

7th Ave Mixed-Use

Lacey, WA

Traffic Impact Analysis

April 21, 2023

Prepared for:

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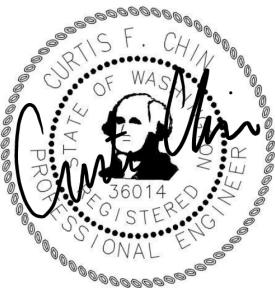
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4/21/2023

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EXECUTIVE SUMMARY

Project Proposal. The proposed 7th Ave Mixed-Use site is located south of 7th Ave SE and west of Woodland Square Loop SE within the City of Lacey Core Area. The proposed project is expected to have a total of 400 multi-family dwelling units, 8,500 SF of retail space, and 4,500 SF of restaurant space at full buildout. The existing site is occupied by a surface parking lot, which will be removed with the proposed project.

Vehicular Access. Full buildout of the proposed project is anticipated to include three (3) full access driveways: one (1) via 7th Ave SE, one (1) via Woodland Square Loop SE (east), and one (1) via Woodland Square Loop SE (south). The driveways on 7th Ave SE and Woodland Square Loop SE (south) would provide access to a surface parking lot and the driveway on Woodland Square Loop SE (east) would provide access to an underground parking garage.

Trip Generation. The project at full buildout is estimated to generate 1,862 net new daily vehicular trips with 151 net new trips (38 in, 113 out) occurring during the weekday AM peak hour and 161 net new trips (98 in, 63 out) occurring during the weekday PM peak hour.

Level of Service. Based on scoping comments provided by the City of Lacey and the Washington State Department of Transportation (WSDOT), future 2026 PM peak hour LOS analyses were conducted at 17 off-site study intersections to determine traffic impacts of the project buildout. The City's adopted LOS standard within the Lacey Core Area is LOS E. The results of the LOS analyses indicate that 13 of the 17 study intersections are anticipated to operate at an acceptable LOS E or better during the weekday PM peak hour in 2026 with the proposed 7th Ave Mixed-Use project. The following intersections are anticipated to operate at LOS F without or with the proposed project:

Intersections Located on Strategy Corridors:

The following intersections are located on City of Lacey Strategy Corridors and are therefore exempt from LOS standards.

4. I-5 SB Ramps / Martin Way E
5. I-5 NB Ramps / Martin Way E
6. College St SE / Pacific Ave SE
14. Woodland Square Loop SE / College St SE

It should also be noted that the failing movement at the stop-controlled Woodland Square Loop SE/College Street SE intersection is the eastbound left turn. Vehicles destined northbound on College Street SE may use an alternate route including the planned roundabout at College Street SE/7th Avenue SE.

Site Access Analysis. The results of the LOS analyses indicate that all turning movements at the three (3) proposed stop-controlled driveways that would provide access to the site are anticipated to operate at LOS B or better in 2026 with minimal queuing during the weekday PM peak hour.

Mitigation. The following measures have been identified to mitigate the transportation impacts of the proposed 7th Ave Mixed-Use project.

- **Lacey Impact Fees.** To mitigate impacts to City of Lacey roads, payment of a transportation mitigation cost is required. The mitigation cost calculation will be determined by the City of Lacey Transportation Department and based on the number of PM peak hour trips generated by the proposed project affecting the current City of Lacey TIP project list.
- **Olympia Impact Fees.** To mitigate impacts to City of Olympia roads, payment of a transportation mitigation cost is required. The mitigation cost calculation is based on the number of PM peak hour trips generated by the proposed project affecting the current City of Olympia Capital Facilities Plan (CFP) project list. Based on the anticipated project trip distribution, the City of Olympia estimated the total transportation mitigation cost for the proposed project to be \$6,378.

INTRODUCTION

This Traffic Impact Analysis (TIA) for the 7th Ave Mixed-Use project was prepared consistent with City of Lacey TIA guidelines. Section 4B.035 of the City of Lacey Development Guidelines and Public Works Standards, Chapter 4 – Transportation, identifies a standardized format for a TIA. A TIA is a specialized study of the impacts that a proposed development project will have on the transportation system.

