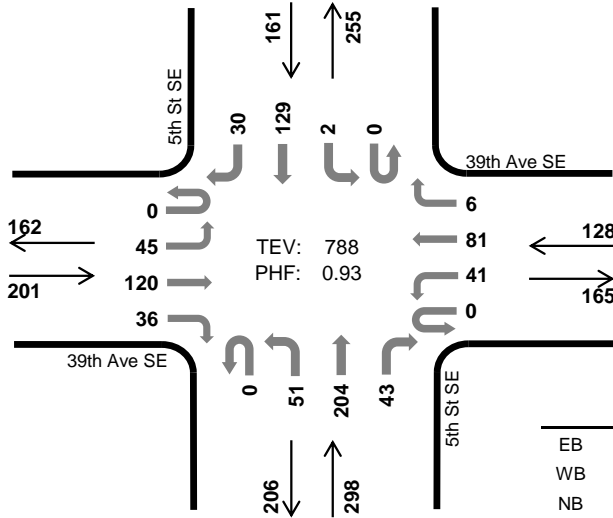


5th St SE 39th Ave SE



Peak Hour

Date: 12/15/2021
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	3.0%	0.88
WB	4.7%	0.67
NB	1.0%	0.92
SB	1.2%	0.89
TOTAL	2.2%	0.93

Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				5th St SE Northbound				5th St SE Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	6	32	4	0	9	15	3	0	9	63	12	0	0	12	3	168	0	
7:15 AM	0	15	27	6	0	4	22	2	0	15	62	9	0	0	15	5	182	0	
7:30 AM	0	16	20	5	0	6	17	3	0	14	62	7	0	0	32	0	182	0	
7:45 AM	0	8	37	7	0	19	29	0	0	11	51	9	0	0	29	11	211	743	
8:00 AM	0	6	34	10	0	8	15	1	0	16	45	10	0	0	32	5	182	757	
8:15 AM	0	16	30	11	0	7	18	2	0	13	53	9	0	2	31	6	198	773	
8:30 AM	0	15	19	8	0	7	19	3	0	11	55	15	0	0	37	8	197	788	
8:45 AM	0	18	23	12	0	8	15	0	0	12	57	5	0	0	43	9	202	779	
Count Total	0	100	222	63	0	68	150	14	0	101	448	76	0	2	231	47	1,522	0	
Peak Hour	All	0	45	120	36	0	41	81	6	0	51	204	43	0	2	129	30	788	0
	HV	0	2	4	0	0	1	5	0	0	0	1	2	0	0	1	1	17	0
	HV%	-	4%	3%	0%	-	2%	6%	0%	-	0%	0%	5%	-	0%	1%	3%	2%	0

Note: Two-hour count summary volumes 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	East	West	North	South	Total
7:00 AM	5	2	1	0	8	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	6	0	1	8	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	0	0	0	2	0	0	0	0	0	1	0	0	0	1
7:45 AM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0
8:00 AM	2	1	1	0	4	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	2	0	2	5	0	0	0	0	0	3	0	0	0	3
8:30 AM	2	1	2	0	5	0	0	0	0	0	0	0	0	0	0
8:45 AM	3	0	1	0	4	0	0	0	0	0	1	0	0	0	1
Count Total	17	14	5	3	39	0	0	0	0	0	5	0	0	0	5
Peak Hour	6	6	3	2	17	0	0	0	0	0	3	0	0	0	3

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	39th Ave SE				39th Ave SE				5th St SE				5th St SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	5	0	0	0	2	0	0	0	0	1	0	0	0	0	8	0
7:15 AM	0	0	1	0	0	0	6	0	0	0	0	0	0	0	1	0	8	0
7:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
7:45 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	21
8:00 AM	0	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	4	17
8:15 AM	0	0	1	0	0	1	1	0	0	0	0	0	0	0	1	1	5	14
8:30 AM	0	1	1	0	0	0	1	0	0	0	0	2	0	0	0	0	5	17
8:45 AM	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	4	18
Count Total	0	3	13	1	0	1	13	0	0	0	2	3	0	0	2	1	39	0
Peak Hour	0	2	4	0	0	1	5	0	0	0	1	2	0	0	1	1	17	0

Two-Hour Count Summaries - Bikes																		
Interval Start	39th Ave SE			39th Ave SE			5th St SE			5th St SE			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

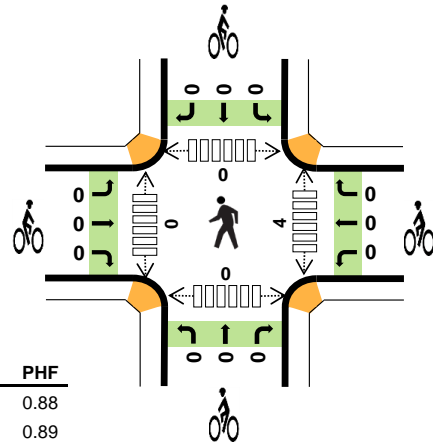
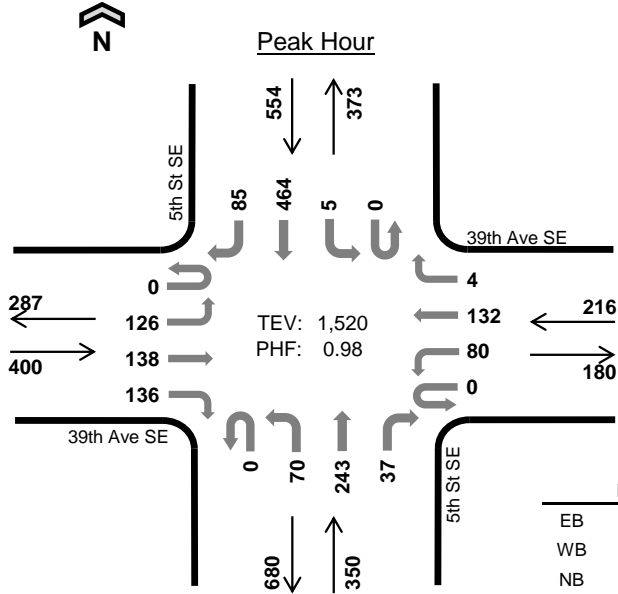


5th St SE 39th Ave SE

Date: 12/15/2021

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	1.8%	0.88
WB	3.2%	0.89
NB	0.3%	0.97
SB	0.7%	0.88
TOTAL	1.3%	0.98

Two-Hour Count Summaries

Interval Start	39th Ave SE Eastbound				39th Ave SE Westbound				5th St SE Northbound				5th St SE Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	16	41	30	0	17	40	0	0	16	55	7	0	0	114	17	353	0	
4:15 PM	0	32	24	25	0	19	32	2	0	15	61	14	0	0	136	21	381	0	
4:30 PM	0	35	34	41	0	26	35	0	0	18	58	9	0	0	104	28	388	0	
4:45 PM	0	32	34	29	0	17	30	2	0	20	64	6	0	1	107	20	362	1,484	
5:00 PM	0	27	46	41	0	18	35	0	0	17	60	8	0	4	117	16	389	1,520	
5:15 PM	0	27	38	45	0	17	27	0	0	12	57	8	0	1	104	17	353	1,492	
5:30 PM	0	27	34	26	0	16	20	0	0	16	43	11	0	1	110	20	324	1,428	
5:45 PM	0	17	31	27	0	11	24	0	0	12	42	7	0	0	94	16	281	1,347	
Count Total	0	213	282	264	0	141	243	4	0	126	440	70	0	7	886	155	2,831	0	
Peak Hour	All	0	126	138	136	0	80	132	4	0	70	243	37	0	5	464	85	1,520	0
	HV	0	0	4	3	0	1	4	2	0	0	1	0	0	1	1	2	19	0
	HV%	-	0%	3%	2%	-	1%	3%	50%	-	0%	0%	0%	-	20%	0%	2%	1%	0

Note: Two-hour count summary volumes 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	East	West	North	South	Total
4:00 PM	2	2	1	3	8	0	0	0	0	0	0	0	0	0	0
4:15 PM	2	4	0	0	6	0	0	0	0	0	2	0	0	0	2
4:30 PM	2	1	0	2	5	0	0	0	0	0	2	0	0	0	2
4:45 PM	2	1	1	1	5	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	1	0	1	3	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	1	1	3	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
Count Total	10	10	3	10	33	0	0	0	0	0	4	0	0	0	4
Peak Hour	7	7	1	4	19	0	0	0	0	0	4	0	0	0	4

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	39th Ave SE				39th Ave SE				5th St SE				5th St SE				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	1	1	0	0	0	2	0	0	1	0	0	0	0	0	0	3	8	0
4:15 PM	0	0	1	1	0	0	2	2	0	0	0	0	0	0	0	0	0	6	0
4:30 PM	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	2	5	0
4:45 PM	0	0	2	0	0	0	1	0	0	0	1	0	0	0	0	1	0	5	24
5:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	3	19
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	14
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	3	12
5:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2	9
Count Total	0	1	6	3	0	1	7	2	0	1	1	1	0	2	3	5	0	33	0
Peak Hour	0	0	4	3	0	1	4	2	0	0	1	0	0	1	1	2	0	19	0

Two-Hour Count Summaries - Bikes																			
Interval Start	39th Ave SE			39th Ave SE			5th St SE			5th St SE			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	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	0
5:30 PM	0	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	0
Count Total	0	0	0	0	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	0	0	0	0	0	0

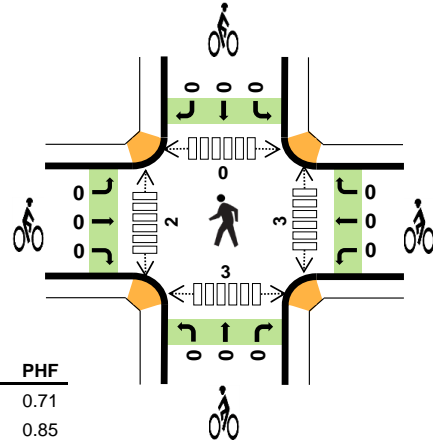
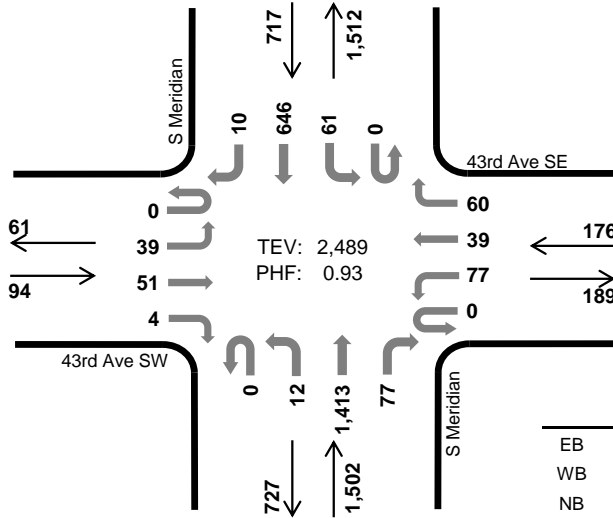
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

S Meridian 43rd Ave SW



Peak Hour

Date: 12/15/2021
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	4.3%	0.71
WB	4.5%	0.85
NB	3.1%	0.86
SB	10.5%	0.90
TOTAL	5.3%	0.93

Two-Hour Count Summaries

Interval Start	43rd Ave SW				43rd Ave SE				S Meridian				S Meridian				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	5	8	1	0	19	5	10	0	1	365	26	0	14	108	2	564	0	
7:15 AM	0	6	6	0	0	13	5	12	0	1	418	19	0	10	175	2	667	0	
7:30 AM	0	8	12	1	0	16	12	19	0	5	346	20	0	19	137	1	596	0	
7:45 AM	0	9	19	0	0	28	13	11	0	3	292	24	0	17	179	4	599	2,426	
8:00 AM	0	16	14	3	0	20	9	18	0	3	357	14	0	15	155	3	627	2,489	
8:15 AM	0	13	17	4	0	20	10	17	0	3	294	19	0	24	199	2	622	2,444	
8:30 AM	0	9	15	2	0	24	13	22	0	2	327	18	0	16	161	4	613	2,461	
8:45 AM	0	10	21	2	0	32	19	17	0	7	280	22	0	24	165	4	603	2,465	
Count Total	0	76	112	13	0	172	86	126	0	25	2,679	162	0	139	1,279	22	4,891	0	
Peak Hour	All	0	39	51	4	0	77	39	60	0	12	1,413	77	0	61	646	10	2,489	0
	HV	0	3	1	0	0	2	1	5	0	0	43	3	0	11	62	2	133	0
	HV%	-	8%	2%	0%	-	3%	3%	8%	-	0%	3%	4%	-	18%	10%	20%	5%	0

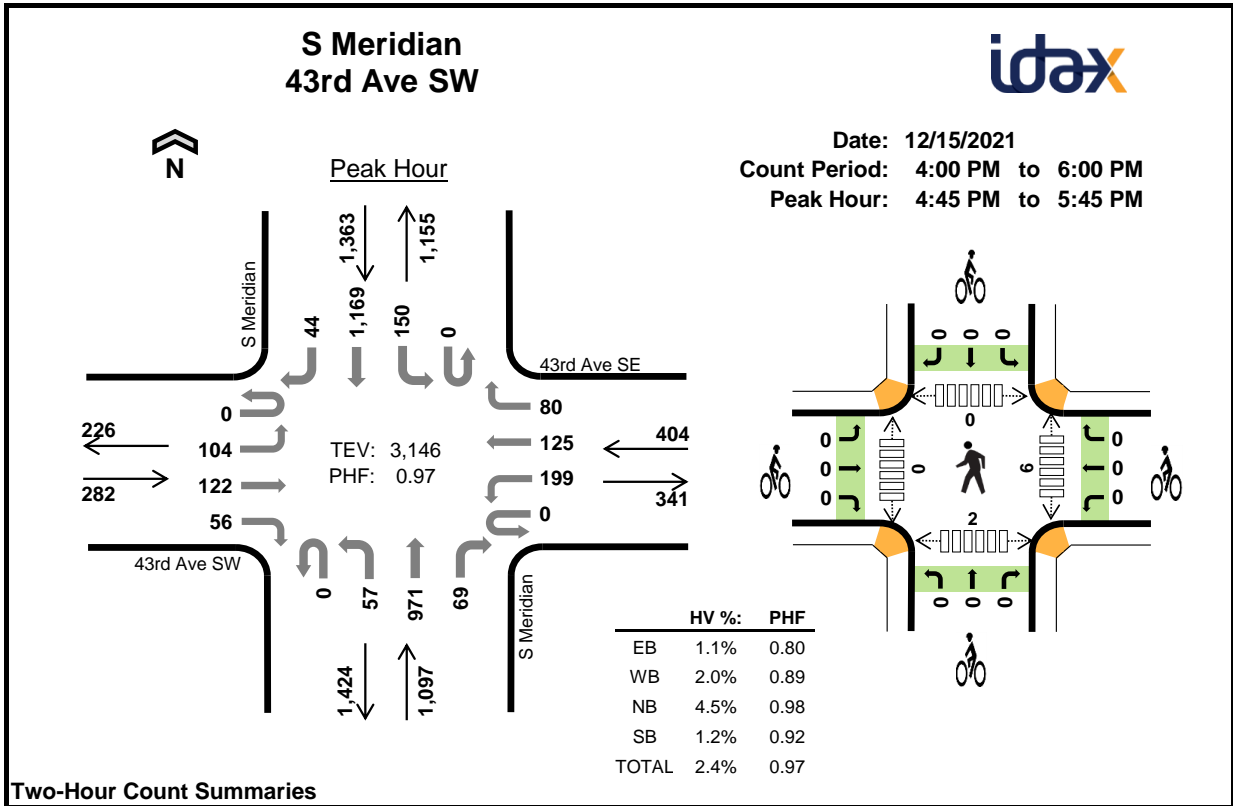
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	11	12	24	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	3	11	16	31	0	0	0	0	0	1	0	0	0	1
7:30 AM	1	2	9	18	30	0	0	0	0	0	1	0	0	0	1
7:45 AM	1	2	9	20	32	0	0	0	0	0	1	2	0	3	6
8:00 AM	1	1	17	21	40	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	2	18	18	38	0	0	0	0	0	0	1	0	1	2
8:30 AM	3	1	25	7	36	0	0	0	0	0	1	0	0	1	2
8:45 AM	0	0	18	13	31	0	0	0	0	0	0	1	1	0	2
Count Total	7	12	118	125	262	0	0	0	0	0	4	4	1	5	14
Peak Hour	4	8	46	75	133	0	0	0	0	0	3	2	0	3	8

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	43rd Ave SW				43rd Ave SE				S Meridian				S Meridian				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	1	0	0	10	1	0	1	10	1	24	0
7:15 AM	0	1	0	0	0	1	0	2	0	0	9	2	0	2	14	0	31	0
7:30 AM	0	1	0	0	0	0	0	2	0	0	9	0	0	2	16	0	30	0
7:45 AM	0	1	0	0	0	1	1	0	0	0	9	0	0	3	17	0	32	117
8:00 AM	0	0	1	0	0	0	0	1	0	0	16	1	0	4	15	2	40	133
8:15 AM	0	0	0	0	0	1	1	0	0	0	17	1	0	1	17	0	38	140
8:30 AM	0	1	2	0	0	0	0	1	0	0	23	2	0	0	7	0	36	146
8:45 AM	0	0	0	0	0	0	0	0	0	0	17	1	0	2	11	0	31	145
Count Total	0	4	3	0	0	3	2	7	0	0	110	8	0	15	107	3	262	0
Peak Hour	0	3	1	0	0	2	1	5	0	0	43	3	0	11	62	2	133	0

Two-Hour Count Summaries - Bikes																		
Interval Start	43rd Ave SW			43rd Ave SE			S Meridian			S Meridian			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	43rd Ave SW				43rd Ave SE				S Meridian				S Meridian				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	17	40	15	0	57	41	24	0	14	238	24	0	43	277	12	802	0	
4:15 PM	0	24	25	6	0	52	31	26	0	12	244	17	0	46	264	13	760	0	
4:30 PM	0	23	19	14	0	65	40	23	0	12	223	20	0	37	257	11	744	0	
4:45 PM	0	27	26	14	0	54	32	26	0	10	236	17	0	37	325	10	814	3,120	
5:00 PM	0	33	36	19	0	53	39	22	0	14	244	20	0	36	263	12	791	3,109	
5:15 PM	0	25	33	12	0	45	29	14	0	13	256	8	0	40	306	11	792	3,141	
5:30 PM	0	19	27	11	0	47	25	18	0	20	235	24	0	37	275	11	749	3,146	
5:45 PM	0	18	24	12	0	47	32	26	0	16	219	15	0	42	300	8	759	3,091	
Count Total	0	186	230	103	0	420	269	179	0	111	1,895	145	0	318	2,267	88	6,211	0	
Peak Hour	All	0	104	122	56	0	199	125	80	0	57	971	69	0	150	1,169	44	3,146	0
	HV	0	1	2	0	0	2	1	5	0	0	49	0	0	3	14	0	77	0
	HV%	-	1%	2%	0%	-	1%	1%	6%	-	0%	5%	0%	-	2%	1%	0%	2%	0

Note: Two-hour count summary volumes 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	East	West	North	South	Total
4:00 PM	1	1	8	6	16	0	0	0	0	0	2	0	0	2	4
4:15 PM	0	1	14	6	21	0	0	0	0	0	0	0	0	4	4
4:30 PM	0	2	5	10	17	0	0	0	0	0	1	0	0	1	2
4:45 PM	0	3	17	2	22	0	0	0	0	0	1	0	0	1	2
5:00 PM	2	1	8	7	18	0	0	0	0	0	1	0	0	1	2
5:15 PM	1	3	14	8	26	0	0	0	0	0	2	0	0	0	2
5:30 PM	0	1	10	0	11	0	0	0	0	0	2	0	0	0	2
5:45 PM	0	1	4	6	11	0	0	0	0	0	0	0	0	2	2
Count Total	4	13	80	45	142	0	0	0	0	0	9	0	0	11	20
Peak Hour	3	8	49	17	77	0	0	0	0	0	6	0	0	2	8

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	43rd Ave SW				43rd Ave SE				S Meridian				S Meridian				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	1	0	0	8	0	0	0	6	0	16	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	13	1	0	1	5	0	21	0
4:30 PM	0	0	0	0	0	1	0	1	0	0	5	0	0	1	9	0	17	0
4:45 PM	0	0	0	0	0	1	1	1	0	0	17	0	0	1	1	0	22	76
5:00 PM	0	0	2	0	0	0	0	1	0	0	8	0	0	1	6	0	18	78
5:15 PM	0	1	0	0	0	1	0	2	0	0	14	0	0	1	7	0	26	83
5:30 PM	0	0	0	0	0	0	0	1	0	0	10	0	0	0	0	0	11	77
5:45 PM	0	0	0	0	0	1	0	0	0	0	4	0	0	2	4	0	11	66
Count Total	0	1	3	0	0	4	1	8	0	0	79	1	0	7	38	0	142	0
Peak Hour	0	1	2	0	0	2	1	5	0	0	49	0	0	3	14	0	77	0

Two-Hour Count Summaries - Bikes																		
Interval Start	43rd Ave SW			43rd Ave SE			S Meridian			S Meridian			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
Count Total	0	0	0	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	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Appendix B

LOS Result Worksheets

Existing 2021 AM Peak Hour

Lanes, Volumes, Timings
1: 7th St SE & College Way

01/23/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	18	186	19	58	214
Future Volume (vph)	6	18	186	19	58	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-4%			0%
Storage Length (ft)	0	0		0	50	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Link Speed (mph)	25		25			25
Link Distance (ft)	771		286			501
Travel Time (s)	21.0		7.8			13.7
Confl. Peds. (#/hr)	1					
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	6	18	186	19	58	214
Future Vol, veh/h	6	18	186	19	58	214
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-4	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	7	20	204	21	64	235

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	579	215	0	0	225	0
Stage 1	215	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	481	830	-	-	1338	-
Stage 1	826	-	-	-	-	-
Stage 2	707	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	457	830	-	-	1338	-
Mov Cap-2 Maneuver	541	-	-	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	672	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	732	1338	-
HCM Lane V/C Ratio	-	-	0.036	0.048	-
HCM Control Delay (s)	-	-	10.1	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Lanes, Volumes, Timings
2: 31st Ave SW/S Meridian (SR161)

01/23/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	319	778	1179	704	171	212
Future Volume (vph)	319	778	1179	704	171	212
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Storage Length (ft)	250			0	0	175
Storage Lanes	2			1	2	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		370	339		787	
Travel Time (s)		7.2	6.6		15.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	7%	3%	3%	2%	2%
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Detector Phase	5		6	6	4	4
Switch Phase						
Minimum Initial (s)	8.0		10.0	10.0	8.0	8.0
Minimum Split (s)	12.6		20.6	20.6	12.6	12.6
Total Split (s)	15.0		99.0	99.0	26.0	26.0
Total Split (%)	10.7%		70.7%	70.7%	18.6%	18.6%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6		4.6	4.6	4.6	4.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Min		C-Min	C-Min	None	None

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 41 (29%), Referenced to phase 6:WBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 ! Phase conflict between lane groups.

Splits and Phases: 2: 31st Ave SW/S Meridian (SR161)



HCM Signalized Intersection Capacity Analysis

2: 31st Ave SW/S Meridian (SR161)

01/23/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	319	778	1179	704	171	212
Future Volume (vph)	319	778	1179	704	171	212
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Total Lost time (s)	4.6	4.0	4.6	4.6	4.6	4.6
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	1.00
Flt	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)	3038	3132	3387	1515	3252	1500
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3038	3132	3387	1515	3252	1500
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	339	828	1254	749	182	226
RTOR Reduction (vph)	0	0	0	296	0	173
Lane Group Flow (vph)	339	828	1254	453	182	53
Heavy Vehicles (%)	7%	7%	3%	3%	2%	2%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Actuated Green, G (s)	29.4	140.0	83.6	83.6	13.2	13.2
Effective Green, g (s)	29.4	140.0	83.6	83.6	13.2	13.2
Actuated g/C Ratio	0.21	1.00	0.60	0.60	0.09	0.09
Clearance Time (s)	4.6		4.6	4.6	4.6	4.6
Vehicle Extension (s)	2.5		2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	637	3132	2022	904	306	141
v/s Ratio Prot	c0.11	0.26	c0.37		c0.06	
v/s Ratio Perm				0.30		0.04
v/c Ratio	0.53	0.26	0.62	0.50	0.59	0.38
Uniform Delay, d1	49.2	0.0	18.0	16.2	60.8	59.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.2	1.4	2.0	2.6	1.2
Delay (s)	49.9	0.2	19.5	18.2	63.4	60.8
Level of Service	D	A	B	B	E	E
Approach Delay (s)		14.6	19.0		61.9	
Approach LOS		B	B		E	
Intersection Summary						
HCM 2000 Control Delay			22.5		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.60			
Actuated Cycle Length (s)			140.0		Sum of lost time (s)	13.8
Intersection Capacity Utilization			63.3%		ICU Level of Service	B
Analysis Period (min)			15			
! Phase conflict between lane groups.						
c Critical Lane Group						

Lanes, Volumes, Timings
 3: S Meridian (SR161) & 37th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	20	25	51	27	352	15	1481	32	257	630	25
Future Volume (vph)	22	20	25	51	27	352	15	1481	32	257	630	25
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (ft)	0		0	250		0	225		0	350		0
Storage Lanes	1		1	1		1	1		0	2		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		242			1349			645			449	
Travel Time (s)		6.6			26.3			12.6			8.7	
Confl. Peds. (#/hr)						1						1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	8%	8%	8%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Free	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8			Free						
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	8.6	10.6	10.6	10.6	35.6		10.6	28.6		10.6	31.6	
Total Split (s)	15.0	25.0	25.0	27.0	37.0		15.0	68.0		20.0	73.0	
Total Split (%)	10.7%	17.9%	17.9%	19.3%	26.4%		10.7%	48.6%		14.3%	52.1%	
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	

Intersection Summary

Area Type: Other

Cycle Length: 140

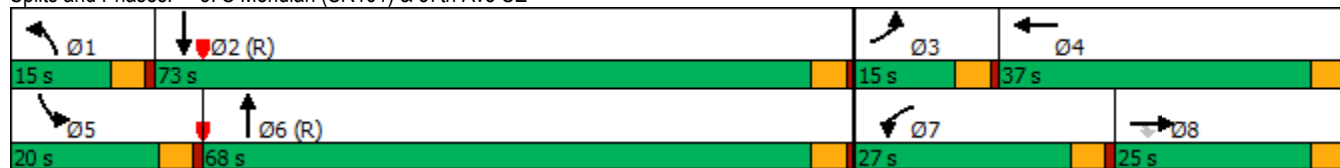
Actuated Cycle Length: 140

Offset: 44 (31%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 120

Control Type: Actuated-Coordinated

Splits and Phases: 3: S Meridian (SR161) & 37th Ave SE



HCM 6th Signalized Intersection Summary
 3: S Meridian (SR161) & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	20	25	51	27	352	15	1481	32	257	630	25
Future Volume (veh/h)	22	20	25	51	27	352	15	1481	32	257	630	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1758	1758	1758	1772	1772	1772	1758	1758	1758	1688	1688	1688
Adj Flow Rate, veh/h	23	21	26	53	28	0	16	1543	33	268	656	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	8	8	8
Cap, veh/h	28	120	54	68	105		33	2315	49	312	3560	
Arrive On Green	0.02	0.04	0.04	0.04	0.06	0.00	0.04	1.00	1.00	0.10	0.77	0.00
Sat Flow, veh/h	1674	3340	1490	1688	1772	1502	1674	3344	71	3118	4759	0
Grp Volume(v), veh/h	23	21	26	53	28	0	16	770	806	268	656	0
Grp Sat Flow(s),veh/h/ln	1674	1670	1490	1688	1772	1502	1674	1670	1745	1559	1536	0
Q Serve(g_s), s	1.9	0.9	2.4	4.4	2.1	0.0	1.3	0.0	0.0	11.8	5.3	0.0
Cycle Q Clear(g_c), s	1.9	0.9	2.4	4.4	2.1	0.0	1.3	0.0	0.0	11.8	5.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	28	120	54	68	105		33	1156	1208	312	3560	
V/C Ratio(X)	0.81	0.17	0.49	0.78	0.27		0.48	0.67	0.67	0.86	0.18	
Avail Cap(c_a), veh/h	124	487	217	270	410		124	1156	1208	343	3560	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.95	0.95	0.00	0.69	0.69	0.69	1.00	1.00	0.00
Uniform Delay (d), s/veh	68.6	65.5	66.2	66.6	63.0	0.0	66.5	0.0	0.0	62.0	4.2	0.0
Incr Delay (d2), s/veh	46.6	0.7	6.7	16.8	1.4	0.0	7.3	2.1	2.0	18.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.4	1.0	2.2	1.0	0.0	0.6	0.7	0.7	5.5	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	115.1	66.2	72.9	83.4	64.3	0.0	73.8	2.1	2.0	80.1	4.3	0.0
LnGrp LOS	F	E	E	F	E		E	A	A	F	A	
Approach Vol, veh/h		70			81	A		1592			924	A
Approach Delay, s/veh		84.7			76.8			2.8			26.3	
Approach LOS		F			E			A			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	112.8	7.0	12.9	18.6	101.6	10.2	9.6				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	10.4	68.4	10.4	32.4	15.4	63.4	22.4	20.4				
Max Q Clear Time (g_c+I1), s	3.3	7.3	3.9	4.1	13.8	2.0	6.4	4.4				
Green Ext Time (p_c), s	0.0	6.3	0.0	0.1	0.1	23.1	0.1	0.1				

Intersection Summary

HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
4: 5th St SE & 37th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	262	25	12	292	134	70	187	11	112	158	46
Future Volume (vph)	32	262	25	12	292	134	70	187	11	112	158	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-3%			0%			-5%	
Storage Length (ft)	200		0	225		150	200		0	250		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		1349			1181			965			418	
Travel Time (s)		26.3			23.0			21.9			11.4	
Confl. Peds. (#/hr)	1					1			4			4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	2%	2%	2%	4%	4%	4%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2		2	4			8		
Detector Phase	1	6		5	2	2	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0	26.0	11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0	46.0	21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%	37.1%	16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	

Intersection Summary

Area Type: Other

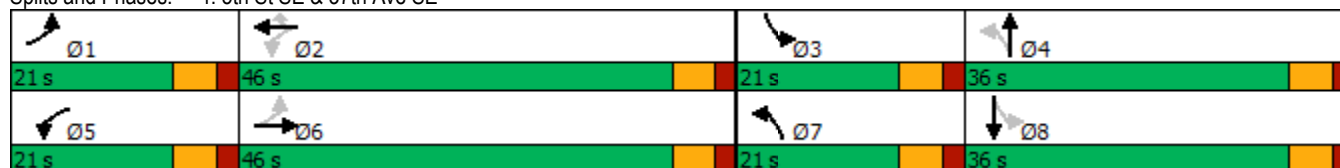
Cycle Length: 124

Actuated Cycle Length: 56

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 4: 5th St SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
4: 5th St SE & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	262	25	12	292	134	70	187	11	112	158	46
Future Volume (veh/h)	32	262	25	12	292	134	70	187	11	112	158	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1973	1973	1973	1870	1870	1870	2037	2037	2037
Adj Flow Rate, veh/h	36	294	28	13	328	0	79	210	0	126	178	52
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	4	4	4
Cap, veh/h	338	718	68	333	749		396	387		436	336	98
Arrive On Green	0.04	0.22	0.22	0.02	0.20	0.00	0.07	0.21	0.00	0.08	0.22	0.22
Sat Flow, veh/h	1753	3228	305	1879	3749	1672	1781	1870	0	1940	1512	442
Grp Volume(v), veh/h	36	158	164	13	328	0	79	210	0	126	0	230
Grp Sat Flow(s),veh/h/ln	1753	1749	1785	1879	1874	1672	1781	1870	0	1940	0	1954
Q Serve(g_s), s	0.8	3.9	4.0	0.3	3.9	0.0	1.7	5.1	0.0	2.5	0.0	5.3
Cycle Q Clear(g_c), s	0.8	3.9	4.0	0.3	3.9	0.0	1.7	5.1	0.0	2.5	0.0	5.3
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.00	1.00		0.23
Lane Grp Cap(c), veh/h	338	389	397	333	749		396	387		436	0	435
V/C Ratio(X)	0.11	0.41	0.41	0.04	0.44		0.20	0.54		0.29	0.00	0.53
Avail Cap(c_a), veh/h	787	1377	1406	857	2952		804	1105		850	0	1154
HCM Platoon Ratio	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(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	16.9	16.9	15.8	17.8	0.0	14.3	18.0	0.0	14.0	0.0	17.4
Incr Delay (d2), s/veh	0.1	0.7	0.7	0.0	0.4	0.0	0.2	1.2	0.0	0.4	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.4	1.5	0.1	1.5	0.0	0.6	2.1	0.0	1.0	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	17.6	17.6	15.8	18.2	0.0	14.5	19.2	0.0	14.4	0.0	18.4
LnGrp LOS	B	B	B	B	B		B	B		B	A	B
Approach Vol, veh/h		358			341	A		289	A		356	
Approach Delay, s/veh		17.3			18.1			17.9			17.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	16.1	10.2	16.5	6.8	17.3	9.4	17.3				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	2.8	5.9	4.5	7.1	2.3	6.0	3.7	7.3				
Green Ext Time (p_c), s	0.0	2.2	0.2	1.1	0.0	1.9	0.1	1.4				

Intersection Summary

HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: 39th Ave SE & 37th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	342	1	150	502	1	0	7	253	4	3	7
Future Volume (vph)	8	342	1	150	502	1	0	7	253	4	3	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		6%			-5%			3%			0%	
Storage Length (ft)	225		0	200		0	200		0	0		150
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35				25
Link Distance (ft)		1181			510			1162				264
Travel Time (s)		23.0			9.9			22.6				7.2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	14%	14%	14%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt		NA
Protected Phases	7	4		3	8		5	2	3	1		6
Permitted Phases	4			8			2		2	6		
Detector Phase	7	4		3	8		5	2	3	1		6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	5.0	5.0		10.0
Minimum Split (s)	12.0	30.0		12.0	30.0		11.0	16.0	12.0	11.0		34.0
Total Split (s)	23.0	42.0		23.0	42.0		22.0	22.0	23.0	22.0		22.0
Total Split (%)	21.1%	38.5%		21.1%	38.5%		20.2%	20.2%	21.1%	20.2%		20.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0	3.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0	7.0	6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		Yes
Recall Mode	None	Min		None	Min		None	None	None	None		None

Intersection Summary

Area Type: Other

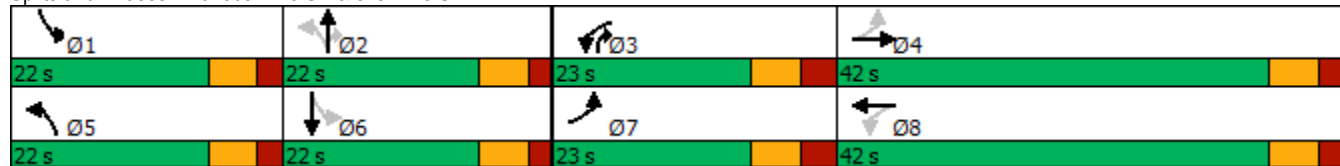
Cycle Length: 109

Actuated Cycle Length: 39.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 5: 39th Ave SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
 5: 39th Ave SE & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	342	1	150	502	1	0	7	253	4	3	7
Future Volume (veh/h)	8	342	1	150	502	1	0	7	253	4	3	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1629	1629	1629	2052	2052	2052	1803	1803	1803	1693	1693	1693
Adj Flow Rate, veh/h	9	376	1	165	552	1	0	8	278	4	3	8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	3	3	3	3	3	3	14	14	14
Cap, veh/h	294	696	2	448	1216	2	406	360	453	335	129	343
Arrive On Green	0.01	0.22	0.22	0.10	0.30	0.30	0.00	0.20	0.20	0.01	0.32	0.32
Sat Flow, veh/h	1551	3166	8	1954	3992	7	1717	1803	1528	1612	408	1088
Grp Volume(v), veh/h	9	184	193	165	269	284	0	8	278	4	0	11
Grp Sat Flow(s),veh/h/ln	1551	1547	1627	1954	1949	2050	1717	1803	1528	1612	0	1497
Q Serve(g_s), s	0.2	5.7	5.7	3.4	6.1	6.1	0.0	0.2	8.5	0.1	0.0	0.3
Cycle Q Clear(g_c), s	0.2	5.7	5.7	3.4	6.1	6.1	0.0	0.2	8.5	0.1	0.0	0.3
Prop In Lane	1.00		0.01	1.00		0.00	1.00		1.00	1.00		0.73
Lane Grp Cap(c), veh/h	294	340	358	448	594	625	406	360	453	335	0	472
V/C Ratio(X)	0.03	0.54	0.54	0.37	0.45	0.45	0.00	0.02	0.61	0.01	0.00	0.02
Avail Cap(c_a), veh/h	733	997	1048	834	1255	1321	908	531	597	801	0	472
HCM Platoon Ratio	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(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.2	18.8	18.8	14.2	15.2	15.2	0.0	17.5	16.4	15.7	0.0	12.8
Incr Delay (d2), s/veh	0.0	2.8	2.7	0.5	1.2	1.1	0.0	0.0	1.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.1	2.2	1.4	2.5	2.6	0.0	0.1	2.7	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	21.6	21.5	14.7	16.4	16.3	0.0	17.5	17.8	15.7	0.0	12.8
LnGrp LOS	B	C	C	B	B	B	A	B	B	B	A	B
Approach Vol, veh/h		386			718			286				15
Approach Delay, s/veh		21.4			16.0			17.8				13.6
Approach LOS		C			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	16.9	12.2	18.9	0.0	23.1	7.6	23.6				
Change Period (Y+Rc), s	6.0	6.0	7.0	7.0	6.0	6.0	7.0	7.0				
Max Green Setting (Gmax), s	16.0	16.0	16.0	35.0	16.0	16.0	16.0	35.0				
Max Q Clear Time (g_c+I1), s	2.1	10.5	5.4	7.7	0.0	2.3	2.2	8.1				
Green Ext Time (p_c), s	0.0	0.5	0.3	4.2	0.0	0.0	0.0	6.5				

Intersection Summary

HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Notes

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

Lanes, Volumes, Timings
6: 10th St SE & 39th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	458	44	67	550	12	85	20	88	1	1	13
Future Volume (vph)	91	458	44	67	550	12	85	20	88	1	1	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-5%			-6%			-4%	
Storage Length (ft)	150		0	200		0	100		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				25
Link Distance (ft)		510			1994			256				231
Travel Time (s)		9.9			38.8			5.8				6.3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	13%	13%	13%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.3	30.3		11.3	30.3		10.5	25.5		10.5	25.5	
Total Split (s)	21.3	51.3		21.3	51.3		21.3	21.3		21.3	21.3	
Total Split (%)	18.5%	44.5%		18.5%	44.5%		18.5%	18.5%		18.5%	18.5%	
Yellow Time (s)	4.3	4.3		4.3	4.3		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

Cycle Length: 115.2

Actuated Cycle Length: 52.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 6: 10th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
6: 10th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	458	44	67	550	12	85	20	88	1	1	13
Future Volume (veh/h)	91	458	44	67	550	12	85	20	88	1	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	2037	2037	2037	2091	2091	2091	1862	1862	1862
Adj Flow Rate, veh/h	100	503	48	74	604	13	93	22	97	1	1	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	13	13	13
Cap, veh/h	404	975	93	431	1128	24	410	53	233	256	9	127
Arrive On Green	0.08	0.30	0.30	0.06	0.29	0.29	0.07	0.16	0.16	0.00	0.09	0.09
Sat Flow, veh/h	1753	3227	307	1940	3873	83	1991	337	1486	1774	106	1488
Grp Volume(v), veh/h	100	272	279	74	302	315	93	0	119	1	0	15
Grp Sat Flow(s),veh/h/ln	1753	1749	1785	1940	1935	2022	1991	0	1823	1774	0	1594
Q Serve(g_s), s	1.9	6.4	6.4	1.3	6.5	6.5	2.0	0.0	2.9	0.0	0.0	0.4
Cycle Q Clear(g_c), s	1.9	6.4	6.4	1.3	6.5	6.5	2.0	0.0	2.9	0.0	0.0	0.4
Prop In Lane	1.00		0.17	1.00		0.04	1.00		0.82	1.00		0.93
Lane Grp Cap(c), veh/h	404	528	539	431	563	589	410	0	285	256	0	136
V/C Ratio(X)	0.25	0.51	0.52	0.17	0.54	0.54	0.23	0.00	0.42	0.00	0.00	0.11
Avail Cap(c_a), veh/h	802	1586	1619	893	1755	1833	899	0	581	818	0	508
HCM Platoon Ratio	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(l)	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	11.0	14.3	14.3	11.1	14.8	14.8	18.4	0.0	18.9	20.7	0.0	21.0
Incr Delay (d2), s/veh	0.3	1.1	1.1	0.2	1.1	1.1	0.3	0.0	1.0	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.3	2.3	0.5	2.6	2.7	0.9	0.0	1.2	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	15.4	15.4	11.3	15.9	15.9	18.7	0.0	19.9	20.7	0.0	21.3
LnGrp LOS	B	B	B	B	B	B	B	A	B	C	A	C
Approach Vol, veh/h		651			691			212				16
Approach Delay, s/veh		14.8			15.4			19.3				21.3
Approach LOS		B			B			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	20.7	5.6	13.3	9.5	21.3	9.1	9.7				
Change Period (Y+Rc), s	6.3	6.3	5.5	5.5	6.3	6.3	5.5	5.5				
Max Green Setting (Gmax), s	15.0	45.0	15.8	15.8	15.0	45.0	15.8	15.8				
Max Q Clear Time (g_c+I1), s	3.9	8.5	2.0	4.9	3.3	8.4	4.0	2.4				
Green Ext Time (p_c), s	0.2	5.9	0.0	0.4	0.1	5.2	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Notes

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

Lanes, Volumes, Timings
7: 39th Ave SE & College Way

01/23/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	195	319	581	116	34	58
Future Volume (vph)	195	319	581	116	34	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		0%	-5%		0%	
Storage Length (ft)	175			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		25	
Link Distance (ft)		1994	773		209	
Travel Time (s)		38.8	15.1		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	6%	6%	3%	3%	40%	40%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	11.3	16.3	35.3		34.5	34.5
Total Split (s)	31.3	46.3	46.3		50.5	50.5
Total Split (%)	24.4%	36.1%	36.1%		39.4%	39.4%
Yellow Time (s)	4.0	4.0	4.0		3.5	3.5
All-Red Time (s)	2.3	2.3	2.3		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3		5.5	5.5
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Min	Min		None	None