The proposed 7th Ave Mixed-Use site is located south of 7th Ave SE and west of Woodland Square Loop SE within the City of Lacey Core Area. The proposed project is expected to have a total of 400 multi-family dwelling units, 8,500 SF of retail space, and 4,500 SF of restaurant space at full buildout. The existing site is occupied by a surface parking lot, which will be removed with the proposed project. The surface parking lot primarily serves the two existing office buildings located west of the site. Existing users of the existing surface parking lot will be allowed to utilize the new surface parking and parking garage that are proposed as part of this project and have been accounted for in this TIA.

Traffic Scoping Report

The scope of work for this TIA was established based on the Traffic Scoping Memo (dated February 3, 2023) and comments received from the City of Lacey and WSDOT. Confirmation of scope was received in the City's Traffic Scoping Approval letter dated March 16, 2023.

A total of 17 off-site study intersections were identified for evaluation during weekday PM peak hour conditions. The City Traffic Scoping Approval letter is provided in [Appendix A](#).

Project Approach

To analyze the traffic impacts of the 7th Ave Mixed-Use project, the following tasks were undertaken consistent with City of Lacey TIA guidelines:

- | | |
|------------------------------|---------------------------------------|
| 1. Prospectus | 7. Traffic Operations |
| 2. Existing Conditions | 8. Access Management |
| 3. Development Traffic | 9. Traffic Calming |
| 4. Trip Generation | 10. Alternate Modes of Transportation |
| 5. Trip Distribution | 11. Mitigation |
| 6. Future Traffic Conditions | |

Primary Data and Information Sources

- TENW Traffic Scoping Memo – dated February 3, 2023.
- City of Lacey Traffic Scoping Approval Letter – dated March 16, 2023.
- ITE *Trip Generation Manual*, 11th Edition, 2021.
- *Highway Capacity Manual*, 6th Edition.
- Year 2023 PM Peak Period Traffic Volumes; source: ATD.
- City of Lacey 2030 Transportation Plan.
- City of Lacey 2023-2028 Six Year Transportation Improvement Program (TIP).
- WSDOT 2023-2026 Statewide Transportation Improvement Program (STIP).

TRAFFIC IMPACT ANALYSIS

1. Prospectus

- a) The proposed 7th Ave Mixed-Use site is located south of 7th Ave SE and west of Woodland Square Loop SE within in the City of Lacey Core Area as shown in the **Figure 1** project site vicinity map.
- b) A preliminary site plan concept is provided in **Appendix B**. Full buildout is anticipated to include three (3) full access driveways: one (1) via 7th Ave SE, one (1) via Woodland Square Loop SE (east), and one (1) via Woodland Square Loop SE (south). The driveways on 7th Ave SE and Woodland Square Loop SE (south) would provide access to a surface parking lot and the driveway on Woodland Square Loop SE (east) would provide access to an underground parking garage.
- c) The current project proposal includes a total of up to 400 multi-family dwelling units, 8,500 SF of retail space, and 4,500 SF of restaurant space at full buildout. The existing site is occupied by a surface parking lot, which will be removed with the proposed project.
- d) The horizon year for full buildout of the proposed project in this Traffic Impact Analysis is 2026.



Figure 1: Project Site Vicinity



NOT TO SCALE

2. Existing Conditions

- a) The following describes existing transportation conditions in the study area, including an inventory of existing roads, existing traffic volumes, and public transportation services.

College St SE is a north-south arterial with a posted speed limit of 35 mph. The road has 2 lanes in each direction, then widens to 2 lanes in each direction with a two-way left turn lane south of Woodland Square Loop SE. Edge conditions include curb, gutter, and sidewalks on both sides of the street in the vicinity of the proposed project.

7th Ave SE is an east-west collector with a posted speed limit of 25 mph in the project vicinity. The road has one (1) lane in each direction with street parking on both sides in the vicinity of the proposed project. Edge conditions include curb, gutter, and sidewalks on both sides of the street.

Woodland Square Loop SE is a local road loop that includes intersections with College St SE and 7th Ave SE with a posted speed limit of 25 mph. The road has one (1) lane in each direction. Edge conditions include curb, gutter, and sidewalks on both sides of the street.

- b) Weekday PM peak hour trips from approved pipeline projects were provided by the City of Lacey in March 2023 and are included in this traffic analysis.
- c) The layout and design of the proposed site driveways will take into consideration sight distance, crash potential, and pedestrian conflicts.
- d) No existing weekday PM peak hour traffic counts were provided by the City of Lacey or surrounding jurisdictions. The existing traffic signal timing used in this analysis was provided by the City of Lacey.
- e) Existing weekday PM peak hour traffic counts at each of the 17 off-site study intersections were collected by All Traffic Data in March 2023. The traffic count data sheets are provided in **Appendix C**.
- f) **Figure 2** illustrates the 2023 existing PM peak hour turning movements at the 17 off-site study intersections. The weekday PM peak hour traffic volumes represent the highest hourly volume of vehicles traveling through an intersection during a typical 4:00 to 6:00 p.m. peak period.

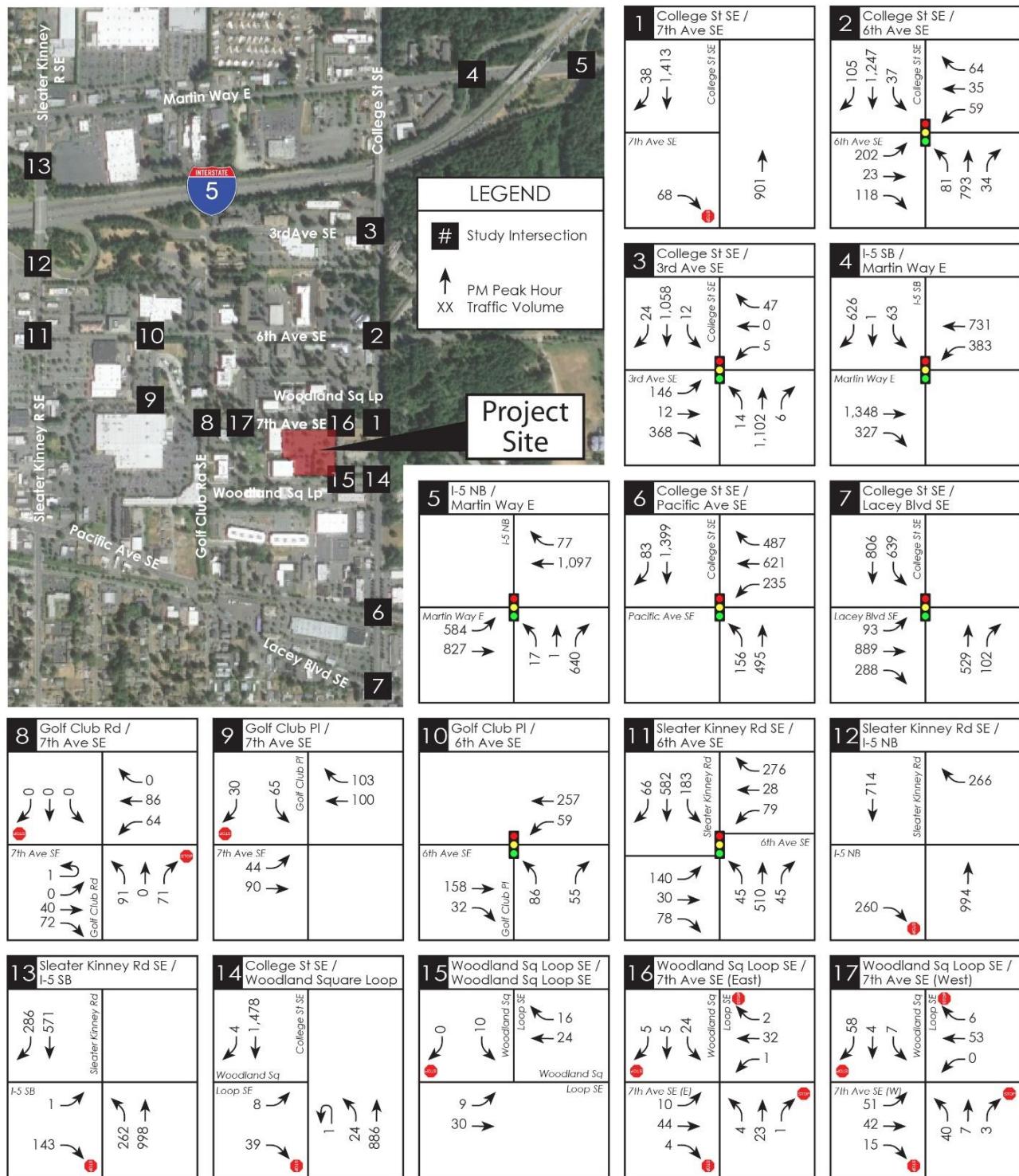


Figure 2: 2023 Existing Weekday PM Peak Hour Traffic Volumes



3. Development Traffic

Based on scoping confirmed by the City of Lacey and WSDOT, the following 17 off-site study intersections were identified for evaluation in this TIA. LOS at each intersection was evaluated during weekday PM peak hour conditions.

| | |
|---|------------------------------|
| 1. College St SE / 7 th Ave SE | Stop-Controlled (Future RAB) |
| 2. College St SE / 6 th Ave SE | Signal |
| 3. College St SE / 3 rd Ave SE | Signal |
| 4. I-5 SB Ramps / Martin Way E | Signal |
| 5. I-5 NB Ramps / Martin Way E | Signal |
| 6. College St SE / Pacific Ave SE | Signal |
| 7. College St SE / Lacey Blvd SE | Signal |