Intersection Summary

Area Type: Other

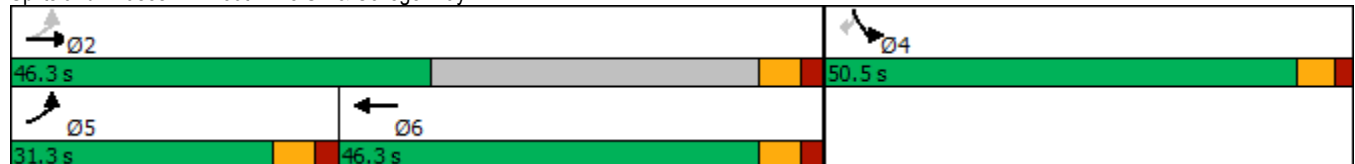
Cycle Length: 128.1

Actuated Cycle Length: 56.9

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Splits and Phases: 7: 39th Ave SE & College Way



HCM 6th Signalized Intersection Summary
7: 39th Ave SE & College Way

01/23/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	195	319	581	116	34	58
Future Volume (veh/h)	195	319	581	116	34	58
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00			1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1811	1811	2052	2052	1307	1307
Adj Flow Rate, veh/h	205	336	612	122	36	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	3	3	40	40
Cap, veh/h	513	2112	1083	215	104	92
Arrive On Green	0.12	0.61	0.33	0.33	0.08	0.08
Sat Flow, veh/h	1725	3532	3343	645	1245	1108
Grp Volume(v), veh/h	205	336	368	366	36	61
Grp Sat Flow(s),veh/h/ln	1725	1721	1949	1936	1245	1108
Q Serve(g_s), s	2.6	1.6	6.0	6.1	1.1	2.1
Cycle Q Clear(g_c), s	2.6	1.6	6.0	6.1	1.1	2.1
Prop In Lane	1.00			0.33	1.00	1.00
Lane Grp Cap(c), veh/h	513	2112	651	647	104	92
V/C Ratio(X)	0.40	0.16	0.56	0.57	0.35	0.66
Avail Cap(c_a), veh/h	1417	3534	2001	1988	1438	1280
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.6	3.2	10.6	10.6	16.8	17.3
Incr Delay (d2), s/veh	0.5	0.0	0.8	0.8	2.4	9.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	2.0	2.0	0.3	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.1	3.3	11.4	11.4	19.2	26.6
LnGrp LOS	A	A	B	B	B	C
Approach Vol, veh/h		541	734		97	
Approach Delay, s/veh		4.7	11.4		23.9	
Approach LOS		A	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.2		8.7	10.9	19.3
Change Period (Y+Rc), s		* 6.3		5.5	* 6.3	* 6.3
Max Green Setting (Gmax), s		* 40		45.0	* 25	* 40
Max Q Clear Time (g_c+I1), s		3.6		4.1	4.6	8.1
Green Ext Time (p_c), s		2.3		0.4	0.5	5.0
Intersection Summary						
HCM 6th Ctrl Delay			9.7			
HCM 6th LOS			A			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Lanes, Volumes, Timings
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	207	12	4	396	90	46	29	11	96	15	150
Future Volume (vph)	108	207	12	4	396	90	46	29	11	96	15	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-4%			0%			6%	
Storage Length (ft)	125		0	125		0	50		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		384			416			287			528	
Travel Time (s)		7.5			8.1			7.8			14.4	
Confl. Peds. (#/hr)									2	2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	2%	2%	2%	5%	5%	5%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%	34.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 52.4

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

Ø1 11 s	Ø2 24 s	Ø3 11 s	Ø4 24 s
Ø5 11 s	Ø6 24 s	Ø7 11 s	Ø8 24 s

HCM 6th Signalized Intersection Summary
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	207	12	4	396	90	46	29	11	96	15	150
Future Volume (veh/h)	108	207	12	4	396	90	46	29	11	96	15	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1811	1811	1811	2027	2027	2027	1870	1870	1870	1614	1614	1614
Adj Flow Rate, veh/h	119	227	13	4	435	99	51	32	12	105	16	165
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	6	2	2	2	2	2	2	5	5	5
Cap, veh/h	335	925	53	402	646	146	339	245	92	447	26	270
Arrive On Green	0.08	0.28	0.28	0.01	0.21	0.21	0.05	0.19	0.19	0.07	0.21	0.21
Sat Flow, veh/h	1725	3309	188	1931	3122	705	1781	1295	486	1537	122	1261
Grp Volume(v), veh/h	119	117	123	4	267	267	51	0	44	105	0	181
Grp Sat Flow(s),veh/h/ln	1725	1721	1777	1931	1926	1900	1781	0	1781	1537	0	1383
Q Serve(g_s), s	2.8	2.8	2.8	0.1	6.8	6.9	1.2	0.0	1.1	2.9	0.0	6.3
Cycle Q Clear(g_c), s	2.8	2.8	2.8	0.1	6.8	6.9	1.2	0.0	1.1	2.9	0.0	6.3
Prop In Lane	1.00		0.11	1.00		0.37	1.00		0.27	1.00		0.91
Lane Grp Cap(c), veh/h	335	481	497	402	399	393	339	0	338	447	0	296
V/C Ratio(X)	0.36	0.24	0.25	0.01	0.67	0.68	0.15	0.00	0.13	0.23	0.00	0.61
Avail Cap(c_a), veh/h	363	583	602	573	652	644	418	0	603	478	0	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	14.8	14.8	16.5	19.4	19.4	16.1	0.0	17.9	15.5	0.0	18.9
Incr Delay (d2), s/veh	0.6	0.3	0.3	0.0	2.0	2.1	0.2	0.0	0.2	0.3	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.0	1.0	0.0	2.9	2.9	0.5	0.0	0.4	1.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.8	15.1	15.1	16.5	21.4	21.5	16.3	0.0	18.1	15.7	0.0	20.9
LnGrp LOS	B	B	B	B	C	C	B	A	B	B	A	C
Approach Vol, veh/h		359			538			95				286
Approach Delay, s/veh		15.3			21.4			17.1				19.0
Approach LOS		B			C			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	16.1	6.3	20.9	8.6	17.4	10.1	17.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.9	3.1	2.1	4.8	3.2	8.3	4.8	8.9				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.0	0.0	0.7	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			18.8									
HCM 6th LOS			B									

Lanes, Volumes, Timings
9: 25th St SE & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	275	8	6	458	6	21	2	20	2	0	13
Future Volume (vph)	20	275	8	6	458	6	21	2	20	2	0	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	75		0	100		0	25		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		365			225			248			136	
Travel Time (s)		7.1			4.4			6.8			3.7	
Confl. Peds. (#/hr)			1	1			1		1	1		1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	5%	5%	5%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%	34.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

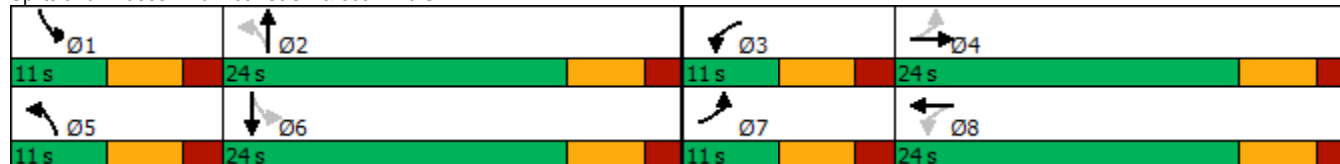
Cycle Length: 70

Actuated Cycle Length: 37.1

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 9: 25th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
 9: 25th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	275	8	6	458	6	21	2	20	2	0	13
Future Volume (veh/h)	20	275	8	6	458	6	21	2	20	2	0	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1811	1811	1811	1870	1870	1870	1826	1826	1826	1900	1900	1900
Adj Flow Rate, veh/h	21	293	9	6	487	6	22	2	21	2	0	14
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	2	2	2	5	5	5	0	0	0
Cap, veh/h	341	916	28	408	902	11	351	17	177	324	0	160
Arrive On Green	0.03	0.27	0.27	0.01	0.25	0.25	0.03	0.12	0.12	0.00	0.00	0.10
Sat Flow, veh/h	1725	3408	104	1781	3595	44	1739	136	1430	1810	0	1608
Grp Volume(v), veh/h	21	148	154	6	241	252	22	0	23	2	0	14
Grp Sat Flow(s),veh/h/ln	1725	1721	1792	1781	1777	1862	1739	0	1566	1810	0	1608
Q Serve(g_s), s	0.4	2.8	2.8	0.1	4.7	4.7	0.5	0.0	0.5	0.0	0.0	0.3
Cycle Q Clear(g_c), s	0.4	2.8	2.8	0.1	4.7	4.7	0.5	0.0	0.5	0.0	0.0	0.3
Prop In Lane	1.00		0.06	1.00		0.02	1.00		0.91	1.00		1.00
Lane Grp Cap(c), veh/h	341	462	482	408	446	467	351	0	194	324	0	160
V/C Ratio(X)	0.06	0.32	0.32	0.01	0.54	0.54	0.06	0.00	0.12	0.01	0.00	0.09
Avail Cap(c_a), veh/h	510	770	802	615	795	833	520	0	701	544	0	720
HCM Platoon Ratio	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(l)	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	10.9	11.8	11.8	11.1	13.1	13.1	15.5	0.0	15.7	16.2	0.0	16.5
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.0	1.0	1.0	0.1	0.0	0.3	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.9	0.9	0.0	1.6	1.7	0.2	0.0	0.2	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.0	12.2	12.1	11.1	14.1	14.0	15.6	0.0	15.9	16.2	0.0	16.7
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		323			499			45				16
Approach Delay, s/veh		12.1			14.0			15.8				16.6
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	11.0	6.3	16.8	7.1	10.0	7.0	16.1				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.0	2.5	2.1	4.8	2.5	2.3	2.4	6.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	0.0	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									

Lanes, Volumes, Timings
 10: Shaw Rd E & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Traffic Volume (vph)	128	0	203	1	0	0	385	723	1	0	279	177
Future Volume (vph)	128	0	203	1	0	0	385	723	1	0	279	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			8%			-4%			6%	
Storage Length (ft)	0		0	0		0	300		0	200		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		322			305			698			574	
Travel Time (s)		6.3			5.9			13.6			11.2	
Confl. Peds. (#/hr)									2	2		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		10.0	10.0		5.0	10.0	10.0
Minimum Split (s)	29.0	29.0	29.0	24.0	24.0		16.3	28.3		11.3	28.3	28.3
Total Split (s)	36.0	36.0	36.0	36.0	36.0		26.3	46.3		21.3	46.3	46.3
Total Split (%)	33.1%	33.1%	33.1%	33.1%	33.1%		24.2%	42.6%		19.6%	42.6%	42.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.3	2.3		2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0		6.3	6.3		6.3	6.3	6.3
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min

Intersection Summary
 Area Type: Other
 Cycle Length: 108.6
 Actuated Cycle Length: 71.6
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Shaw Rd E & 39th Ave SE



HCM 6th Signalized Intersection Summary
 10: Shaw Rd E & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕	↗	↕	↗	↕
Traffic Volume (veh/h)	128	0	203	1	0	0	385	723	1	0	279	177
Future Volume (veh/h)	128	0	203	1	0	0	385	723	1	0	279	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1826	1826	1826	1523	1523	1523	2027	2027	2027	1644	1644	1644
Adj Flow Rate, veh/h	144	0	228	1	0	0	433	812	1	0	313	199
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	5	5	0	0	0	2	2	2	3	3	3
Cap, veh/h	428	0	308	246	0	0	608	1182	1	294	456	386
Arrive On Green	0.20	0.00	0.20	0.20	0.00	0.00	0.20	0.58	0.58	0.00	0.28	0.28
Sat Flow, veh/h	1514	0	1547	598	0	0	1931	2024	2	1565	1644	1390
Grp Volume(v), veh/h	144	0	228	1	0	0	433	0	813	0	313	199
Grp Sat Flow(s),veh/h/ln	1514	0	1547	598	0	0	1931	0	2027	1565	1644	1390
Q Serve(g_s), s	0.0	0.0	7.8	0.1	0.0	0.0	8.1	0.0	15.8	0.0	9.6	6.8
Cycle Q Clear(g_c), s	4.1	0.0	7.8	4.2	0.0	0.0	8.1	0.0	15.8	0.0	9.6	6.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	428	0	308	246	0	0	608	0	1184	294	456	386
V/C Ratio(X)	0.34	0.00	0.74	0.00	0.00	0.00	0.71	0.00	0.69	0.00	0.69	0.52
Avail Cap(c_a), veh/h	885	0	819	556	0	0	912	0	1430	705	1160	981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	21.3	21.6	0.0	0.0	10.9	0.0	8.2	0.0	18.3	17.3
Incr Delay (d2), s/veh	0.5	0.0	3.5	0.0	0.0	0.0	1.6	0.0	1.3	0.0	2.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	2.8	0.0	0.0	0.0	2.8	0.0	5.1	0.0	3.5	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	0.0	24.8	21.6	0.0	0.0	12.5	0.0	9.5	0.0	20.9	18.8
LnGrp LOS	C	A	C	C	A	A	B	A	A	A	C	B
Approach Vol, veh/h		372			1			1246			512	
Approach Delay, s/veh		23.1			21.6			10.5			20.1	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	39.4		17.3	17.4	22.0		17.3				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.0	* 6.3	* 6.3		6.0				
Max Green Setting (Gmax), s	* 15	* 40		30.0	* 20	* 40		30.0				
Max Q Clear Time (g_c+I1), s	0.0	17.8		9.8	10.1	11.6		6.2				
Green Ext Time (p_c), s	0.0	8.5		1.5	1.0	3.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B

Notes

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

Lanes, Volumes, Timings

11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	12	18	38	42	40	35	888	7	13	282	43
Future Volume (vph)	134	12	18	38	42	40	35	888	7	13	282	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-9%			3%			-9%			6%	
Storage Length (ft)	50		0	50		0	100		175	75		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			Yes
Link Speed (mph)		25			25			35				35
Link Distance (ft)		481			429			444				403
Travel Time (s)		13.1			11.7			8.6				7.9
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	4%	4%	4%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	11.0	24.0		11.0	24.0		11.0	64.0	64.0	11.0	64.0	64.0
Total Split (%)	10.0%	21.8%		10.0%	21.8%		10.0%	58.2%	58.2%	10.0%	58.2%	58.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 81.3

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

11 s	64 s	11 s	24 s
11 s	64 s	11 s	24 s

HCM 6th Signalized Intersection Summary
 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	12	18	38	42	40	35	888	7	13	282	43
Future Volume (veh/h)	134	12	18	38	42	40	35	888	7	13	282	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2239	2239	2239	1817	1817	1817	2224	2224	2224	1629	1629	1629
Adj Flow Rate, veh/h	138	12	19	39	43	41	36	915	7	13	291	44
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	4	4	4
Cap, veh/h	352	118	188	322	106	101	604	1083	917	185	762	645
Arrive On Green	0.06	0.15	0.15	0.04	0.12	0.12	0.03	0.49	0.49	0.02	0.47	0.47
Sat Flow, veh/h	2132	781	1236	1731	855	815	2118	2224	1883	1551	1629	1379
Grp Volume(v), veh/h	138	0	31	39	0	84	36	915	7	13	291	44
Grp Sat Flow(s),veh/h/ln	2132	0	2016	1731	0	1671	2118	2224	1883	1551	1629	1379
Q Serve(g_s), s	4.4	0.0	1.0	1.5	0.0	3.6	0.7	27.9	0.1	0.3	9.0	1.4
Cycle Q Clear(g_c), s	4.4	0.0	1.0	1.5	0.0	3.6	0.7	27.9	0.1	0.3	9.0	1.4
Prop In Lane	1.00		0.61	1.00		0.49	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	0	306	322	0	207	604	1083	917	185	762	645
V/C Ratio(X)	0.39	0.00	0.10	0.12	0.00	0.41	0.06	0.84	0.01	0.07	0.38	0.07
Avail Cap(c_a), veh/h	352	0	467	370	0	387	667	1660	1405	260	1215	1029
HCM Platoon Ratio	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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	28.4	28.0	0.0	31.4	10.3	17.4	10.3	15.0	13.4	11.4
Incr Delay (d2), s/veh	0.7	0.0	0.1	0.2	0.0	1.3	0.0	2.6	0.0	0.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.5	0.6	0.0	1.5	0.3	13.2	0.1	0.1	3.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	0.0	28.5	28.2	0.0	32.7	10.3	20.0	10.3	15.2	13.7	11.4
LnGrp LOS	C	A	C	C	A	C	B	B	B	B	B	B
Approach Vol, veh/h		169			123			958			348	
Approach Delay, s/veh		28.2			31.2			19.5			13.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	43.9	8.8	17.8	8.7	42.4	11.0	15.6				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	58.0	5.0	18.0	5.0	58.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.3	29.9	3.5	3.0	2.7	11.0	6.4	5.6				
Green Ext Time (p_c), s	0.0	8.0	0.0	0.1	0.0	1.9	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									

Lanes, Volumes, Timings
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	211	130	44	136	12	87	1251	60	16	651	107
Future Volume (vph)	182	211	130	44	136	12	87	1251	60	16	651	107
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		0%			0%			3%			0%	
Storage Length (ft)	350		0	225		0	200		0	210		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		571			1339			1348			645	
Travel Time (s)		11.1			26.1			26.3			12.6	
Confl. Peds. (#/hr)									4			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	6%	6%	6%	3%	3%	3%	5%	5%	5%	6%	6%	6%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									2
Detector Phase	3	8	8	7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	5.0	6.0	6.0	6.0	5.0		6.0	10.0		6.0	10.0	10.0
Minimum Split (s)	9.6	27.6	27.6	10.6	16.6		10.6	29.6		10.6	29.6	29.6
Total Split (s)	30.0	30.0	30.0	30.0	30.0		21.0	65.0		15.0	59.0	59.0
Total Split (%)	21.4%	21.4%	21.4%	21.4%	21.4%		15.0%	46.4%		10.7%	42.1%	42.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	C-Min

Intersection Summary

Area Type: Other

Cycle Length: 140

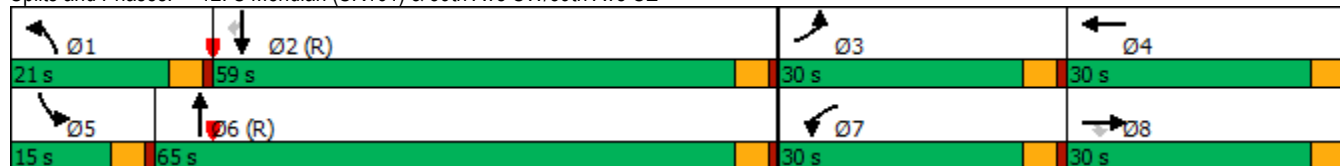
Actuated Cycle Length: 140

Offset: 41 (29%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE



HCM 6th Signalized Intersection Summary
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	211	130	44	136	12	87	1251	60	16	651	107
Future Volume (veh/h)	182	211	130	44	136	12	87	1251	60	16	651	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1716	1716	1716	1758	1758	1758	1680	1680	1680	1716	1716	1716
Adj Flow Rate, veh/h	186	215	0	45	139	12	89	1277	61	16	664	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	6	6	6	3	3	3	5	5	5	6	6	6
Cap, veh/h	209	503		59	192	16	107	2044	98	32	1996	
Arrive On Green	0.13	0.15	0.00	0.04	0.06	0.06	0.13	1.00	1.00	0.04	1.00	0.00
Sat Flow, veh/h	1634	3260	1454	1674	3114	266	1600	3100	148	1634	3260	1454
Grp Volume(v), veh/h	186	215	0	45	74	77	89	656	682	16	664	0
Grp Sat Flow(s),veh/h/ln	1634	1630	1454	1674	1670	1710	1600	1596	1653	1634	1630	1454
Q Serve(g_s), s	15.7	8.4	0.0	3.7	6.1	6.2	7.6	0.0	0.0	1.3	0.0	0.0
Cycle Q Clear(g_c), s	15.7	8.4	0.0	3.7	6.1	6.2	7.6	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	209	503		59	103	106	107	1052	1089	32	1996	
V/C Ratio(X)	0.89	0.43		0.76	0.72	0.73	0.83	0.62	0.63	0.49	0.33	
Avail Cap(c_a), veh/h	296	591		304	303	310	187	1052	1089	121	1996	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00	0.55	0.55	0.55	0.99	0.99	0.00
Uniform Delay (d), s/veh	60.1	53.6	0.0	66.9	64.5	64.5	59.9	0.0	0.0	66.5	0.0	0.0
Incr Delay (d2), s/veh	19.0	0.4	0.0	13.6	5.6	5.8	6.8	1.5	1.5	8.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	3.5	0.0	1.8	2.7	2.9	3.1	0.5	0.5	0.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.1	54.0	0.0	80.6	70.0	70.3	66.6	1.5	1.5	74.8	0.4	0.0
LnGrp LOS	E	D		F	E	E	E	A	A	E	A	
Approach Vol, veh/h		401	A		196			1427			680	A
Approach Delay, s/veh		65.7			72.6			5.6			2.2	
Approach LOS		E			E			A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	90.3	22.5	13.3	7.4	96.9	9.6	26.2				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	16.4	54.4	25.4	25.4	10.4	60.4	25.4	25.4				
Max Q Clear Time (g_c+I1), s	9.6	2.0	17.7	8.2	3.3	2.0	5.7	10.4				
Green Ext Time (p_c), s	0.1	4.1	0.2	0.5	0.0	9.8	0.1	0.9				

Intersection Summary

HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
13: 5th St SE & 39th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	188	36	52	101	6	51	204	76	2	129	30
Future Volume (vph)	45	188	36	52	101	6	51	204	76	2	129	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			-3%			0%	
Storage Length (ft)	150		0	175		0	225		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1339			1162			552			965	
Travel Time (s)		26.1			22.6			12.5			21.9	
Confl. Peds. (#/hr)									3	3		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0		11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0		21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%		16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

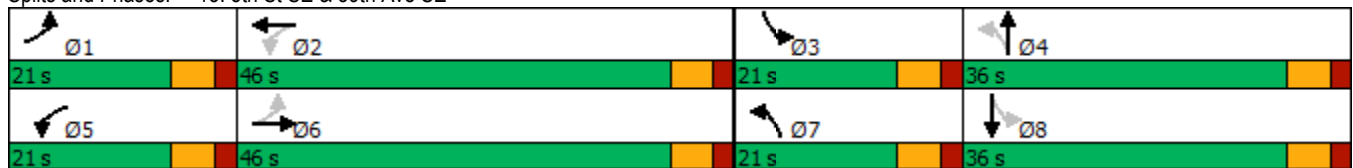
Cycle Length: 124

Actuated Cycle Length: 52

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 13: 5th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
 13: 5th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	188	36	52	101	6	51	204	76	2	129	30
Future Volume (veh/h)	45	188	36	52	101	6	51	204	76	2	129	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1826	1826	1826	2003	2003	2003	1885	1885	1885
Adj Flow Rate, veh/h	48	202	39	56	109	6	55	219	82	2	139	32
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	5	5	5	1	1	1	1	1	1
Cap, veh/h	459	595	113	396	691	38	411	360	135	280	309	71
Arrive On Green	0.05	0.20	0.20	0.05	0.21	0.21	0.05	0.26	0.26	0.00	0.21	0.21
Sat Flow, veh/h	1767	2957	560	1739	3345	183	1908	1388	520	1795	1481	341
Grp Volume(v), veh/h	48	119	122	56	56	59	55	0	301	2	0	171
Grp Sat Flow(s),veh/h/ln	1767	1763	1755	1739	1735	1793	1908	0	1907	1795	0	1822
Q Serve(g_s), s	1.0	2.9	3.0	1.2	1.3	1.3	1.1	0.0	6.9	0.0	0.0	4.1
Cycle Q Clear(g_c), s	1.0	2.9	3.0	1.2	1.3	1.3	1.1	0.0	6.9	0.0	0.0	4.1
Prop In Lane	1.00		0.32	1.00		0.10	1.00		0.27	1.00		0.19
Lane Grp Cap(c), veh/h	459	355	353	396	358	370	411	0	494	280	0	380
V/C Ratio(X)	0.10	0.34	0.35	0.14	0.16	0.16	0.13	0.00	0.61	0.01	0.00	0.45
Avail Cap(c_a), veh/h	906	1418	1412	827	1396	1443	884	0	1151	817	0	1100
HCM Platoon Ratio	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(l)	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	14.4	17.0	17.0	14.3	16.2	16.2	14.1	0.0	16.2	15.7	0.0	17.2
Incr Delay (d2), s/veh	0.1	0.6	0.6	0.2	0.2	0.2	0.1	0.0	1.2	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.1	1.1	0.4	0.5	0.5	0.4	0.0	2.8	0.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.5	17.6	17.6	14.5	16.4	16.4	14.3	0.0	17.4	15.7	0.0	18.0
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		289			171			356				173
Approach Delay, s/veh		17.1			15.8			16.9				18.0
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	16.3	6.1	18.9	8.7	16.0	8.7	16.4				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	3.0	3.3	2.0	8.9	3.2	5.0	3.1	6.1				
Green Ext Time (p_c), s	0.1	0.6	0.0	1.8	0.1	1.4	0.1	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

Lanes, Volumes, Timings
14: S Meridian (SR161) & 43rd Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	51	4	88	39	60	12	1447	110	61	656	10
Future Volume (vph)	39	51	4	88	39	60	12	1447	110	61	656	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		-4%			6%			0%			0%	
Storage Length (ft)	150		0	275		0	250		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		332			544			617			1348	
Travel Time (s)		9.1			10.6			12.0			26.3	
Confl. Peds. (#/hr)			3	3					3			2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	4%	4%	5%	5%	5%	3%	3%	3%	11%	11%	11%
Shared Lane Traffic (%)												
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		1	6		5	2	
Permitted Phases												
Detector Phase	4	4		8	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	33.6	33.6		30.6	30.6		10.6	32.6		10.6	28.6	
Total Split (s)	36.0	36.0		32.0	32.0		15.0	57.0		15.0	57.0	
Total Split (%)	25.7%	25.7%		22.9%	22.9%		10.7%	40.7%		10.7%	40.7%	
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6		4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	

Intersection Summary

Area Type: Other

Cycle Length: 140

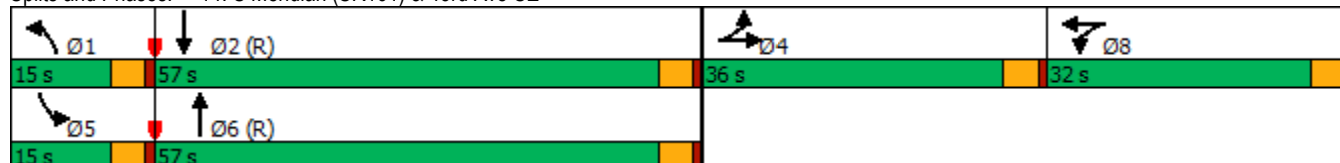
Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 14: S Meridian (SR161) & 43rd Ave SE



HCM 6th Signalized Intersection Summary
 14: S Meridian (SR161) & 43rd Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	51	4	88	39	60	12	1447	110	61	656	10
Future Volume (veh/h)	39	51	4	88	39	60	12	1447	110	61	656	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		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	1892	1892	1892	1529	1529	1529	1758	1758	1758	1646	1646	1646
Adj Flow Rate, veh/h	42	55	4	95	42	65	13	1556	118	66	705	11
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	5	5	5	3	3	3	11	11	11
Cap, veh/h	100	97	7	145	54	83	28	2082	157	81	2193	34
Arrive On Green	0.06	0.06	0.06	0.10	0.10	0.10	0.02	0.66	0.66	0.10	1.00	1.00
Sat Flow, veh/h	1802	1740	127	1456	538	832	1674	3147	237	1567	3151	49
Grp Volume(v), veh/h	42	0	59	95	0	107	13	821	853	66	350	366
Grp Sat Flow(s),veh/h/ln	1802	0	1867	1456	0	1370	1674	1670	1715	1567	1563	1637
Q Serve(g_s), s	3.2	0.0	4.3	8.8	0.0	10.7	1.1	45.8	47.0	5.8	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.0	4.3	8.8	0.0	10.7	1.1	45.8	47.0	5.8	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.61	1.00		0.14	1.00		0.03
Lane Grp Cap(c), veh/h	100	0	104	145	0	137	28	1105	1134	81	1088	1139
V/C Ratio(X)	0.42	0.00	0.57	0.65	0.00	0.78	0.46	0.74	0.75	0.82	0.32	0.32
Avail Cap(c_a), veh/h	404	0	419	285	0	268	124	1105	1134	116	1088	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	63.9	0.0	64.4	60.7	0.0	61.5	68.2	15.8	16.0	62.2	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	3.8	3.9	0.0	7.6	7.6	4.5	4.6	23.6	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	2.2	3.4	0.0	4.0	0.5	17.6	18.5	2.7	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.1	0.0	68.3	64.6	0.0	69.1	75.7	20.3	20.6	85.8	0.7	0.7
LnGrp LOS	E	A	E	E	A	E	E	C	C	F	A	A
Approach Vol, veh/h		101			202			1687			782	
Approach Delay, s/veh		67.4			67.0			20.9			7.9	
Approach LOS		E			E			C			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	102.0		12.4	11.8	97.2		18.6				
Change Period (Y+Rc), s	4.6	4.6		4.6	4.6	4.6		4.6				
Max Green Setting (Gmax), s	10.4	52.4		31.4	10.4	52.4		27.4				
Max Q Clear Time (g_c+I1), s	3.1	2.0		6.3	7.8	49.0		12.7				
Green Ext Time (p_c), s	0.0	4.5		0.3	0.0	2.8		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				22.3								
HCM 6th LOS				C								

Existing 2021 PM Peak Hour

Lanes, Volumes, Timings
1: 7th St SE & College Way

01/23/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	11	34	341	11	34	417
Future Volume (vph)	11	34	341	11	34	417
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-4%			0%
Storage Length (ft)	0	0		0	50	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Link Speed (mph)	25		25			25
Link Distance (ft)	771		286			501
Travel Time (s)	21.0		7.8			13.7
Confl. Peds. (#/hr)				7	7	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	11	34	341	11	34	417
Future Vol, veh/h	11	34	341	11	34	417
Conflicting Peds, #/hr	0	0	0	7	7	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-4	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	2	2	2	2
Mvmt Flow	12	38	383	12	38	469

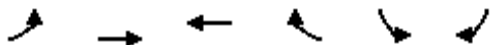
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	941	396	0	0	402	0
Stage 1	396	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	295	658	-	-	1157	-
Stage 1	684	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	283	654	-	-	1149	-
Mov Cap-2 Maneuver	409	-	-	-	-	-
Stage 1	679	-	-	-	-	-
Stage 2	566	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	570	1149	-
HCM Lane V/C Ratio	-	-	0.089	0.033	-
HCM Control Delay (s)	-	-	11.9	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Lanes, Volumes, Timings
2: 31st Ave SW/S Meridian (SR161)

01/23/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖↖	↗↗	↖↖	↗	↖↖	↗
Traffic Volume (vph)	247	1183	1134	380	556	260
Future Volume (vph)	247	1183	1134	380	556	260
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Storage Length (ft)	250			0	0	175
Storage Lanes	2			1	2	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		370	339		787	
Travel Time (s)		7.2	6.6		15.3	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	3%	3%	1%	1%
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Detector Phase	5		6	6	4	4
Switch Phase						
Minimum Initial (s)	8.0		10.0	10.0	8.0	8.0
Minimum Split (s)	12.6		20.6	20.6	12.6	12.6
Total Split (s)	21.0		79.0	79.0	50.0	50.0
Total Split (%)	14.0%		52.7%	52.7%	33.3%	33.3%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6		4.6	4.6	4.6	4.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Min		C-Min	C-Min	None	None

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 44 (29%), Referenced to phase 6:WBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

! Phase conflict between lane groups.

Splits and Phases: 2: 31st Ave SW/S Meridian (SR161)



HCM Signalized Intersection Capacity Analysis
 2: 31st Ave SW/S Meridian (SR161)

01/23/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	247	1183	1134	380	556	260
Future Volume (vph)	247	1183	1134	380	556	260
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Total Lost time (s)	4.6	4.0	4.6	4.6	4.6	4.6
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	1.00
Fr _t	1.00	1.00	1.00	0.85	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3187	3286	3387	1515	3285	1515
Fl _t Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3187	3286	3387	1515	3285	1515
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	249	1195	1145	384	562	263
RTOR Reduction (vph)	0	0	0	136	0	188
Lane Group Flow (vph)	249	1195	1145	248	562	75
Heavy Vehicles (%)	2%	2%	3%	3%	1%	1%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Actuated Green, G (s)	16.5	150.0	88.9	88.9	30.8	30.8
Effective Green, g (s)	16.5	150.0	88.9	88.9	30.8	30.8
Actuated g/C Ratio	0.11	1.00	0.59	0.59	0.21	0.21
Clearance Time (s)	4.6		4.6	4.6	4.6	4.6
Vehicle Extension (s)	2.5		2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	350	3286	2007	897	674	311
v/s Ratio Prot	c0.08	0.36	c0.34		c0.17	
v/s Ratio Perm				0.16		0.05
v/c Ratio	0.71	0.36	0.57	0.28	0.83	0.24
Uniform Delay, d ₁	64.5	0.0	18.8	14.9	57.1	49.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d ₂	6.2	0.3	1.2	0.8	8.6	0.3
Delay (s)	70.7	0.3	20.0	15.6	65.7	50.1
Level of Service	E	A	B	B	E	D
Approach Delay (s)		12.4	18.9		60.8	
Approach LOS		B	B		E	
Intersection Summary						
HCM 2000 Control Delay			25.5	HCM 2000 Level of Service		C
HCM 2000 Volume to Capacity ratio			0.65			
Actuated Cycle Length (s)			150.0	Sum of lost time (s)	13.8	
Intersection Capacity Utilization			68.8%	ICU Level of Service	C	
Analysis Period (min)			15			
! Phase conflict between lane groups.						
c Critical Lane Group						

Lanes, Volumes, Timings
 3: S Meridian (SR161) & 37th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	129	96	169	155	359	79	993	58	345	1245	58
Future Volume (vph)	60	129	96	169	155	359	79	993	58	345	1245	58
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (ft)	0		0	250		0	225		0	350		0
Storage Lanes	1		1	1		1	1		0	2		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35				35
Link Distance (ft)		242			1349			645				449
Travel Time (s)		6.6			26.3			12.6				8.7
Confl. Peds. (#/hr)						2			2			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	4%	4%	4%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Free	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8			Free						
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	8.6	10.6	10.6	10.6	35.6		10.6	28.6		10.6	31.6	
Total Split (s)	15.0	25.0	25.0	27.0	37.0		23.0	72.0		26.0	75.0	
Total Split (%)	10.0%	16.7%	16.7%	18.0%	24.7%		15.3%	48.0%		17.3%	50.0%	
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	

Intersection Summary

Area Type: Other

Cycle Length: 150

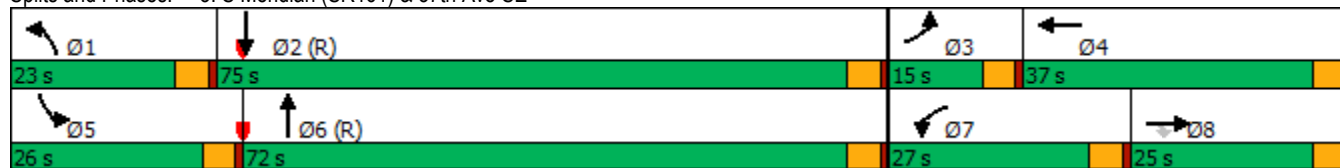
Actuated Cycle Length: 150

Offset: 28 (19%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Splits and Phases: 3: S Meridian (SR161) & 37th Ave SE



HCM 6th Signalized Intersection Summary
 3: S Meridian (SR161) & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	129	96	169	155	359	79	993	58	345	1245	58
Future Volume (veh/h)	60	129	96	169	155	359	79	993	58	345	1245	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1786	1786	1786	1786	1786	1786	1744	1744	1744	1772	1772	1772
Adj Flow Rate, veh/h	62	134	100	176	161	0	82	1034	60	359	1297	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	4	4	4	2	2	2
Cap, veh/h	78	281	126	198	274		100	1763	102	406	2988	
Arrive On Green	0.05	0.08	0.08	0.12	0.15	0.00	0.12	1.00	1.00	0.12	0.62	0.00
Sat Flow, veh/h	1701	3393	1514	1701	1786	1514	1661	3182	185	3274	4997	0
Grp Volume(v), veh/h	62	134	100	176	161	0	82	538	556	359	1297	0
Grp Sat Flow(s),veh/h/ln	1701	1697	1514	1701	1786	1514	1661	1657	1710	1637	1612	0
Q Serve(g_s), s	5.4	5.7	9.7	15.3	12.6	0.0	7.2	0.0	0.0	16.2	21.0	0.0
Cycle Q Clear(g_c), s	5.4	5.7	9.7	15.3	12.6	0.0	7.2	0.0	0.0	16.2	21.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	78	281	126	198	274		100	918	947	406	2988	
V/C Ratio(X)	0.79	0.48	0.80	0.89	0.59		0.82	0.59	0.59	0.88	0.43	
Avail Cap(c_a), veh/h	118	461	206	254	386		204	918	947	467	2988	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.79	0.79	0.00	0.67	0.67	0.67	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.9	65.7	67.5	65.3	59.1	0.0	65.2	0.0	0.0	64.6	15.0	0.0
Incr Delay (d2), s/veh	21.6	1.2	10.9	20.9	1.7	0.0	10.6	1.8	1.8	16.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.5	4.2	7.8	5.8	0.0	3.2	0.5	0.5	7.7	7.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.4	66.9	78.4	86.2	60.8	0.0	75.8	1.8	1.8	81.1	15.4	0.0
LnGrp LOS	F	E	E	F	E		E	A	A	F	B	
Approach Vol, veh/h		296			337	A		1176			1656	A
Approach Delay, s/veh		76.1			74.0			7.0			29.7	
Approach LOS		E			E			A			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	97.3	11.5	27.6	23.2	87.7	22.1	17.0				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	18.4	70.4	10.4	32.4	21.4	67.4	22.4	20.4				
Max Q Clear Time (g_c+I1), s	9.2	23.0	7.4	14.6	18.2	2.0	17.3	11.7				
Green Ext Time (p_c), s	0.1	15.4	0.0	0.8	0.4	11.7	0.2	0.7				

Intersection Summary

HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
4: 5th St SE & 37th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	329	80	33	460	177	104	249	20	238	396	67
Future Volume (vph)	83	329	80	33	460	177	104	249	20	238	396	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-3%			0%			-5%	
Storage Length (ft)	200		0	225		150	200		0	250		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		1349			1181			965			418	
Travel Time (s)		26.3			23.0			21.9			11.4	
Confl. Peds. (#/hr)	3		1	1		3	1		3	3		1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2		2	4			8		
Detector Phase	1	6		5	2	2	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0	26.0	11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0	46.0	21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%	37.1%	16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	

Intersection Summary

Area Type: Other

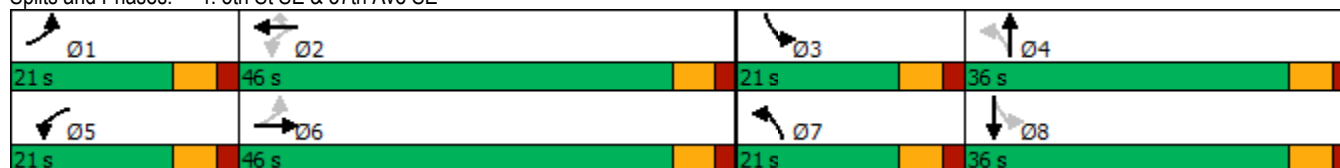
Cycle Length: 124

Actuated Cycle Length: 87.9

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 4: 5th St SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
4: 5th St SE & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	329	80	33	460	177	104	249	20	238	396	67
Future Volume (veh/h)	83	329	80	33	460	177	104	249	20	238	396	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		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	1900	1900	1900	2003	2003	2003	1885	1885	1885	2082	2082	2082
Adj Flow Rate, veh/h	87	346	84	35	484	0	109	262	0	251	417	71
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	1	1	1
Cap, veh/h	303	661	158	305	778		300	445		505	514	88
Arrive On Green	0.06	0.23	0.23	0.04	0.20	0.00	0.07	0.24	0.00	0.13	0.30	0.30
Sat Flow, veh/h	1810	2884	691	1908	3806	1697	1795	1885	0	1983	1733	295
Grp Volume(v), veh/h	87	215	215	35	484	0	109	262	0	251	0	488
Grp Sat Flow(s),veh/h/ln	1810	1805	1770	1908	1903	1697	1795	1885	0	1983	0	2027
Q Serve(g_s), s	2.4	6.7	6.9	0.9	7.5	0.0	2.9	8.0	0.0	6.0	0.0	14.4
Cycle Q Clear(g_c), s	2.4	6.7	6.9	0.9	7.5	0.0	2.9	8.0	0.0	6.0	0.0	14.4
Prop In Lane	1.00		0.39	1.00		1.00	1.00		0.00	1.00		0.15
Lane Grp Cap(c), veh/h	303	414	406	305	778		300	445		505	0	602
V/C Ratio(X)	0.29	0.52	0.53	0.11	0.62		0.36	0.59		0.50	0.00	0.81
Avail Cap(c_a), veh/h	612	1115	1093	678	2350		594	873		710	0	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	21.8	21.9	19.3	23.5	0.0	17.7	22.0	0.0	15.6	0.0	21.1
Incr Delay (d2), s/veh	0.5	1.0	1.1	0.2	0.8	0.0	0.7	1.2	0.0	0.8	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.7	2.8	0.4	3.2	0.0	1.2	3.5	0.0	2.6	0.0	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	22.8	23.0	19.4	24.3	0.0	18.4	23.2	0.0	16.4	0.0	24.2
LnGrp LOS	B	C	C	B	C		B	C		B	A	C
Approach Vol, veh/h		517			519	A		371	A		739	
Approach Delay, s/veh		22.3			24.0			21.8			21.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	19.2	14.3	21.3	8.3	20.9	10.4	25.2				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	4.4	9.5	8.0	10.0	2.9	8.9	4.9	16.4				
Green Ext Time (p_c), s	0.1	3.3	0.4	1.4	0.0	2.6	0.2	2.8				

Intersection Summary

HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: 39th Ave SE & 37th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	587	6	259	626	5	1	7	237	4	9	19
Future Volume (vph)	8	587	6	259	626	5	1	7	237	4	9	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		6%			-5%			3%			0%	
Storage Length (ft)	225		0	200		0	200		0	0		150
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			25	
Link Distance (ft)		1181			510			1162			264	
Travel Time (s)		23.0			9.9			22.6			7.2	
Confl. Peds. (#/hr)	1		1	1		1						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases	4			8			2		2	6		
Detector Phase	7	4		3	8		5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	5.0	5.0	10.0	
Minimum Split (s)	12.0	30.0		12.0	30.0		11.0	16.0	12.0	11.0	34.0	
Total Split (s)	23.0	42.0		23.0	42.0		22.0	22.0	23.0	22.0	22.0	
Total Split (%)	21.1%	38.5%		21.1%	38.5%		20.2%	20.2%	21.1%	20.2%	20.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0	3.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0	7.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min		None	Min		None	None	None	None	None	