| 8. Golf Club Rd / 7 th Ave SE | Stop-Controlled |
| 9. Golf Club Pl / 7 th Ave SE | Stop-Controlled |
| 10. Golf Club Pl / 6 th Ave SE | Signal |
| 11. Sleater Kinney Rd SE / 6 th Ave SE | Signal |
| 12. Sleater Kinney Rd SE / I-5 NB Off-Ramp | Stop-Controlled |
| 13. Sleater Kinney Rd SE / I-5 SB Off-Ramp | Stop-Controlled |
| 14. College St SE / Woodland Square Loop SE | Stop-Controlled |
| 15. Woodland Sq Loop SE / Woodland Sq Loop SE | Stop-Controlled |
| 16. Woodland Sq Loop SE / 7 th Ave SE (East) | Stop-Controlled |
| 17. Woodland Sq Loop SE / 7 th Ave SE (West) | Stop-Controlled |

4. Project Trip Generation

The current project proposal includes a total of up to 400 multi-family dwelling units, 8,500 SF of retail space, and 4,500 SF of restaurant space. The new weekday daily, AM and PM peak hour trip generation estimates for the 7th Ave Mixed-Use project were based on trip rates documented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition for Land Use Code (LUC) 221 (Multifamily Housing (Mid-Rise)), LUC 822 (Shopping Plaza (< 40k)), and LUC 930 (Fast Casual Restaurant). Adjustments to the trip generation estimates were made to account for internal trips and pass-by trips. *It should be noted that the internal trip adjustment also includes the existing office buildings within Woodland Square Loop SE (only the office buildings at 612/670/676/640 Woodland Square Loops SE and 4565 7th Ave SE).*

Internal trips are made by people making multiple stops within a development without generating new trips onto the adjacent street system. The internal trip adjustments were based on methodology established in the ITE *Trip Generation Handbook*, 3rd Edition, 2017.

Pass-by trips are trips that are made by vehicles that are already on the adjacent streets and make intermediate stops at the commercial uses on route to a primary destination (i.e. on the way from work to home). The pass-by trips were based on methodology and studies documented in the appendices of the ITE *Trip Generation Manual*, 11th Edition, 2021.

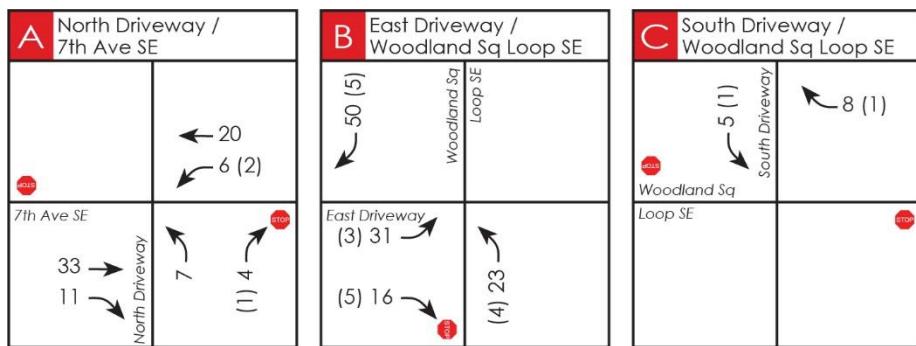
Table 1 summarizes the net new trip generation. Detailed trip generation calculations are provided in Appendix D.

Table 1
Trip Generation Summary

| Time Period | Net New Trips Generated | | |
|----------------------|-------------------------|-----|-------|
| | In | Out | Total |
| Weekday Daily | 931 | 931 | 1,862 |
| Weekday AM Peak Hour | 38 | 113 | 151 |
| Weekday PM Peak Hour | 98 | 63 | 161 |

5. Project Trip Distribution

The distribution of the 7th Ave Mixed-Use project trips during the weekday PM peak hour was based on traffic model distribution (TAZ 169) as provided by the City of Lacey (included in [Appendix E](#)). The weekday PM peak hour assignment of project trips with full project buildout of the proposed 7th Ave Mixed-Use project is shown at each of the study intersections in [Figure 3](#). The weekday PM peak hour trip assignment at the site access locations is shown below (pass-by trips in parentheses):



6. Future Traffic Conditions

Future 2026 No Action (without project) weekday PM peak hour traffic volumes were estimated by applying a four (4) percent annual growth rate to existing PM peak hour traffic counts and including known pipeline project developments. The weekday PM peak hour traffic generated by pipeline project developments was provided by the City of Lacey. The use of a four (4) percent annual growth rate in addition to the inclusion of pipeline traffic is conservative and would likely result in an overestimation of future traffic volumes. The future 2026 No Action (without project) weekday PM peak hour traffic volumes are illustrated in [Figure 4](#). Adding the project-generated weekday PM peak hour trips (shown in [Figure 3](#)) to the future No Action traffic volumes ([Figure 4](#)), results in the future With Project traffic volumes, as shown in [Figure 5](#).

Based on review of the City of Lacey 2030 *Transportation Plan*, City of Lacey 2023-2028 Six Year *Transportation Improvement Program (TIP)*, and the WSDOT 2023-2026 *Statewide Transportation Improvement Program (STIP)*, there are three (3) planned improvements in the site vicinity.

- Martin Way/I-5 Interchange Improvements: This project envisions a major reconstruction of the Martin Way interchange to a partial cloverleaf interchange with ramp meters. This will be a WSDOT project supported by the City of Lacey. This project includes construction of a new interchange per the approved Interchange Justification Report (IJR).

- Martin Way Enhancements: This project will enhance Martin Way to the standards identified in the current Development Guidelines, which includes medians, bicycle lanes, planter strips, and sidewalks. Access management to reduce turning conflicts and improve safety is an integral portion of this project. Additional improvements include Intelligent Transportation Systems (ITS).
- College Street SE/7th Avenue SE: The City of Lacey is planning the construction of a new roundabout at this intersection. Completion of this intersection improvement has been assumed as part of the future analysis.