Intersection Summary

Area Type: Other

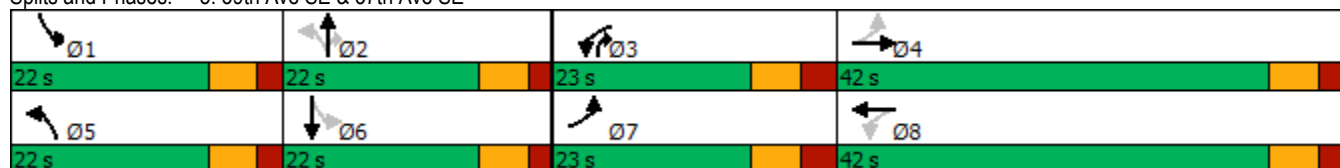
Cycle Length: 109

Actuated Cycle Length: 51.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 5: 39th Ave SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
5: 39th Ave SE & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	587	6	259	626	5	1	7	237	4	9	19
Future Volume (veh/h)	8	587	6	259	626	5	1	7	237	4	9	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1673	1673	2067	2067	2067	1817	1817	1817	1900	1900	1900
Adj Flow Rate, veh/h	9	624	6	276	666	5	1	7	252	4	10	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	0	0	0
Cap, veh/h	333	979	9	476	1667	13	328	313	459	311	100	200
Arrive On Green	0.01	0.30	0.30	0.13	0.42	0.42	0.00	0.17	0.17	0.01	0.18	0.18
Sat Flow, veh/h	1593	3226	31	1968	3995	30	1731	1817	1540	1810	565	1131
Grp Volume(v), veh/h	9	307	323	276	327	344	1	7	252	4	0	30
Grp Sat Flow(s),veh/h/ln	1593	1589	1668	1968	1963	2061	1731	1817	1540	1810	0	1696
Q Serve(g_s), s	0.3	11.0	11.0	5.8	7.7	7.7	0.0	0.2	9.1	0.1	0.0	1.0
Cycle Q Clear(g_c), s	0.3	11.0	11.0	5.8	7.7	7.7	0.0	0.2	9.1	0.1	0.0	1.0
Prop In Lane	1.00		0.02	1.00		0.01	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	333	482	506	476	819	860	328	313	459	311	0	299
V/C Ratio(X)	0.03	0.64	0.64	0.58	0.40	0.40	0.00	0.02	0.55	0.01	0.00	0.10
Avail Cap(c_a), veh/h	701	842	883	705	1040	1091	745	440	566	740	0	411
HCM Platoon Ratio	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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.6	19.9	19.9	13.1	13.5	13.5	22.6	22.7	19.5	22.4	0.0	22.8
Incr Delay (d2), s/veh	0.0	3.0	2.8	1.1	0.7	0.6	0.0	0.0	1.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.1	4.3	2.3	3.1	3.3	0.0	0.1	3.1	0.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	22.9	22.7	14.2	14.1	14.1	22.6	22.7	20.5	22.4	0.0	23.0
LnGrp LOS	B	C	C	B	B	B	C	C	C	C	A	C
Approach Vol, veh/h		639			947			260				34
Approach Delay, s/veh		22.7			14.2			20.6				22.9
Approach LOS		C			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	17.4	15.3	27.1	6.1	17.7	7.8	34.6				
Change Period (Y+Rc), s	6.0	6.0	7.0	7.0	6.0	6.0	7.0	7.0				
Max Green Setting (Gmax), s	16.0	16.0	16.0	35.0	16.0	16.0	16.0	35.0				
Max Q Clear Time (g_c+I1), s	2.1	11.1	7.8	13.0	2.0	3.0	2.3	9.7				
Green Ext Time (p_c), s	0.0	0.4	0.5	7.0	0.0	0.1	0.0	8.0				

Intersection Summary

HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

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

Lanes, Volumes, Timings
6: 10th St SE & 39th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	663	136	138	690	4	84	6	67	14	27	114
Future Volume (vph)	33	663	136	138	690	4	84	6	67	14	27	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-5%			-6%			-4%	
Storage Length (ft)	150		0	200		0	100		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				25
Link Distance (ft)		510			1994			256				231
Travel Time (s)		9.9			38.8			5.8				6.3
Confl. Peds. (#/hr)	1		2	2		1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	5%	5%	5%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.3	30.3		11.3	30.3		10.5	25.5		10.5	25.5	
Total Split (s)	21.3	51.3		21.3	51.3		21.3	21.3		21.3	21.3	
Total Split (%)	18.5%	44.5%		18.5%	44.5%		18.5%	18.5%		18.5%	18.5%	
Yellow Time (s)	4.3	4.3		4.3	4.3		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

Cycle Length: 115.2

Actuated Cycle Length: 79.3

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 6: 10th St SE & 39th Ave SE

Ø1	Ø2	Ø3	Ø4
21.3 s	51.3 s	21.3 s	21.3 s
Ø5	Ø6	Ø7	Ø8
21.3 s	51.3 s	21.3 s	21.3 s

HCM 6th Signalized Intersection Summary
6: 10th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	663	136	138	690	4	84	6	67	14	27	114
Future Volume (veh/h)	33	663	136	138	690	4	84	6	67	14	27	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	2067	2067	2067	2061	2061	2061	2057	2057	2057
Adj Flow Rate, veh/h	37	737	151	153	767	4	93	7	74	16	30	127
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	1	1	1	2	2	2	5	5	5	0	0	0
Cap, veh/h	373	1116	229	378	1664	9	284	25	267	325	42	177
Arrive On Green	0.04	0.38	0.38	0.08	0.42	0.42	0.06	0.16	0.16	0.02	0.12	0.12
Sat Flow, veh/h	1795	2959	606	1968	4005	21	1963	153	1617	1959	343	1453
Grp Volume(v), veh/h	37	446	442	153	376	395	93	0	81	16	0	157
Grp Sat Flow(s),veh/h/ln	1795	1791	1774	1968	1963	2063	1963	0	1770	1959	0	1796
Q Serve(g_s), s	0.8	13.4	13.4	3.0	9.0	9.0	2.6	0.0	2.6	0.5	0.0	5.5
Cycle Q Clear(g_c), s	0.8	13.4	13.4	3.0	9.0	9.0	2.6	0.0	2.6	0.5	0.0	5.5
Prop In Lane	1.00		0.34	1.00		0.01	1.00		0.91	1.00		0.81
Lane Grp Cap(c), veh/h	373	675	669	378	816	857	284	0	292	325	0	218
V/C Ratio(X)	0.10	0.66	0.66	0.41	0.46	0.46	0.33	0.00	0.28	0.05	0.00	0.72
Avail Cap(c_a), veh/h	720	1239	1228	683	1359	1428	638	0	430	763	0	436
HCM Platoon Ratio	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(l)	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	11.7	16.8	16.8	12.3	13.7	13.7	23.0	0.0	23.8	24.2	0.0	27.5
Incr Delay (d2), s/veh	0.1	1.6	1.6	0.7	0.6	0.6	0.7	0.0	0.5	0.1	0.0	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.1	5.1	1.2	3.6	3.8	1.2	0.0	1.1	0.2	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	18.4	18.4	13.0	14.3	14.3	23.6	0.0	24.3	24.3	0.0	31.9
LnGrp LOS	B	B	B	B	B	B	C	A	C	C	A	C
Approach Vol, veh/h		925			924			174				173
Approach Delay, s/veh		18.1			14.1			23.9				31.2
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	33.3	6.8	16.2	11.2	30.8	9.6	13.4				
Change Period (Y+Rc), s	6.3	6.3	5.5	5.5	6.3	6.3	5.5	5.5				
Max Green Setting (Gmax), s	15.0	45.0	15.8	15.8	15.0	45.0	15.8	15.8				
Max Q Clear Time (g_c+I1), s	2.8	11.0	2.5	4.6	5.0	15.4	4.6	7.5				
Green Ext Time (p_c), s	0.0	7.7	0.0	0.2	0.3	9.1	0.1	0.5				

Intersection Summary

HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

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

Lanes, Volumes, Timings
7: 39th Ave SE & College Way

01/23/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	113	637	660	68	68	114
Future Volume (vph)	113	637	660	68	68	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		0%	-5%		0%	
Storage Length (ft)	175			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		25	
Link Distance (ft)		1994	702		209	
Travel Time (s)		38.8	13.7		5.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	1%	1%	5%	5%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	11.3	16.3	35.3		34.5	34.5
Total Split (s)	31.3	46.3	46.3		50.5	50.5
Total Split (%)	24.4%	36.1%	36.1%		39.4%	39.4%
Yellow Time (s)	4.0	4.0	4.0		3.5	3.5
All-Red Time (s)	2.3	2.3	2.3		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3		5.5	5.5
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Min	Min		None	None

Intersection Summary

Area Type: Other

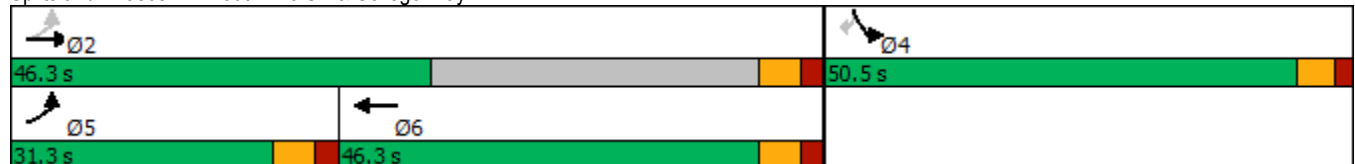
Cycle Length: 128.1

Actuated Cycle Length: 55.8

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Splits and Phases: 7: 39th Ave SE & College Way



HCM 6th Signalized Intersection Summary
7: 39th Ave SE & College Way

01/23/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	113	637	660	68	68	114
Future Volume (veh/h)	113	637	660	68	68	114
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00			1.00	1.00	1.00
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1885	1885	2082	2082	1826	1826
Adj Flow Rate, veh/h	124	700	725	75	75	125
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1	1	5	5
Cap, veh/h	459	2099	1242	128	227	202
Arrive On Green	0.09	0.59	0.34	0.34	0.13	0.13
Sat Flow, veh/h	1795	3676	3722	374	1739	1547
Grp Volume(v), veh/h	124	700	396	404	75	125
Grp Sat Flow(s),veh/h/ln	1795	1791	1978	2014	1739	1547
Q Serve(g_s), s	1.6	4.2	6.9	6.9	1.6	3.2
Cycle Q Clear(g_c), s	1.6	4.2	6.9	6.9	1.6	3.2
Prop In Lane	1.00			0.19	1.00	1.00
Lane Grp Cap(c), veh/h	459	2099	679	692	227	202
V/C Ratio(X)	0.27	0.33	0.58	0.58	0.33	0.62
Avail Cap(c_a), veh/h	1373	3439	1899	1934	1879	1672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.1	4.4	11.2	11.2	16.4	17.1
Incr Delay (d2), s/veh	0.3	0.1	0.8	0.8	1.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.8	2.4	2.4	0.6	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.4	4.5	12.0	12.0	17.5	20.8
LnGrp LOS	A	A	B	B	B	C
Approach Vol, veh/h		824	800		200	
Approach Delay, s/veh		5.0	12.0		19.6	
Approach LOS		A	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.7		10.9	10.1	20.6
Change Period (Y+Rc), s		* 6.3		5.5	* 6.3	* 6.3
Max Green Setting (Gmax), s		* 40		45.0	* 25	* 40
Max Q Clear Time (g_c+I1), s		6.2		5.2	3.6	8.9
Green Ext Time (p_c), s		5.3		0.9	0.3	5.4
Intersection Summary						
HCM 6th Ctrl Delay			9.7			
HCM 6th LOS			A			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Lanes, Volumes, Timings
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	481	46	10	538	26	35	6	4	43	27	98
Future Volume (vph)	110	481	46	10	538	26	35	6	4	43	27	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-4%			0%			6%	
Storage Length (ft)	125		0	125		0	50		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		384			416			287			528	
Travel Time (s)		7.5			8.1			7.8			14.4	
Confl. Peds. (#/hr)			1	1					1	1		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%	34.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 51.4

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

11 s	24 s	11 s	24 s
11 s	24 s	11 s	24 s

HCM 6th Signalized Intersection Summary
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	481	46	10	538	26	35	6	4	43	27	98
Future Volume (veh/h)	110	481	46	10	538	26	35	6	4	43	27	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	2042	2042	2042	1900	1900	1900	1658	1658	1658
Adj Flow Rate, veh/h	118	517	49	11	578	28	38	6	4	46	29	105
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	2	2	2
Cap, veh/h	352	964	91	314	853	41	348	194	129	434	59	214
Arrive On Green	0.08	0.29	0.29	0.01	0.23	0.23	0.04	0.18	0.18	0.05	0.19	0.19
Sat Flow, veh/h	1795	3307	313	1945	3767	182	1810	1063	708	1579	314	1137
Grp Volume(v), veh/h	118	279	287	11	297	309	38	0	10	46	0	134
Grp Sat Flow(s),veh/h/ln	1795	1791	1828	1945	1940	2009	1810	0	1771	1579	0	1452
Q Serve(g_s), s	2.5	6.8	6.8	0.2	7.2	7.2	0.9	0.0	0.2	1.2	0.0	4.3
Cycle Q Clear(g_c), s	2.5	6.8	6.8	0.2	7.2	7.2	0.9	0.0	0.2	1.2	0.0	4.3
Prop In Lane	1.00		0.17	1.00		0.09	1.00		0.40	1.00		0.78
Lane Grp Cap(c), veh/h	352	522	533	314	439	455	348	0	323	434	0	273
V/C Ratio(X)	0.34	0.54	0.54	0.03	0.68	0.68	0.11	0.00	0.03	0.11	0.00	0.49
Avail Cap(c_a), veh/h	384	625	638	475	677	701	450	0	618	514	0	507
HCM Platoon Ratio	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(l)	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	13.9	15.3	15.3	15.1	18.2	18.2	16.1	0.0	17.3	15.8	0.0	18.7
Incr Delay (d2), s/veh	0.6	0.9	0.8	0.0	1.8	1.8	0.1	0.0	0.0	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.5	2.5	0.1	3.0	3.1	0.3	0.0	0.1	0.4	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.5	16.2	16.2	15.1	20.0	20.0	16.2	0.0	17.4	15.9	0.0	20.1
LnGrp LOS	B	B	B	B	C	C	B	A	B	B	A	C
Approach Vol, veh/h		684			617			48				180
Approach Delay, s/veh		15.9			19.9			16.4				19.0
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	15.4	6.7	21.0	8.1	15.7	10.1	17.7				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.2	2.2	2.2	8.8	2.9	6.3	4.5	9.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.5	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				17.9								
HCM 6th LOS				B								

Lanes, Volumes, Timings
9: 25th St SE & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	493	26	25	530	1	16	0	13	7	0	23
Future Volume (vph)	11	493	26	25	530	1	16	0	13	7	0	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	75		0	100		0	25		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		365			225			248			136	
Travel Time (s)		7.1			4.4			6.8			3.7	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%	34.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

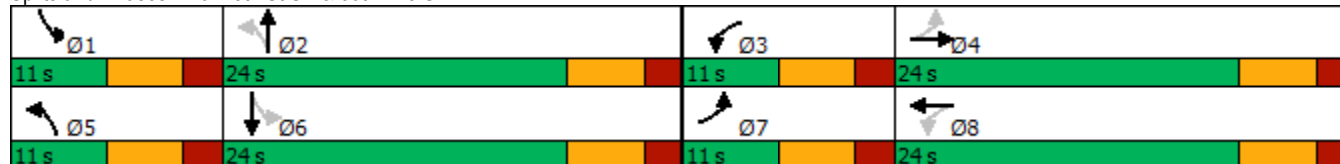
Cycle Length: 70

Actuated Cycle Length: 34.2

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 9: 25th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
 9: 25th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	493	26	25	530	1	16	0	13	7	0	23
Future Volume (veh/h)	11	493	26	25	530	1	16	0	13	7	0	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	530	28	27	570	1	17	0	14	8	0	25
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	317	862	45	333	975	2	344	0	186	346	0	168
Arrive On Green	0.02	0.25	0.25	0.03	0.27	0.27	0.02	0.00	0.12	0.01	0.00	0.10
Sat Flow, veh/h	1795	3460	183	1795	3668	6	1810	0	1610	1810	0	1610
Grp Volume(v), veh/h	12	274	284	27	278	293	17	0	14	8	0	25
Grp Sat Flow(s),veh/h/ln	1795	1791	1852	1795	1791	1884	1810	0	1610	1810	0	1610
Q Serve(g_s), s	0.2	5.5	5.5	0.4	5.5	5.5	0.3	0.0	0.3	0.2	0.0	0.6
Cycle Q Clear(g_c), s	0.2	5.5	5.5	0.4	5.5	5.5	0.3	0.0	0.3	0.2	0.0	0.6
Prop In Lane	1.00		0.10	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	317	446	461	333	476	501	344	0	186	346	0	168
V/C Ratio(X)	0.04	0.61	0.62	0.08	0.58	0.58	0.05	0.00	0.08	0.02	0.00	0.15
Avail Cap(c_a), veh/h	510	796	823	496	796	837	528	0	716	550	0	716
HCM Platoon Ratio	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(l)	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	11.3	13.5	13.5	11.0	12.9	12.9	15.6	0.0	16.0	15.9	0.0	16.5
Incr Delay (d2), s/veh	0.0	1.4	1.3	0.1	1.1	1.1	0.1	0.0	0.2	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.9	2.0	0.1	1.9	1.9	0.1	0.0	0.1	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	14.9	14.8	11.1	14.1	14.0	15.7	0.0	16.2	16.0	0.0	16.9
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		570			598			31				33
Approach Delay, s/veh		14.8			13.9			15.9				16.7
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	10.7	7.3	16.1	6.9	10.2	6.6	16.8				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	2.3	2.4	7.5	2.3	2.6	2.2	7.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.1	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			14.4									
HCM 6th LOS			B									

Lanes, Volumes, Timings
 10: Shaw Rd E & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Traffic Volume (vph)	199	0	373	1	2	0	300	368	3	0	489	304
Future Volume (vph)	199	0	373	1	2	0	300	368	3	0	489	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			8%			-4%			6%	
Storage Length (ft)	0		0	0		0	300		0	200		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		507			360			460			462	
Travel Time (s)		9.9			7.0			9.0			9.0	
Confl. Peds. (#/hr)			2	2					2	2		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		10.0	10.0		5.0	10.0	10.0
Minimum Split (s)	29.0	29.0	29.0	24.0	24.0		16.3	28.3		11.3	28.3	28.3
Total Split (s)	36.0	36.0	36.0	36.0	36.0		26.3	46.3		21.3	46.3	46.3
Total Split (%)	33.1%	33.1%	33.1%	33.1%	33.1%		24.2%	42.6%		19.6%	42.6%	42.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.3	2.3		2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0		6.3	6.3		6.3	6.3	6.3
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min

Intersection Summary

Area Type: Other

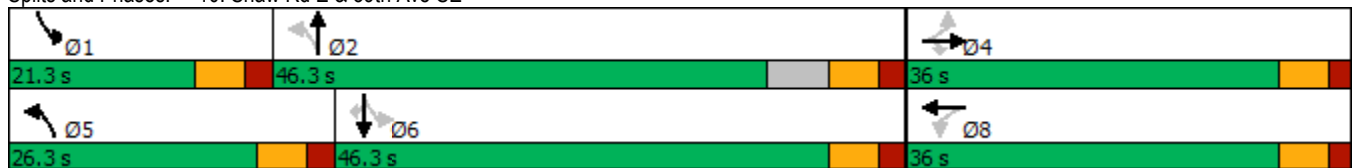
Cycle Length: 108.6

Actuated Cycle Length: 85.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Shaw Rd E & 39th Ave SE



HCM 6th Signalized Intersection Summary
 10: Shaw Rd E & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕	↗	↕	↗	↕
Traffic Volume (veh/h)	199	0	373	1	2	0	300	368	3	0	489	304
Future Volume (veh/h)	199	0	373	1	2	0	300	368	3	0	489	304
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1523	1523	1523	2027	2027	2027	1673	1673	1673
Adj Flow Rate, veh/h	205	0	385	1	2	0	309	379	3	0	504	313
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	1	1	1
Cap, veh/h	312	0	513	62	86	0	372	1096	9	396	590	499
Arrive On Green	0.32	0.00	0.32	0.32	0.32	0.00	0.12	0.55	0.55	0.00	0.35	0.35
Sat Flow, veh/h	729	0	1605	30	268	0	1931	2009	16	1593	1673	1414
Grp Volume(v), veh/h	205	0	385	3	0	0	309	0	382	0	504	313
Grp Sat Flow(s),veh/h/ln	729	0	1605	298	0	0	1931	0	2024	1593	1673	1414
Q Serve(g_s), s	0.3	0.0	19.6	0.1	0.0	0.0	8.7	0.0	9.6	0.0	25.5	16.8
Cycle Q Clear(g_c), s	27.1	0.0	19.6	27.0	0.0	0.0	8.7	0.0	9.6	0.0	25.5	16.8
Prop In Lane	1.00		1.00	0.33		0.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	312	0	513	148	0	0	372	0	1105	396	590	499
V/C Ratio(X)	0.66	0.00	0.75	0.02	0.00	0.00	0.83	0.00	0.35	0.00	0.85	0.63
Avail Cap(c_a), veh/h	325	0	528	159	0	0	556	0	1105	656	733	620
HCM Platoon Ratio	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(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	27.8	24.1	0.0	0.0	19.5	0.0	11.6	0.0	27.4	24.6
Incr Delay (d2), s/veh	4.5	0.0	5.8	0.1	0.0	0.0	6.6	0.0	0.3	0.0	8.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	8.0	0.0	0.0	0.0	4.2	0.0	4.0	0.0	11.1	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	0.0	33.6	24.1	0.0	0.0	26.1	0.0	11.9	0.0	36.3	26.4
LnGrp LOS	D	A	C	C	A	A	C	A	B	A	D	C
Approach Vol, veh/h		590			3			691			817	
Approach Delay, s/veh		34.1			24.1			18.2			32.5	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	56.2		35.3	17.6	38.5		35.3				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.0	* 6.3	* 6.3		6.0				
Max Green Setting (Gmax), s	* 15	* 40		30.0	* 20	* 40		30.0				
Max Q Clear Time (g_c+I1), s	0.0	11.6		29.1	10.7	27.5		29.0				
Green Ext Time (p_c), s	0.0	3.4		0.3	0.6	4.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			28.2									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Lanes, Volumes, Timings
 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	49	41	30	37	17	46	450	26	12	876	152
Future Volume (vph)	99	49	41	30	37	17	46	450	26	12	876	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-9%			3%			-9%			6%	
Storage Length (ft)	50		0	50		0	100		175	75		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			Yes
Link Speed (mph)		25			25			35				35
Link Distance (ft)		481			429			444				403
Travel Time (s)		13.1			11.7			8.6				7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	11.0	24.0		11.0	24.0		11.0	84.0	84.0	11.0	84.0	84.0
Total Split (%)	8.5%	18.5%		8.5%	18.5%		8.5%	64.6%	64.6%	8.5%	64.6%	64.6%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min

Intersection Summary

Area Type: Other

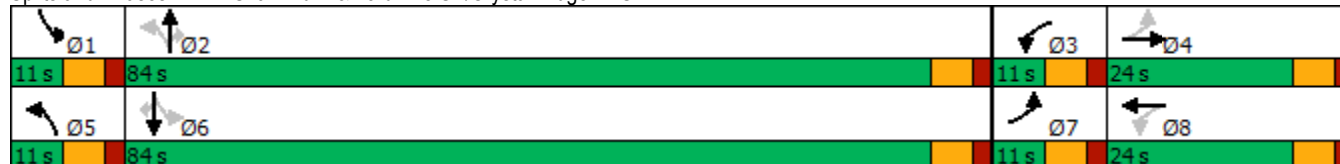
Cycle Length: 130

Actuated Cycle Length: 105.3

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Splits and Phases: 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE



HCM 6th Signalized Intersection Summary
 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	49	41	30	37	17	46	450	26	12	876	152
Future Volume (veh/h)	99	49	41	30	37	17	46	450	26	12	876	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	2254	2239	2239	1847	1847	1847	2224	2224	2224	1673	1673	1673
Adj Flow Rate, veh/h	108	53	45	33	40	18	50	489	28	13	952	165
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	1	1	0	0	0	2	2	2	1	1	1
Cap, veh/h	261	121	102	198	110	49	196	1398	1185	504	1017	862
Arrive On Green	0.05	0.11	0.11	0.03	0.09	0.09	0.04	0.63	0.63	0.01	0.61	0.61
Sat Flow, veh/h	2147	1118	950	1759	1206	543	2118	2224	1885	1593	1673	1418
Grp Volume(v), veh/h	108	0	98	33	0	58	50	489	28	13	952	165
Grp Sat Flow(s),veh/h/ln	2147	0	2068	1759	0	1749	2118	2224	1885	1593	1673	1418
Q Serve(g_s), s	5.0	0.0	4.9	1.8	0.0	3.4	0.9	11.4	0.6	0.3	56.6	5.6
Cycle Q Clear(g_c), s	5.0	0.0	4.9	1.8	0.0	3.4	0.9	11.4	0.6	0.3	56.6	5.6
Prop In Lane	1.00		0.46	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	261	0	223	198	0	159	196	1398	1185	504	1017	862
V/C Ratio(X)	0.41	0.00	0.44	0.17	0.00	0.36	0.26	0.35	0.02	0.03	0.94	0.19
Avail Cap(c_a), veh/h	261	0	340	228	0	288	217	1586	1344	553	1193	1011
HCM Platoon Ratio	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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	0.0	45.7	43.2	0.0	46.7	23.1	9.7	7.6	8.2	19.5	9.5
Incr Delay (d2), s/veh	1.0	0.0	1.4	0.4	0.0	1.4	0.7	0.1	0.0	0.0	12.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	2.6	0.8	0.0	1.6	0.7	5.2	0.2	0.1	22.9	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	0.0	47.0	43.6	0.0	48.1	23.8	9.8	7.7	8.3	31.9	9.6
LnGrp LOS	D	A	D	D	A	D	C	A	A	A	C	A
Approach Vol, veh/h		206			91			567			1130	
Approach Delay, s/veh		45.4			46.5			10.9			28.3	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	74.8	9.2	17.8	9.9	72.5	11.0	16.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	78.0	5.0	18.0	5.0	78.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.3	13.4	3.8	6.9	2.9	58.6	7.0	5.4				
Green Ext Time (p_c), s	0.0	3.5	0.0	0.3	0.0	7.9	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			26.0									
HCM 6th LOS			C									

Lanes, Volumes, Timings
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

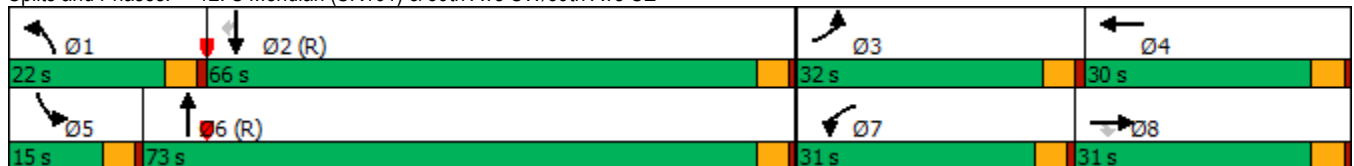
01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	272	410	210	138	297	44	161	942	63	38	1093	342
Future Volume (vph)	272	410	210	138	297	44	161	942	63	38	1093	342
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		0%			0%			3%			0%	
Storage Length (ft)	350		0	225		0	200		0	210		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		571			1339			1348			645	
Travel Time (s)		11.1			26.1			26.3			12.6	
Confl. Peds. (#/hr)			2						2			9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	4%	4%	4%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									2
Detector Phase	3	8	8	7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	5.0	6.0	6.0	6.0	5.0		6.0	10.0		6.0	10.0	10.0
Minimum Split (s)	9.6	27.6	27.6	10.6	16.6		10.6	29.6		10.6	29.6	29.6
Total Split (s)	32.0	31.0	31.0	31.0	30.0		22.0	73.0		15.0	66.0	66.0
Total Split (%)	21.3%	20.7%	20.7%	20.7%	20.0%		14.7%	48.7%		10.0%	44.0%	44.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	C-Min

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 40 (27%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated

Splits and Phases: 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE



HCM 6th Signalized Intersection Summary
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	272	410	210	138	297	44	161	942	63	38	1093	342
Future Volume (veh/h)	272	410	210	138	297	44	161	942	63	38	1093	342
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1786	1786	1694	1694	1694	1772	1772	1772
Adj Flow Rate, veh/h	280	423	0	142	306	45	166	971	65	39	1127	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	2	2	2
Cap, veh/h	299	681		164	361	53	185	1672	112	54	1561	
Arrive On Green	0.18	0.20	0.00	0.10	0.12	0.12	0.11	0.55	0.55	0.06	0.93	0.00
Sat Flow, veh/h	1688	3367	1502	1701	2972	433	1613	3061	205	1688	3367	1502
Grp Volume(v), veh/h	280	423	0	142	173	178	166	510	526	39	1127	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1701	1697	1708	1613	1609	1656	1688	1683	1502
Q Serve(g_s), s	24.5	17.2	0.0	12.3	15.0	15.3	15.2	31.6	31.6	3.4	11.0	0.0
Cycle Q Clear(g_c), s	24.5	17.2	0.0	12.3	15.0	15.3	15.2	31.6	31.6	3.4	11.0	0.0
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	299	681		164	206	207	185	879	905	54	1561	
V/C Ratio(X)	0.94	0.62		0.86	0.84	0.86	0.90	0.58	0.58	0.72	0.72	
Avail Cap(c_a), veh/h	308	681		299	287	289	187	879	905	117	1561	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	0.00	0.96	0.96	0.96	0.60	0.60	0.60	0.84	0.84	0.00
Uniform Delay (d), s/veh	60.8	54.6	0.0	66.8	64.5	64.6	65.5	22.6	22.6	69.5	3.3	0.0
Incr Delay (d2), s/veh	34.0	1.6	0.0	9.3	11.9	13.6	26.2	1.7	1.6	10.6	2.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	7.4	0.0	5.8	7.1	7.4	7.6	12.2	12.6	1.6	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.8	56.2	0.0	76.1	76.4	78.2	91.7	24.3	24.2	80.1	5.8	0.0
LnGrp LOS	F	E		E	E	E	F	C	C	F	A	
Approach Vol, veh/h		703	A		493			1202			1166	A
Approach Delay, s/veh		71.6			76.9			33.6			8.3	
Approach LOS		E			E			C			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.8	74.2	31.2	22.8	9.4	86.6	19.1	34.9				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	17.4	61.4	27.4	25.4	10.4	68.4	26.4	26.4				
Max Q Clear Time (g_c+I1), s	17.2	13.0	26.5	17.3	5.4	33.6	14.3	19.2				
Green Ext Time (p_c), s	0.0	8.3	0.1	0.9	0.0	6.2	0.2	1.3				

Intersection Summary

HCM 6th Ctrl Delay	38.8
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
13: 5th St SE & 39th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	182	136	96	163	4	70	243	59	5	464	85
Future Volume (vph)	126	182	136	96	163	4	70	243	59	5	464	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			-3%			0%	
Storage Length (ft)	150		0	175		0	225		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1339			1162			552			965	
Travel Time (s)		26.1			22.6			12.5			21.9	
Confl. Peds. (#/hr)									4	4		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	0%	0%	0%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0		11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0		21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%		16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

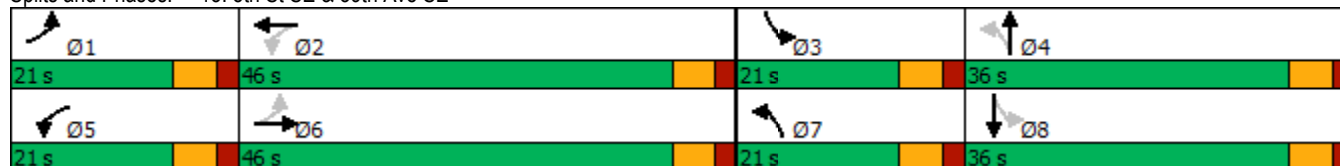
Cycle Length: 124

Actuated Cycle Length: 80.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 13: 5th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
 13: 5th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	182	136	96	163	4	70	243	59	5	464	85
Future Volume (veh/h)	126	182	136	96	163	4	70	243	59	5	464	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	2018	2018	2018	1885	1885	1885
Adj Flow Rate, veh/h	129	186	139	98	166	4	71	248	60	5	473	87
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	3	3	3	0	0	0	1	1	1
Cap, veh/h	388	335	237	304	527	13	275	628	152	430	545	100
Arrive On Green	0.08	0.17	0.17	0.07	0.15	0.15	0.05	0.40	0.40	0.01	0.35	0.35
Sat Flow, veh/h	1781	1988	1406	1767	3519	85	1922	1569	380	1795	1548	285
Grp Volume(v), veh/h	129	165	160	98	83	87	71	0	308	5	0	560
Grp Sat Flow(s),veh/h/ln	1781	1777	1617	1767	1763	1840	1922	0	1948	1795	0	1833
Q Serve(g_s), s	4.0	5.7	6.1	3.1	2.8	2.8	1.5	0.0	7.5	0.1	0.0	19.0
Cycle Q Clear(g_c), s	4.0	5.7	6.1	3.1	2.8	2.8	1.5	0.0	7.5	0.1	0.0	19.0
Prop In Lane	1.00		0.87	1.00		0.05	1.00		0.19	1.00		0.16
Lane Grp Cap(c), veh/h	388	299	272	304	264	275	275	0	780	430	0	645
V/C Ratio(X)	0.33	0.55	0.59	0.32	0.31	0.32	0.26	0.00	0.39	0.01	0.00	0.87
Avail Cap(c_a), veh/h	638	1064	968	585	1055	1102	601	0	875	821	0	823
HCM Platoon Ratio	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(l)	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	21.2	25.5	25.6	22.0	25.3	25.4	15.1	0.0	14.3	13.9	0.0	20.2
Incr Delay (d2), s/veh	0.5	1.6	2.0	0.6	0.7	0.7	0.5	0.0	0.3	0.0	0.0	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.4	2.3	1.2	1.2	1.2	0.6	0.0	3.1	0.0	0.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	27.1	27.6	22.6	26.0	26.0	15.6	0.0	14.6	13.9	0.0	28.2
LnGrp LOS	C	C	C	C	C	C	B	A	B	B	A	C
Approach Vol, veh/h		454			268			379				565
Approach Delay, s/veh		25.7			24.8			14.8				28.1
Approach LOS		C			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	16.0	6.4	32.7	10.4	17.3	9.7	29.5				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	6.0	4.8	2.1	9.5	5.1	8.1	3.5	21.0				
Green Ext Time (p_c), s	0.2	0.9	0.0	1.8	0.1	2.0	0.1	2.5				
Intersection Summary												
HCM 6th Ctrl Delay			23.9									
HCM 6th LOS			C									

Lanes, Volumes, Timings
14: S Meridian (SR161) & 43rd Ave SE

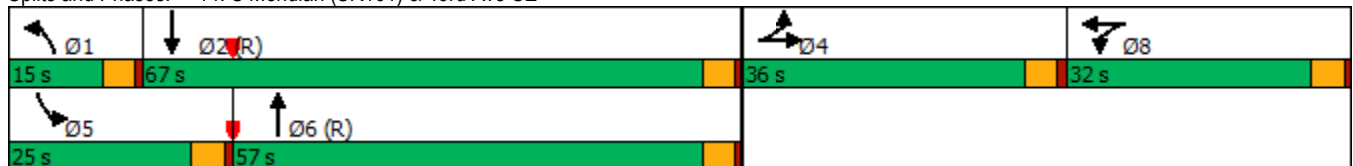
01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	122	56	215	125	80	57	993	91	150	1184	44
Future Volume (vph)	104	122	56	215	125	80	57	993	91	150	1184	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		-4%			6%			0%			0%	
Storage Length (ft)	150		0	275		0	250		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		332			544			617			1348	
Travel Time (s)		9.1			10.6			12.0			26.3	
Confl. Peds. (#/hr)			2	2					6			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	5%	5%	5%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		1	6		5	2	
Permitted Phases												
Detector Phase	4	4		8	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	33.6	33.6		30.6	30.6		10.6	32.6		10.6	28.6	
Total Split (s)	36.0	36.0		32.0	32.0		15.0	57.0		25.0	67.0	
Total Split (%)	24.0%	24.0%		21.3%	21.3%		10.0%	38.0%		16.7%	44.7%	
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6		4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 90 (60%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated

Splits and Phases: 14: S Meridian (SR161) & 43rd Ave SE



HCM 6th Signalized Intersection Summary
 14: S Meridian (SR161) & 43rd Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	122	56	215	125	80	57	993	91	150	1184	44
Future Volume (veh/h)	104	122	56	215	125	80	57	993	91	150	1184	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1935	1935	1935	1571	1571	1571	1730	1730	1730	1786	1786	1786
Adj Flow Rate, veh/h	107	126	58	222	129	82	59	1024	94	155	1221	45
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	2	2	2	5	5	5	1	1	1
Cap, veh/h	224	152	70	244	146	93	74	1490	137	175	1828	67
Arrive On Green	0.12	0.12	0.12	0.16	0.16	0.16	0.04	0.49	0.49	0.21	1.00	1.00
Sat Flow, veh/h	1843	1252	576	1496	896	570	1647	3042	279	1701	3338	123
Grp Volume(v), veh/h	107	0	184	222	0	211	59	553	565	155	620	646
Grp Sat Flow(s),veh/h/ln	1843	0	1828	1496	0	1466	1647	1643	1678	1701	1697	1764
Q Serve(g_s), s	8.1	0.0	14.8	21.9	0.0	21.1	5.3	38.8	38.9	13.3	0.0	0.0
Cycle Q Clear(g_c), s	8.1	0.0	14.8	21.9	0.0	21.1	5.3	38.8	38.9	13.3	0.0	0.0
Prop In Lane	1.00		0.32	1.00		0.39	1.00		0.17	1.00		0.07
Lane Grp Cap(c), veh/h	224	0	222	244	0	239	74	805	821	175	929	966
V/C Ratio(X)	0.48	0.00	0.83	0.91	0.00	0.88	0.80	0.69	0.69	0.89	0.67	0.67
Avail Cap(c_a), veh/h	386	0	383	273	0	268	114	805	821	231	929	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	61.4	0.0	64.4	61.6	0.0	61.3	71.0	29.4	29.4	58.7	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	6.3	29.4	0.0	24.8	14.7	4.8	4.7	17.6	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	7.3	10.3	0.0	9.5	2.5	16.2	16.5	6.0	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.7	0.0	70.6	91.1	0.0	86.1	85.7	34.2	34.1	76.3	2.3	2.3
LnGrp LOS	E	A	E	F	A	F	F	C	C	E	A	A
Approach Vol, veh/h		291			433			1177			1421	
Approach Delay, s/veh		67.7			88.6			36.7			10.4	
Approach LOS		E			F			D			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.3	86.8		22.8	20.0	78.1		29.1				
Change Period (Y+Rc), s	4.6	4.6		4.6	4.6	4.6		4.6				
Max Green Setting (Gmax), s	10.4	62.4		31.4	20.4	52.4		27.4				
Max Q Clear Time (g_c+I1), s	7.3	2.0		16.8	15.3	40.9		23.9				
Green Ext Time (p_c), s	0.0	10.4		1.0	0.2	5.2		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				34.9								
HCM 6th LOS				C								

2032 Without Project AM Peak Hour

Lanes, Volumes, Timings
 1: 7th St SE & College Way

01/27/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	18	219	19	58	252
Future Volume (vph)	6	18	219	19	58	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-4%			0%
Storage Length (ft)	0	0		0	50	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Link Speed (mph)	25		25			25
Link Distance (ft)	771		286			501
Travel Time (s)	21.0		7.8			13.7
Confl. Peds. (#/hr)	1					
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	6	18	219	19	58	252
Future Vol, veh/h	6	18	219	19	58	252
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-4	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	7	20	241	21	64	277

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	658	252	0	0	262	0
Stage 1	252	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	432	792	-	-	1296	-
Stage 1	795	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	410	792	-	-	1296	-
Mov Cap-2 Maneuver	507	-	-	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	694	1296	-
HCM Lane V/C Ratio	-	-	0.038	0.049	-
HCM Control Delay (s)	-	-	10.4	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Lanes, Volumes, Timings
2: 31st Ave SW/S Meridian (SR161)

01/27/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	376	916	1389	829	201	250
Future Volume (vph)	376	916	1389	829	201	250
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Storage Length (ft)	250			0	0	175
Storage Lanes	2			1	2	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		370	339		787	
Travel Time (s)		7.2	6.6		15.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	7%	7%	3%	3%	2%	2%
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Detector Phase	5		6	6	4	4
Switch Phase						
Minimum Initial (s)	8.0		10.0	10.0	8.0	8.0
Minimum Split (s)	12.6		20.6	20.6	12.6	12.6
Total Split (s)	15.0		99.0	99.0	26.0	26.0
Total Split (%)	10.7%		70.7%	70.7%	18.6%	18.6%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6		4.6	4.6	4.6	4.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Min		C-Min	C-Min	None	None

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 41 (29%), Referenced to phase 6:WBT, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 ! Phase conflict between lane groups.

Splits and Phases: 2: 31st Ave SW/S Meridian (SR161)



HCM Signalized Intersection Capacity Analysis
2: 31st Ave SW/S Meridian (SR161)

01/27/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	376	916	1389	829	201	250
Future Volume (vph)	376	916	1389	829	201	250
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Total Lost time (s)	4.6	4.0	4.6	4.6	4.6	4.6
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	1.00
Fr _t	1.00	1.00	1.00	0.85	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3038	3132	3387	1515	3252	1500
Fl _t Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3038	3132	3387	1515	3252	1500
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	376	916	1389	829	201	250
RTOR Reduction (vph)	0	0	0	327	0	152
Lane Group Flow (vph)	376	916	1389	502	201	98
Heavy Vehicles (%)	7%	7%	3%	3%	2%	2%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Actuated Green, G (s)	33.3	140.0	77.7	77.7	15.2	15.2
Effective Green, g (s)	33.3	140.0	77.7	77.7	15.2	15.2
Actuated g/C Ratio	0.24	1.00	0.56	0.56	0.11	0.11
Clearance Time (s)	4.6		4.6	4.6	4.6	4.6
Vehicle Extension (s)	2.5		2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	722	3132	1879	840	353	162
v/s Ratio Prot	c0.12	0.29	c0.41		0.06	
v/s Ratio Perm				0.33		c0.07
v/c Ratio	0.52	0.29	0.74	0.60	0.57	0.60
Uniform Delay, d1	46.4	0.0	23.5	20.7	59.3	59.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.2	2.7	3.1	1.7	5.2
Delay (s)	46.9	0.2	26.2	23.9	61.0	64.7
Level of Service	D	A	C	C	E	E
Approach Delay (s)		13.8	25.3		63.1	
Approach LOS		B	C		E	
Intersection Summary						
HCM 2000 Control Delay			25.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.66			
Actuated Cycle Length (s)			140.0		Sum of lost time (s)	13.8
Intersection Capacity Utilization			73.2%		ICU Level of Service	D
Analysis Period (min)			15			
! Phase conflict between lane groups.						
c Critical Lane Group						

Lanes, Volumes, Timings
 3: S Meridian (SR161) & 37th Ave SE

01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	24	29	60	32	415	17	1745	38	303	742	29
Future Volume (vph)	26	24	29	60	32	415	17	1745	38	303	742	29
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (ft)	0		0	250		0	225		0	350		0
Storage Lanes	1		1	1		1	1		0	2		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		242			1349			645			449	
Travel Time (s)		6.6			26.3			12.6			8.7	
Confl. Peds. (#/hr)						1						1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	8%	8%	8%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Free	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8			Free						
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	8.6	10.6	10.6	10.6	35.6		10.6	28.6		10.6	31.6	
Total Split (s)	15.0	25.0	25.0	27.0	37.0		15.0	68.0		20.0	73.0	
Total Split (%)	10.7%	17.9%	17.9%	19.3%	26.4%		10.7%	48.6%		14.3%	52.1%	
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	

Intersection Summary

Area Type: Other

Cycle Length: 140

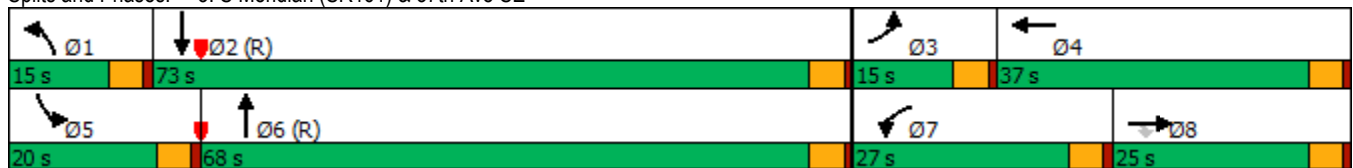
Actuated Cycle Length: 140

Offset: 44 (31%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 3: S Meridian (SR161) & 37th Ave SE



HCM 6th Signalized Intersection Summary
 3: S Meridian (SR161) & 37th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	24	29	60	32	415	17	1745	38	303	742	29
Future Volume (veh/h)	26	24	29	60	32	415	17	1745	38	303	742	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1758	1758	1758	1772	1772	1772	1758	1758	1758	1688	1688	1688
Adj Flow Rate, veh/h	26	24	29	60	32	0	17	1745	38	303	742	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	8	8	8
Cap, veh/h	32	125	56	76	113		35	2259	49	343	3525	
Arrive On Green	0.02	0.04	0.04	0.05	0.06	0.00	0.04	1.00	1.00	0.11	0.77	0.00
Sat Flow, veh/h	1674	3340	1490	1688	1772	1502	1674	3342	73	3118	4759	0
Grp Volume(v), veh/h	26	24	29	60	32	0	17	870	913	303	742	0
Grp Sat Flow(s),veh/h/ln	1674	1670	1490	1688	1772	1502	1674	1670	1745	1559	1536	0
Q Serve(g_s), s	2.2	1.0	2.7	4.9	2.4	0.0	1.4	0.0	0.0	13.4	6.3	0.0
Cycle Q Clear(g_c), s	2.2	1.0	2.7	4.9	2.4	0.0	1.4	0.0	0.0	13.4	6.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	32	125	56	76	113		35	1129	1179	343	3525	
V/C Ratio(X)	0.82	0.19	0.52	0.79	0.28		0.49	0.77	0.77	0.88	0.21	
Avail Cap(c_a), veh/h	124	487	217	270	410		124	1129	1179	343	3525	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.90	0.90	0.00	0.49	0.49	0.49	1.00	1.00	0.00
Uniform Delay (d), s/veh	68.4	65.3	66.1	66.2	62.5	0.0	66.4	0.0	0.0	61.4	4.6	0.0
Incr Delay (d2), s/veh	43.2	0.7	7.3	14.6	1.3	0.0	5.2	2.6	2.5	22.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.4	1.1	2.4	1.1	0.0	0.6	0.8	0.8	6.4	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.7	66.1	73.5	80.7	63.8	0.0	71.5	2.6	2.5	84.1	4.7	0.0
LnGrp LOS	F	E	E	F	E		E	A	A	F	A	
Approach Vol, veh/h		79			92	A		1800			1045	A
Approach Delay, s/veh		83.8			74.9			3.2			27.7	
Approach LOS		F			E			A			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	111.7	7.3	13.5	20.0	99.2	10.9	9.8				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	10.4	68.4	10.4	32.4	15.4	63.4	22.4	20.4				
Max Q Clear Time (g_c+I1), s	3.4	8.3	4.2	4.4	15.4	2.0	6.9	4.7				
Green Ext Time (p_c), s	0.0	7.4	0.0	0.1	0.0	29.8	0.1	0.1				

Intersection Summary												
HCM 6th Ctrl Delay			16.0									
HCM 6th LOS			B									

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
4: 5th St SE & 37th Ave SE

01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	309	29	14	344	158	82	220	13	132	186	54
Future Volume (vph)	38	309	29	14	344	158	82	220	13	132	186	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-3%			0%			-5%	
Storage Length (ft)	200		0	225		150	200		0	250		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				25
Link Distance (ft)		1349			1181			965				418
Travel Time (s)		26.3			23.0			21.9				11.4
Confl. Peds. (#/hr)	1					1			4			4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	2%	2%	2%	4%	4%	4%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2		2	4			8		
Detector Phase	1	6		5	2	2	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0	26.0	11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0	46.0	21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%	37.1%	16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	

Intersection Summary

Area Type: Other

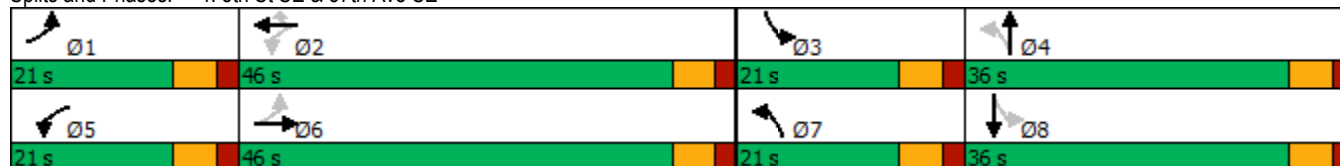
Cycle Length: 124

Actuated Cycle Length: 65.7

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 4: 5th St SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
4: 5th St SE & 37th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	309	29	14	344	158	82	220	13	132	186	54
Future Volume (veh/h)	38	309	29	14	344	158	82	220	13	132	186	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1973	1973	1973	1870	1870	1870	2037	2037	2037
Adj Flow Rate, veh/h	43	347	33	16	387	0	92	247	0	148	209	61
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	4	4	4
Cap, veh/h	320	715	68	311	737		374	381		415	337	98
Arrive On Green	0.04	0.22	0.22	0.02	0.20	0.00	0.07	0.20	0.00	0.09	0.22	0.22
Sat Flow, veh/h	1753	3228	305	1879	3749	1672	1781	1870	0	1940	1513	442
Grp Volume(v), veh/h	43	187	193	16	387	0	92	247	0	148	0	270
Grp Sat Flow(s),veh/h/ln	1753	1749	1785	1879	1874	1672	1781	1870	0	1940	0	1954
Q Serve(g_s), s	1.0	4.8	4.9	0.3	4.8	0.0	2.0	6.3	0.0	3.0	0.0	6.4
Cycle Q Clear(g_c), s	1.0	4.8	4.9	0.3	4.8	0.0	2.0	6.3	0.0	3.0	0.0	6.4
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.00	1.00		0.23
Lane Grp Cap(c), veh/h	320	387	395	311	737		374	381		415	0	435
V/C Ratio(X)	0.13	0.48	0.49	0.05	0.53		0.25	0.65		0.36	0.00	0.62
Avail Cap(c_a), veh/h	751	1356	1384	820	2906		766	1088		805	0	1136
HCM Platoon Ratio	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(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.5	17.5	17.5	16.1	18.6	0.0	14.6	18.8	0.0	14.4	0.0	18.1
Incr Delay (d2), s/veh	0.2	0.9	0.9	0.1	0.6	0.0	0.3	1.9	0.0	0.5	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	1.8	0.1	1.9	0.0	0.8	2.6	0.0	1.2	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	18.4	18.5	16.2	19.1	0.0	15.0	20.7	0.0	14.9	0.0	19.5
LnGrp LOS	B	B	B	B	B		B	C		B	A	B
Approach Vol, veh/h		423			403	A		339	A		418	
Approach Delay, s/veh		18.2			19.0			19.1			17.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	16.1	10.6	16.5	7.0	17.4	9.7	17.5				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	3.0	6.8	5.0	8.3	2.3	6.9	4.0	8.4				
Green Ext Time (p_c), s	0.0	2.6	0.3	1.4	0.0	2.3	0.1	1.7				

Intersection Summary

HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: 39th Ave SE & 37th Ave SE

01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	403	1	177	591	1	0	8	298	5	4	8
Future Volume (vph)	9	403	1	177	591	1	0	8	298	5	4	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		6%			-5%			3%			0%	
Storage Length (ft)	225		0	200		0	200		0	0		150
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35				25
Link Distance (ft)		1181			510			1162				264
Travel Time (s)		23.0			9.9			22.6				7.2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	14%	14%	14%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt		NA
Protected Phases	7	4		3	8		5	2	3	1		6
Permitted Phases	4			8			2		2	6		
Detector Phase	7	4		3	8		5	2	3	1		6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	5.0	5.0		10.0
Minimum Split (s)	12.0	30.0		12.0	30.0		11.0	16.0	12.0	11.0		34.0
Total Split (s)	23.0	42.0		23.0	42.0		22.0	22.0	23.0	22.0		22.0
Total Split (%)	21.1%	38.5%		21.1%	38.5%		20.2%	20.2%	21.1%	20.2%		20.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0	3.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0	7.0	6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		Yes
Recall Mode	None	Min		None	Min		None	None	None	None		None

Intersection Summary

Area Type: Other

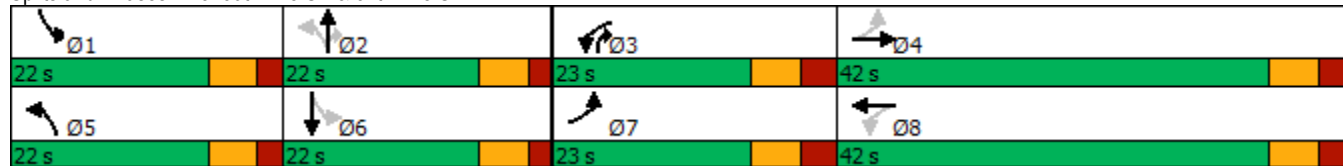
Cycle Length: 109

Actuated Cycle Length: 41.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 5: 39th Ave SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
 5: 39th Ave SE & 37th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕↗		↖	↕↗		↖	↕	↗	↖	↕↗	
Traffic Volume (veh/h)	9	403	1	177	591	1	0	8	298	5	4	8
Future Volume (veh/h)	9	403	1	177	591	1	0	8	298	5	4	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1629	1629	1629	2052	2052	2052	1803	1803	1803	1693	1693	1693
Adj Flow Rate, veh/h	10	443	1	195	649	1	0	9	327	5	4	9
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	3	3	3	3	3	3	14	14	14
Cap, veh/h	276	756	2	445	1325	2	420	399	500	334	151	340
Arrive On Green	0.01	0.24	0.24	0.11	0.33	0.33	0.00	0.22	0.22	0.01	0.33	0.33
Sat Flow, veh/h	1551	3167	7	1954	3993	6	1717	1803	1528	1612	463	1042
Grp Volume(v), veh/h	10	216	228	195	317	333	0	9	327	5	0	13
Grp Sat Flow(s),veh/h/ln	1551	1547	1627	1954	1949	2051	1717	1803	1528	1612	0	1505
Q Serve(g_s), s	0.3	7.5	7.5	4.3	7.9	7.9	0.0	0.2	11.1	0.1	0.0	0.4
Cycle Q Clear(g_c), s	0.3	7.5	7.5	4.3	7.9	7.9	0.0	0.2	11.1	0.1	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	276	369	388	445	647	680	420	399	500	334	0	491
V/C Ratio(X)	0.04	0.59	0.59	0.44	0.49	0.49	0.00	0.02	0.65	0.01	0.00	0.03
Avail Cap(c_a), veh/h	664	890	937	751	1122	1180	869	474	564	748	0	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	20.5	20.5	14.7	16.2	16.2	0.0	18.5	17.5	16.7	0.0	13.9
Incr Delay (d2), s/veh	0.1	3.1	3.0	0.7	1.2	1.2	0.0	0.0	2.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.8	2.9	1.8	3.3	3.5	0.0	0.1	3.7	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	23.6	23.5	15.4	17.4	17.4	0.0	18.6	19.8	16.7	0.0	13.9
LnGrp LOS	B	C	C	B	B	B	A	B	B	B	A	B
Approach Vol, veh/h		454			845			336				18
Approach Delay, s/veh		23.4			16.9			19.8				14.7
Approach LOS		C			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	19.5	13.4	21.5	0.0	25.9	7.8	27.2				
Change Period (Y+Rc), s	6.0	6.0	7.0	7.0	6.0	6.0	7.0	7.0				
Max Green Setting (Gmax), s	16.0	16.0	16.0	35.0	16.0	16.0	16.0	35.0				
Max Q Clear Time (g_c+I1), s	2.1	13.1	6.3	9.5	0.0	2.4	2.3	9.9				
Green Ext Time (p_c), s	0.0	0.3	0.4	5.0	0.0	0.0	0.0	7.7				

Intersection Summary

HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

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

Lanes, Volumes, Timings
6: 10th St SE & 39th Ave SE

01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	540	52	79	648	14	100	24	104	1	1	15
Future Volume (vph)	107	540	52	79	648	14	100	24	104	1	1	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-5%			-6%			-4%	
Storage Length (ft)	150		0	200		0	100		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				25
Link Distance (ft)		510			1994			256				231
Travel Time (s)		9.9			38.8			5.8				6.3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	13%	13%	13%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.3	30.3		11.3	30.3		10.5	25.5		10.5	25.5	
Total Split (s)	21.3	51.3		21.3	51.3		21.3	21.3		21.3	21.3	
Total Split (%)	18.5%	44.5%		18.5%	44.5%		18.5%	18.5%		18.5%	18.5%	
Yellow Time (s)	4.3	4.3		4.3	4.3		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

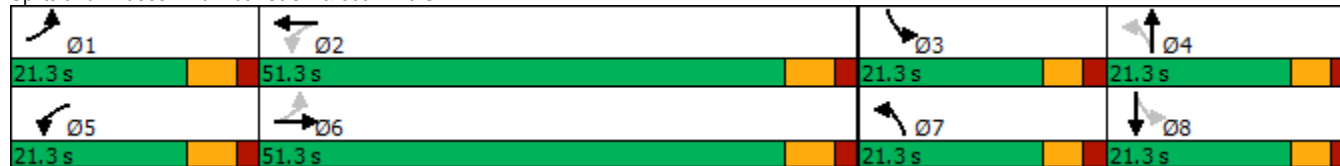
Cycle Length: 115.2

Actuated Cycle Length: 57.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 6: 10th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
6: 10th St SE & 39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	540	52	79	648	14	100	24	104	1	1	15
Future Volume (veh/h)	107	540	52	79	648	14	100	24	104	1	1	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1841	1841	1841	2037	2037	2037	2091	2091	2091	1862	1862	1862
Adj Flow Rate, veh/h	118	593	57	87	712	15	110	26	114	1	1	16
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	13	13	13
Cap, veh/h	392	1076	103	421	1256	26	400	53	235	242	8	126
Arrive On Green	0.08	0.33	0.33	0.07	0.32	0.32	0.08	0.16	0.16	0.00	0.08	0.08
Sat Flow, veh/h	1753	3224	309	1940	3875	82	1991	339	1485	1774	94	1499
Grp Volume(v), veh/h	118	321	329	87	355	372	110	0	140	1	0	17
Grp Sat Flow(s),veh/h/ln	1753	1749	1785	1940	1935	2022	1991	0	1824	1774	0	1592
Q Serve(g_s), s	2.3	8.1	8.1	1.5	8.2	8.2	2.6	0.0	3.8	0.0	0.0	0.5
Cycle Q Clear(g_c), s	2.3	8.1	8.1	1.5	8.2	8.2	2.6	0.0	3.8	0.0	0.0	0.5
Prop In Lane	1.00		0.17	1.00		0.04	1.00		0.81	1.00		0.94
Lane Grp Cap(c), veh/h	392	583	596	421	627	655	400	0	288	242	0	134
V/C Ratio(X)	0.30	0.55	0.55	0.21	0.57	0.57	0.28	0.00	0.49	0.00	0.00	0.13
Avail Cap(c_a), veh/h	747	1465	1496	832	1621	1694	836	0	536	761	0	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	11.1	14.6	14.6	11.0	15.0	15.0	19.7	0.0	20.6	22.5	0.0	22.8
Incr Delay (d2), s/veh	0.4	1.2	1.1	0.2	1.1	1.1	0.4	0.0	1.3	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.9	2.9	0.6	3.2	3.4	1.1	0.0	1.6	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	15.8	15.8	11.2	16.2	16.1	20.1	0.0	21.9	22.5	0.0	23.2
LnGrp LOS	B	B	B	B	B	B	C	A	C	C	A	C
Approach Vol, veh/h		768			814			250				18
Approach Delay, s/veh		15.1			15.6			21.1				23.1
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	23.7	5.6	14.0	9.9	24.2	9.5	10.0				
Change Period (Y+Rc), s	6.3	6.3	5.5	5.5	6.3	6.3	5.5	5.5				
Max Green Setting (Gmax), s	15.0	45.0	15.8	15.8	15.0	45.0	15.8	15.8				
Max Q Clear Time (g_c+I1), s	4.3	10.2	2.0	5.8	3.5	10.1	4.6	2.5				
Green Ext Time (p_c), s	0.2	7.2	0.0	0.5	0.1	6.3	0.2	0.0				

Intersection Summary

HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

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

Lanes, Volumes, Timings
7: 39th Ave SE & College Way

01/27/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	195	376	684	116	34	58
Future Volume (vph)	195	376	684	116	34	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		0%	-5%		0%	
Storage Length (ft)	175			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		25	
Link Distance (ft)		1994	773		209	
Travel Time (s)		38.8	15.1		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	6%	6%	3%	3%	40%	40%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	11.3	16.3	35.3		34.5	34.5
Total Split (s)	31.3	46.3	46.3		50.5	50.5
Total Split (%)	24.4%	36.1%	36.1%		39.4%	39.4%
Yellow Time (s)	4.0	4.0	4.0		3.5	3.5
All-Red Time (s)	2.3	2.3	2.3		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3		5.5	5.5
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Min	Min		None	None

Intersection Summary

Area Type: Other

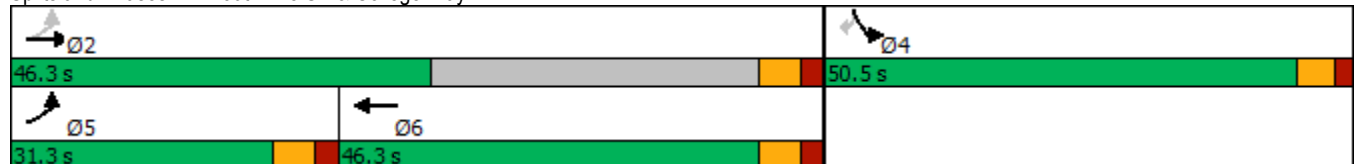
Cycle Length: 128.1

Actuated Cycle Length: 60.8

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Splits and Phases: 7: 39th Ave SE & College Way



HCM 6th Signalized Intersection Summary
7: 39th Ave SE & College Way

01/27/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	195	376	684	116	34	58
Future Volume (veh/h)	195	376	684	116	34	58
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00			1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1811	1811	2052	2052	1307	1307
Adj Flow Rate, veh/h	205	396	720	122	36	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	3	3	40	40
Cap, veh/h	491	2175	1220	207	101	90
Arrive On Green	0.11	0.63	0.37	0.37	0.08	0.08
Sat Flow, veh/h	1725	3532	3437	565	1245	1108
Grp Volume(v), veh/h	205	396	421	421	36	61
Grp Sat Flow(s),veh/h/ln	1725	1721	1949	1950	1245	1108
Q Serve(g_s), s	2.6	2.0	7.2	7.2	1.1	2.2
Cycle Q Clear(g_c), s	2.6	2.0	7.2	7.2	1.1	2.2
Prop In Lane	1.00			0.29	1.00	1.00
Lane Grp Cap(c), veh/h	491	2175	713	713	101	90
V/C Ratio(X)	0.42	0.18	0.59	0.59	0.36	0.68
Avail Cap(c_a), veh/h	1343	3342	1893	1894	1360	1211
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.7	3.1	10.6	10.6	17.9	18.4
Incr Delay (d2), s/veh	0.6	0.0	0.8	0.8	2.5	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.3	2.4	2.4	0.4	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.3	3.2	11.3	11.3	20.4	28.6
LnGrp LOS	A	A	B	B	C	C
Approach Vol, veh/h		601	842		97	
Approach Delay, s/veh		4.6	11.3		25.5	
Approach LOS		A	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		32.3		8.9	11.0	21.4
Change Period (Y+Rc), s		* 6.3		5.5	* 6.3	* 6.3
Max Green Setting (Gmax), s		* 40		45.0	* 25	* 40
Max Q Clear Time (g_c+I1), s		4.0		4.2	4.6	9.2
Green Ext Time (p_c), s		2.7		0.4	0.5	5.9
Intersection Summary						
HCM 6th Ctrl Delay			9.6			
HCM 6th LOS			A			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Lanes, Volumes, Timings
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/27/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	240	14	5	456	106	54	34	13	113	18	177
Future Volume (vph)	127	240	14	5	456	106	54	34	13	113	18	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-4%			0%			6%	
Storage Length (ft)	125		0	125		0	50		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		384			416			287			528	
Travel Time (s)		7.5			8.1			7.8			14.4	
Confl. Peds. (#/hr)									2	2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	2%	2%	2%	5%	5%	5%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%	34.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 52

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

Ø1	Ø2	Ø3	Ø4
11 s	24 s	11 s	24 s
Ø5	Ø6	Ø7	Ø8
11 s	24 s	11 s	24 s

HCM 6th Signalized Intersection Summary
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	240	14	5	456	106	54	34	13	113	18	177
Future Volume (veh/h)	127	240	14	5	456	106	54	34	13	113	18	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	2027	2027	2027	1870	1870	1870	1614	1614	1614
Adj Flow Rate, veh/h	140	264	15	5	501	116	59	37	14	124	20	195
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	6	2	2	2	2	2	2	5	5	5
Cap, veh/h	332	1002	57	408	697	161	301	233	88	441	27	267
Arrive On Green	0.09	0.30	0.30	0.01	0.22	0.22	0.05	0.18	0.18	0.09	0.21	0.21
Sat Flow, veh/h	1725	3311	187	1931	3108	716	1781	1292	489	1537	129	1255
Grp Volume(v), veh/h	140	137	142	5	309	308	59	0	51	124	0	215
Grp Sat Flow(s),veh/h/ln	1725	1721	1777	1931	1926	1898	1781	0	1780	1537	0	1384
Q Serve(g_s), s	3.4	3.4	3.4	0.1	8.4	8.5	1.5	0.0	1.4	3.6	0.0	8.2
Cycle Q Clear(g_c), s	3.4	3.4	3.4	0.1	8.4	8.5	1.5	0.0	1.4	3.6	0.0	8.2
Prop In Lane	1.00		0.11	1.00		0.38	1.00		0.27	1.00		0.91
Lane Grp Cap(c), veh/h	332	521	538	408	432	426	301	0	321	441	0	294
V/C Ratio(X)	0.42	0.26	0.26	0.01	0.72	0.72	0.20	0.00	0.16	0.28	0.00	0.73
Avail Cap(c_a), veh/h	338	548	566	566	613	605	364	0	567	445	0	441
HCM Platoon Ratio	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(l)	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	14.9	14.9	16.8	20.3	20.3	17.5	0.0	19.5	16.6	0.0	20.7
Incr Delay (d2), s/veh	0.9	0.3	0.3	0.0	2.3	2.5	0.3	0.0	0.2	0.3	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.2	1.3	0.0	3.6	3.6	0.6	0.0	0.6	1.2	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	15.2	15.2	16.8	22.6	22.8	17.8	0.0	19.8	16.9	0.0	24.2
LnGrp LOS	B	B	B	B	C	C	B	A	B	B	A	C
Approach Vol, veh/h		419			622			110				339
Approach Delay, s/veh		15.5			22.6			18.7				21.6
Approach LOS		B			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	16.2	6.4	23.1	9.0	18.0	10.8	18.7				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.6	3.4	2.1	5.4	3.5	10.2	5.4	10.5				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.2	0.0	0.8	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				20.1								
HCM 6th LOS				C								

Lanes, Volumes, Timings
9: 25th St SE & 39th Ave SE

01/27/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	320	9	7	530	7	25	2	24	2	0	15
Future Volume (vph)	24	320	9	7	530	7	25	2	24	2	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	75		0	100		0	25		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25				25
Link Distance (ft)		365			225			248				136
Travel Time (s)		7.1			4.4			6.8				3.7
Confl. Peds. (#/hr)			1	1			1		1	1		1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	5%	5%	5%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1		6
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1		6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0		10.0
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0		24.0
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0		24.0
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%		34.3%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	Min		None	Min		None	None		None		None

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 36.4

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 9: 25th St SE & 39th Ave SE

11 s	24 s	11 s	24 s
11 s	24 s	11 s	24 s

HCM 6th Signalized Intersection Summary
 9: 25th St SE & 39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	320	9	7	530	7	25	2	24	2	0	15
Future Volume (veh/h)	24	320	9	7	530	7	25	2	24	2	0	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1870	1870	1870	1826	1826	1826	1900	1900	1900
Adj Flow Rate, veh/h	26	340	10	7	564	7	27	2	26	2	0	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	2	2	2	5	5	5	0	0	0
Cap, veh/h	316	922	27	385	892	11	366	15	201	331	0	175
Arrive On Green	0.03	0.27	0.27	0.01	0.25	0.25	0.03	0.14	0.14	0.00	0.00	0.11
Sat Flow, veh/h	1725	3413	100	1781	3594	45	1739	112	1451	1810	0	1608
Grp Volume(v), veh/h	26	171	179	7	279	292	27	0	28	2	0	16
Grp Sat Flow(s),veh/h/ln	1725	1721	1793	1781	1777	1862	1739	0	1563	1810	0	1608
Q Serve(g_s), s	0.5	3.3	3.4	0.1	5.8	5.8	0.6	0.0	0.7	0.0	0.0	0.4
Cycle Q Clear(g_c), s	0.5	3.3	3.4	0.1	5.8	5.8	0.6	0.0	0.7	0.0	0.0	0.4
Prop In Lane	1.00		0.06	1.00		0.02	1.00		0.93	1.00		1.00
Lane Grp Cap(c), veh/h	316	465	484	385	441	462	366	0	216	331	0	175
V/C Ratio(X)	0.08	0.37	0.37	0.02	0.63	0.63	0.07	0.00	0.13	0.01	0.00	0.09
Avail Cap(c_a), veh/h	470	748	779	584	772	809	520	0	679	545	0	699
HCM Platoon Ratio	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(l)	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	11.3	12.2	12.3	11.5	13.9	13.9	15.5	0.0	15.7	16.4	0.0	16.6
Incr Delay (d2), s/veh	0.1	0.5	0.5	0.0	1.5	1.4	0.1	0.0	0.3	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.1	1.1	0.0	2.0	2.1	0.2	0.0	0.2	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	12.7	12.7	11.5	15.4	15.3	15.6	0.0	15.9	16.4	0.0	16.8
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		376			578			55				18
Approach Delay, s/veh		12.6			15.3			15.8				16.8
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	11.7	6.4	17.2	7.3	10.5	7.3	16.3				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.0	2.7	2.1	5.4	2.6	2.4	2.5	7.8				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.5	0.0	0.0	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			14.4									
HCM 6th LOS			B									

Lanes, Volumes, Timings
 10: Shaw Rd E & 39th Ave SE

01/27/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Traffic Volume (vph)	151	0	239	1	0	0	454	852	1	0	329	208
Future Volume (vph)	151	0	239	1	0	0	454	852	1	0	329	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			8%			-4%			6%	
Storage Length (ft)	0		0	0		0	300		0	200		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		322			305			698			574	
Travel Time (s)		6.3			5.9			13.6			11.2	
Confl. Peds. (#/hr)									2	2		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		10.0	10.0		5.0	10.0	10.0
Minimum Split (s)	29.0	29.0	29.0	24.0	24.0		16.3	28.3		11.3	28.3	28.3
Total Split (s)	36.0	36.0	36.0	36.0	36.0		26.3	46.3		21.3	46.3	46.3
Total Split (%)	33.1%	33.1%	33.1%	33.1%	33.1%		24.2%	42.6%		19.6%	42.6%	42.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.3	2.3		2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0		6.3	6.3		6.3	6.3	6.3
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min

Intersection Summary

Area Type: Other

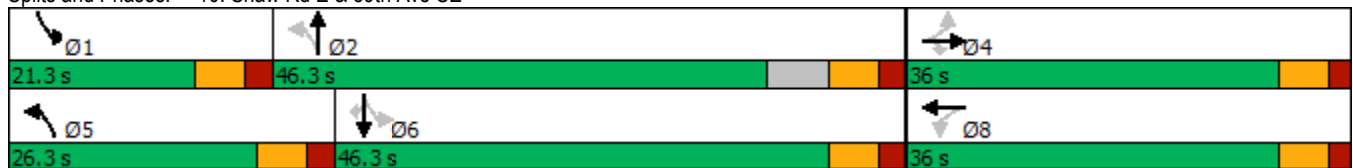
Cycle Length: 108.6

Actuated Cycle Length: 79.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Shaw Rd E & 39th Ave SE



HCM 6th Signalized Intersection Summary
 10: Shaw Rd E & 39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕	↗	↕	↗	↕
Traffic Volume (veh/h)	151	0	239	1	0	0	454	852	1	0	329	208
Future Volume (veh/h)	151	0	239	1	0	0	454	852	1	0	329	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1826	1826	1826	1523	1523	1523	2027	2027	2027	1644	1644	1644
Adj Flow Rate, veh/h	170	0	269	1	0	0	510	957	1	0	370	234
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	5	5	0	0	0	2	2	2	3	3	3
Cap, veh/h	438	0	338	226	0	0	595	1218	1	234	493	417
Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.00	0.21	0.60	0.60	0.00	0.30	0.30
Sat Flow, veh/h	1523	0	1547	553	0	0	1931	2025	2	1565	1644	1390
Grp Volume(v), veh/h	170	0	269	1	0	0	510	0	958	0	370	234
Grp Sat Flow(s),veh/h/ln	1523	0	1547	553	0	0	1931	0	2027	1565	1644	1390
Q Serve(g_s), s	0.0	0.0	11.2	0.1	0.0	0.0	11.3	0.0	24.4	0.0	13.9	9.7
Cycle Q Clear(g_c), s	5.8	0.0	11.2	5.9	0.0	0.0	11.3	0.0	24.4	0.0	13.9	9.7
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	438	0	338	226	0	0	595	0	1220	234	493	417
V/C Ratio(X)	0.39	0.00	0.80	0.00	0.00	0.00	0.86	0.00	0.79	0.00	0.75	0.56
Avail Cap(c_a), veh/h	743	0	679	425	0	0	755	0	1220	575	961	813
HCM Platoon Ratio	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(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	25.3	25.7	0.0	0.0	13.0	0.0	10.3	0.0	21.6	20.1
Incr Delay (d2), s/veh	0.6	0.0	4.3	0.0	0.0	0.0	7.9	0.0	3.7	0.0	3.3	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	4.2	0.0	0.0	0.0	5.2	0.0	9.4	0.0	5.3	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	29.6	25.7	0.0	0.0	20.9	0.0	13.9	0.0	24.9	21.8
LnGrp LOS	C	A	C	C	A	A	C	A	B	A	C	C
Approach Vol, veh/h		439			1			1468			604	
Approach Delay, s/veh		27.3			25.7			16.4			23.7	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	47.5		20.9	20.6	26.8		20.9				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.0	* 6.3	* 6.3		6.0				
Max Green Setting (Gmax), s	* 15	* 40		30.0	* 20	* 40		30.0				
Max Q Clear Time (g_c+I1), s	0.0	26.4		13.2	13.3	15.9		7.9				
Green Ext Time (p_c), s	0.0	7.8		1.7	1.0	4.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Lanes, Volumes, Timings
 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/27/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	14	21	45	49	47	41	1044	8	15	327	51
Future Volume (vph)	158	14	21	45	49	47	41	1044	8	15	327	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-9%			3%			-9%			6%	
Storage Length (ft)	50		0	50		0	100		175	75		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			Yes
Link Speed (mph)		25			25			35				35
Link Distance (ft)		481			429			444				403
Travel Time (s)		13.1			11.7			8.6				7.9
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	4%	4%	4%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	11.0	24.0		11.0	24.0		11.0	64.0	64.0	11.0	64.0	64.0
Total Split (%)	10.0%	21.8%		10.0%	21.8%		10.0%	58.2%	58.2%	10.0%	58.2%	58.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 97

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Splits and Phases: 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

11 s	64 s	11 s	24 s
11 s	64 s	11 s	24 s

HCM 6th Signalized Intersection Summary
 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	14	21	45	49	47	41	1044	8	15	327	51
Future Volume (veh/h)	158	14	21	45	49	47	41	1044	8	15	327	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	2239	2239	2239	1817	1817	1817	2224	2224	2224	1629	1629	1629
Adj Flow Rate, veh/h	163	14	22	46	51	48	42	1076	8	15	337	53
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	4	4	4
Cap, veh/h	287	101	159	295	96	90	634	1213	1027	162	857	726
Arrive On Green	0.06	0.13	0.13	0.04	0.11	0.11	0.04	0.55	0.55	0.02	0.53	0.53
Sat Flow, veh/h	2132	784	1233	1731	861	810	2118	2224	1883	1551	1629	1379
Grp Volume(v), veh/h	163	0	36	46	0	99	42	1076	8	15	337	53
Grp Sat Flow(s),veh/h/ln	2132	0	2017	1731	0	1671	2118	2224	1883	1551	1629	1379
Q Serve(g_s), s	5.0	0.0	1.4	2.1	0.0	5.0	0.8	37.9	0.2	0.4	11.0	1.7
Cycle Q Clear(g_c), s	5.0	0.0	1.4	2.1	0.0	5.0	0.8	37.9	0.2	0.4	11.0	1.7
Prop In Lane	1.00		0.61	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	287	0	261	295	0	186	634	1213	1027	162	857	726
V/C Ratio(X)	0.57	0.00	0.14	0.16	0.00	0.53	0.07	0.89	0.01	0.09	0.39	0.07
Avail Cap(c_a), veh/h	287	0	408	327	0	338	676	1451	1228	222	1062	899
HCM Platoon Ratio	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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	0.0	34.3	33.1	0.0	37.3	9.4	17.8	9.2	17.0	12.6	10.4
Incr Delay (d2), s/veh	2.7	0.0	0.2	0.2	0.0	2.4	0.0	6.2	0.0	0.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.7	0.9	0.0	2.2	0.3	19.0	0.1	0.1	3.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	0.0	34.6	33.3	0.0	39.7	9.4	24.0	9.2	17.2	12.9	10.4
LnGrp LOS	D	A	C	C	A	D	A	C	A	B	B	B
Approach Vol, veh/h		199			145			1126			405	
Approach Delay, s/veh		36.6			37.7			23.4			12.7	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	54.5	9.4	17.5	9.2	52.8	11.0	15.9				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	58.0	5.0	18.0	5.0	58.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.4	39.9	4.1	3.4	2.8	13.0	7.0	7.0				
Green Ext Time (p_c), s	0.0	8.6	0.0	0.1	0.0	2.3	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			23.6									
HCM 6th LOS			C									

Lanes, Volumes, Timings
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

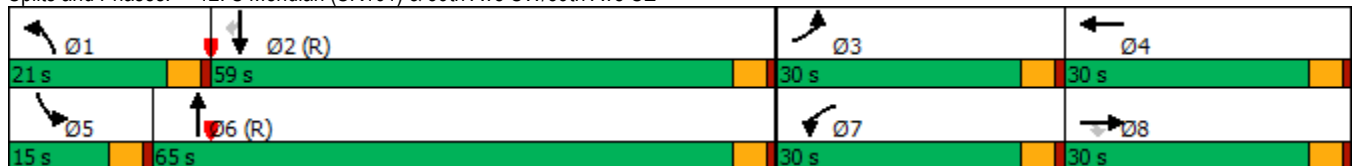
01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	214	249	153	52	160	14	102	1474	71	19	767	126
Future Volume (vph)	214	249	153	52	160	14	102	1474	71	19	767	126
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		0%			0%			3%			0%	
Storage Length (ft)	350		0	225		0	200		0	210		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		571			1339			1348			645	
Travel Time (s)		11.1			26.1			26.3			12.6	
Confl. Peds. (#/hr)									4			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	6%	6%	3%	3%	3%	5%	5%	5%	6%	6%	6%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									2
Detector Phase	3	8	8	7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	5.0	6.0	6.0	6.0	5.0		6.0	10.0		6.0	10.0	10.0
Minimum Split (s)	9.6	27.6	27.6	10.6	16.6		10.6	29.6		10.6	29.6	29.6
Total Split (s)	30.0	30.0	30.0	30.0	30.0		21.0	65.0		15.0	59.0	59.0
Total Split (%)	21.4%	21.4%	21.4%	21.4%	21.4%		15.0%	46.4%		10.7%	42.1%	42.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	C-Min

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 41 (29%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated

Splits and Phases: 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE



HCM 6th Signalized Intersection Summary
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	249	153	52	160	14	102	1474	71	19	767	126
Future Volume (veh/h)	214	249	153	52	160	14	102	1474	71	19	767	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1716	1716	1716	1758	1758	1758	1680	1680	1680	1716	1716	1716
Adj Flow Rate, veh/h	214	249	0	52	160	14	102	1474	71	19	767	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	3	3	3	5	5	5	6	6	6
Cap, veh/h	236	568		66	215	19	121	1960	94	37	1889	
Arrive On Green	0.14	0.17	0.00	0.04	0.07	0.07	0.15	1.00	1.00	0.04	1.00	0.00
Sat Flow, veh/h	1634	3260	1454	1674	3110	269	1600	3099	149	1634	3260	1454
Grp Volume(v), veh/h	214	249	0	52	85	89	102	757	788	19	767	0
Grp Sat Flow(s),veh/h/ln	1634	1630	1454	1674	1670	1709	1600	1596	1652	1634	1630	1454
Q Serve(g_s), s	18.0	9.6	0.0	4.3	7.0	7.1	8.7	0.0	0.0	1.6	0.0	0.0
Cycle Q Clear(g_c), s	18.0	9.6	0.0	4.3	7.0	7.1	8.7	0.0	0.0	1.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	236	568		66	115	118	121	1009	1045	37	1889	
V/C Ratio(X)	0.91	0.44		0.79	0.74	0.75	0.85	0.75	0.75	0.52	0.41	
Avail Cap(c_a), veh/h	296	591		304	303	310	187	1009	1045	121	1889	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	0.00	0.99	0.99	0.99	0.35	0.35	0.35	0.98	0.98	0.00
Uniform Delay (d), s/veh	58.9	51.7	0.0	66.7	63.9	64.0	58.6	0.0	0.0	66.1	0.0	0.0
Incr Delay (d2), s/veh	24.6	0.4	0.0	13.9	5.5	5.7	6.2	1.8	1.8	8.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	3.9	0.0	2.1	3.1	3.3	3.5	0.5	0.5	0.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.6	52.1	0.0	80.6	69.4	69.7	64.8	1.8	1.8	74.2	0.6	0.0
LnGrp LOS	F	D		F	E	E	E	A	A	E	A	
Approach Vol, veh/h		463	A		226			1647			786	A
Approach Delay, s/veh		66.6			72.1			5.7			2.4	
Approach LOS		E			E			A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	85.7	24.8	14.3	7.7	93.1	10.1	29.0				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	16.4	54.4	25.4	25.4	10.4	60.4	25.4	25.4				
Max Q Clear Time (g_c+I1), s	10.7	2.0	20.0	9.1	3.6	2.0	6.3	11.6				
Green Ext Time (p_c), s	0.1	4.9	0.2	0.6	0.0	12.9	0.1	1.0				

Intersection Summary

HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
13: 5th St SE & 39th Ave SE

01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	221	42	61	119	7	60	240	90	2	152	35
Future Volume (vph)	53	221	42	61	119	7	60	240	90	2	152	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			-3%			0%	
Storage Length (ft)	150		0	175		0	225		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1339			1162			552			965	
Travel Time (s)		26.1			22.6			12.5			21.9	
Confl. Peds. (#/hr)									3	3		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0		11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0		21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%		16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

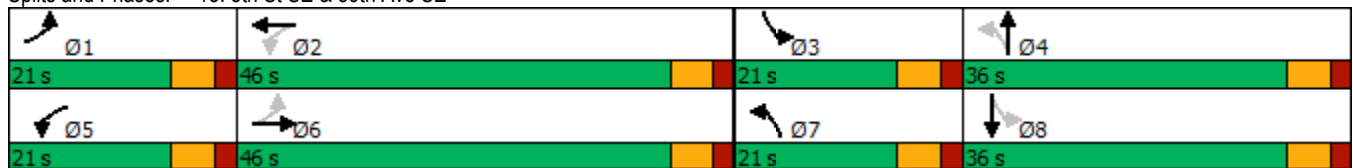
Cycle Length: 124

Actuated Cycle Length: 55.2

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 13: 5th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
 13: 5th St SE & 39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	221	42	61	119	7	60	240	90	2	152	35
Future Volume (veh/h)	53	221	42	61	119	7	60	240	90	2	152	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1856	1856	1856	1826	1826	1826	2003	2003	2003	1885	1885	1885
Adj Flow Rate, veh/h	57	238	45	66	128	8	65	258	97	2	163	38
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	5	5	5	1	1	1	1	1	1
Cap, veh/h	453	589	110	383	676	42	392	364	137	245	304	71
Arrive On Green	0.05	0.20	0.20	0.06	0.20	0.20	0.06	0.26	0.26	0.00	0.21	0.21
Sat Flow, veh/h	1767	2967	552	1739	3318	206	1908	1386	521	1795	1477	344
Grp Volume(v), veh/h	57	140	143	66	66	70	65	0	355	2	0	201
Grp Sat Flow(s),veh/h/ln	1767	1763	1756	1739	1735	1789	1908	0	1907	1795	0	1821
Q Serve(g_s), s	1.3	3.5	3.6	1.5	1.6	1.6	1.3	0.0	8.5	0.0	0.0	5.0
Cycle Q Clear(g_c), s	1.3	3.5	3.6	1.5	1.6	1.6	1.3	0.0	8.5	0.0	0.0	5.0
Prop In Lane	1.00		0.31	1.00		0.12	1.00		0.27	1.00		0.19
Lane Grp Cap(c), veh/h	453	350	349	383	354	365	392	0	501	245	0	375
V/C Ratio(X)	0.13	0.40	0.41	0.17	0.19	0.19	0.17	0.00	0.71	0.01	0.00	0.54
Avail Cap(c_a), veh/h	882	1400	1395	797	1377	1420	847	0	1136	774	0	1085
HCM Platoon Ratio	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(l)	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	14.5	17.6	17.6	14.5	16.6	16.6	14.3	0.0	16.8	16.1	0.0	17.9
Incr Delay (d2), s/veh	0.1	0.7	0.8	0.2	0.3	0.3	0.2	0.0	1.9	0.0	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	0.4	1.3	1.3	0.5	0.6	0.6	0.5	0.0	3.5	0.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.7	18.3	18.4	14.7	16.9	16.9	14.5	0.0	18.7	16.1	0.0	19.0
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		340			202			420				203
Approach Delay, s/veh		17.7			16.2			18.1				19.0
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	16.3	6.1	19.2	9.0	16.0	9.0	16.4				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	3.3	3.6	2.0	10.5	3.5	5.6	3.3	7.0				
Green Ext Time (p_c), s	0.1	0.7	0.0	2.1	0.1	1.7	0.1	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			17.8									
HCM 6th LOS			B									

Lanes, Volumes, Timings
14: S Meridian (SR161) & 43rd Ave SE

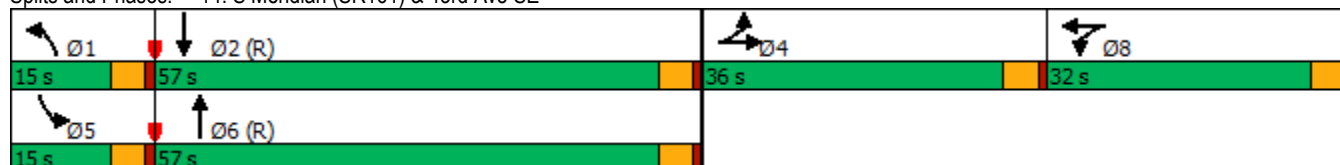
01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	60	5	104	46	71	14	1704	130	72	773	12
Future Volume (vph)	46	60	5	104	46	71	14	1704	130	72	773	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		-4%			6%			0%			0%	
Storage Length (ft)	150		0	275		0	250		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		332			544			617			1348	
Travel Time (s)		9.1			10.6			12.0			26.3	
Confl. Peds. (#/hr)			3	3					3			2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	4%	4%	4%	5%	5%	5%	3%	3%	3%	11%	11%	11%
Shared Lane Traffic (%)												
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		1	6		5	2	
Permitted Phases												
Detector Phase	4	4		8	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	33.6	33.6		30.6	30.6		10.6	32.6		10.6	28.6	
Total Split (s)	36.0	36.0		32.0	32.0		15.0	57.0		15.0	57.0	
Total Split (%)	25.7%	25.7%		22.9%	22.9%		10.7%	40.7%		10.7%	40.7%	
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6		4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated

Splits and Phases: 14: S Meridian (SR161) & 43rd Ave SE



HCM 6th Signalized Intersection Summary
 14: S Meridian (SR161) & 43rd Ave SE

01/27/2022













Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	60	5	104	46	71	14	1704	130	72	773	12
Future Volume (veh/h)	46	60	5	104	46	71	14	1704	130	72	773	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	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	1892	1892	1892	1529	1529	1529	1758	1758	1758	1646	1646	1646
Adj Flow Rate, veh/h	46	60	5	104	46	71	14	1704	130	72	773	12
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	5	5	5	3	3	3	11	11	11
Cap, veh/h	107	102	8	156	58	89	30	2035	154	87	2157	33
Arrive On Green	0.06	0.06	0.06	0.11	0.11	0.11	0.02	0.65	0.65	0.11	1.00	1.00
Sat Flow, veh/h	1802	1720	143	1456	539	832	1674	3147	238	1567	3151	49
Grp Volume(v), veh/h	46	0	65	104	0	117	14	896	938	72	383	402
Grp Sat Flow(s),veh/h/ln	1802	0	1864	1456	0	1371	1674	1670	1714	1567	1563	1637
Q Serve(g_s), s	3.4	0.0	4.8	9.6	0.0	11.7	1.2	57.3	59.8	6.3	0.0	0.0
Cycle Q Clear(g_c), s	3.4	0.0	4.8	9.6	0.0	11.7	1.2	57.3	59.8	6.3	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.61	1.00		0.14	1.00		0.03
Lane Grp Cap(c), veh/h	107	0	110	156	0	146	30	1080	1109	87	1070	1120
V/C Ratio(X)	0.43	0.00	0.59	0.67	0.00	0.80	0.46	0.83	0.85	0.82	0.36	0.36
Avail Cap(c_a), veh/h	404	0	418	285	0	268	124	1080	1109	116	1070	1120
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	63.6	0.0	64.2	60.1	0.0	61.1	68.1	18.9	19.3	61.5	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	3.9	3.9	0.0	7.8	7.4	7.4	8.0	26.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	2.4	3.7	0.0	4.4	0.6	22.8	24.5	3.0	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.8	0.0	68.1	64.1	0.0	68.8	75.5	26.3	27.3	87.7	0.8	0.8
LnGrp LOS	E	A	E	E	A	E	E	C	C	F	A	A
Approach Vol, veh/h		111			221			1848			857	
Approach Delay, s/veh		67.2			66.6			27.2			8.1	
Approach LOS		E			E			C			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	100.4		12.9	12.4	95.1		19.6				
Change Period (Y+Rc), s	4.6	4.6		4.6	4.6	4.6		4.6				
Max Green Setting (Gmax), s	10.4	52.4		31.4	10.4	52.4		27.4				
Max Q Clear Time (g_c+I1), s	3.2	2.0		6.8	8.3	61.8		13.7				
Green Ext Time (p_c), s	0.0	5.1		0.4	0.0	0.0		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				26.1								
HCM 6th LOS				C								

2032 Without Project PM Peak Hour

Lanes, Volumes, Timings
1: 7th St SE & College Way

01/27/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	11	34	402	11	34	491
Future Volume (vph)	11	34	402	11	34	491
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-4%			0%
Storage Length (ft)	0	0		0	50	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Link Speed (mph)	25		25			25
Link Distance (ft)	771		286			501
Travel Time (s)	21.0		7.8			13.7
Confl. Peds. (#/hr)				7	7	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	11	34	402	11	34	491
Future Vol, veh/h	11	34	402	11	34	491
Conflicting Peds, #/hr	0	0	0	7	7	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-4	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	2	2	2	2
Mvmt Flow	12	38	452	12	38	552

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1093	465	0	0	471
Stage 1	465	-	-	-	-
Stage 2	628	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218
Pot Cap-1 Maneuver	239	602	-	-	1091
Stage 1	636	-	-	-	-
Stage 2	536	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	229	598	-	-	1084
Mov Cap-2 Maneuver	362	-	-	-	-
Stage 1	632	-	-	-	-
Stage 2	517	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	516	1084	-
HCM Lane V/C Ratio	-	-	0.098	0.035	-
HCM Control Delay (s)	-	-	12.7	8.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Lanes, Volumes, Timings
 2: 31st Ave SW/S Meridian (SR161)

01/27/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖↖	↕↕	↕↕	↗	↖↖	↗
Traffic Volume (vph)	291	1394	1336	448	655	306
Future Volume (vph)	291	1394	1336	448	655	306
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Storage Length (ft)	250			0	0	175
Storage Lanes	2			1	2	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		370	339		787	
Travel Time (s)		7.2	6.6		15.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	2%	2%	3%	3%	1%	1%
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Detector Phase	5		6	6	4	4
Switch Phase						
Minimum Initial (s)	8.0		10.0	10.0	8.0	8.0
Minimum Split (s)	12.6		20.6	20.6	12.6	12.6
Total Split (s)	21.0		79.0	79.0	50.0	50.0
Total Split (%)	14.0%		52.7%	52.7%	33.3%	33.3%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6		4.6	4.6	4.6	4.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Min		C-Min	C-Min	None	None

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 44 (29%), Referenced to phase 6:WBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 ! Phase conflict between lane groups.

Splits and Phases: 2: 31st Ave SW/S Meridian (SR161)



HCM Signalized Intersection Capacity Analysis
 2: 31st Ave SW/S Meridian (SR161)

01/27/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖↗	↕	↕	↖	↖↗	↖
Traffic Volume (vph)	291	1394	1336	448	655	306
Future Volume (vph)	291	1394	1336	448	655	306
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Total Lost time (s)	4.6	4.0	4.6	4.6	4.6	4.6
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	1.00
Flt	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)	3187	3286	3387	1515	3285	1515
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3187	3286	3387	1515	3285	1515
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	291	1394	1336	448	655	306
RTOR Reduction (vph)	0	0	0	149	0	169
Lane Group Flow (vph)	291	1394	1336	299	655	137
Heavy Vehicles (%)	2%	2%	3%	3%	1%	1%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Actuated Green, G (s)	18.2	150.0	83.0	83.0	35.0	35.0
Effective Green, g (s)	18.2	150.0	83.0	83.0	35.0	35.0
Actuated g/C Ratio	0.12	1.00	0.55	0.55	0.23	0.23
Clearance Time (s)	4.6		4.6	4.6	4.6	4.6
Vehicle Extension (s)	2.5		2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	386	3286	1874	838	766	353
v/s Ratio Prot	c0.09	0.42	c0.39		c0.20	
v/s Ratio Perm				0.20		0.09
v/c Ratio	0.75	0.42	0.71	0.36	0.86	0.39
Uniform Delay, d1	63.7	0.0	24.7	18.6	55.1	48.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.7	0.4	2.3	1.2	9.1	0.5
Delay (s)	71.5	0.4	27.1	19.8	64.2	49.0
Level of Service	E	A	C	B	E	D
Approach Delay (s)		12.7	25.2		59.4	
Approach LOS		B	C		E	
Intersection Summary						
HCM 2000 Control Delay			27.9	HCM 2000 Level of Service		C
HCM 2000 Volume to Capacity ratio			0.75			
Actuated Cycle Length (s)			150.0	Sum of lost time (s)	13.8	
Intersection Capacity Utilization			79.0%	ICU Level of Service	D	
Analysis Period (min)			15			
! Phase conflict between lane groups.						
c Critical Lane Group						

Lanes, Volumes, Timings
3: S Meridian (SR161) & 37th Ave SE

01/27/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	152	113	199	183	423	93	1170	68	406	1467	68
Future Volume (vph)	71	152	113	199	183	423	93	1170	68	406	1467	68
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (ft)	0		0	250		0	225		0	350		0
Storage Lanes	1		1	1		1	1		0	2		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		242			1349			645			449	
Travel Time (s)		6.6			26.3			12.6			8.7	
Confl. Peds. (#/hr)						2			2			1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	4%	4%	4%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Free	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8			Free						
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	8.6	10.6	10.6	10.6	35.6		10.6	28.6		10.6	31.6	
Total Split (s)	15.0	25.0	25.0	27.0	37.0		23.0	72.0		26.0	75.0	
Total Split (%)	10.0%	16.7%	16.7%	18.0%	24.7%		15.3%	48.0%		17.3%	50.0%	
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	

Intersection Summary

Area Type: Other

Cycle Length: 150

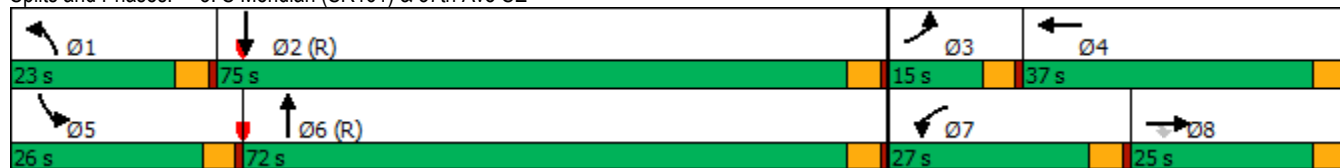
Actuated Cycle Length: 150

Offset: 28 (19%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Splits and Phases: 3: S Meridian (SR161) & 37th Ave SE



HCM 6th Signalized Intersection Summary
 3: S Meridian (SR161) & 37th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↗	↘	↗	↗	↘	↗↗		↘↘	↗↗↗	
Traffic Volume (veh/h)	71	152	113	199	183	423	93	1170	68	406	1467	68
Future Volume (veh/h)	71	152	113	199	183	423	93	1170	68	406	1467	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1786	1786	1786	1786	1786	1786	1744	1744	1744	1772	1772	1772
Adj Flow Rate, veh/h	71	152	113	199	183	0	93	1170	68	406	1467	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	4	4	4	2	2	2
Cap, veh/h	88	311	139	221	302		112	1653	96	448	2848	
Arrive On Green	0.05	0.09	0.09	0.13	0.17	0.00	0.13	1.00	1.00	0.14	0.59	0.00
Sat Flow, veh/h	1701	3393	1514	1701	1786	1514	1661	3182	185	3274	4997	0
Grp Volume(v), veh/h	71	152	113	199	183	0	93	609	629	406	1467	0
Grp Sat Flow(s),veh/h/ln	1701	1697	1514	1701	1786	1514	1661	1657	1710	1637	1612	0
Q Serve(g_s), s	6.2	6.4	11.0	17.3	14.2	0.0	8.2	0.0	0.0	18.3	26.8	0.0
Cycle Q Clear(g_c), s	6.2	6.4	11.0	17.3	14.2	0.0	8.2	0.0	0.0	18.3	26.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	88	311	139	221	302		112	860	888	448	2848	
V/C Ratio(X)	0.80	0.49	0.82	0.90	0.61		0.83	0.71	0.71	0.91	0.52	
Avail Cap(c_a), veh/h	118	461	206	254	386		204	860	888	467	2848	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.72	0.72	0.00	0.50	0.50	0.50	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.3	64.8	66.9	64.3	57.7	0.0	64.1	0.0	0.0	63.8	18.2	0.0
Incr Delay (d2), s/veh	26.3	1.2	14.3	23.4	1.5	0.0	7.9	2.5	2.4	20.8	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	2.9	4.8	8.9	6.6	0.0	3.5	0.6	0.6	8.9	10.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.7	66.0	81.2	87.7	59.2	0.0	72.0	2.5	2.4	84.6	18.9	0.0
LnGrp LOS	F	E	F	F	E		E	A	A	F	B	
Approach Vol, veh/h		336			382	A		1331			1873	A
Approach Delay, s/veh		77.6			74.1			7.3			33.1	
Approach LOS		E			E			A			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	92.9	12.4	30.0	25.1	82.5	24.0	18.3				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	18.4	70.4	10.4	32.4	21.4	67.4	22.4	20.4				
Max Q Clear Time (g_c+I1), s	10.2	28.8	8.2	16.2	20.3	2.0	19.3	13.0				
Green Ext Time (p_c), s	0.1	17.7	0.0	0.9	0.2	14.6	0.2	0.7				

Intersection Summary

HCM 6th Ctrl Delay	32.2
HCM 6th LOS	C

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
4: 5th St SE & 37th Ave SE

01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	388	94	39	542	208	123	293	24	280	466	79
Future Volume (vph)	98	388	94	39	542	208	123	293	24	280	466	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-3%			0%			-5%	
Storage Length (ft)	200		0	225		150	200		0	250		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		1349			1181			965			418	
Travel Time (s)		26.3			23.0			21.9			11.4	
Confl. Peds. (#/hr)	3		1	1		3	1		3	3		1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2		2	4			8		
Detector Phase	1	6		5	2	2	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0	26.0	11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0	46.0	21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%	37.1%	16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	

Intersection Summary

Area Type: Other

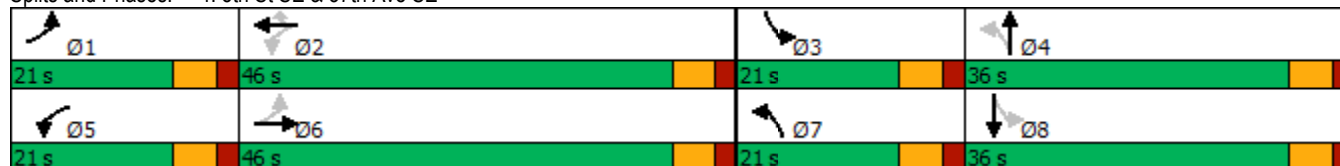
Cycle Length: 124

Actuated Cycle Length: 95.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 4: 5th St SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
4: 5th St SE & 37th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	388	94	39	542	208	123	293	24	280	466	79
Future Volume (veh/h)	98	388	94	39	542	208	123	293	24	280	466	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1900	1900	1900	2003	2003	2003	1885	1885	1885	2082	2082	2082
Adj Flow Rate, veh/h	103	408	99	41	571	0	129	308	0	295	491	83
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	1	1	1
Cap, veh/h	280	706	170	281	836		279	499		507	564	95
Arrive On Green	0.06	0.24	0.24	0.04	0.22	0.00	0.07	0.26	0.00	0.14	0.33	0.33
Sat Flow, veh/h	1810	2883	693	1908	3806	1697	1795	1885	0	1983	1735	293
Grp Volume(v), veh/h	103	254	253	41	571	0	129	308	0	295	0	574
Grp Sat Flow(s),veh/h/ln	1810	1805	1770	1908	1903	1697	1795	1885	0	1983	0	2028
Q Serve(g_s), s	3.3	9.4	9.5	1.2	10.4	0.0	3.9	10.9	0.0	7.8	0.0	20.2
Cycle Q Clear(g_c), s	3.3	9.4	9.5	1.2	10.4	0.0	3.9	10.9	0.0	7.8	0.0	20.2
Prop In Lane	1.00		0.39	1.00		1.00	1.00		0.00	1.00		0.14
Lane Grp Cap(c), veh/h	280	442	433	281	836		279	499		507	0	659
V/C Ratio(X)	0.37	0.57	0.58	0.15	0.68		0.46	0.62		0.58	0.00	0.87
Avail Cap(c_a), veh/h	524	954	936	586	2011		500	747		632	0	804
HCM Platoon Ratio	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(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	25.1	25.2	21.7	27.1	0.0	19.7	24.5	0.0	16.8	0.0	24.0
Incr Delay (d2), s/veh	0.8	1.2	1.3	0.2	1.0	0.0	1.2	1.2	0.0	1.1	0.0	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.9	3.9	0.5	4.6	0.0	1.6	4.8	0.0	3.5	0.0	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	26.3	26.4	21.9	28.1	0.0	20.9	25.7	0.0	17.8	0.0	32.9
LnGrp LOS	C	C	C	C	C		C	C		B	A	C
Approach Vol, veh/h		610			612	A		437	A		869	
Approach Delay, s/veh		25.7			27.7			24.3			27.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	22.6	16.2	26.0	8.9	24.5	11.7	30.6				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	5.3	12.4	9.8	12.9	3.2	11.5	5.9	22.2				
Green Ext Time (p_c), s	0.1	4.0	0.4	1.6	0.0	3.1	0.2	2.4				

Intersection Summary

HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: 39th Ave SE & 37th Ave SE

01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	691	7	305	737	6	1	8	279	5	11	22
Future Volume (vph)	9	691	7	305	737	6	1	8	279	5	11	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		6%			-5%			3%			0%	
Storage Length (ft)	225		0	200		0	200		0	0		150
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			25	
Link Distance (ft)		1181			510			1162			264	
Travel Time (s)		23.0			9.9			22.6			7.2	
Confl. Peds. (#/hr)	1		1	1		1						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases	4			8			2		2	6		
Detector Phase	7	4		3	8		5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	5.0	5.0	10.0	
Minimum Split (s)	12.0	30.0		12.0	30.0		11.0	16.0	12.0	11.0	34.0	
Total Split (s)	23.0	42.0		23.0	42.0		22.0	22.0	23.0	22.0	22.0	
Total Split (%)	21.1%	38.5%		21.1%	38.5%		20.2%	20.2%	21.1%	20.2%	20.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0	3.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0	7.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	Min		None	Min		None	None	None	None	None	

Intersection Summary

Area Type: Other

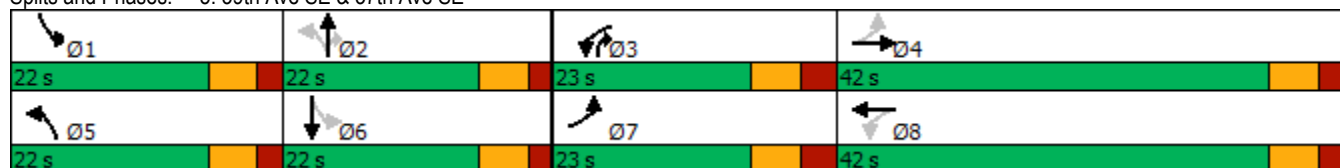
Cycle Length: 109

Actuated Cycle Length: 60.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 5: 39th Ave SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
 5: 39th Ave SE & 37th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	691	7	305	737	6	1	8	279	5	11	22
Future Volume (veh/h)	9	691	7	305	737	6	1	8	279	5	11	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1673	1673	2067	2067	2067	1817	1817	1817	1900	1900	1900
Adj Flow Rate, veh/h	10	735	7	324	784	6	1	9	297	5	12	23
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	0	0	0
Cap, veh/h	306	1047	10	460	1785	14	336	346	501	310	114	218
Arrive On Green	0.01	0.32	0.32	0.13	0.45	0.45	0.00	0.19	0.19	0.01	0.20	0.20
Sat Flow, veh/h	1593	3226	31	1968	3994	31	1731	1817	1540	1810	583	1117
Grp Volume(v), veh/h	10	362	380	324	385	405	1	9	297	5	0	35
Grp Sat Flow(s),veh/h/ln	1593	1589	1668	1968	1963	2061	1731	1817	1540	1810	0	1699
Q Serve(g_s), s	0.3	15.1	15.1	7.7	10.2	10.2	0.0	0.3	12.2	0.2	0.0	1.3
Cycle Q Clear(g_c), s	0.3	15.1	15.1	7.7	10.2	10.2	0.0	0.3	12.2	0.2	0.0	1.3
Prop In Lane	1.00		0.02	1.00		0.01	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	306	516	541	460	877	921	336	346	501	310	0	332
V/C Ratio(X)	0.03	0.70	0.70	0.70	0.44	0.44	0.00	0.03	0.59	0.02	0.00	0.11
Avail Cap(c_a), veh/h	624	736	772	611	909	954	700	384	533	681	0	359
HCM Platoon Ratio	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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	22.3	22.3	15.2	14.4	14.4	24.7	24.9	21.3	24.5	0.0	25.0
Incr Delay (d2), s/veh	0.0	3.7	3.5	2.4	0.7	0.7	0.0	0.0	1.6	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.7	6.0	3.3	4.3	4.5	0.0	0.1	4.3	0.1	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	26.0	25.9	17.6	15.1	15.1	24.7	24.9	22.9	24.5	0.0	25.1
LnGrp LOS	B	C	C	B	B	B	C	C	C	C	A	C
Approach Vol, veh/h		752			1114			307				40
Approach Delay, s/veh		25.8			15.8			23.0				25.0
Approach LOS		C			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	20.4	17.2	31.6	6.1	20.8	7.9	40.8				
Change Period (Y+Rc), s	6.0	6.0	7.0	7.0	6.0	6.0	7.0	7.0				
Max Green Setting (Gmax), s	16.0	16.0	16.0	35.0	16.0	16.0	16.0	35.0				
Max Q Clear Time (g_c+I1), s	2.2	14.2	9.7	17.1	2.0	3.3	2.3	12.2				
Green Ext Time (p_c), s	0.0	0.2	0.5	7.5	0.0	0.1	0.0	9.1				

Intersection Summary

HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Notes

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

Lanes, Volumes, Timings
6: 10th St SE & 39th Ave SE

01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	781	160	163	813	5	99	7	79	16	32	134
Future Volume (vph)	39	781	160	163	813	5	99	7	79	16	32	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-5%			-6%			-4%	
Storage Length (ft)	150		0	200		0	100		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				25
Link Distance (ft)		510			1994			256				231
Travel Time (s)		9.9			38.8			5.8				6.3
Confl. Peds. (#/hr)	1		2	2		1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	5%	5%	5%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.3	30.3		11.3	30.3		10.5	25.5		10.5	25.5	
Total Split (s)	21.3	51.3		21.3	51.3		21.3	21.3		21.3	21.3	
Total Split (%)	18.5%	44.5%		18.5%	44.5%		18.5%	18.5%		18.5%	18.5%	
Yellow Time (s)	4.3	4.3		4.3	4.3		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

Cycle Length: 115.2

Actuated Cycle Length: 88.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 6: 10th St SE & 39th Ave SE

Ø1	Ø2	Ø3	Ø4
21.3 s	51.3 s	21.3 s	21.3 s
Ø5	Ø6	Ø7	Ø8
21.3 s	51.3 s	21.3 s	21.3 s

HCM 6th Signalized Intersection Summary
6: 10th St SE & 39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	781	160	163	813	5	99	7	79	16	32	134
Future Volume (veh/h)	39	781	160	163	813	5	99	7	79	16	32	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	2067	2067	2067	2061	2061	2061	2057	2057	2057
Adj Flow Rate, veh/h	43	868	178	181	903	6	110	8	88	18	36	149
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	1	1	1	2	2	2	5	5	5	0	0	0
Cap, veh/h	344	1207	247	350	1796	12	273	27	292	325	46	192
Arrive On Green	0.04	0.41	0.41	0.08	0.45	0.45	0.07	0.18	0.18	0.02	0.13	0.13
Sat Flow, veh/h	1795	2959	607	1968	3999	27	1963	147	1622	1959	350	1447
Grp Volume(v), veh/h	43	525	521	181	443	466	110	0	96	18	0	185
Grp Sat Flow(s),veh/h/ln	1795	1791	1774	1968	1963	2062	1963	0	1769	1959	0	1797
Q Serve(g_s), s	1.0	18.7	18.7	3.9	12.2	12.2	3.6	0.0	3.6	0.6	0.0	7.6
Cycle Q Clear(g_c), s	1.0	18.7	18.7	3.9	12.2	12.2	3.6	0.0	3.6	0.6	0.0	7.6
Prop In Lane	1.00		0.34	1.00		0.01	1.00		0.92	1.00		0.81
Lane Grp Cap(c), veh/h	344	731	724	350	882	926	273	0	319	325	0	238
V/C Ratio(X)	0.13	0.72	0.72	0.52	0.50	0.50	0.40	0.00	0.30	0.06	0.00	0.78
Avail Cap(c_a), veh/h	628	1061	1051	580	1163	1221	547	0	368	692	0	374
HCM Platoon Ratio	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(l)	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	12.5	18.8	18.8	14.2	14.9	14.9	26.0	0.0	27.0	27.5	0.0	31.9
Incr Delay (d2), s/veh	0.2	1.9	1.9	1.2	0.6	0.6	1.0	0.0	0.5	0.1	0.0	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	7.4	7.3	1.6	5.0	5.3	1.7	0.0	1.5	0.3	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	20.7	20.8	15.4	15.5	15.5	27.0	0.0	27.5	27.6	0.0	37.3
LnGrp LOS	B	C	C	B	B	B	C	A	C	C	A	D
Approach Vol, veh/h		1089			1090			206				203
Approach Delay, s/veh		20.4			15.5			27.2				36.4
Approach LOS		C			B			C				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	40.4	7.1	19.2	12.4	37.3	10.7	15.6				
Change Period (Y+Rc), s	6.3	6.3	5.5	5.5	6.3	6.3	5.5	5.5				
Max Green Setting (Gmax), s	15.0	45.0	15.8	15.8	15.0	45.0	15.8	15.8				
Max Q Clear Time (g_c+I1), s	3.0	14.2	2.6	5.6	5.9	20.7	5.6	9.6				
Green Ext Time (p_c), s	0.0	9.3	0.0	0.3	0.3	10.3	0.2	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			20.1									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Lanes, Volumes, Timings
7: 39th Ave SE & College Way

01/27/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	113	750	777	68	68	114
Future Volume (vph)	113	750	777	68	68	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		0%	-5%		0%	
Storage Length (ft)	175			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		25	
Link Distance (ft)		1994	702		209	
Travel Time (s)		38.8	13.7		5.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	1%	1%	5%	5%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	11.3	16.3	35.3		34.5	34.5
Total Split (s)	31.3	46.3	46.3		50.5	50.5
Total Split (%)	24.4%	36.1%	36.1%		39.4%	39.4%
Yellow Time (s)	4.0	4.0	4.0		3.5	3.5
All-Red Time (s)	2.3	2.3	2.3		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3		5.5	5.5
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Min	Min		None	None

Intersection Summary

Area Type: Other

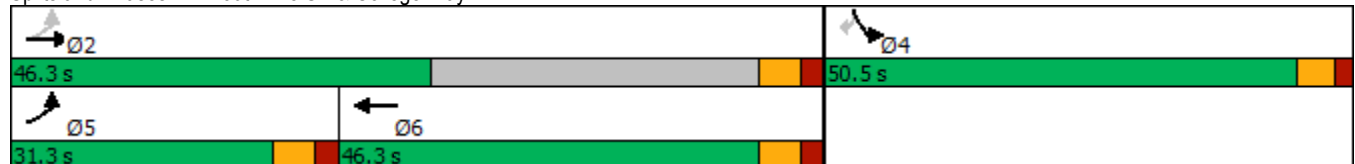
Cycle Length: 128.1

Actuated Cycle Length: 60.6

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Splits and Phases: 7: 39th Ave SE & College Way



HCM 6th Signalized Intersection Summary
7: 39th Ave SE & College Way

01/27/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	113	750	777	68	68	114
Future Volume (veh/h)	113	750	777	68	68	114
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1885	1885	2082	2082	1826	1826
Adj Flow Rate, veh/h	124	824	854	75	75	125
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1	1	5	5
Cap, veh/h	435	2176	1394	122	224	199
Arrive On Green	0.09	0.61	0.38	0.38	0.13	0.13
Sat Flow, veh/h	1795	3676	3782	323	1739	1547
Grp Volume(v), veh/h	124	824	459	470	75	125
Grp Sat Flow(s),veh/h/ln	1795	1791	1978	2023	1739	1547
Q Serve(g_s), s	1.6	5.2	8.4	8.4	1.8	3.4
Cycle Q Clear(g_c), s	1.6	5.2	8.4	8.4	1.8	3.4
Prop In Lane	1.00			0.16	1.00	1.00
Lane Grp Cap(c), veh/h	435	2176	749	767	224	199
V/C Ratio(X)	0.29	0.38	0.61	0.61	0.34	0.63
Avail Cap(c_a), veh/h	1280	3202	1768	1809	1749	1556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.3	4.5	11.2	11.2	17.7	18.5
Incr Delay (d2), s/veh	0.4	0.1	0.8	0.8	1.1	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.0	2.9	3.0	0.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	4.6	12.1	12.0	18.8	22.4
LnGrp LOS	A	A	B	B	B	C
Approach Vol, veh/h		948	929		200	
Approach Delay, s/veh		5.0	12.0		21.0	
Approach LOS		A	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		33.5		11.3	10.2	23.3
Change Period (Y+Rc), s		* 6.3		5.5	* 6.3	* 6.3
Max Green Setting (Gmax), s		* 40		45.0	* 25	* 40
Max Q Clear Time (g_c+I1), s		7.2		5.4	3.6	10.4
Green Ext Time (p_c), s		6.4		0.9	0.3	6.6
Intersection Summary						
HCM 6th Ctrl Delay			9.7			
HCM 6th LOS			A			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Lanes, Volumes, Timings
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/27/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	561	54	12	631	31	41	7	5	51	32	115
Future Volume (vph)	130	561	54	12	631	31	41	7	5	51	32	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-4%			0%			6%	
Storage Length (ft)	125		0	125		0	50		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		384			416			287			528	
Travel Time (s)		7.5			8.1			7.8			14.4	
Confl. Peds. (#/hr)			1	1					1	1		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%	34.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 54.3

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

Ø1 11 s	Ø2 24 s	Ø3 11 s	Ø4 24 s
Ø5 11 s	Ø6 24 s	Ø7 11 s	Ø8 24 s

HCM 6th Signalized Intersection Summary
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	561	54	12	631	31	41	7	5	51	32	115
Future Volume (veh/h)	130	561	54	12	631	31	41	7	5	51	32	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	2042	2042	2042	1900	1900	1900	1658	1658	1658
Adj Flow Rate, veh/h	140	603	58	13	678	33	44	8	5	55	34	124
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	2	2	2
Cap, veh/h	341	1034	99	298	932	45	320	195	122	428	58	212
Arrive On Green	0.08	0.31	0.31	0.02	0.25	0.25	0.04	0.18	0.18	0.05	0.19	0.19
Sat Flow, veh/h	1795	3301	317	1945	3766	183	1810	1093	683	1579	312	1139
Grp Volume(v), veh/h	140	327	334	13	349	362	44	0	13	55	0	158
Grp Sat Flow(s),veh/h/ln	1795	1791	1828	1945	1940	2009	1810	0	1776	1579	0	1451
Q Serve(g_s), s	3.1	8.4	8.4	0.3	9.0	9.0	1.1	0.0	0.3	1.5	0.0	5.4
Cycle Q Clear(g_c), s	3.1	8.4	8.4	0.3	9.0	9.0	1.1	0.0	0.3	1.5	0.0	5.4
Prop In Lane	1.00		0.17	1.00		0.09	1.00		0.38	1.00		0.78
Lane Grp Cap(c), veh/h	341	561	572	298	480	497	320	0	317	428	0	270
V/C Ratio(X)	0.41	0.58	0.58	0.04	0.73	0.73	0.14	0.00	0.04	0.13	0.00	0.59
Avail Cap(c_a), veh/h	358	591	603	445	640	663	406	0	586	491	0	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	14.2	15.7	15.7	15.1	18.8	18.8	17.1	0.0	18.5	16.7	0.0	20.3
Incr Delay (d2), s/veh	0.8	1.3	1.3	0.1	2.8	2.7	0.2	0.0	0.1	0.1	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.1	3.2	0.1	3.9	4.0	0.4	0.0	0.1	0.5	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	17.1	17.1	15.2	21.6	21.6	17.3	0.0	18.6	16.9	0.0	22.3
LnGrp LOS	B	B	B	B	C	C	B	A	B	B	A	C
Approach Vol, veh/h		801			724			57				213
Approach Delay, s/veh		16.7			21.5			17.6				20.9
Approach LOS		B			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	15.7	6.9	23.1	8.4	16.1	10.5	19.5				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.5	2.3	2.3	10.4	3.1	7.4	5.1	11.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.6	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			19.2									
HCM 6th LOS			B									

Lanes, Volumes, Timings
9: 25th St SE & 39th Ave SE

01/27/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	575	31	29	621	1	19	0	15	8	0	27
Future Volume (vph)	13	575	31	29	621	1	19	0	15	8	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	75		0	100		0	25		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25				25
Link Distance (ft)		365			225			248				136
Travel Time (s)		7.1			4.4			6.8				3.7
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1		6
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1		6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0		10.0
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0		24.0
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0		24.0
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%		34.3%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	Min		None	Min		None	None		None		None

Intersection Summary

Area Type: Other

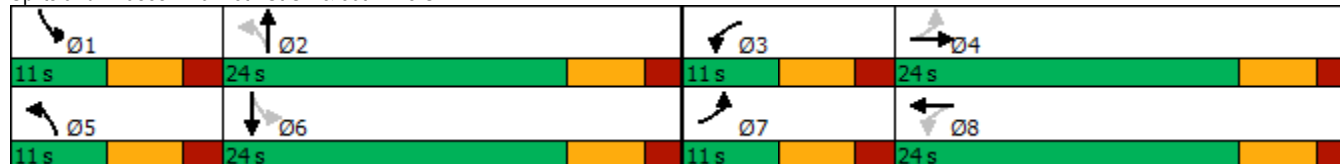
Cycle Length: 70

Actuated Cycle Length: 34.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 9: 25th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
 9: 25th St SE & 39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	575	31	29	621	1	19	0	15	8	0	27
Future Volume (veh/h)	13	575	31	29	621	1	19	0	15	8	0	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	618	33	31	668	1	20	0	16	9	0	29
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	298	928	50	318	1051	2	347	0	202	349	0	181
Arrive On Green	0.02	0.27	0.27	0.04	0.29	0.29	0.02	0.00	0.13	0.01	0.00	0.11
Sat Flow, veh/h	1795	3458	184	1795	3670	5	1810	0	1610	1810	0	1610
Grp Volume(v), veh/h	14	320	331	31	326	343	20	0	16	9	0	29
Grp Sat Flow(s),veh/h/ln	1795	1791	1852	1795	1791	1884	1810	0	1610	1810	0	1610
Q Serve(g_s), s	0.2	6.8	6.9	0.5	6.8	6.8	0.4	0.0	0.4	0.2	0.0	0.7
Cycle Q Clear(g_c), s	0.2	6.8	6.9	0.5	6.8	6.8	0.4	0.0	0.4	0.2	0.0	0.7
Prop In Lane	1.00		0.10	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	298	481	497	318	513	540	347	0	202	349	0	181
V/C Ratio(X)	0.05	0.67	0.67	0.10	0.64	0.64	0.06	0.00	0.08	0.03	0.00	0.16
Avail Cap(c_a), veh/h	475	750	775	462	750	789	513	0	674	538	0	674
HCM Platoon Ratio	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(l)	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	11.5	14.0	14.0	11.2	13.4	13.4	16.2	0.0	16.6	16.6	0.0	17.2
Incr Delay (d2), s/veh	0.1	1.6	1.5	0.1	1.3	1.2	0.1	0.0	0.2	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.4	2.5	0.2	2.3	2.5	0.2	0.0	0.1	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	15.6	15.6	11.3	14.7	14.6	16.2	0.0	16.8	16.6	0.0	17.6
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		665			700			36				38
Approach Delay, s/veh		15.5			14.5			16.5				17.4
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	11.4	7.5	17.5	7.1	10.8	6.8	18.3				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	2.4	2.5	8.9	2.4	2.7	2.2	8.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.0	0.1	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay			15.1									
HCM 6th LOS			B									

Lanes, Volumes, Timings
 10: Shaw Rd E & 39th Ave SE

01/27/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Traffic Volume (vph)	234	0	439	1	2	0	353	433	4	0	576	358
Future Volume (vph)	234	0	439	1	2	0	353	433	4	0	576	358
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			8%			-4%			6%	
Storage Length (ft)	0		0	0		0	300		0	200		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		507			360			460			462	
Travel Time (s)		9.9			7.0			9.0			9.0	
Confl. Peds. (#/hr)			2	2					2	2		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		10.0	10.0		5.0	10.0	10.0
Minimum Split (s)	29.0	29.0	29.0	24.0	24.0		16.3	28.3		11.3	28.3	28.3
Total Split (s)	36.0	36.0	36.0	36.0	36.0		26.3	46.3		21.3	46.3	46.3
Total Split (%)	33.1%	33.1%	33.1%	33.1%	33.1%		24.2%	42.6%		19.6%	42.6%	42.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.3	2.3		2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0		6.3	6.3		6.3	6.3	6.3
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min

Intersection Summary

Area Type: Other

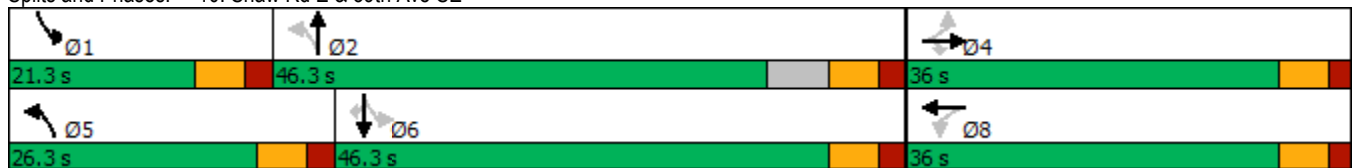
Cycle Length: 108.6

Actuated Cycle Length: 96.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Shaw Rd E & 39th Ave SE



HCM 6th Signalized Intersection Summary
 10: Shaw Rd E & 39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕	↗	↕	↗	↕
Traffic Volume (veh/h)	234	0	439	1	2	0	353	433	4	0	576	358
Future Volume (veh/h)	234	0	439	1	2	0	353	433	4	0	576	358
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1523	1523	1523	2027	2027	2027	1673	1673	1673
Adj Flow Rate, veh/h	241	0	453	1	2	0	364	446	4	0	594	369
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	1	1	1
Cap, veh/h	256	0	459	46	58	0	400	1197	11	386	627	530
Arrive On Green	0.29	0.00	0.29	0.29	0.29	0.00	0.16	0.60	0.60	0.00	0.37	0.37
Sat Flow, veh/h	656	0	1605	0	203	0	1931	2006	18	1593	1673	1414
Grp Volume(v), veh/h	241	0	453	3	0	0	364	0	450	0	594	369
Grp Sat Flow(s),veh/h/ln	656	0	1605	203	0	0	1931	0	2024	1593	1673	1414
Q Serve(g_s), s	0.0	0.0	29.4	0.0	0.0	0.0	14.5	0.0	12.1	0.0	36.1	23.1
Cycle Q Clear(g_c), s	30.0	0.0	29.4	30.0	0.0	0.0	14.5	0.0	12.1	0.0	36.1	23.1
Prop In Lane	1.00		1.00	0.33		0.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	256	0	459	104	0	0	400	0	1207	386	627	530
V/C Ratio(X)	0.94	0.00	0.99	0.03	0.00	0.00	0.91	0.00	0.37	0.00	0.95	0.70
Avail Cap(c_a), veh/h	256	0	459	104	0	0	457	0	1207	612	638	540
HCM Platoon Ratio	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(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	0.0	37.2	30.0	0.0	0.0	29.8	0.0	11.0	0.0	31.8	27.7
Incr Delay (d2), s/veh	40.2	0.0	38.4	0.1	0.0	0.0	20.6	0.0	0.3	0.0	23.4	4.2
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	9.1	0.0	16.0	0.1	0.0	0.0	11.3	0.0	5.1	0.0	18.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.9	0.0	75.6	30.1	0.0	0.0	50.4	0.0	11.2	0.0	55.1	31.9
LnGrp LOS	F	A	E	C	A	A	D	A	B	A	E	C
Approach Vol, veh/h		694			3			814			963	
Approach Delay, s/veh		77.4			30.1			28.8			46.2	
Approach LOS		E			C			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	68.8		36.0	23.2	45.6		36.0				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.0	* 6.3	* 6.3		6.0				
Max Green Setting (Gmax), s	* 15	* 40		30.0	* 20	* 40		30.0				
Max Q Clear Time (g_c+I1), s	0.0	14.1		32.0	16.5	38.1		32.0				
Green Ext Time (p_c), s	0.0	4.1		0.0	0.4	1.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			49.2									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Lanes, Volumes, Timings

11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/27/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	58	48	35	44	20	54	527	31	14	1030	179
Future Volume (vph)	117	58	48	35	44	20	54	527	31	14	1030	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-9%			3%			-9%			6%	
Storage Length (ft)	50		0	50		0	100		175	75		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			Yes
Link Speed (mph)		25			25			35				35
Link Distance (ft)		481			429			444				403
Travel Time (s)		13.1			11.7			8.6				7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	11.0	24.0		11.0	24.0		11.0	84.0	84.0	11.0	84.0	84.0
Total Split (%)	8.5%	18.5%		8.5%	18.5%		8.5%	64.6%	64.6%	8.5%	64.6%	64.6%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min

Intersection Summary

Area Type: Other

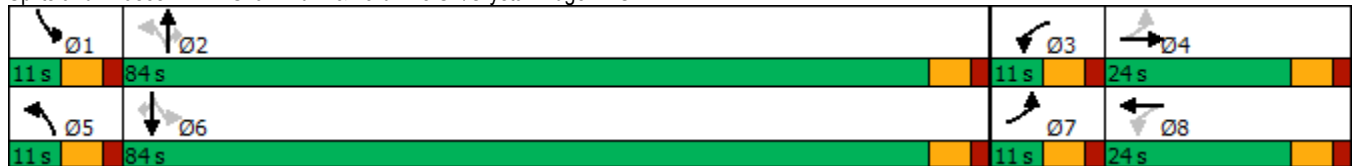
Cycle Length: 130

Actuated Cycle Length: 122

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Splits and Phases: 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE



HCM 6th Signalized Intersection Summary
 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	58	48	35	44	20	54	527	31	14	1030	179
Future Volume (veh/h)	117	58	48	35	44	20	54	527	31	14	1030	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	2254	2239	2239	1847	1847	1847	2224	2224	2224	1673	1673	1673
Adj Flow Rate, veh/h	127	63	52	38	48	22	59	573	34	15	1120	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	1	1	0	0	0	2	2	2	1	1	1
Cap, veh/h	219	106	88	163	99	45	135	1473	1248	482	1076	912
Arrive On Green	0.04	0.09	0.09	0.03	0.08	0.08	0.04	0.66	0.66	0.02	0.64	0.64
Sat Flow, veh/h	2147	1134	936	1759	1199	549	2118	2224	1885	1593	1673	1418
Grp Volume(v), veh/h	127	0	115	38	0	70	59	573	34	15	1120	195
Grp Sat Flow(s),veh/h/ln	2147	0	2070	1759	0	1748	2118	2224	1885	1593	1673	1418
Q Serve(g_s), s	5.0	0.0	6.5	2.4	0.0	4.6	1.1	14.2	0.8	0.4	78.0	6.9
Cycle Q Clear(g_c), s	5.0	0.0	6.5	2.4	0.0	4.6	1.1	14.2	0.8	0.4	78.0	6.9
Prop In Lane	1.00		0.45	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	0	194	163	0	144	135	1473	1248	482	1076	912
V/C Ratio(X)	0.58	0.00	0.59	0.23	0.00	0.49	0.44	0.39	0.03	0.03	1.04	0.21
Avail Cap(c_a), veh/h	219	0	307	183	0	259	147	1473	1248	522	1076	912
HCM Platoon Ratio	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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	0.0	52.7	49.0	0.0	53.2	31.5	9.3	7.0	7.7	21.7	9.0
Incr Delay (d2), s/veh	3.8	0.0	2.9	0.7	0.0	2.5	2.2	0.2	0.0	0.0	38.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	3.5	1.1	0.0	2.2	1.2	6.5	0.3	0.1	38.5	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	0.0	55.6	49.7	0.0	55.7	33.8	9.5	7.1	7.7	60.4	9.1
LnGrp LOS	D	A	E	D	A	E	C	A	A	A	F	A
Approach Vol, veh/h		242			108			666			1330	
Approach Delay, s/veh		55.1			53.6			11.5			52.3	
Approach LOS		E			D			B			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	86.3	9.6	17.4	10.3	84.0	11.0	16.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	78.0	5.0	18.0	5.0	78.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.4	16.2	4.4	8.5	3.1	80.0	7.0	6.6				
Green Ext Time (p_c), s	0.0	4.3	0.0	0.4	0.0	0.0	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			41.1									
HCM 6th LOS			D									

Lanes, Volumes, Timings
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

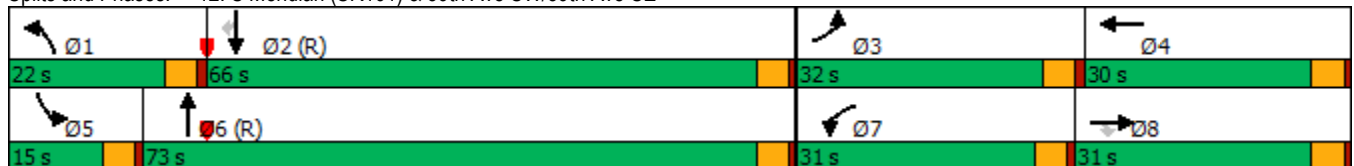
01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	320	483	247	163	350	52	190	1110	74	45	1287	403
Future Volume (vph)	320	483	247	163	350	52	190	1110	74	45	1287	403
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		0%			0%			3%			0%	
Storage Length (ft)	350		0	225		0	200		0	210		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		571			1339			1348			645	
Travel Time (s)		11.1			26.1			26.3			12.6	
Confl. Peds. (#/hr)			2						2			9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	4%	4%	4%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									2
Detector Phase	3	8	8	7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	5.0	6.0	6.0	6.0	5.0		6.0	10.0		6.0	10.0	10.0
Minimum Split (s)	9.6	27.6	27.6	10.6	16.6		10.6	29.6		10.6	29.6	29.6
Total Split (s)	32.0	31.0	31.0	31.0	30.0		22.0	73.0		15.0	66.0	66.0
Total Split (%)	21.3%	20.7%	20.7%	20.7%	20.0%		14.7%	48.7%		10.0%	44.0%	44.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	C-Min

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 40 (27%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated

Splits and Phases: 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE



HCM 6th Signalized Intersection Summary
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗		↖	↗		↖	↗	↘
Traffic Volume (veh/h)	320	483	247	163	350	52	190	1110	74	45	1287	403
Future Volume (veh/h)	320	483	247	163	350	52	190	1110	74	45	1287	403
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1786	1786	1694	1694	1694	1772	1772	1772
Adj Flow Rate, veh/h	320	483	0	163	350	52	190	1110	74	45	1287	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	2	2	2
Cap, veh/h	308	705		185	403	59	187	1607	107	57	1491	
Arrive On Green	0.18	0.21	0.00	0.11	0.14	0.14	0.08	0.35	0.35	0.07	0.89	0.00
Sat Flow, veh/h	1688	3367	1502	1701	2967	437	1613	3062	204	1688	3367	1502
Grp Volume(v), veh/h	320	483	0	163	199	203	190	583	601	45	1287	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1701	1697	1707	1613	1609	1657	1688	1683	1502
Q Serve(g_s), s	27.4	19.9	0.0	14.2	17.2	17.5	17.4	46.5	46.6	3.9	27.9	0.0
Cycle Q Clear(g_c), s	27.4	19.9	0.0	14.2	17.2	17.5	17.4	46.5	46.6	3.9	27.9	0.0
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	308	705		185	231	232	187	845	870	57	1491	
V/C Ratio(X)	1.04	0.68		0.88	0.86	0.88	1.02	0.69	0.69	0.79	0.86	
Avail Cap(c_a), veh/h	308	705		299	287	289	187	845	870	117	1491	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	0.00	0.93	0.93	0.93	0.30	0.30	0.30	0.77	0.77	0.00
Uniform Delay (d), s/veh	61.3	54.7	0.0	65.8	63.4	63.6	69.2	38.2	38.2	69.4	6.4	0.0
Incr Delay (d2), s/veh	61.5	2.6	0.0	12.5	16.7	18.5	40.0	1.4	1.4	12.7	5.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	8.7	0.0	6.8	8.5	8.8	9.4	19.5	20.1	1.9	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	122.8	57.3	0.0	78.4	80.1	82.0	109.1	39.6	39.6	82.1	11.8	0.0
LnGrp LOS	F	E		E	F	F	F	D	D	F	B	
Approach Vol, veh/h		803	A		565			1374			1332	A
Approach Delay, s/veh		83.4			80.3			49.2			14.2	
Approach LOS		F			F			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	71.0	32.0	25.0	9.7	83.3	21.0	36.0				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	17.4	61.4	27.4	25.4	10.4	68.4	26.4	26.4				
Max Q Clear Time (g_c+I1), s	19.4	29.9	29.4	19.5	5.9	48.6	16.2	21.9				
Green Ext Time (p_c), s	0.0	9.5	0.0	0.9	0.0	6.5	0.2	1.1				

Intersection Summary

HCM 6th Ctrl Delay	48.8
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
13: 5th St SE & 39th Ave SE

01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	214	160	113	192	5	82	286	69	6	547	100
Future Volume (vph)	148	214	160	113	192	5	82	286	69	6	547	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			-3%			0%	
Storage Length (ft)	150		0	175		0	225		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1339			1162			552			965	
Travel Time (s)		26.1			22.6			12.5			21.9	
Confl. Peds. (#/hr)									4	4		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	0%	0%	0%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0		11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0		21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%		16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

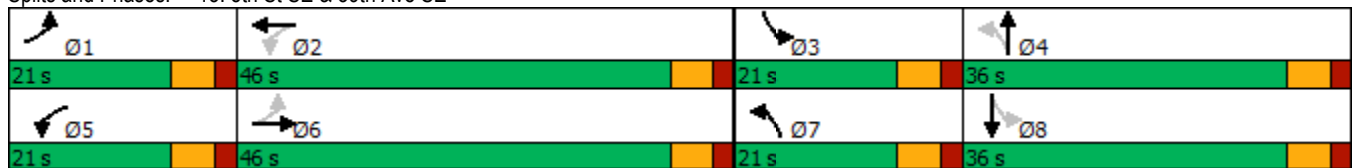
Cycle Length: 124

Actuated Cycle Length: 82

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 13: 5th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
 13: 5th St SE & 39th Ave SE

01/27/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	214	160	113	192	5	82	286	69	6	547	100
Future Volume (veh/h)	148	214	160	113	192	5	82	286	69	6	547	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	2018	2018	2018	1885	1885	1885
Adj Flow Rate, veh/h	151	218	163	115	196	5	84	292	70	6	558	102
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	3	3	3	0	0	0	1	1	1
Cap, veh/h	379	330	235	286	514	13	233	678	163	420	596	109
Arrive On Green	0.10	0.17	0.17	0.08	0.15	0.15	0.05	0.43	0.43	0.01	0.38	0.38
Sat Flow, veh/h	1781	1980	1413	1767	3513	89	1922	1572	377	1795	1550	283
Grp Volume(v), veh/h	151	195	186	115	98	103	84	0	362	6	0	660
Grp Sat Flow(s),veh/h/ln	1781	1777	1616	1767	1763	1839	1922	0	1949	1795	0	1833
Q Serve(g_s), s	5.3	7.7	8.2	4.1	3.8	3.8	1.9	0.0	9.8	0.2	0.0	26.1
Cycle Q Clear(g_c), s	5.3	7.7	8.2	4.1	3.8	3.8	1.9	0.0	9.8	0.2	0.0	26.1
Prop In Lane	1.00		0.87	1.00		0.05	1.00		0.19	1.00		0.15
Lane Grp Cap(c), veh/h	379	296	269	286	258	269	233	0	841	420	0	705
V/C Ratio(X)	0.40	0.66	0.69	0.40	0.38	0.38	0.36	0.00	0.43	0.01	0.00	0.94
Avail Cap(c_a), veh/h	564	944	859	505	937	977	510	0	841	763	0	731
HCM Platoon Ratio	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(l)	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	23.8	29.4	29.6	24.7	29.0	29.0	17.4	0.0	14.9	14.2	0.0	22.3
Incr Delay (d2), s/veh	0.7	2.5	3.2	0.9	0.9	0.9	0.9	0.0	0.3	0.0	0.0	19.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.3	3.3	1.7	1.6	1.7	0.8	0.0	4.1	0.1	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	31.9	32.8	25.6	30.0	29.9	18.3	0.0	15.3	14.2	0.0	41.4
LnGrp LOS	C	C	C	C	C	C	B	A	B	B	A	D
Approach Vol, veh/h		532			316			446			666	
Approach Delay, s/veh		30.1			28.4			15.9			41.2	
Approach LOS		C			C			B			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.2	17.0	6.6	38.5	11.7	18.5	10.1	34.9				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	7.3	5.8	2.2	11.8	6.1	10.2	3.9	28.1				
Green Ext Time (p_c), s	0.2	1.1	0.0	2.1	0.2	2.4	0.1	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			30.3									
HCM 6th LOS			C									

Lanes, Volumes, Timings
 14: S Meridian (SR161) & 43rd Ave SE

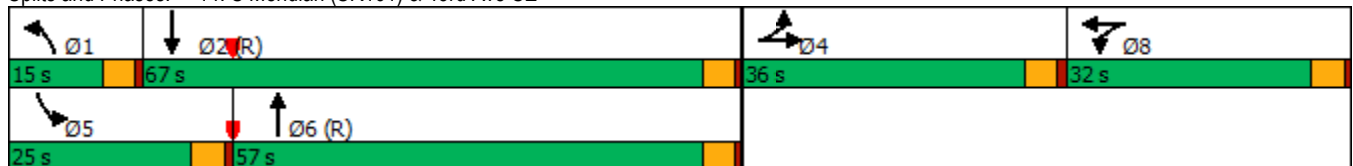
01/27/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	144	66	253	147	94	67	1170	107	177	1395	52
Future Volume (vph)	123	144	66	253	147	94	67	1170	107	177	1395	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		-4%			6%			0%			0%	
Storage Length (ft)	150		0	275		0	250		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		332			544			617			1348	
Travel Time (s)		9.1			10.6			12.0			26.3	
Confl. Peds. (#/hr)			2	2					6			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	5%	5%	5%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		1	6		5	2	
Permitted Phases												
Detector Phase	4	4		8	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	33.6	33.6		30.6	30.6		10.6	32.6		10.6	28.6	
Total Split (s)	36.0	36.0		32.0	32.0		15.0	57.0		25.0	67.0	
Total Split (%)	24.0%	24.0%		21.3%	21.3%		10.0%	38.0%		16.7%	44.7%	
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6		4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	

Intersection Summary























Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 90 (60%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated

Splits and Phases: 14: S Meridian (SR161) & 43rd Ave SE



HCM 6th Signalized Intersection Summary
 14: S Meridian (SR161) & 43rd Ave SE

01/27/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	144	66	253	147	94	67	1170	107	177	1395	52
Future Volume (veh/h)	123	144	66	253	147	94	67	1170	107	177	1395	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1935	1935	1935	1571	1571	1571	1730	1730	1730	1786	1786	1786
Adj Flow Rate, veh/h	123	144	66	253	147	94	67	1170	107	177	1395	52
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	2	2	2	5	5	5	1	1	1
Cap, veh/h	250	170	78	270	162	103	83	1357	124	196	1704	63
Arrive On Green	0.14	0.14	0.14	0.18	0.18	0.18	0.05	0.45	0.45	0.23	1.00	1.00
Sat Flow, veh/h	1843	1254	575	1496	894	572	1647	3043	278	1701	3336	124
Grp Volume(v), veh/h	123	0	210	253	0	241	67	631	646	177	708	739
Grp Sat Flow(s),veh/h/ln	1843	0	1828	1496	0	1466	1647	1643	1678	1701	1697	1764
Q Serve(g_s), s	9.3	0.0	16.8	25.0	0.0	24.2	6.0	51.8	52.0	15.2	0.0	0.0
Cycle Q Clear(g_c), s	9.3	0.0	16.8	25.0	0.0	24.2	6.0	51.8	52.0	15.2	0.0	0.0
Prop In Lane	1.00		0.31	1.00		0.39	1.00		0.17	1.00		0.07
Lane Grp Cap(c), veh/h	250	0	248	270	0	265	83	733	748	196	867	901
V/C Ratio(X)	0.49	0.00	0.85	0.94	0.00	0.91	0.81	0.86	0.86	0.90	0.82	0.82
Avail Cap(c_a), veh/h	386	0	383	273	0	268	114	733	748	231	867	901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.38	0.38	0.38
Uniform Delay (d), s/veh	60.1	0.0	63.3	60.6	0.0	60.3	70.5	37.4	37.4	56.9	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	9.1	37.2	0.0	32.0	21.4	12.7	12.6	15.2	3.4	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	8.5	12.2	0.0	11.3	3.0	23.0	23.6	6.6	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	0.0	72.4	97.8	0.0	92.3	91.9	50.0	50.1	72.1	3.4	3.3
LnGrp LOS	E	A	E	F	A	F	F	D	D	E	A	A
Approach Vol, veh/h		333			494			1344			1624	
Approach Delay, s/veh		68.3			95.1			52.1			10.8	
Approach LOS		E			F			D			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	81.2		24.9	21.9	71.5		31.7				
Change Period (Y+Rc), s	4.6	4.6		4.6	4.6	4.6		4.6				
Max Green Setting (Gmax), s	10.4	62.4		31.4	20.4	52.4		27.4				
Max Q Clear Time (g_c+I1), s	8.0	2.0		18.8	17.2	54.0		27.0				
Green Ext Time (p_c), s	0.0	13.4		1.1	0.1	0.0		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				41.5								
HCM 6th LOS				D								

2032 With Project AM Peak Hour

Lanes, Volumes, Timings
1: 7th St SE & College Way

01/23/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	8	23	219	25	75	252
Future Volume (vph)	8	23	219	25	75	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-4%			0%
Storage Length (ft)	0	0		0	50	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Link Speed (mph)	25		25			25
Link Distance (ft)	771		286			501
Travel Time (s)	21.0		7.8			13.7
Confl. Peds. (#/hr)	1					
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	8	23	219	25	75	252
Future Vol, veh/h	8	23	219	25	75	252
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-4	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	9	25	241	27	82	277

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	697	255	0	0	268	0
Stage 1	255	-	-	-	-	-
Stage 2	442	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	410	789	-	-	1290	-
Stage 1	792	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	383	789	-	-	1290	-
Mov Cap-2 Maneuver	483	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	610	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	678	1290	-
HCM Lane V/C Ratio	-	-	0.05	0.064	-
HCM Control Delay (s)	-	-	10.6	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

Lanes, Volumes, Timings
2: 31st Ave SW/S Meridian (SR161)

01/23/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	382	939	1396	829	201	252
Future Volume (vph)	382	939	1396	829	201	252
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Storage Length (ft)	250			0	0	175
Storage Lanes	2			1	2	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		370	339		787	
Travel Time (s)		7.2	6.6		15.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	7%	7%	3%	3%	2%	2%
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Detector Phase	5		6	6	4	4
Switch Phase						
Minimum Initial (s)	8.0		10.0	10.0	8.0	8.0
Minimum Split (s)	12.6		20.6	20.6	12.6	12.6
Total Split (s)	15.0		99.0	99.0	26.0	26.0
Total Split (%)	10.7%		70.7%	70.7%	18.6%	18.6%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6		4.6	4.6	4.6	4.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Min		C-Min	C-Min	None	None

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 41 (29%), Referenced to phase 6:WBT, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 ! Phase conflict between lane groups.

Splits and Phases: 2: 31st Ave SW/S Meridian (SR161)



HCM Signalized Intersection Capacity Analysis

2: 31st Ave SW/S Meridian (SR161)

01/23/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖↗	↕	↖↗	↖	↖↗	↖
Traffic Volume (vph)	382	939	1396	829	201	252
Future Volume (vph)	382	939	1396	829	201	252
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Total Lost time (s)	4.6	4.0	4.6	4.6	4.6	4.6
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	1.00
Fr _t	1.00	1.00	1.00	0.85	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3038	3132	3387	1515	3252	1500
Fl _t Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3038	3132	3387	1515	3252	1500
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	382	939	1396	829	201	252
RTOR Reduction (vph)	0	0	0	329	0	151
Lane Group Flow (vph)	382	939	1396	500	201	101
Heavy Vehicles (%)	7%	7%	3%	3%	2%	2%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Actuated Green, G (s)	33.5	140.0	77.3	77.3	15.4	15.4
Effective Green, g (s)	33.5	140.0	77.3	77.3	15.4	15.4
Actuated g/C Ratio	0.24	1.00	0.55	0.55	0.11	0.11
Clearance Time (s)	4.6		4.6	4.6	4.6	4.6
Vehicle Extension (s)	2.5		2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	726	3132	1870	836	357	165
v/s Ratio Prot	c0.13	0.30	c0.41		0.06	
v/s Ratio Perm				0.33		c0.07
v/c Ratio	0.53	0.30	0.75	0.60	0.56	0.61
Uniform Delay, d1	46.3	0.0	23.9	21.0	59.1	59.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.2	2.8	3.2	1.6	5.6
Delay (s)	46.9	0.2	26.7	24.1	60.8	65.0
Level of Service	D	A	C	C	E	E
Approach Delay (s)		13.7	25.7		63.1	
Approach LOS		B	C		E	
Intersection Summary						
HCM 2000 Control Delay			26.0		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.67			
Actuated Cycle Length (s)			140.0		Sum of lost time (s)	13.8
Intersection Capacity Utilization			73.4%		ICU Level of Service	D
Analysis Period (min)			15			
! Phase conflict between lane groups.						
c Critical Lane Group						

Lanes, Volumes, Timings
3: S Meridian (SR161) & 37th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	24	29	60	32	422	17	1745	38	326	742	29
Future Volume (vph)	26	24	29	60	32	422	17	1745	38	326	742	29
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (ft)	0		0	250		0	225		0	350		0
Storage Lanes	1		1	1		1	1		0	2		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		242			1349			645			449	
Travel Time (s)		6.6			26.3			12.6			8.7	
Confl. Peds. (#/hr)						1						1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	8%	8%	8%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Free	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8			Free						
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	8.6	10.6	10.6	10.6	35.6		10.6	28.6		10.6	31.6	
Total Split (s)	15.0	25.0	25.0	27.0	37.0		15.0	68.0		20.0	73.0	
Total Split (%)	10.7%	17.9%	17.9%	19.3%	26.4%		10.7%	48.6%		14.3%	52.1%	
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	

Intersection Summary

Area Type: Other

Cycle Length: 140

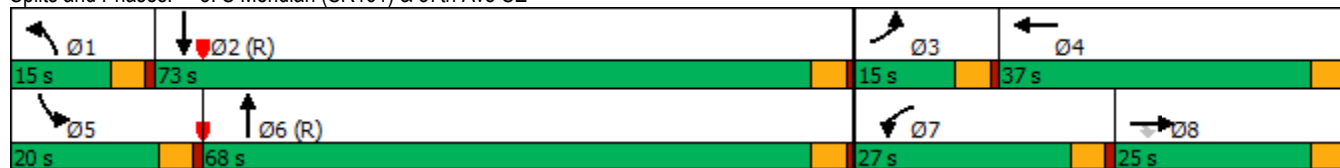
Actuated Cycle Length: 140

Offset: 44 (31%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 3: S Meridian (SR161) & 37th Ave SE



HCM 6th Signalized Intersection Summary
 3: S Meridian (SR161) & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	24	29	60	32	422	17	1745	38	326	742	29
Future Volume (veh/h)	26	24	29	60	32	422	17	1745	38	326	742	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1758	1758	1758	1772	1772	1772	1758	1758	1758	1688	1688	1688
Adj Flow Rate, veh/h	26	24	29	60	32	0	17	1745	38	326	742	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	8	8	8
Cap, veh/h	32	125	56	76	113		35	2259	49	343	3525	
Arrive On Green	0.02	0.04	0.04	0.05	0.06	0.00	0.04	1.00	1.00	0.11	0.77	0.00
Sat Flow, veh/h	1674	3340	1490	1688	1772	1502	1674	3342	73	3118	4759	0
Grp Volume(v), veh/h	26	24	29	60	32	0	17	870	913	326	742	0
Grp Sat Flow(s),veh/h/ln	1674	1670	1490	1688	1772	1502	1674	1670	1745	1559	1536	0
Q Serve(g_s), s	2.2	1.0	2.7	4.9	2.4	0.0	1.4	0.0	0.0	14.5	6.3	0.0
Cycle Q Clear(g_c), s	2.2	1.0	2.7	4.9	2.4	0.0	1.4	0.0	0.0	14.5	6.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	32	125	56	76	113		35	1129	1179	343	3525	
V/C Ratio(X)	0.82	0.19	0.52	0.79	0.28		0.49	0.77	0.77	0.95	0.21	
Avail Cap(c_a), veh/h	124	487	217	270	410		124	1129	1179	343	3525	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.90	0.90	0.00	0.47	0.47	0.47	1.00	1.00	0.00
Uniform Delay (d), s/veh	68.4	65.3	66.1	66.2	62.5	0.0	66.4	0.0	0.0	61.9	4.6	0.0
Incr Delay (d2), s/veh	43.2	0.7	7.3	14.6	1.3	0.0	4.9	2.5	2.4	35.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.4	1.1	2.4	1.1	0.0	0.6	0.8	0.8	7.4	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.7	66.1	73.5	80.7	63.8	0.0	71.3	2.5	2.4	97.6	4.7	0.0
LnGrp LOS	F	E	E	F	E		E	A	A	F	A	
Approach Vol, veh/h		79			92	A		1800			1068	A
Approach Delay, s/veh		83.8			74.9			3.1			33.1	
Approach LOS		F			E			A			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	111.7	7.3	13.5	20.0	99.2	10.9	9.8				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	10.4	68.4	10.4	32.4	15.4	63.4	22.4	20.4				
Max Q Clear Time (g_c+I1), s	3.4	8.3	4.2	4.4	16.5	2.0	6.9	4.7				
Green Ext Time (p_c), s	0.0	7.4	0.0	0.1	0.0	29.8	0.1	0.1				

Intersection Summary

HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
4: 5th St SE & 37th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	332	29	14	351	158	82	220	13	132	186	54
Future Volume (vph)	38	332	29	14	351	158	82	220	13	132	186	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-3%			0%			-5%	
Storage Length (ft)	200		0	225		150	200		0	250		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				25
Link Distance (ft)		1349			1181			965				418
Travel Time (s)		26.3			23.0			21.9				11.4
Confl. Peds. (#/hr)	1					1			4			4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	2%	2%	2%	4%	4%	4%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2		2	4			8		
Detector Phase	1	6		5	2	2	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0	26.0	11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0	46.0	21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%	37.1%	16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	

Intersection Summary

Area Type: Other

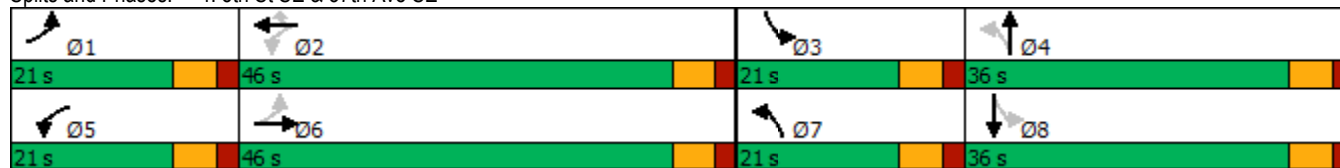
Cycle Length: 124

Actuated Cycle Length: 65.9

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 4: 5th St SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
4: 5th St SE & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	332	29	14	351	158	82	220	13	132	186	54
Future Volume (veh/h)	38	332	29	14	351	158	82	220	13	132	186	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1973	1973	1973	1870	1870	1870	2037	2037	2037
Adj Flow Rate, veh/h	43	373	33	16	394	0	92	247	0	148	209	61
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	4	4	4
Cap, veh/h	317	720	63	301	737		374	381		415	337	98
Arrive On Green	0.04	0.22	0.22	0.02	0.20	0.00	0.07	0.20	0.00	0.09	0.22	0.22
Sat Flow, veh/h	1753	3251	286	1879	3749	1672	1781	1870	0	1940	1513	442
Grp Volume(v), veh/h	43	200	206	16	394	0	92	247	0	148	0	270
Grp Sat Flow(s),veh/h/ln	1753	1749	1788	1879	1874	1672	1781	1870	0	1940	0	1954
Q Serve(g_s), s	1.0	5.2	5.2	0.3	4.9	0.0	2.0	6.3	0.0	3.0	0.0	6.4
Cycle Q Clear(g_c), s	1.0	5.2	5.2	0.3	4.9	0.0	2.0	6.3	0.0	3.0	0.0	6.4
Prop In Lane	1.00		0.16	1.00		1.00	1.00		0.00	1.00		0.23
Lane Grp Cap(c), veh/h	317	387	396	301	737		374	381		415	0	435
V/C Ratio(X)	0.14	0.52	0.52	0.05	0.53		0.25	0.65		0.36	0.00	0.62
Avail Cap(c_a), veh/h	749	1356	1387	810	2906		766	1088		805	0	1136
HCM Platoon Ratio	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(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.5	17.7	17.7	16.1	18.6	0.0	14.6	18.8	0.0	14.4	0.0	18.1
Incr Delay (d2), s/veh	0.2	1.1	1.1	0.1	0.6	0.0	0.3	1.9	0.0	0.5	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.9	2.0	0.1	1.9	0.0	0.8	2.6	0.0	1.2	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.7	18.7	18.7	16.2	19.2	0.0	15.0	20.7	0.0	14.9	0.0	19.5
LnGrp LOS	B	B	B	B	B		B	C		B	A	B
Approach Vol, veh/h		449			410	A		339	A		418	
Approach Delay, s/veh		18.4			19.1			19.1			17.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	16.1	10.6	16.5	7.0	17.4	9.7	17.5				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	3.0	6.9	5.0	8.3	2.3	7.2	4.0	8.4				
Green Ext Time (p_c), s	0.0	2.7	0.3	1.4	0.0	2.4	0.1	1.7				

Intersection Summary

HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: 39th Ave SE & 37th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	426	1	187	598	1	0	8	333	5	4	8
Future Volume (vph)	9	426	1	187	598	1	0	8	333	5	4	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		6%			-5%			3%			0%	
Storage Length (ft)	225		0	200		0	200		0	0		150
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35				25
Link Distance (ft)		1181			510			1162				264
Travel Time (s)		23.0			9.9			22.6				7.2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	3%	3%	3%	14%	14%	14%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt		NA
Protected Phases	7	4		3	8		5	2	3	1		6
Permitted Phases	4			8			2		2	6		
Detector Phase	7	4		3	8		5	2	3	1		6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	5.0	5.0		10.0
Minimum Split (s)	12.0	30.0		12.0	30.0		11.0	16.0	12.0	11.0		34.0
Total Split (s)	23.0	42.0		23.0	42.0		22.0	22.0	23.0	22.0		22.0
Total Split (%)	21.1%	38.5%		21.1%	38.5%		20.2%	20.2%	21.1%	20.2%		20.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0	3.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0	7.0	6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		Yes
Recall Mode	None	Min		None	Min		None	None	None	None		None

Intersection Summary

Area Type: Other

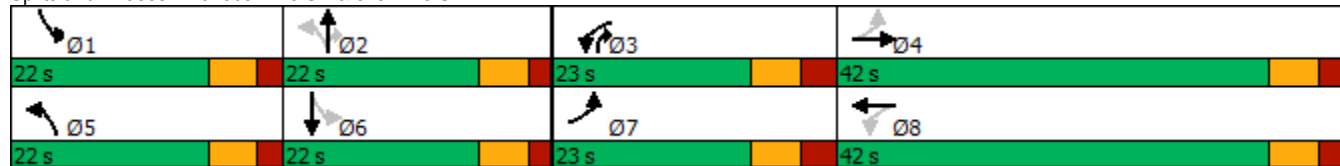
Cycle Length: 109

Actuated Cycle Length: 41.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 5: 39th Ave SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
 5: 39th Ave SE & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	426	1	187	598	1	0	8	333	5	4	8
Future Volume (veh/h)	9	426	1	187	598	1	0	8	333	5	4	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1629	1629	1629	2052	2052	2052	1803	1803	1803	1693	1693	1693
Adj Flow Rate, veh/h	10	468	1	205	657	1	0	9	366	5	4	9
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	3	3	3	3	3	3	14	14	14
Cap, veh/h	272	771	2	436	1352	2	437	430	529	336	157	353
Arrive On Green	0.01	0.24	0.24	0.11	0.34	0.34	0.00	0.24	0.24	0.01	0.34	0.34
Sat Flow, veh/h	1551	3168	7	1954	3993	6	1717	1803	1528	1612	463	1042
Grp Volume(v), veh/h	10	229	240	205	321	337	0	9	366	5	0	13
Grp Sat Flow(s),veh/h/ln	1551	1547	1627	1954	1949	2051	1717	1803	1528	1612	0	1505
Q Serve(g_s), s	0.3	8.4	8.5	4.8	8.4	8.4	0.0	0.2	13.3	0.1	0.0	0.4
Cycle Q Clear(g_c), s	0.3	8.4	8.5	4.8	8.4	8.4	0.0	0.2	13.3	0.1	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	272	376	396	436	660	694	437	430	529	336	0	509
V/C Ratio(X)	0.04	0.61	0.61	0.47	0.49	0.49	0.00	0.02	0.69	0.01	0.00	0.03
Avail Cap(c_a), veh/h	638	841	884	711	1059	1114	860	448	544	726	0	509
HCM Platoon Ratio	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(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.0	21.6	21.6	15.2	16.9	16.9	0.0	18.8	18.1	17.0	0.0	14.2
Incr Delay (d2), s/veh	0.1	3.4	3.2	0.8	1.2	1.1	0.0	0.0	3.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.2	3.3	2.0	3.6	3.8	0.0	0.1	4.7	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	25.0	24.8	16.0	18.1	18.0	0.0	18.8	21.7	17.0	0.0	14.2
LnGrp LOS	B	C	C	B	B	B	A	B	C	B	A	B
Approach Vol, veh/h		479			863			375				18
Approach Delay, s/veh		24.8			17.6			21.6				15.0
Approach LOS		C			B			C				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	21.4	14.0	22.7	0.0	27.8	7.8	28.8				
Change Period (Y+Rc), s	6.0	6.0	7.0	7.0	6.0	6.0	7.0	7.0				
Max Green Setting (Gmax), s	16.0	16.0	16.0	35.0	16.0	16.0	16.0	35.0				
Max Q Clear Time (g_c+I1), s	2.1	15.3	6.8	10.5	0.0	2.4	2.3	10.4				
Green Ext Time (p_c), s	0.0	0.1	0.4	5.2	0.0	0.0	0.0	7.7				

Intersection Summary

HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Notes

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

Lanes, Volumes, Timings
6: 10th St SE & 39th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	598	52	79	665	14	100	24	104	1	1	15
Future Volume (vph)	107	598	52	79	665	14	100	24	104	1	1	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-5%			-6%			-4%	
Storage Length (ft)	150		0	200		0	100		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30				25
Link Distance (ft)		510			1994			256				231
Travel Time (s)		9.9			38.8			5.8				6.3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	3%	3%	3%	13%	13%	13%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.3	30.3		11.3	30.3		10.5	25.5		10.5	25.5	
Total Split (s)	21.3	51.3		21.3	51.3		21.3	21.3		21.3	21.3	
Total Split (%)	18.5%	44.5%		18.5%	44.5%		18.5%	18.5%		18.5%	18.5%	
Yellow Time (s)	4.3	4.3		4.3	4.3		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

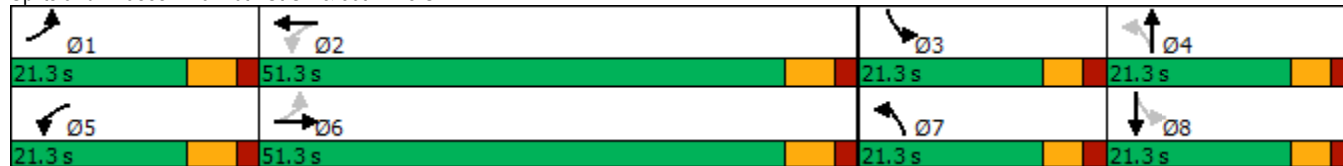
Cycle Length: 115.2

Actuated Cycle Length: 58.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 6: 10th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
6: 10th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	598	52	79	665	14	100	24	104	1	1	15
Future Volume (veh/h)	107	598	52	79	665	14	100	24	104	1	1	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1841	1841	1841	2037	2037	2037	2091	2091	2091	1862	1862	1862
Adj Flow Rate, veh/h	118	657	57	87	731	15	110	26	114	1	1	16
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	3	3	3	13	13	13
Cap, veh/h	390	1105	96	401	1280	26	396	53	233	240	8	125
Arrive On Green	0.08	0.34	0.34	0.07	0.33	0.33	0.07	0.16	0.16	0.00	0.08	0.08
Sat Flow, veh/h	1753	3256	282	1940	3878	80	1991	339	1485	1774	94	1499
Grp Volume(v), veh/h	118	352	362	87	365	381	110	0	140	1	0	17
Grp Sat Flow(s),veh/h/ln	1753	1749	1790	1940	1935	2022	1991	0	1824	1774	0	1592
Q Serve(g_s), s	2.3	9.0	9.1	1.5	8.4	8.4	2.6	0.0	3.8	0.0	0.0	0.5
Cycle Q Clear(g_c), s	2.3	9.0	9.1	1.5	8.4	8.4	2.6	0.0	3.8	0.0	0.0	0.5
Prop In Lane	1.00		0.16	1.00		0.04	1.00		0.81	1.00		0.94
Lane Grp Cap(c), veh/h	390	594	608	401	639	668	396	0	286	240	0	133
V/C Ratio(X)	0.30	0.59	0.59	0.22	0.57	0.57	0.28	0.00	0.49	0.00	0.00	0.13
Avail Cap(c_a), veh/h	740	1450	1485	807	1605	1677	828	0	531	753	0	464
HCM Platoon Ratio	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(l)	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	11.0	14.8	14.8	11.1	15.0	15.0	19.9	0.0	20.9	22.7	0.0	23.0
Incr Delay (d2), s/veh	0.4	1.4	1.3	0.3	1.1	1.1	0.4	0.0	1.3	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.2	3.3	0.6	3.3	3.5	1.2	0.0	1.6	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	16.2	16.2	11.3	16.1	16.1	20.3	0.0	22.2	22.7	0.0	23.5
LnGrp LOS	B	B	B	B	B	B	C	A	C	C	A	C
Approach Vol, veh/h		832			833			250				18
Approach Delay, s/veh		15.5			15.6			21.4				23.4
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	24.2	5.6	14.0	10.0	24.7	9.5	10.0				
Change Period (Y+Rc), s	6.3	6.3	5.5	5.5	6.3	6.3	5.5	5.5				
Max Green Setting (Gmax), s	15.0	45.0	15.8	15.8	15.0	45.0	15.8	15.8				
Max Q Clear Time (g_c+I1), s	4.3	10.4	2.0	5.8	3.5	11.1	4.6	2.5				
Green Ext Time (p_c), s	0.2	7.5	0.0	0.5	0.1	7.1	0.2	0.0				

Intersection Summary

HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

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

Lanes, Volumes, Timings
7: 39th Ave SE & College Way

01/23/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	253	376	684	150	44	75
Future Volume (vph)	253	376	684	150	44	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		0%	-5%		0%	
Storage Length (ft)	175			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		25	
Link Distance (ft)		1994	773		209	
Travel Time (s)		38.8	15.1		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	6%	6%	3%	3%	40%	40%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	11.3	16.3	35.3		34.5	34.5
Total Split (s)	31.3	46.3	46.3		50.5	50.5
Total Split (%)	24.4%	36.1%	36.1%		39.4%	39.4%
Yellow Time (s)	4.0	4.0	4.0		3.5	3.5
All-Red Time (s)	2.3	2.3	2.3		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3		5.5	5.5
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Min	Min		None	None

Intersection Summary

Area Type: Other

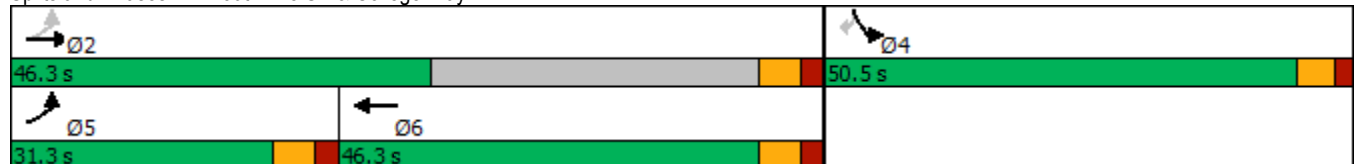
Cycle Length: 128.1

Actuated Cycle Length: 66.4

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Splits and Phases: 7: 39th Ave SE & College Way



HCM 6th Signalized Intersection Summary
7: 39th Ave SE & College Way

01/23/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	253	376	684	150	44	75
Future Volume (veh/h)	253	376	684	150	44	75
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00			1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1811	1811	2052	2052	1307	1307
Adj Flow Rate, veh/h	266	396	720	158	46	79
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	3	3	40	40
Cap, veh/h	505	2207	1162	255	124	110
Arrive On Green	0.14	0.64	0.37	0.37	0.10	0.10
Sat Flow, veh/h	1725	3532	3281	697	1245	1108
Grp Volume(v), veh/h	266	396	441	437	46	79
Grp Sat Flow(s),veh/h/ln	1725	1721	1949	1926	1245	1108
Q Serve(g_s), s	3.8	2.1	8.5	8.5	1.6	3.1
Cycle Q Clear(g_c), s	3.8	2.1	8.5	8.5	1.6	3.1
Prop In Lane	1.00			0.36	1.00	1.00
Lane Grp Cap(c), veh/h	505	2207	713	704	124	110
V/C Ratio(X)	0.53	0.18	0.62	0.62	0.37	0.72
Avail Cap(c_a), veh/h	1215	3023	1713	1692	1231	1095
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	3.3	11.8	11.8	19.2	19.9
Incr Delay (d2), s/veh	0.9	0.0	0.9	0.9	2.2	10.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.3	3.0	2.9	0.5	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.5	3.3	12.7	12.7	21.4	29.9
LnGrp LOS	A	A	B	B	C	C
Approach Vol, veh/h		662	878		125	
Approach Delay, s/veh		5.4	12.7		26.8	
Approach LOS		A	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.5		10.0	12.6	22.9
Change Period (Y+Rc), s		* 6.3		5.5	* 6.3	* 6.3
Max Green Setting (Gmax), s		* 40		45.0	* 25	* 40
Max Q Clear Time (g_c+I1), s		4.1		5.1	5.8	10.5
Green Ext Time (p_c), s		2.7		0.5	0.7	6.2
Intersection Summary						
HCM 6th Ctrl Delay			10.9			
HCM 6th LOS			B			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Lanes, Volumes, Timings
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	250	14	5	490	106	54	34	13	113	18	177
Future Volume (vph)	127	250	14	5	490	106	54	34	13	113	18	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-4%			0%			6%	
Storage Length (ft)	125		0	125		0	50		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		384			416			287			528	
Travel Time (s)		7.5			8.1			7.8			14.4	
Confl. Peds. (#/hr)									2	2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	2%	2%	2%	5%	5%	5%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%	34.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

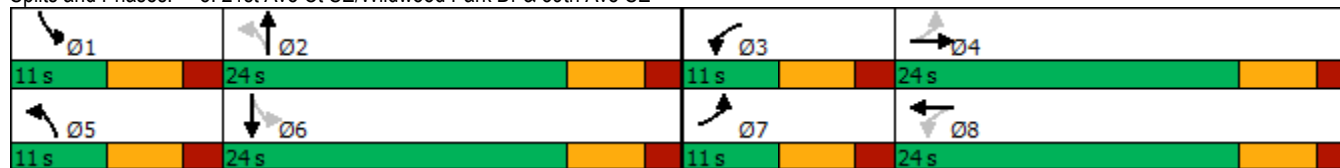
Cycle Length: 70

Actuated Cycle Length: 52.2

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE



HCM 6th Signalized Intersection Summary
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	250	14	5	490	106	54	34	13	113	18	177
Future Volume (veh/h)	127	250	14	5	490	106	54	34	13	113	18	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1811	1811	1811	2027	2027	2027	1870	1870	1870	1614	1614	1614
Adj Flow Rate, veh/h	140	275	15	5	538	116	59	37	14	124	20	195
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	6	2	2	2	2	2	2	5	5	5
Cap, veh/h	327	1029	56	413	733	157	297	230	87	437	27	264
Arrive On Green	0.08	0.31	0.31	0.01	0.23	0.23	0.05	0.18	0.18	0.09	0.21	0.21
Sat Flow, veh/h	1725	3319	180	1931	3154	677	1781	1292	489	1537	129	1255
Grp Volume(v), veh/h	140	142	148	5	328	326	59	0	51	124	0	215
Grp Sat Flow(s),veh/h/ln	1725	1721	1779	1931	1926	1905	1781	0	1780	1537	0	1384
Q Serve(g_s), s	3.4	3.6	3.6	0.1	9.0	9.1	1.5	0.0	1.4	3.7	0.0	8.3
Cycle Q Clear(g_c), s	3.4	3.6	3.6	0.1	9.0	9.1	1.5	0.0	1.4	3.7	0.0	8.3
Prop In Lane	1.00		0.10	1.00		0.36	1.00		0.27	1.00		0.91
Lane Grp Cap(c), veh/h	327	533	551	413	447	443	297	0	317	437	0	292
V/C Ratio(X)	0.43	0.27	0.27	0.01	0.73	0.74	0.20	0.00	0.16	0.28	0.00	0.74
Avail Cap(c_a), veh/h	332	541	559	569	606	599	358	0	560	439	0	435
HCM Platoon Ratio	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(l)	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	14.8	14.9	16.6	20.3	20.3	17.9	0.0	19.9	16.9	0.0	21.1
Incr Delay (d2), s/veh	0.9	0.3	0.3	0.0	3.0	3.2	0.3	0.0	0.2	0.4	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.3	1.3	0.0	4.0	4.0	0.6	0.0	0.6	1.3	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	15.1	15.1	16.6	23.3	23.5	18.2	0.0	20.1	17.2	0.0	24.7
LnGrp LOS	B	B	B	B	C	C	B	A	C	B	A	C
Approach Vol, veh/h		430			659			110				339
Approach Delay, s/veh		15.4			23.4			19.1				22.0
Approach LOS		B			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	16.2	6.4	23.7	9.0	18.1	10.8	19.3				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.7	3.4	2.1	5.6	3.5	10.3	5.4	11.1				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.2	0.0	0.8	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			20.5									
HCM 6th LOS			C									

Lanes, Volumes, Timings
9: 25th St SE & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	330	9	7	564	7	25	2	24	2	0	15
Future Volume (vph)	24	330	9	7	564	7	25	2	24	2	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	75		0	100		0	25		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25				25
Link Distance (ft)		365			225			248				136
Travel Time (s)		7.1			4.4			6.8				3.7
Confl. Peds. (#/hr)			1	1			1		1	1		1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	6%	6%	2%	2%	2%	5%	5%	5%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1		6
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1		6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0		10.0
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0		24.0
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0		24.0
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%		34.3%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	Min		None	Min		None	None		None		None

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 36.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 9: 25th St SE & 39th Ave SE

Ø1 11 s	Ø2 24 s	Ø3 11 s	Ø4 24 s
Ø5 11 s	Ø6 24 s	Ø7 11 s	Ø8 24 s

HCM 6th Signalized Intersection Summary
 9: 25th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	330	9	7	564	7	25	2	24	2	0	15
Future Volume (veh/h)	24	330	9	7	564	7	25	2	24	2	0	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1870	1870	1870	1826	1826	1826	1900	1900	1900
Adj Flow Rate, veh/h	26	351	10	7	600	7	27	2	26	2	0	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	2	2	2	5	5	5	0	0	0
Cap, veh/h	311	955	27	389	927	11	362	15	200	328	0	174
Arrive On Green	0.03	0.28	0.28	0.01	0.26	0.26	0.03	0.14	0.14	0.00	0.00	0.11
Sat Flow, veh/h	1725	3417	97	1781	3598	42	1739	112	1451	1810	0	1608
Grp Volume(v), veh/h	26	176	185	7	296	311	27	0	28	2	0	16
Grp Sat Flow(s),veh/h/ln	1725	1721	1793	1781	1777	1863	1739	0	1563	1810	0	1608
Q Serve(g_s), s	0.5	3.5	3.5	0.1	6.2	6.2	0.6	0.0	0.7	0.0	0.0	0.4
Cycle Q Clear(g_c), s	0.5	3.5	3.5	0.1	6.2	6.2	0.6	0.0	0.7	0.0	0.0	0.4
Prop In Lane	1.00		0.05	1.00		0.02	1.00		0.93	1.00		1.00
Lane Grp Cap(c), veh/h	311	481	501	389	458	480	362	0	215	328	0	174
V/C Ratio(X)	0.08	0.37	0.37	0.02	0.65	0.65	0.07	0.00	0.13	0.01	0.00	0.09
Avail Cap(c_a), veh/h	462	737	768	584	761	798	513	0	669	538	0	689
HCM Platoon Ratio	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(l)	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	11.3	12.2	12.2	11.4	13.9	13.9	15.8	0.0	15.9	16.6	0.0	16.9
Incr Delay (d2), s/veh	0.1	0.5	0.5	0.0	1.5	1.5	0.1	0.0	0.3	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.1	1.1	0.0	2.2	2.3	0.2	0.0	0.2	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	12.6	12.6	11.4	15.4	15.4	15.9	0.0	16.2	16.6	0.0	17.1
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		387			614			55				18
Approach Delay, s/veh		12.5			15.4			16.0				17.1
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	11.8	6.4	17.7	7.4	10.5	7.3	16.8				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.0	2.7	2.1	5.5	2.6	2.4	2.5	8.2				
Green Ext Time (p_c), s	0.0	0.1	0.0	1.6	0.0	0.0	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay			14.4									
HCM 6th LOS			B									

Lanes, Volumes, Timings
 10: Shaw Rd E & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Traffic Volume (vph)	156	0	244	1	0	0	471	852	1	0	329	225
Future Volume (vph)	156	0	244	1	0	0	471	852	1	0	329	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			8%			-4%			6%	
Storage Length (ft)	0		0	0		0	300		0	200		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		322			305			698			574	
Travel Time (s)		6.3			5.9			13.6			11.2	
Confl. Peds. (#/hr)									2	2		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		10.0	10.0		5.0	10.0	10.0
Minimum Split (s)	29.0	29.0	29.0	24.0	24.0		16.3	28.3		11.3	28.3	28.3
Total Split (s)	36.0	36.0	36.0	36.0	36.0		26.3	46.3		21.3	46.3	46.3
Total Split (%)	33.1%	33.1%	33.1%	33.1%	33.1%		24.2%	42.6%		19.6%	42.6%	42.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.3	2.3		2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0		6.3	6.3		6.3	6.3	6.3
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min

Intersection Summary

Area Type: Other

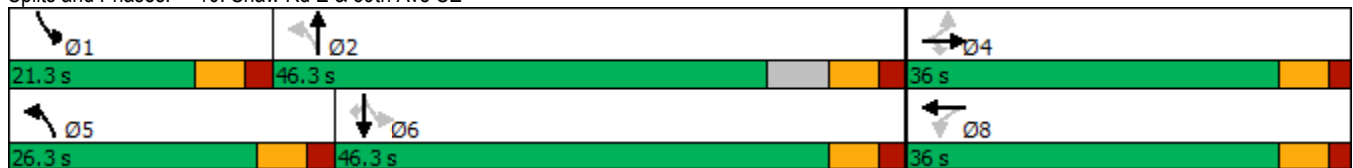
Cycle Length: 108.6

Actuated Cycle Length: 79.9

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Shaw Rd E & 39th Ave SE



HCM 6th Signalized Intersection Summary
 10: Shaw Rd E & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕	↗	↕	↗	↕
Traffic Volume (veh/h)	156	0	244	1	0	0	471	852	1	0	329	225
Future Volume (veh/h)	156	0	244	1	0	0	471	852	1	0	329	225
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1826	1826	1826	1523	1523	1523	2027	2027	2027	1644	1644	1644
Adj Flow Rate, veh/h	175	0	274	1	0	0	529	957	1	0	370	253
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	5	5	0	0	0	2	2	2	3	3	3
Cap, veh/h	439	0	341	223	0	0	601	1223	1	233	492	416
Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.00	0.22	0.60	0.60	0.00	0.30	0.30
Sat Flow, veh/h	1526	0	1547	544	0	0	1931	2025	2	1565	1644	1390
Grp Volume(v), veh/h	175	0	274	1	0	0	529	0	958	0	370	253
Grp Sat Flow(s),veh/h/ln	1526	0	1547	544	0	0	1931	0	2027	1565	1644	1390
Q Serve(g_s), s	0.0	0.0	11.8	0.1	0.0	0.0	12.1	0.0	24.9	0.0	14.3	10.9
Cycle Q Clear(g_c), s	6.1	0.0	11.8	6.2	0.0	0.0	12.1	0.0	24.9	0.0	14.3	10.9
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	439	0	341	223	0	0	601	0	1224	233	492	416
V/C Ratio(X)	0.40	0.00	0.80	0.00	0.00	0.00	0.88	0.00	0.78	0.00	0.75	0.61
Avail Cap(c_a), veh/h	726	0	662	409	0	0	736	0	1224	566	937	793
HCM Platoon Ratio	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(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	25.9	26.3	0.0	0.0	13.3	0.0	10.4	0.0	22.2	21.1
Incr Delay (d2), s/veh	0.6	0.0	4.4	0.0	0.0	0.0	10.3	0.0	3.6	0.0	3.3	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	4.4	0.0	0.0	0.0	5.9	0.0	9.6	0.0	5.5	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.3	0.0	30.3	26.4	0.0	0.0	23.7	0.0	14.0	0.0	25.6	23.1
LnGrp LOS	C	A	C	C	A	A	C	A	B	A	C	C
Approach Vol, veh/h		449			1			1487			623	
Approach Delay, s/veh		27.9			26.4			17.4			24.6	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	48.7		21.5	21.4	27.3		21.5				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.0	* 6.3	* 6.3		6.0				
Max Green Setting (Gmax), s	* 15	* 40		30.0	* 20	* 40		30.0				
Max Q Clear Time (g_c+I1), s	0.0	26.9		13.8	14.1	16.3		8.2				
Green Ext Time (p_c), s	0.0	7.6		1.7	1.0	4.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			21.0									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Lanes, Volumes, Timings

11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	14	22	47	49	47	41	1049	8	15	341	51
Future Volume (vph)	158	14	22	47	49	47	41	1049	8	15	341	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-9%			3%			-9%			6%	
Storage Length (ft)	50		0	50		0	100		175	75		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			Yes
Link Speed (mph)		25			25			35				35
Link Distance (ft)		481			429			444				403
Travel Time (s)		13.1			11.7			8.6				7.9
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	4%	4%	4%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	11.0	24.0		11.0	24.0		11.0	64.0	64.0	11.0	64.0	64.0
Total Split (%)	10.0%	21.8%		10.0%	21.8%		10.0%	58.2%	58.2%	10.0%	58.2%	58.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min

Intersection Summary

Area Type: Other

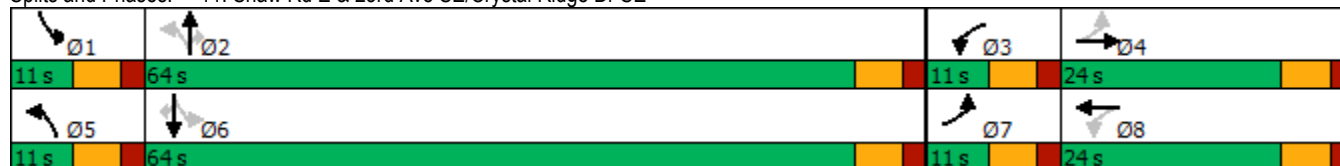
Cycle Length: 110

Actuated Cycle Length: 97

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Splits and Phases: 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE



HCM 6th Signalized Intersection Summary
 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	14	22	47	49	47	41	1049	8	15	341	51
Future Volume (veh/h)	158	14	22	47	49	47	41	1049	8	15	341	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	2239	2239	2239	1817	1817	1817	2224	2224	2224	1629	1629	1629
Adj Flow Rate, veh/h	163	14	23	48	51	48	42	1081	8	15	352	53
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	4	4	4
Cap, veh/h	285	97	160	296	95	90	621	1216	1030	161	860	728
Arrive On Green	0.06	0.13	0.13	0.04	0.11	0.11	0.04	0.55	0.55	0.02	0.53	0.53
Sat Flow, veh/h	2132	762	1252	1731	861	810	2118	2224	1883	1551	1629	1379
Grp Volume(v), veh/h	163	0	37	48	0	99	42	1081	8	15	352	53
Grp Sat Flow(s),veh/h/ln	2132	0	2014	1731	0	1671	2118	2224	1883	1551	1629	1379
Q Serve(g_s), s	5.0	0.0	1.5	2.2	0.0	5.0	0.8	38.3	0.2	0.4	11.6	1.7
Cycle Q Clear(g_c), s	5.0	0.0	1.5	2.2	0.0	5.0	0.8	38.3	0.2	0.4	11.6	1.7
Prop In Lane	1.00		0.62	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	0	258	296	0	185	621	1216	1030	161	860	728
V/C Ratio(X)	0.57	0.00	0.14	0.16	0.00	0.53	0.07	0.89	0.01	0.09	0.41	0.07
Avail Cap(c_a), veh/h	285	0	406	325	0	337	663	1445	1224	221	1058	896
HCM Platoon Ratio	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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	0.0	34.6	33.2	0.0	37.5	9.4	17.8	9.2	17.1	12.7	10.3
Incr Delay (d2), s/veh	2.7	0.0	0.3	0.3	0.0	2.4	0.0	6.4	0.0	0.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.7	0.9	0.0	2.2	0.3	19.3	0.1	0.1	3.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	0.0	34.8	33.4	0.0	39.9	9.5	24.2	9.2	17.3	13.0	10.4
LnGrp LOS	D	A	C	C	A	D	A	C	A	B	B	B
Approach Vol, veh/h		200			147			1131			420	
Approach Delay, s/veh		36.9			37.8			23.5			12.8	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	54.8	9.5	17.4	9.2	53.1	11.0	15.9				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	58.0	5.0	18.0	5.0	58.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.4	40.3	4.2	3.5	2.8	13.6	7.0	7.0				
Green Ext Time (p_c), s	0.0	8.6	0.0	0.1	0.0	2.4	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay			23.7									
HCM 6th LOS			C									

Lanes, Volumes, Timings
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

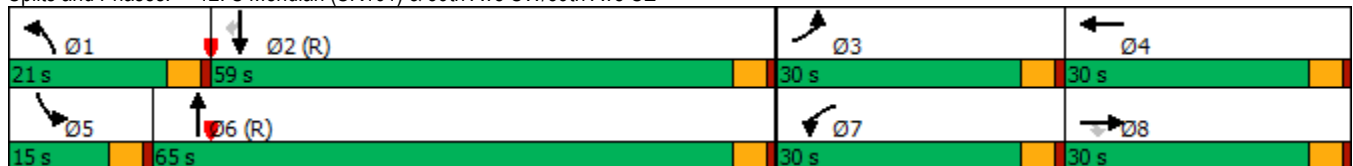
01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	214	261	153	55	163	14	102	1474	83	19	767	126
Future Volume (vph)	214	261	153	55	163	14	102	1474	83	19	767	126
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		0%			0%			3%			0%	
Storage Length (ft)	350		0	225		0	200		0	210		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		571			1339			1348			645	
Travel Time (s)		11.1			26.1			26.3			12.6	
Confl. Peds. (#/hr)									4			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	6%	6%	3%	3%	3%	5%	5%	5%	6%	6%	6%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									2
Detector Phase	3	8	8	7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	5.0	6.0	6.0	6.0	5.0		6.0	10.0		6.0	10.0	10.0
Minimum Split (s)	9.6	27.6	27.6	10.6	16.6		10.6	29.6		10.6	29.6	29.6
Total Split (s)	30.0	30.0	30.0	30.0	30.0		21.0	65.0		15.0	59.0	59.0
Total Split (%)	21.4%	21.4%	21.4%	21.4%	21.4%		15.0%	46.4%		10.7%	42.1%	42.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	C-Min

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 41 (29%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated

Splits and Phases: 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE



HCM 6th Signalized Intersection Summary
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	261	153	55	163	14	102	1474	83	19	767	126
Future Volume (veh/h)	214	261	153	55	163	14	102	1474	83	19	767	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1716	1716	1716	1758	1758	1758	1680	1680	1680	1716	1716	1716
Adj Flow Rate, veh/h	214	261	0	55	163	14	102	1474	83	19	767	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	3	3	3	5	5	5	6	6	6
Cap, veh/h	236	564		70	218	19	121	1940	109	37	1886	
Arrive On Green	0.14	0.17	0.00	0.04	0.07	0.07	0.15	1.00	1.00	0.04	1.00	0.00
Sat Flow, veh/h	1634	3260	1454	1674	3115	265	1600	3071	172	1634	3260	1454
Grp Volume(v), veh/h	214	261	0	55	87	90	102	763	794	19	767	0
Grp Sat Flow(s),veh/h/ln	1634	1630	1454	1674	1670	1710	1600	1596	1648	1634	1630	1454
Q Serve(g_s), s	18.0	10.1	0.0	4.6	7.1	7.3	8.7	0.0	0.0	1.6	0.0	0.0
Cycle Q Clear(g_c), s	18.0	10.1	0.0	4.6	7.1	7.3	8.7	0.0	0.0	1.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	236	564		70	117	120	121	1008	1041	37	1886	
V/C Ratio(X)	0.91	0.46		0.79	0.74	0.75	0.85	0.76	0.76	0.52	0.41	
Avail Cap(c_a), veh/h	296	591		304	303	310	187	1008	1041	121	1886	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	0.00	0.99	0.99	0.99	0.32	0.32	0.32	0.98	0.98	0.00
Uniform Delay (d), s/veh	58.9	52.0	0.0	66.5	63.8	63.9	58.6	0.0	0.0	66.1	0.0	0.0
Incr Delay (d2), s/veh	24.6	0.4	0.0	13.3	5.5	5.7	5.7	1.8	1.7	8.1	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	4.2	0.0	2.2	3.2	3.3	3.5	0.5	0.5	0.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.6	52.5	0.0	79.7	69.3	69.6	64.3	1.8	1.7	74.2	0.6	0.0
LnGrp LOS	F	D		E	E	E	E	A	A	E	A	
Approach Vol, veh/h		475	A		232			1659			786	A
Approach Delay, s/veh		66.5			71.9			5.6			2.4	
Approach LOS		E			E			A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	85.6	24.8	14.4	7.7	93.0	10.4	28.8				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	16.4	54.4	25.4	25.4	10.4	60.4	25.4	25.4				
Max Q Clear Time (g_c+I1), s	10.7	2.0	20.0	9.3	3.6	2.0	6.6	12.1				
Green Ext Time (p_c), s	0.1	4.9	0.2	0.6	0.0	13.2	0.1	1.0				

Intersection Summary

HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
13: 5th St SE & 39th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	245	42	65	125	7	60	240	101	2	152	35
Future Volume (vph)	53	245	42	65	125	7	60	240	101	2	152	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			-3%			0%	
Storage Length (ft)	150		0	175		0	225		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1339			1162			552			965	
Travel Time (s)		26.1			22.6			12.5			21.9	
Confl. Peds. (#/hr)									3	3		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0		11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0		21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%		16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

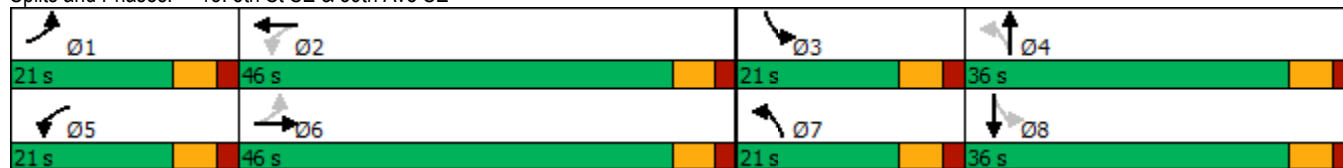
Cycle Length: 124

Actuated Cycle Length: 58.8

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 13: 5th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
 13: 5th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	245	42	65	125	7	60	240	101	2	152	35
Future Volume (veh/h)	53	245	42	65	125	7	60	240	101	2	152	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1826	1826	1826	2003	2003	2003	1885	1885	1885
Adj Flow Rate, veh/h	57	263	45	70	134	8	65	258	109	2	163	38
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	5	5	5	1	1	1	1	1	1
Cap, veh/h	450	596	101	375	682	40	393	352	149	237	307	71
Arrive On Green	0.05	0.20	0.20	0.06	0.20	0.20	0.06	0.26	0.26	0.00	0.21	0.21
Sat Flow, veh/h	1767	3017	509	1739	3328	197	1908	1335	564	1795	1477	344
Grp Volume(v), veh/h	57	152	156	70	69	73	65	0	367	2	0	201
Grp Sat Flow(s),veh/h/ln	1767	1763	1764	1739	1735	1790	1908	0	1899	1795	0	1821
Q Serve(g_s), s	1.3	3.8	3.9	1.6	1.7	1.7	1.3	0.0	8.9	0.0	0.0	5.0
Cycle Q Clear(g_c), s	1.3	3.8	3.9	1.6	1.7	1.7	1.3	0.0	8.9	0.0	0.0	5.0
Prop In Lane	1.00		0.29	1.00		0.11	1.00		0.30	1.00		0.19
Lane Grp Cap(c), veh/h	450	348	348	375	355	367	393	0	501	237	0	378
V/C Ratio(X)	0.13	0.44	0.45	0.19	0.20	0.20	0.17	0.00	0.73	0.01	0.00	0.53
Avail Cap(c_a), veh/h	877	1392	1393	782	1370	1414	845	0	1125	764	0	1079
HCM Platoon Ratio	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(l)	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	14.7	17.8	17.9	14.6	16.7	16.7	14.4	0.0	17.0	16.2	0.0	17.9
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.2	0.3	0.3	0.2	0.0	2.1	0.0	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	0.4	1.4	1.5	0.6	0.6	0.6	0.5	0.0	3.7	0.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	18.7	18.8	14.9	16.9	16.9	14.5	0.0	19.1	16.2	0.0	19.0
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		365			212			432				203
Approach Delay, s/veh		18.1			16.3			18.4				19.0
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	16.4	6.1	19.4	9.1	16.0	9.0	16.5				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	3.3	3.7	2.0	10.9	3.6	5.9	3.3	7.0				
Green Ext Time (p_c), s	0.1	0.8	0.0	2.2	0.1	1.8	0.1	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			18.0									
HCM 6th LOS			B									

Lanes, Volumes, Timings
 14: S Meridian (SR161) & 43rd Ave SE

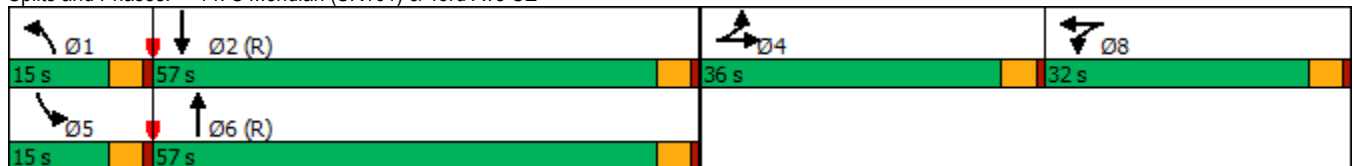
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	60	5	108	46	71	14	1716	141	72	776	12
Future Volume (vph)	46	60	5	108	46	71	14	1716	141	72	776	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		-4%			6%			0%			0%	
Storage Length (ft)	150		0	275		0	250		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		332			544			617			1348	
Travel Time (s)		9.1			10.6			12.0			26.3	
Confl. Peds. (#/hr)			3	3					3			2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	4%	4%	4%	5%	5%	5%	3%	3%	3%	11%	11%	11%
Shared Lane Traffic (%)												
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		1	6		5	2	
Permitted Phases												
Detector Phase	4	4		8	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	33.6	33.6		30.6	30.6		10.6	32.6		10.6	28.6	
Total Split (s)	36.0	36.0		32.0	32.0		15.0	57.0		15.0	57.0	
Total Split (%)	25.7%	25.7%		22.9%	22.9%		10.7%	40.7%		10.7%	40.7%	
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6		4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated

Splits and Phases: 14: S Meridian (SR161) & 43rd Ave SE



HCM 6th Signalized Intersection Summary
 14: S Meridian (SR161) & 43rd Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	60	5	108	46	71	14	1716	141	72	776	12
Future Volume (veh/h)	46	60	5	108	46	71	14	1716	141	72	776	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	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	1892	1892	1892	1529	1529	1529	1758	1758	1758	1646	1646	1646
Adj Flow Rate, veh/h	46	60	5	108	46	71	14	1716	141	72	776	12
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	5	5	5	3	3	3	11	11	11
Cap, veh/h	107	102	8	156	58	89	30	2022	164	87	2157	33
Arrive On Green	0.06	0.06	0.06	0.11	0.11	0.11	0.02	0.65	0.65	0.11	1.00	1.00
Sat Flow, veh/h	1802	1720	143	1456	539	832	1674	3127	254	1567	3151	49
Grp Volume(v), veh/h	46	0	65	108	0	117	14	907	950	72	385	403
Grp Sat Flow(s),veh/h/ln	1802	0	1864	1456	0	1371	1674	1670	1711	1567	1563	1637
Q Serve(g_s), s	3.4	0.0	4.8	10.0	0.0	11.7	1.2	58.8	61.7	6.3	0.0	0.0
Cycle Q Clear(g_c), s	3.4	0.0	4.8	10.0	0.0	11.7	1.2	58.8	61.7	6.3	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.61	1.00		0.15	1.00		0.03
Lane Grp Cap(c), veh/h	107	0	110	156	0	147	30	1080	1107	87	1070	1120
V/C Ratio(X)	0.43	0.00	0.59	0.69	0.00	0.80	0.46	0.84	0.86	0.82	0.36	0.36
Avail Cap(c_a), veh/h	404	0	418	285	0	268	124	1080	1107	116	1070	1120
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	63.6	0.0	64.2	60.3	0.0	61.0	68.1	19.1	19.6	61.5	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	3.9	4.4	0.0	7.8	7.4	7.9	8.7	26.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	2.4	3.9	0.0	4.4	0.6	23.5	25.4	3.0	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.8	0.0	68.1	64.7	0.0	68.8	75.5	27.0	28.3	87.7	0.8	0.8
LnGrp LOS	E	A	E	E	A	E	E	C	C	F	A	A
Approach Vol, veh/h		111			225			1871			860	
Approach Delay, s/veh		67.2			66.8			28.0			8.1	
Approach LOS		E			E			C			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	100.4		12.9	12.4	95.1		19.6				
Change Period (Y+Rc), s	4.6	4.6		4.6	4.6	4.6		4.6				
Max Green Setting (Gmax), s	10.4	52.4		31.4	10.4	52.4		27.4				
Max Q Clear Time (g_c+I1), s	3.2	2.0		6.8	8.3	63.7		13.7				
Green Ext Time (p_c), s	0.0	5.1		0.4	0.0	0.0		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				26.7								
HCM 6th LOS				C								

2032 With Project PM Peak Hour

Lanes, Volumes, Timings
1: 7th St SE & College Way

01/23/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	14	44	402	14	44	491
Future Volume (vph)	14	44	402	14	44	491
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-4%			0%
Storage Length (ft)	0	0		0	50	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Link Speed (mph)	25		25			25
Link Distance (ft)	771		286			501
Travel Time (s)	21.0		7.8			13.7
Confl. Peds. (#/hr)				7	7	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	2%	2%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	14	44	402	14	44	491
Future Vol, veh/h	14	44	402	14	44	491
Conflicting Peds, #/hr	0	0	0	7	7	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-4	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	2	2	2	2
Mvmt Flow	16	49	452	16	49	552

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1117	467	0	0	475
Stage 1	467	-	-	-	-
Stage 2	650	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218
Pot Cap-1 Maneuver	231	600	-	-	1087
Stage 1	635	-	-	-	-
Stage 2	523	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	219	596	-	-	1080
Mov Cap-2 Maneuver	352	-	-	-	-
Stage 1	631	-	-	-	-
Stage 2	499	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	511	1080	-
HCM Lane V/C Ratio	-	-	0.128	0.046	-
HCM Control Delay (s)	-	-	13.1	8.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Lanes, Volumes, Timings
2: 31st Ave SW/S Meridian (SR161)

01/23/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖↖	↗↗	↖↖	↗	↖↖	↗
Traffic Volume (vph)	294	1408	1350	448	655	309
Future Volume (vph)	294	1408	1350	448	655	309
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Storage Length (ft)	250			0	0	175
Storage Lanes	2			1	2	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		35	
Link Distance (ft)		370	339		787	
Travel Time (s)		7.2	6.6		15.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	2%	2%	3%	3%	1%	1%
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Detector Phase	5		6	6	4	4
Switch Phase						
Minimum Initial (s)	8.0		10.0	10.0	8.0	8.0
Minimum Split (s)	12.6		20.6	20.6	12.6	12.6
Total Split (s)	21.0		79.0	79.0	50.0	50.0
Total Split (%)	14.0%		52.7%	52.7%	33.3%	33.3%
Yellow Time (s)	3.6		3.6	3.6	3.6	3.6
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6		4.6	4.6	4.6	4.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	Min		C-Min	C-Min	None	None

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 44 (29%), Referenced to phase 6:WBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 ! Phase conflict between lane groups.

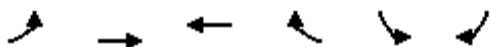
Splits and Phases: 2: 31st Ave SW/S Meridian (SR161)



HCM Signalized Intersection Capacity Analysis

2: 31st Ave SW/S Meridian (SR161)

01/23/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↗↘	↑↑	↑↑	↗	↗↘	↗
Traffic Volume (vph)	294	1408	1350	448	655	309
Future Volume (vph)	294	1408	1350	448	655	309
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)		4%	-4%		0%	
Total Lost time (s)	4.6	4.0	4.6	4.6	4.6	4.6
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	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)	3187	3286	3387	1515	3285	1515
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3187	3286	3387	1515	3285	1515
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	294	1408	1350	448	655	309
RTOR Reduction (vph)	0	0	0	148	0	168
Lane Group Flow (vph)	294	1408	1350	300	655	141
Heavy Vehicles (%)	2%	2%	3%	3%	1%	1%
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	Free!	6		4!	
Permitted Phases				6		4
Actuated Green, G (s)	18.3	150.0	82.9	82.9	35.0	35.0
Effective Green, g (s)	18.3	150.0	82.9	82.9	35.0	35.0
Actuated g/C Ratio	0.12	1.00	0.55	0.55	0.23	0.23
Clearance Time (s)	4.6		4.6	4.6	4.6	4.6
Vehicle Extension (s)	2.5		2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	388	3286	1871	837	766	353
v/s Ratio Prot	c0.09	0.43	c0.40		c0.20	
v/s Ratio Perm				0.20		0.09
v/c Ratio	0.76	0.43	0.72	0.36	0.86	0.40
Uniform Delay, d1	63.7	0.0	25.0	18.7	55.1	48.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	0.4	2.4	1.2	9.1	0.5
Delay (s)	71.6	0.4	27.4	19.9	64.2	49.2
Level of Service	E	A	C	B	E	D
Approach Delay (s)		12.7	25.5		59.4	
Approach LOS		B	C		E	

Intersection Summary

HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.8
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Lanes, Volumes, Timings
3: S Meridian (SR161) & 37th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	152	113	199	183	437	93	1170	68	420	1467	68
Future Volume (vph)	71	152	113	199	183	437	93	1170	68	420	1467	68
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (ft)	0		0	250		0	225		0	350		0
Storage Lanes	1		1	1		1	1		0	2		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35				35
Link Distance (ft)		242			1349			645				449
Travel Time (s)		6.6			26.3			12.6				8.7
Confl. Peds. (#/hr)						2			2			1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	4%	4%	4%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Free	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8			Free						
Detector Phase	3	8	8	7	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	8.6	10.6	10.6	10.6	35.6		10.6	28.6		10.6	31.6	
Total Split (s)	15.0	25.0	25.0	27.0	37.0		23.0	72.0		26.0	75.0	
Total Split (%)	10.0%	16.7%	16.7%	18.0%	24.7%		15.3%	48.0%		17.3%	50.0%	
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	

Intersection Summary

Area Type: Other

Cycle Length: 150

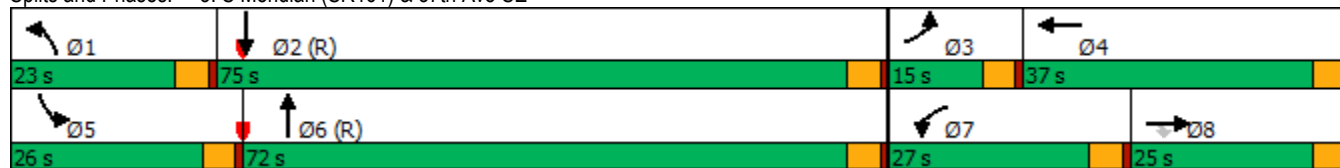
Actuated Cycle Length: 150

Offset: 28 (19%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Splits and Phases: 3: S Meridian (SR161) & 37th Ave SE



HCM 6th Signalized Intersection Summary
 3: S Meridian (SR161) & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	152	113	199	183	437	93	1170	68	420	1467	68
Future Volume (veh/h)	71	152	113	199	183	437	93	1170	68	420	1467	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1786	1786	1786	1786	1786	1786	1744	1744	1744	1772	1772	1772
Adj Flow Rate, veh/h	71	152	113	199	183	0	93	1170	68	420	1467	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	4	4	4	2	2	2
Cap, veh/h	88	311	139	221	302		112	1641	95	460	2848	
Arrive On Green	0.05	0.09	0.09	0.13	0.17	0.00	0.13	1.00	1.00	0.14	0.59	0.00
Sat Flow, veh/h	1701	3393	1514	1701	1786	1514	1661	3182	185	3274	4997	0
Grp Volume(v), veh/h	71	152	113	199	183	0	93	609	629	420	1467	0
Grp Sat Flow(s),veh/h/ln	1701	1697	1514	1701	1786	1514	1661	1657	1710	1637	1612	0
Q Serve(g_s), s	6.2	6.4	11.0	17.3	14.2	0.0	8.2	0.0	0.0	19.0	26.8	0.0
Cycle Q Clear(g_c), s	6.2	6.4	11.0	17.3	14.2	0.0	8.2	0.0	0.0	19.0	26.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	88	311	139	221	302		112	854	882	460	2848	
V/C Ratio(X)	0.80	0.49	0.82	0.90	0.61		0.83	0.71	0.71	0.91	0.52	
Avail Cap(c_a), veh/h	118	461	206	254	386		204	854	882	467	2848	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.71	0.71	0.00	0.49	0.49	0.49	1.00	1.00	0.00
Uniform Delay (d), s/veh	70.3	64.8	66.9	64.3	57.7	0.0	64.1	0.0	0.0	63.6	18.2	0.0
Incr Delay (d2), s/veh	26.3	1.2	14.3	23.2	1.5	0.0	7.7	2.5	2.4	22.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	2.9	4.8	8.9	6.6	0.0	3.5	0.6	0.6	9.3	10.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.7	66.0	81.2	87.5	59.2	0.0	71.8	2.5	2.4	85.8	18.9	0.0
LnGrp LOS	F	E	F	F	E		E	A	A	F	B	
Approach Vol, veh/h		336			382	A		1331			1887	A
Approach Delay, s/veh		77.6			73.9			7.3			33.8	
Approach LOS		E			E			A			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	92.9	12.4	30.0	25.7	82.0	24.0	18.3				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	18.4	70.4	10.4	32.4	21.4	67.4	22.4	20.4				
Max Q Clear Time (g_c+I1), s	10.2	28.8	8.2	16.2	21.0	2.0	19.3	13.0				
Green Ext Time (p_c), s	0.1	17.7	0.0	0.9	0.1	14.6	0.2	0.7				

Intersection Summary

HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
4: 5th St SE & 37th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	402	94	39	556	208	123	293	24	280	466	79
Future Volume (vph)	98	402	94	39	556	208	123	293	24	280	466	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-3%			0%			-5%	
Storage Length (ft)	200		0	225		150	200		0	250		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		1349			1181			965			418	
Travel Time (s)		26.3			23.0			21.9			11.4	
Confl. Peds. (#/hr)	3		1	1		3	1		3	3		1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2		2	4			8		
Detector Phase	1	6		5	2	2	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0	26.0	11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0	46.0	21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%	37.1%	16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	

Intersection Summary

Area Type: Other

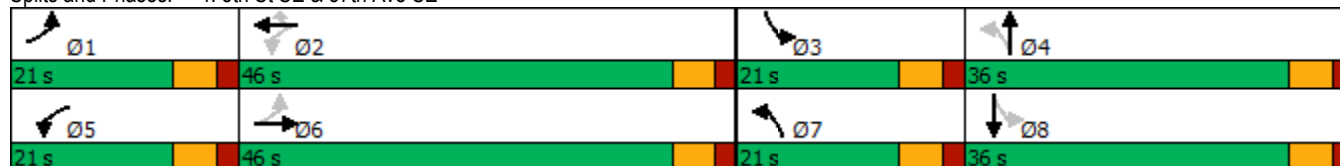
Cycle Length: 124

Actuated Cycle Length: 96.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 4: 5th St SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
4: 5th St SE & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	402	94	39	556	208	123	293	24	280	466	79
Future Volume (veh/h)	98	402	94	39	556	208	123	293	24	280	466	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1900	1900	1900	2003	2003	2003	1885	1885	1885	2082	2082	2082
Adj Flow Rate, veh/h	103	423	99	41	585	0	129	308	0	295	491	83
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	1	1	1	1	1	1
Cap, veh/h	278	722	167	279	850		277	498		505	563	95
Arrive On Green	0.06	0.25	0.25	0.04	0.22	0.00	0.07	0.26	0.00	0.14	0.32	0.32
Sat Flow, veh/h	1810	2905	674	1908	3806	1697	1795	1885	0	1983	1735	293
Grp Volume(v), veh/h	103	261	261	41	585	0	129	308	0	295	0	574
Grp Sat Flow(s),veh/h/ln	1810	1805	1774	1908	1903	1697	1795	1885	0	1983	0	2028
Q Serve(g_s), s	3.3	9.7	9.9	1.2	10.8	0.0	3.9	11.0	0.0	7.9	0.0	20.4
Cycle Q Clear(g_c), s	3.3	9.7	9.9	1.2	10.8	0.0	3.9	11.0	0.0	7.9	0.0	20.4
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.00	1.00		0.14
Lane Grp Cap(c), veh/h	278	448	441	279	850		277	498		505	0	658
V/C Ratio(X)	0.37	0.58	0.59	0.15	0.69		0.47	0.62		0.58	0.00	0.87
Avail Cap(c_a), veh/h	519	946	930	581	1995		496	741		627	0	797
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.5	25.2	25.3	21.7	27.2	0.0	19.9	24.7	0.0	16.9	0.0	24.3
Incr Delay (d2), s/veh	0.8	1.2	1.3	0.2	1.0	0.0	1.2	1.3	0.0	1.1	0.0	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.1	4.1	0.5	4.7	0.0	1.6	4.9	0.0	3.6	0.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	26.4	26.5	22.0	28.2	0.0	21.1	26.0	0.0	18.0	0.0	33.4
LnGrp LOS	C	C	C	C	C		C	C		B	A	C
Approach Vol, veh/h		625			626	A		437	A		869	
Approach Delay, s/veh		25.8			27.8			24.5			28.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	23.0	16.3	26.1	8.9	25.0	11.7	30.8				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	5.3	12.8	9.9	13.0	3.2	11.9	5.9	22.4				
Green Ext Time (p_c), s	0.1	4.1	0.4	1.6	0.0	3.2	0.2	2.4				

Intersection Summary

HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
5: 39th Ave SE & 37th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	705	7	325	751	6	1	8	299	5	11	22
Future Volume (vph)	9	705	7	325	751	6	1	8	299	5	11	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		6%			-5%			3%			0%	
Storage Length (ft)	225		0	200		0	200		0	0		150
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35				25
Link Distance (ft)		1181			510			1162				264
Travel Time (s)		23.0			9.9			22.6				7.2
Confl. Peds. (#/hr)	1		1	1		1						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt		NA
Protected Phases	7	4		3	8		5	2	3	1		6
Permitted Phases	4			8			2		2	6		
Detector Phase	7	4		3	8		5	2	3	1		6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	5.0	5.0		10.0
Minimum Split (s)	12.0	30.0		12.0	30.0		11.0	16.0	12.0	11.0		34.0
Total Split (s)	23.0	42.0		23.0	42.0		22.0	22.0	23.0	22.0		22.0
Total Split (%)	21.1%	38.5%		21.1%	38.5%		20.2%	20.2%	21.1%	20.2%		20.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0	3.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0	7.0	6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		Yes
Recall Mode	None	Min		None	Min		None	None	None	None		None

Intersection Summary

Area Type: Other

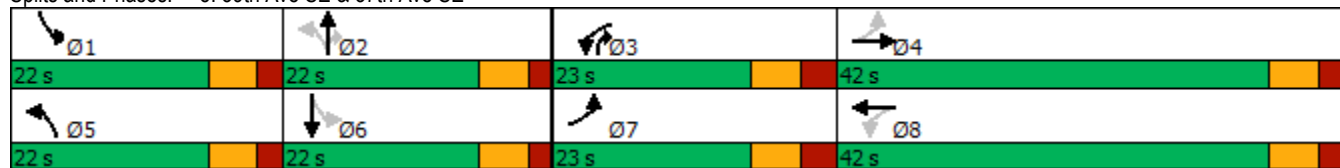
Cycle Length: 109

Actuated Cycle Length: 62.3

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 5: 39th Ave SE & 37th Ave SE



HCM 6th Signalized Intersection Summary
 5: 39th Ave SE & 37th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	705	7	325	751	6	1	8	299	5	11	22
Future Volume (veh/h)	9	705	7	325	751	6	1	8	299	5	11	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1673	1673	1673	2067	2067	2067	1817	1817	1817	1900	1900	1900
Adj Flow Rate, veh/h	10	750	7	346	799	6	1	9	318	5	12	23
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	0	0	0
Cap, veh/h	302	1045	10	462	1807	14	343	360	522	311	118	227
Arrive On Green	0.01	0.32	0.32	0.14	0.45	0.45	0.00	0.20	0.20	0.01	0.20	0.20
Sat Flow, veh/h	1593	3227	30	1968	3994	30	1731	1817	1540	1810	583	1117
Grp Volume(v), veh/h	10	369	388	346	393	412	1	9	318	5	0	35
Grp Sat Flow(s),veh/h/ln	1593	1589	1668	1968	1963	2061	1731	1817	1540	1810	0	1699
Q Serve(g_s), s	0.3	16.1	16.1	8.6	10.8	10.8	0.0	0.3	13.5	0.2	0.0	1.3
Cycle Q Clear(g_c), s	0.3	16.1	16.1	8.6	10.8	10.8	0.0	0.3	13.5	0.2	0.0	1.3
Prop In Lane	1.00		0.02	1.00		0.01	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	302	515	540	462	888	932	343	360	522	311	0	346
V/C Ratio(X)	0.03	0.72	0.72	0.75	0.44	0.44	0.00	0.02	0.61	0.02	0.00	0.10
Avail Cap(c_a), veh/h	606	707	742	585	888	932	693	370	530	667	0	346
HCM Platoon Ratio	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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	23.4	23.4	15.9	14.7	14.8	25.2	25.4	21.7	24.9	0.0	25.5
Incr Delay (d2), s/veh	0.0	4.2	4.0	4.0	0.7	0.7	0.0	0.0	2.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.2	6.5	3.9	4.5	4.7	0.0	0.1	4.8	0.1	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	27.6	27.4	20.0	15.5	15.5	25.2	25.4	23.6	25.0	0.0	25.6
LnGrp LOS	B	C	C	B	B	B	C	C	C	C	A	C
Approach Vol, veh/h		767			1151			328				40
Approach Delay, s/veh		27.4			16.8			23.7				25.5
Approach LOS		C			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	21.6	18.1	32.5	6.1	22.0	8.0	42.6				
Change Period (Y+Rc), s	6.0	6.0	7.0	7.0	6.0	6.0	7.0	7.0				
Max Green Setting (Gmax), s	16.0	16.0	16.0	35.0	16.0	16.0	16.0	35.0				
Max Q Clear Time (g_c+I1), s	2.2	15.5	10.6	18.1	2.0	3.3	2.3	12.8				
Green Ext Time (p_c), s	0.0	0.1	0.5	7.4	0.0	0.1	0.0	9.2				

Intersection Summary

HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

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

Lanes, Volumes, Timings
6: 10th St SE & 39th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	815	160	163	847	5	99	7	79	16	32	134
Future Volume (vph)	39	815	160	163	847	5	99	7	79	16	32	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-5%			-6%			-4%	
Storage Length (ft)	150		0	200		0	100		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		510			1994			256			231	
Travel Time (s)		9.9			38.8			5.8			6.3	
Confl. Peds. (#/hr)	1		2	2		1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	5%	5%	5%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.3	30.3		11.3	30.3		10.5	25.5		10.5	25.5	
Total Split (s)	21.3	51.3		21.3	51.3		21.3	21.3		21.3	21.3	
Total Split (%)	18.5%	44.5%		18.5%	44.5%		18.5%	18.5%		18.5%	18.5%	
Yellow Time (s)	4.3	4.3		4.3	4.3		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

Cycle Length: 115.2

Actuated Cycle Length: 90.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 6: 10th St SE & 39th Ave SE

Ø1	Ø2	Ø3	Ø4
21.3 s	51.3 s	21.3 s	21.3 s
Ø5	Ø6	Ø7	Ø8
21.3 s	51.3 s	21.3 s	21.3 s

HCM 6th Signalized Intersection Summary
6: 10th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	815	160	163	847	5	99	7	79	16	32	134
Future Volume (veh/h)	39	815	160	163	847	5	99	7	79	16	32	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	2067	2067	2067	2061	2061	2061	2057	2057	2057
Adj Flow Rate, veh/h	43	906	178	181	941	6	110	8	88	18	36	149
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	1	1	1	2	2	2	5	5	5	0	0	0
Cap, veh/h	335	1242	244	342	1826	12	269	26	291	322	46	191
Arrive On Green	0.04	0.42	0.42	0.08	0.46	0.46	0.07	0.18	0.18	0.02	0.13	0.13
Sat Flow, veh/h	1795	2983	586	1968	4000	26	1963	147	1622	1959	350	1447
Grp Volume(v), veh/h	43	544	540	181	462	485	110	0	96	18	0	185
Grp Sat Flow(s),veh/h/ln	1795	1791	1778	1968	1963	2062	1963	0	1769	1959	0	1797
Q Serve(g_s), s	1.0	19.7	19.7	4.0	13.0	13.0	3.7	0.0	3.7	0.6	0.0	7.7
Cycle Q Clear(g_c), s	1.0	19.7	19.7	4.0	13.0	13.0	3.7	0.0	3.7	0.6	0.0	7.7
Prop In Lane	1.00		0.33	1.00		0.01	1.00		0.92	1.00		0.81
Lane Grp Cap(c), veh/h	335	746	740	342	896	941	269	0	317	322	0	237
V/C Ratio(X)	0.13	0.73	0.73	0.53	0.52	0.52	0.41	0.00	0.30	0.06	0.00	0.78
Avail Cap(c_a), veh/h	613	1040	1032	567	1140	1197	535	0	361	681	0	366
HCM Platoon Ratio	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(l)	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	12.5	19.0	19.0	14.5	15.0	15.0	26.6	0.0	27.6	28.1	0.0	32.6
Incr Delay (d2), s/veh	0.2	2.2	2.2	1.3	0.7	0.6	1.0	0.0	0.5	0.1	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	7.8	7.8	1.7	5.4	5.6	1.7	0.0	1.5	0.3	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	21.1	21.2	15.8	15.6	15.6	27.6	0.0	28.1	28.2	0.0	38.3
LnGrp LOS	B	C	C	B	B	B	C	A	C	C	A	D
Approach Vol, veh/h		1127			1128			206				203
Approach Delay, s/veh		20.8			15.6			27.8				37.4
Approach LOS		C			B			C				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	41.7	7.1	19.4	12.4	38.6	10.8	15.7				
Change Period (Y+Rc), s	6.3	6.3	5.5	5.5	6.3	6.3	5.5	5.5				
Max Green Setting (Gmax), s	15.0	45.0	15.8	15.8	15.0	45.0	15.8	15.8				
Max Q Clear Time (g_c+I1), s	3.0	15.0	2.6	5.7	6.0	21.7	5.7	9.7				
Green Ext Time (p_c), s	0.0	9.8	0.0	0.3	0.3	10.5	0.2	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			20.4									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Lanes, Volumes, Timings
7: 39th Ave SE & College Way

01/23/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	147	750	777	88	88	148
Future Volume (vph)	147	750	777	88	88	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		0%	-5%		0%	
Storage Length (ft)	175			0	0	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		35	35		25	
Link Distance (ft)		1994	702		209	
Travel Time (s)		38.8	13.7		5.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	1%	1%	5%	5%
Shared Lane Traffic (%)						
Turn Type	pm+pt	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0		5.0	5.0
Minimum Split (s)	11.3	16.3	35.3		34.5	34.5
Total Split (s)	31.3	46.3	46.3		50.5	50.5
Total Split (%)	24.4%	36.1%	36.1%		39.4%	39.4%
Yellow Time (s)	4.0	4.0	4.0		3.5	3.5
All-Red Time (s)	2.3	2.3	2.3		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3		5.5	5.5
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Min	Min		None	None

Intersection Summary

Area Type: Other

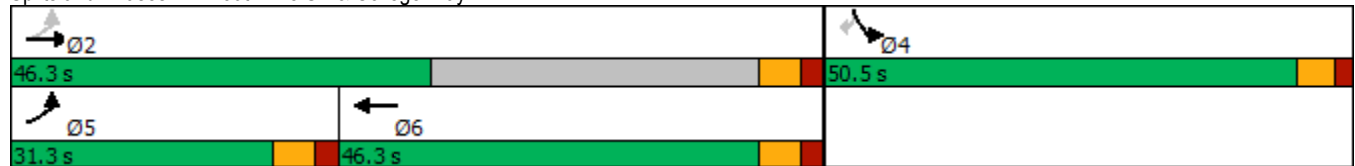
Cycle Length: 128.1

Actuated Cycle Length: 65.8

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Splits and Phases: 7: 39th Ave SE & College Way



HCM 6th Signalized Intersection Summary
7: 39th Ave SE & College Way

01/23/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	147	750	777	88	88	148
Future Volume (veh/h)	147	750	777	88	88	148
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00			1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	2082	2082	1826	1826
Adj Flow Rate, veh/h	162	824	854	97	97	163
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1	1	5	5
Cap, veh/h	420	2140	1345	153	276	246
Arrive On Green	0.09	0.60	0.38	0.38	0.16	0.16
Sat Flow, veh/h	1795	3676	3684	407	1739	1547
Grp Volume(v), veh/h	162	824	472	479	97	163
Grp Sat Flow(s),veh/h/ln	1795	1791	1978	2008	1739	1547
Q Serve(g_s), s	2.4	5.8	9.5	9.5	2.4	4.8
Cycle Q Clear(g_c), s	2.4	5.8	9.5	9.5	2.4	4.8
Prop In Lane	1.00			0.20	1.00	1.00
Lane Grp Cap(c), veh/h	420	2140	743	755	276	246
V/C Ratio(X)	0.39	0.39	0.63	0.63	0.35	0.66
Avail Cap(c_a), veh/h	1183	2959	1634	1659	1616	1438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.3	5.1	12.4	12.4	18.1	19.1
Incr Delay (d2), s/veh	0.6	0.1	0.9	0.9	0.9	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.3	3.5	3.5	1.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	5.2	13.3	13.3	19.1	22.8
LnGrp LOS	A	A	B	B	B	C
Approach Vol, veh/h		986	951		260	
Approach Delay, s/veh		5.8	13.3		21.4	
Approach LOS		A	B		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.2		13.2	10.7	24.5
Change Period (Y+Rc), s		* 6.3		5.5	* 6.3	* 6.3
Max Green Setting (Gmax), s		* 40		45.0	* 25	* 40
Max Q Clear Time (g_c+I1), s		7.8		6.8	4.4	11.5
Green Ext Time (p_c), s		6.4		1.1	0.4	6.7
Intersection Summary						
HCM 6th Ctrl Delay			10.9			
HCM 6th LOS			B			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

Lanes, Volumes, Timings
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	581	54	12	651	31	41	7	5	51	32	115
Future Volume (vph)	130	581	54	12	651	31	41	7	5	51	32	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-4%			0%			6%	
Storage Length (ft)	125		0	125		0	50		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		384			416			287			528	
Travel Time (s)		7.5			8.1			7.8			14.4	
Confl. Peds. (#/hr)			1	1					1	1		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0	24.0	
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%	34.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

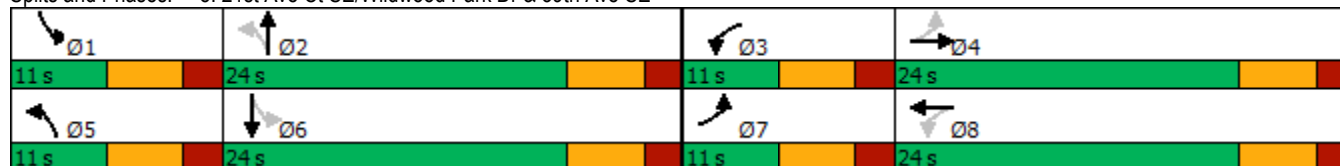
Cycle Length: 70

Actuated Cycle Length: 54.4

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE



HCM 6th Signalized Intersection Summary
 8: 21st Ave Ct SE/Wildwood Park Dr & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	581	54	12	651	31	41	7	5	51	32	115
Future Volume (veh/h)	130	581	54	12	651	31	41	7	5	51	32	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	2042	2042	2042	1900	1900	1900	1658	1658	1658
Adj Flow Rate, veh/h	140	625	58	13	700	33	44	8	5	55	34	124
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	2	2	2
Cap, veh/h	337	1051	97	294	950	45	318	194	121	426	58	210
Arrive On Green	0.08	0.32	0.32	0.02	0.25	0.25	0.04	0.18	0.18	0.05	0.18	0.18
Sat Flow, veh/h	1795	3313	307	1945	3772	178	1810	1093	683	1579	312	1139
Grp Volume(v), veh/h	140	337	346	13	360	373	44	0	13	55	0	158
Grp Sat Flow(s),veh/h/ln	1795	1791	1829	1945	1940	2010	1810	0	1776	1579	0	1451
Q Serve(g_s), s	3.1	8.7	8.7	0.3	9.4	9.4	1.1	0.0	0.3	1.5	0.0	5.5
Cycle Q Clear(g_c), s	3.1	8.7	8.7	0.3	9.4	9.4	1.1	0.0	0.3	1.5	0.0	5.5
Prop In Lane	1.00		0.17	1.00		0.09	1.00		0.38	1.00		0.78
Lane Grp Cap(c), veh/h	337	568	580	294	489	506	318	0	315	426	0	268
V/C Ratio(X)	0.42	0.59	0.60	0.04	0.74	0.74	0.14	0.00	0.04	0.13	0.00	0.59
Avail Cap(c_a), veh/h	354	587	600	439	636	659	402	0	582	488	0	476
HCM Platoon Ratio	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(l)	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	14.2	15.8	15.8	15.0	18.9	18.9	17.3	0.0	18.7	16.9	0.0	20.5
Incr Delay (d2), s/veh	0.8	1.5	1.5	0.1	3.2	3.1	0.2	0.0	0.1	0.1	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.3	3.4	0.1	4.1	4.2	0.4	0.0	0.1	0.5	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	17.3	17.3	15.1	22.1	22.0	17.5	0.0	18.8	17.0	0.0	22.5
LnGrp LOS	B	B	B	B	C	C	B	A	B	B	A	C
Approach Vol, veh/h		823			746			57				213
Approach Delay, s/veh		16.9			21.9			17.8				21.1
Approach LOS		B			C			B				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	15.8	6.9	23.4	8.4	16.1	10.5	19.8				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	3.5	2.3	2.3	10.7	3.1	7.5	5.1	11.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.6	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			19.5									
HCM 6th LOS			B									

Lanes, Volumes, Timings
9: 25th St SE & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	595	31	29	641	1	19	0	15	8	0	27
Future Volume (vph)	13	595	31	29	641	1	19	0	15	8	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	75		0	100		0	25		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25				25
Link Distance (ft)		365			225			248				136
Travel Time (s)		7.1			4.4			6.8				3.7
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1		6
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1		6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0		10.0
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0		24.0
Total Split (s)	11.0	24.0		11.0	24.0		11.0	24.0		11.0		24.0
Total Split (%)	15.7%	34.3%		15.7%	34.3%		15.7%	34.3%		15.7%		34.3%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0		6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	Min		None	Min		None	None		None		None

Intersection Summary

Area Type: Other

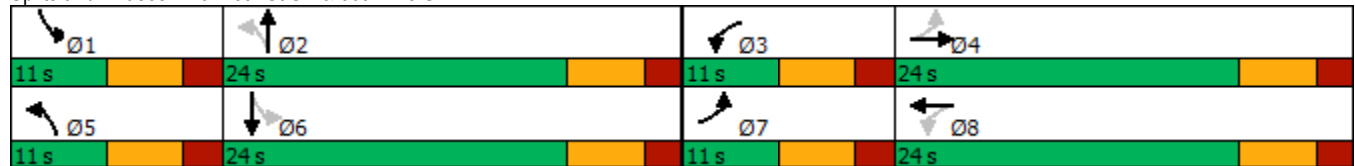
Cycle Length: 70

Actuated Cycle Length: 34.6

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 9: 25th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
 9: 25th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	595	31	29	641	1	19	0	15	8	0	27
Future Volume (veh/h)	13	595	31	29	641	1	19	0	15	8	0	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	640	33	31	689	1	20	0	16	9	0	29
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	295	949	49	315	1071	2	345	0	202	347	0	181
Arrive On Green	0.02	0.27	0.27	0.04	0.29	0.29	0.02	0.00	0.13	0.01	0.00	0.11
Sat Flow, veh/h	1795	3465	179	1795	3670	5	1810	0	1610	1810	0	1610
Grp Volume(v), veh/h	14	331	342	31	336	354	20	0	16	9	0	29
Grp Sat Flow(s),veh/h/ln	1795	1791	1853	1795	1791	1884	1810	0	1610	1810	0	1610
Q Serve(g_s), s	0.2	7.1	7.1	0.5	7.1	7.1	0.4	0.0	0.4	0.2	0.0	0.7
Cycle Q Clear(g_c), s	0.2	7.1	7.1	0.5	7.1	7.1	0.4	0.0	0.4	0.2	0.0	0.7
Prop In Lane	1.00		0.10	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	490	507	315	523	550	345	0	202	347	0	181
V/C Ratio(X)	0.05	0.67	0.68	0.10	0.64	0.64	0.06	0.00	0.08	0.03	0.00	0.16
Avail Cap(c_a), veh/h	470	743	769	457	743	782	509	0	668	534	0	668
HCM Platoon Ratio	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(l)	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	11.4	14.0	14.0	11.1	13.4	13.4	16.3	0.0	16.8	16.7	0.0	17.4
Incr Delay (d2), s/veh	0.1	1.6	1.6	0.1	1.3	1.3	0.1	0.0	0.2	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.5	2.6	0.2	2.4	2.6	0.2	0.0	0.1	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	15.7	15.6	11.3	14.7	14.7	16.4	0.0	16.9	16.7	0.0	17.8
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	B
Approach Vol, veh/h		687			721			36				38
Approach Delay, s/veh		15.5			14.5			16.6				17.6
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	11.4	7.6	17.9	7.1	10.9	6.8	18.7				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	2.4	2.5	9.1	2.4	2.7	2.2	9.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.7	0.0	0.1	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay			15.1									
HCM 6th LOS			B									

Lanes, Volumes, Timings
10: Shaw Rd E & 39th Ave SE

01/23/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	↗
Traffic Volume (vph)	244	0	449	1	2	0	363	433	4	0	576	368
Future Volume (vph)	244	0	449	1	2	0	363	433	4	0	576	368
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			8%			-4%			6%	
Storage Length (ft)	0		0	0		0	300		0	200		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		507			360			460			462	
Travel Time (s)		9.9			7.0			9.0			9.0	
Confl. Peds. (#/hr)			2	2					2	2		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		10.0	10.0		5.0	10.0	10.0
Minimum Split (s)	29.0	29.0	29.0	24.0	24.0		16.3	28.3		11.3	28.3	28.3
Total Split (s)	36.0	36.0	36.0	36.0	36.0		26.3	46.3		21.3	46.3	46.3
Total Split (%)	33.1%	33.1%	33.1%	33.1%	33.1%		24.2%	42.6%		19.6%	42.6%	42.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.3	2.3		2.3	2.3	2.3
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0		6.3	6.3		6.3	6.3	6.3
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	Min		None	Min	Min

Intersection Summary

Area Type: Other

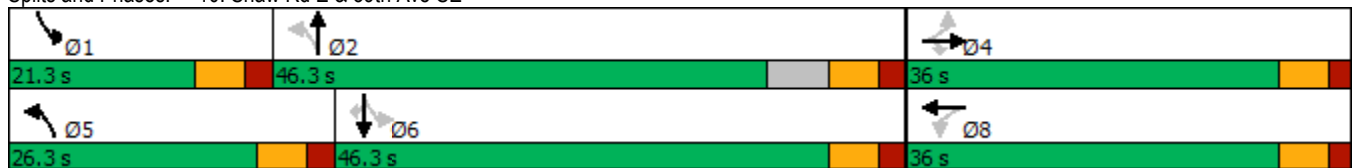
Cycle Length: 108.6

Actuated Cycle Length: 97.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Shaw Rd E & 39th Ave SE



HCM 6th Signalized Intersection Summary
 10: Shaw Rd E & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕	↗	↕	↗	↕
Traffic Volume (veh/h)	244	0	449	1	2	0	363	433	4	0	576	368
Future Volume (veh/h)	244	0	449	1	2	0	363	433	4	0	576	368
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1523	1523	1523	2027	2027	2027	1673	1673	1673
Adj Flow Rate, veh/h	252	0	463	1	2	0	374	446	4	0	594	379
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	1	1	1
Cap, veh/h	254	0	455	45	57	0	408	1204	11	384	625	528
Arrive On Green	0.28	0.00	0.28	0.28	0.28	0.00	0.17	0.60	0.60	0.00	0.37	0.37
Sat Flow, veh/h	656	0	1604	0	203	0	1931	2006	18	1593	1673	1414
Grp Volume(v), veh/h	252	0	463	3	0	0	374	0	450	0	594	379
Grp Sat Flow(s),veh/h/ln	656	0	1604	203	0	0	1931	0	2024	1593	1673	1414
Q Serve(g_s), s	0.0	0.0	30.0	0.0	0.0	0.0	15.3	0.0	12.1	0.0	36.5	24.3
Cycle Q Clear(g_c), s	30.0	0.0	30.0	30.0	0.0	0.0	15.3	0.0	12.1	0.0	36.5	24.3
Prop In Lane	1.00		1.00	0.33		0.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	254	0	455	103	0	0	408	0	1214	384	625	528
V/C Ratio(X)	0.99	0.00	1.02	0.03	0.00	0.00	0.92	0.00	0.37	0.00	0.95	0.72
Avail Cap(c_a), veh/h	254	0	455	103	0	0	451	0	1214	608	633	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	0.0	37.9	30.4	0.0	0.0	30.5	0.0	10.9	0.0	32.2	28.4
Incr Delay (d2), s/veh	54.0	0.0	46.6	0.1	0.0	0.0	22.1	0.0	0.3	0.0	24.3	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	0.0	17.3	0.1	0.0	0.0	11.8	0.0	5.1	0.0	18.3	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.8	0.0	84.4	30.5	0.0	0.0	52.7	0.0	11.1	0.0	56.5	33.3
LnGrp LOS	F	A	F	C	A	A	D	A	B	A	E	C
Approach Vol, veh/h		715			3			824				973
Approach Delay, s/veh		88.4			30.5			30.0				47.5
Approach LOS		F			C			C				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	69.7		36.0	24.0	45.8		36.0				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.0	* 6.3	* 6.3		6.0				
Max Green Setting (Gmax), s	* 15	* 40		30.0	* 20	* 40		30.0				
Max Q Clear Time (g_c+I1), s	0.0	14.1		32.0	17.3	38.5		32.0				
Green Ext Time (p_c), s	0.0	4.1		0.0	0.3	1.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			53.4									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Lanes, Volumes, Timings
 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	58	49	35	44	20	55	536	31	14	1039	179
Future Volume (vph)	117	58	49	35	44	20	55	536	31	14	1039	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-9%			3%			-9%			6%	
Storage Length (ft)	50		0	50		0	100		175	75		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			Yes
Link Speed (mph)		25			25			35				35
Link Distance (ft)		481			429			444				403
Travel Time (s)		13.1			11.7			8.6				7.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	24.0		11.0	24.0		11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	11.0	24.0		11.0	24.0		11.0	84.0	84.0	11.0	84.0	84.0
Total Split (%)	8.5%	18.5%		8.5%	18.5%		8.5%	64.6%	64.6%	8.5%	64.6%	64.6%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min

Intersection Summary

Area Type: Other

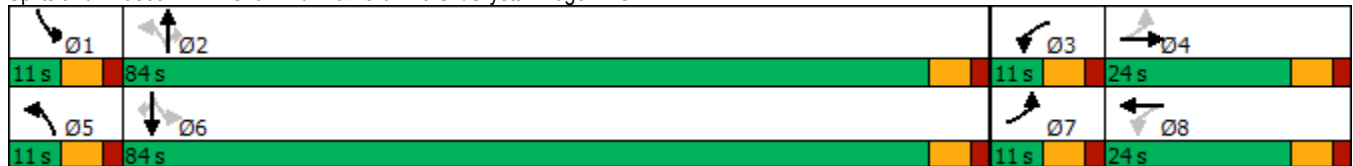
Cycle Length: 130

Actuated Cycle Length: 122

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Splits and Phases: 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE



HCM 6th Signalized Intersection Summary
 11: Shaw Rd E & 23rd Ave SE/Crystal Ridge Dr SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	58	49	35	44	20	55	536	31	14	1039	179
Future Volume (veh/h)	117	58	49	35	44	20	55	536	31	14	1039	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	2254	2239	2239	1847	1847	1847	2224	2224	2224	1673	1673	1673
Adj Flow Rate, veh/h	127	63	53	38	48	22	60	583	34	15	1129	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	1	1	0	0	0	2	2	2	1	1	1
Cap, veh/h	219	105	89	162	99	45	135	1473	1248	476	1076	912
Arrive On Green	0.04	0.09	0.09	0.03	0.08	0.08	0.04	0.66	0.66	0.02	0.64	0.64
Sat Flow, veh/h	2147	1124	945	1759	1199	549	2118	2224	1885	1593	1673	1418
Grp Volume(v), veh/h	127	0	116	38	0	70	60	583	34	15	1129	195
Grp Sat Flow(s),veh/h/ln	2147	0	2069	1759	0	1748	2118	2224	1885	1593	1673	1418
Q Serve(g_s), s	5.0	0.0	6.5	2.4	0.0	4.6	1.1	14.6	0.8	0.4	78.0	6.9
Cycle Q Clear(g_c), s	5.0	0.0	6.5	2.4	0.0	4.6	1.1	14.6	0.8	0.4	78.0	6.9
Prop In Lane	1.00		0.46	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	0	194	162	0	144	135	1473	1248	476	1076	912
V/C Ratio(X)	0.58	0.00	0.60	0.23	0.00	0.49	0.44	0.40	0.03	0.03	1.05	0.21
Avail Cap(c_a), veh/h	219	0	307	182	0	259	147	1473	1248	516	1076	912
HCM Platoon Ratio	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(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	0.0	52.8	49.0	0.0	53.2	31.5	9.4	7.0	7.7	21.7	9.0
Incr Delay (d2), s/veh	3.8	0.0	2.9	0.7	0.0	2.5	2.3	0.2	0.0	0.0	41.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	3.6	1.1	0.0	2.2	1.2	6.6	0.3	0.1	39.3	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.7	0.0	55.7	49.7	0.0	55.7	33.8	9.6	7.1	7.8	63.1	9.1
LnGrp LOS	D	A	E	D	A	E	C	A	A	A	F	A
Approach Vol, veh/h		243			108			677			1339	
Approach Delay, s/veh		55.2			53.6			11.6			54.6	
Approach LOS		E			D			B			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	86.4	9.6	17.4	10.3	84.0	11.0	16.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	78.0	5.0	18.0	5.0	78.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.4	16.6	4.4	8.5	3.1	80.0	7.0	6.6				
Green Ext Time (p_c), s	0.0	4.4	0.0	0.4	0.0	0.0	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			42.3									
HCM 6th LOS			D									

Lanes, Volumes, Timings
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

01/23/2022

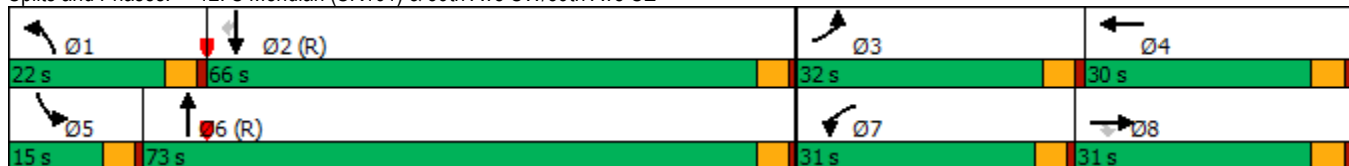


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	320	490	247	169	357	52	190	1110	81	45	1287	403
Future Volume (vph)	320	490	247	169	357	52	190	1110	81	45	1287	403
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		0%			0%			3%			0%	
Storage Length (ft)	350		0	225		0	200		0	210		0
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		571			1339			1348			645	
Travel Time (s)		11.1			26.1			26.3			12.6	
Confl. Peds. (#/hr)			2						2			9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	4%	4%	4%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									2
Detector Phase	3	8	8	7	4		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	5.0	6.0	6.0	6.0	5.0		6.0	10.0		6.0	10.0	10.0
Minimum Split (s)	9.6	27.6	27.6	10.6	16.6		10.6	29.6		10.6	29.6	29.6
Total Split (s)	32.0	31.0	31.0	31.0	30.0		22.0	73.0		15.0	66.0	66.0
Total Split (%)	21.3%	20.7%	20.7%	20.7%	20.0%		14.7%	48.7%		10.0%	44.0%	44.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6		4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min		None	C-Min	C-Min

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 40 (27%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated

Splits and Phases: 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE



HCM 6th Signalized Intersection Summary
 12: S Meridian (SR161) & 39th Ave SW/39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	490	247	169	357	52	190	1110	81	45	1287	403
Future Volume (veh/h)	320	490	247	169	357	52	190	1110	81	45	1287	403
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1786	1786	1694	1694	1694	1772	1772	1772
Adj Flow Rate, veh/h	320	490	0	169	357	52	190	1110	81	45	1287	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	2	2	2
Cap, veh/h	308	700		191	410	59	187	1590	116	57	1484	
Arrive On Green	0.18	0.21	0.00	0.11	0.14	0.14	0.08	0.35	0.35	0.07	0.88	0.00
Sat Flow, veh/h	1688	3367	1502	1701	2975	430	1613	3041	222	1688	3367	1502
Grp Volume(v), veh/h	320	490	0	169	202	207	190	587	604	45	1287	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1701	1697	1709	1613	1609	1653	1688	1683	1502
Q Serve(g_s), s	27.4	20.2	0.0	14.7	17.5	17.8	17.4	47.1	47.1	3.9	28.8	0.0
Cycle Q Clear(g_c), s	27.4	20.2	0.0	14.7	17.5	17.8	17.4	47.1	47.1	3.9	28.8	0.0
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	308	700		191	234	235	187	842	865	57	1484	
V/C Ratio(X)	1.04	0.70		0.88	0.87	0.88	1.02	0.70	0.70	0.79	0.87	
Avail Cap(c_a), veh/h	308	700		299	287	289	187	842	865	117	1484	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	0.00	0.92	0.92	0.92	0.26	0.26	0.26	0.77	0.77	0.00
Uniform Delay (d), s/veh	61.3	55.1	0.0	65.6	63.3	63.4	69.2	38.5	38.5	69.4	6.7	0.0
Incr Delay (d2), s/veh	61.5	2.9	0.0	13.8	17.2	19.0	37.5	1.3	1.2	12.7	5.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.9	8.9	0.0	7.1	8.7	9.0	9.3	19.7	20.3	1.9	4.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	122.8	58.0	0.0	79.4	80.5	82.4	106.6	39.8	39.8	82.1	12.2	0.0
LnGrp LOS	F	E		E	F	F	F	D	D	F	B	
Approach Vol, veh/h		810	A		578			1381			1332	A
Approach Delay, s/veh		83.6			80.9			49.0			14.6	
Approach LOS		F			F			D			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	70.7	32.0	25.3	9.7	83.1	21.5	35.8				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	17.4	61.4	27.4	25.4	10.4	68.4	26.4	26.4				
Max Q Clear Time (g_c+I1), s	19.4	30.8	29.4	19.8	5.9	49.1	16.7	22.2				
Green Ext Time (p_c), s	0.0	9.4	0.0	0.9	0.0	6.5	0.2	1.0				

Intersection Summary

HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
13: 5th St SE & 39th Ave SE

01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	228	160	120	205	5	82	286	75	6	547	100
Future Volume (vph)	148	228	160	120	205	5	82	286	75	6	547	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			-3%			0%	
Storage Length (ft)	150		0	175		0	225		0	150		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1339			1162			552			965	
Travel Time (s)		26.1			22.6			12.5			21.9	
Confl. Peds. (#/hr)									4	4		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	0%	0%	0%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	11.0	26.0		11.0	26.0		11.0	25.0		11.0	25.0	
Total Split (s)	21.0	46.0		21.0	46.0		21.0	36.0		21.0	36.0	
Total Split (%)	16.9%	37.1%		16.9%	37.1%		16.9%	29.0%		16.9%	29.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	

Intersection Summary

Area Type: Other

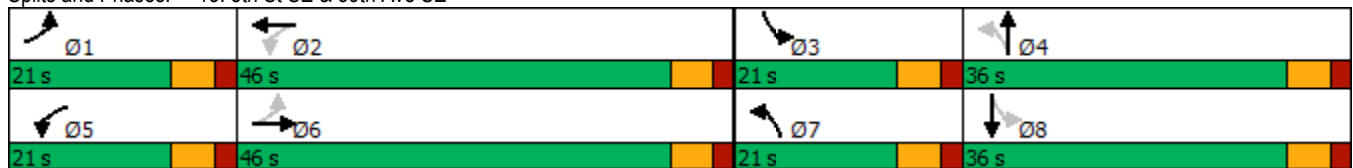
Cycle Length: 124

Actuated Cycle Length: 82.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 13: 5th St SE & 39th Ave SE



HCM 6th Signalized Intersection Summary
 13: 5th St SE & 39th Ave SE

01/23/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	228	160	120	205	5	82	286	75	6	547	100
Future Volume (veh/h)	148	228	160	120	205	5	82	286	75	6	547	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	2018	2018	2018	1885	1885	1885
Adj Flow Rate, veh/h	151	233	163	122	209	5	84	292	77	6	558	102
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	3	3	3	0	0	0	1	1	1
Cap, veh/h	381	347	233	291	545	13	228	660	174	409	592	108
Arrive On Green	0.09	0.17	0.17	0.08	0.15	0.15	0.05	0.43	0.43	0.01	0.38	0.38
Sat Flow, veh/h	1781	2035	1366	1767	3519	84	1922	1538	406	1795	1550	283
Grp Volume(v), veh/h	151	202	194	122	104	110	84	0	369	6	0	660
Grp Sat Flow(s),veh/h/ln	1781	1777	1624	1767	1763	1840	1922	0	1944	1795	0	1833
Q Serve(g_s), s	5.3	8.1	8.6	4.3	4.1	4.1	2.0	0.0	10.2	0.2	0.0	26.6
Cycle Q Clear(g_c), s	5.3	8.1	8.6	4.3	4.1	4.1	2.0	0.0	10.2	0.2	0.0	26.6
Prop In Lane	1.00		0.84	1.00		0.05	1.00		0.21	1.00		0.15
Lane Grp Cap(c), veh/h	381	303	277	291	273	285	228	0	834	409	0	701
V/C Ratio(X)	0.40	0.67	0.70	0.42	0.38	0.38	0.37	0.00	0.44	0.01	0.00	0.94
Avail Cap(c_a), veh/h	562	930	850	498	922	963	500	0	834	747	0	719
HCM Platoon Ratio	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(l)	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	23.7	29.7	29.9	24.5	29.0	29.0	17.8	0.0	15.4	14.6	0.0	22.8
Incr Delay (d2), s/veh	0.7	2.5	3.2	1.0	0.9	0.8	1.0	0.0	0.4	0.0	0.0	20.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.5	3.4	1.8	1.7	1.8	0.9	0.0	4.3	0.1	0.0	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.3	32.2	33.1	25.5	29.9	29.9	18.8	0.0	15.8	14.6	0.0	43.1
LnGrp LOS	C	C	C	C	C	C	B	A	B	B	A	D
Approach Vol, veh/h		547			336			453				666
Approach Delay, s/veh		30.3			28.3			16.3				42.9
Approach LOS		C			C			B				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.2	17.8	6.6	38.8	12.0	19.0	10.2	35.2				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	15.0	40.0	15.0	30.0	15.0	40.0	15.0	30.0				
Max Q Clear Time (g_c+I1), s	7.3	6.1	2.2	12.2	6.3	10.6	4.0	28.6				
Green Ext Time (p_c), s	0.2	1.2	0.0	2.1	0.2	2.4	0.1	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			31.0									
HCM 6th LOS			C									

Lanes, Volumes, Timings
 14: S Meridian (SR161) & 43rd Ave SE

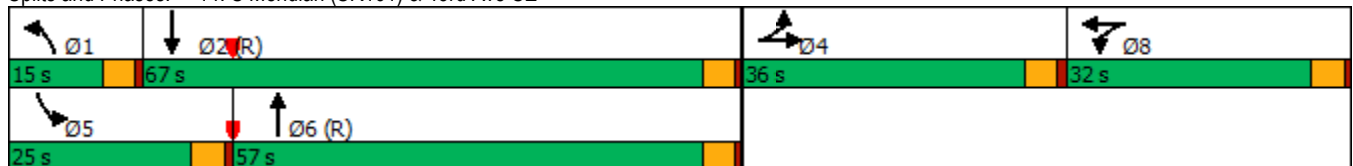
01/23/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	144	66	260	147	94	67	1177	113	177	1401	52
Future Volume (vph)	123	144	66	260	147	94	67	1177	113	177	1401	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Grade (%)		-4%			6%			0%			0%	
Storage Length (ft)	150		0	275		0	250		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		332			544			617			1348	
Travel Time (s)		9.1			10.6			12.0			26.3	
Confl. Peds. (#/hr)			2	2					6			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	5%	5%	5%	1%	1%	1%
Shared Lane Traffic (%)												
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		1	6		5	2	
Permitted Phases												
Detector Phase	4	4		8	8		1	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	10.0		6.0	10.0	
Minimum Split (s)	33.6	33.6		30.6	30.6		10.6	32.6		10.6	28.6	
Total Split (s)	36.0	36.0		32.0	32.0		15.0	57.0		25.0	67.0	
Total Split (%)	24.0%	24.0%		21.3%	21.3%		10.0%	38.0%		16.7%	44.7%	
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.6	4.6		4.6	4.6		4.6	4.6		4.6	4.6	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	

Intersection Summary























Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 90 (60%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated

Splits and Phases: 14: S Meridian (SR161) & 43rd Ave SE



HCM 6th Signalized Intersection Summary
 14: S Meridian (SR161) & 43rd Ave SE

01/23/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	144	66	260	147	94	67	1177	113	177	1401	52
Future Volume (veh/h)	123	144	66	260	147	94	67	1177	113	177	1401	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1935	1935	1935	1571	1571	1571	1730	1730	1730	1786	1786	1786
Adj Flow Rate, veh/h	123	144	66	260	147	94	67	1177	113	177	1401	52
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	2	2	2	5	5	5	1	1	1
Cap, veh/h	250	170	78	273	163	104	83	1344	129	196	1698	63
Arrive On Green	0.14	0.14	0.14	0.18	0.18	0.18	0.05	0.44	0.44	0.23	1.00	1.00
Sat Flow, veh/h	1843	1254	575	1496	894	572	1647	3028	290	1701	3337	124
Grp Volume(v), veh/h	123	0	210	260	0	241	67	638	652	177	711	742
Grp Sat Flow(s),veh/h/ln	1843	0	1828	1496	0	1466	1647	1643	1675	1701	1697	1764
Q Serve(g_s), s	9.3	0.0	16.8	25.8	0.0	24.1	6.0	52.9	53.2	15.2	0.0	0.0
Cycle Q Clear(g_c), s	9.3	0.0	16.8	25.8	0.0	24.1	6.0	52.9	53.2	15.2	0.0	0.0
Prop In Lane	1.00		0.31	1.00		0.39	1.00		0.17	1.00		0.07
Lane Grp Cap(c), veh/h	250	0	248	273	0	268	83	730	744	196	863	897
V/C Ratio(X)	0.49	0.00	0.85	0.95	0.00	0.90	0.81	0.87	0.88	0.90	0.82	0.83
Avail Cap(c_a), veh/h	386	0	383	273	0	268	114	730	744	231	863	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.37	0.37	0.37
Uniform Delay (d), s/veh	60.1	0.0	63.3	60.6	0.0	60.0	70.5	37.9	38.0	56.9	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	9.1	41.1	0.0	30.2	21.4	13.8	13.8	14.9	3.5	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	8.5	12.9	0.0	11.2	3.0	23.7	24.3	6.6	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	0.0	72.4	101.8	0.0	90.2	91.9	51.7	51.8	71.8	3.5	3.4
LnGrp LOS	E	A	E	F	A	F	F	D	D	E	A	A
Approach Vol, veh/h		333			501			1357			1630	
Approach Delay, s/veh		68.3			96.2			53.7			10.8	
Approach LOS		E			F			D			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	80.9		24.9	21.9	71.2		32.0				
Change Period (Y+Rc), s	4.6	4.6		4.6	4.6	4.6		4.6				
Max Green Setting (Gmax), s	10.4	62.4		31.4	20.4	52.4		27.4				
Max Q Clear Time (g_c+I1), s	8.0	2.0		18.8	17.2	55.2		27.8				
Green Ext Time (p_c), s	0.0	13.6		1.1	0.1	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				42.3								
HCM 6th LOS				D								

Appendix C

Trip Generation Calculations

Pierce College Puyallup Campus Master Plan Trip Generation Summary

DAILY								
Land Use	Units ¹	ITE LUC ²	Trip Rate ²	Directional Distribution ²		Trips Generated		
				In	Out	In	Out	Total
Proposed Use:								
Junior/ Community College (Expansion)	72,000 GFA	540	20.25	50%	50%	729.0	729.0	1,458.0
NET NEW DAILY TRIP GENERATION =						729.0	729.0	1,458.0
AM PEAK HOUR								
Land Use	Units ¹	ITE LUC ²	Trip Rate ²	Directional Distribution ²		Trips Generated		
				In	Out	In	Out	Total
Proposed Use:								
Junior/ Community College (Expansion)	72,000 GFA	540	2.07	77%	23%	114.7	34.3	149.0
NET NEW AM PEAK HOUR TRIP GENERATION =						114.7	34.3	149.0
PM PEAK HOUR								
Land Use	Units ¹	ITE LUC ²	Trip Rate ²	Directional Distribution ²		Trips Generated		
				In	Out	In	Out	Total
Proposed Use:								
Junior/ Community College (Expansion)	72,000 GFA	540	1.86	50%	50%	66.9	67.0	133.9
NET NEW PM PEAK HOUR TRIP GENERATION =						66.9	67.0	133.9

Notes:

¹ GFA = Gross Floor Area.

² Land Use Code, trip rates and directional distributions based on ITE *Trip Generation Manual*, 10th Edition (2017).