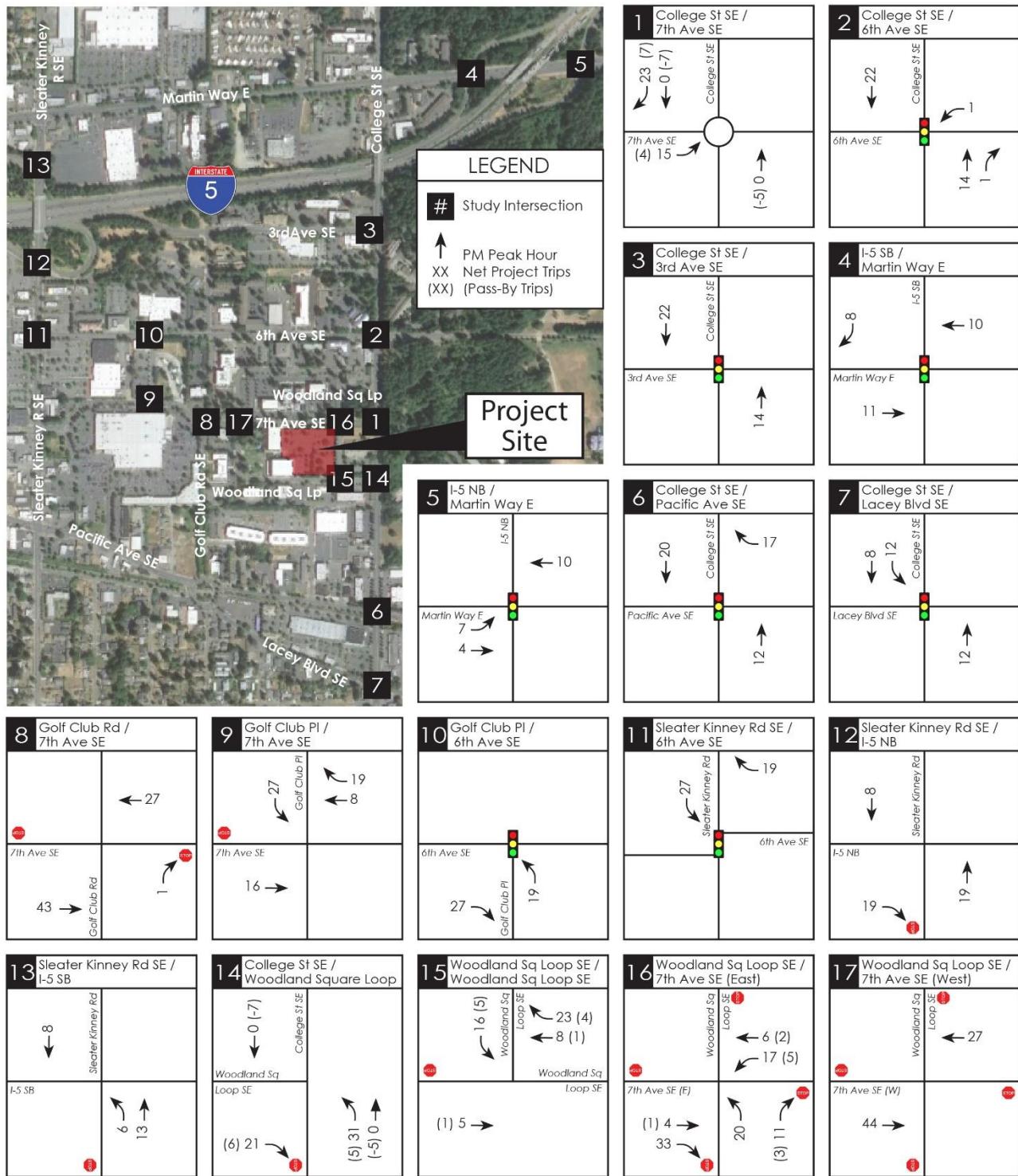


Figure 3: Weekday PM Peak Hour Net Project Trip Assignment



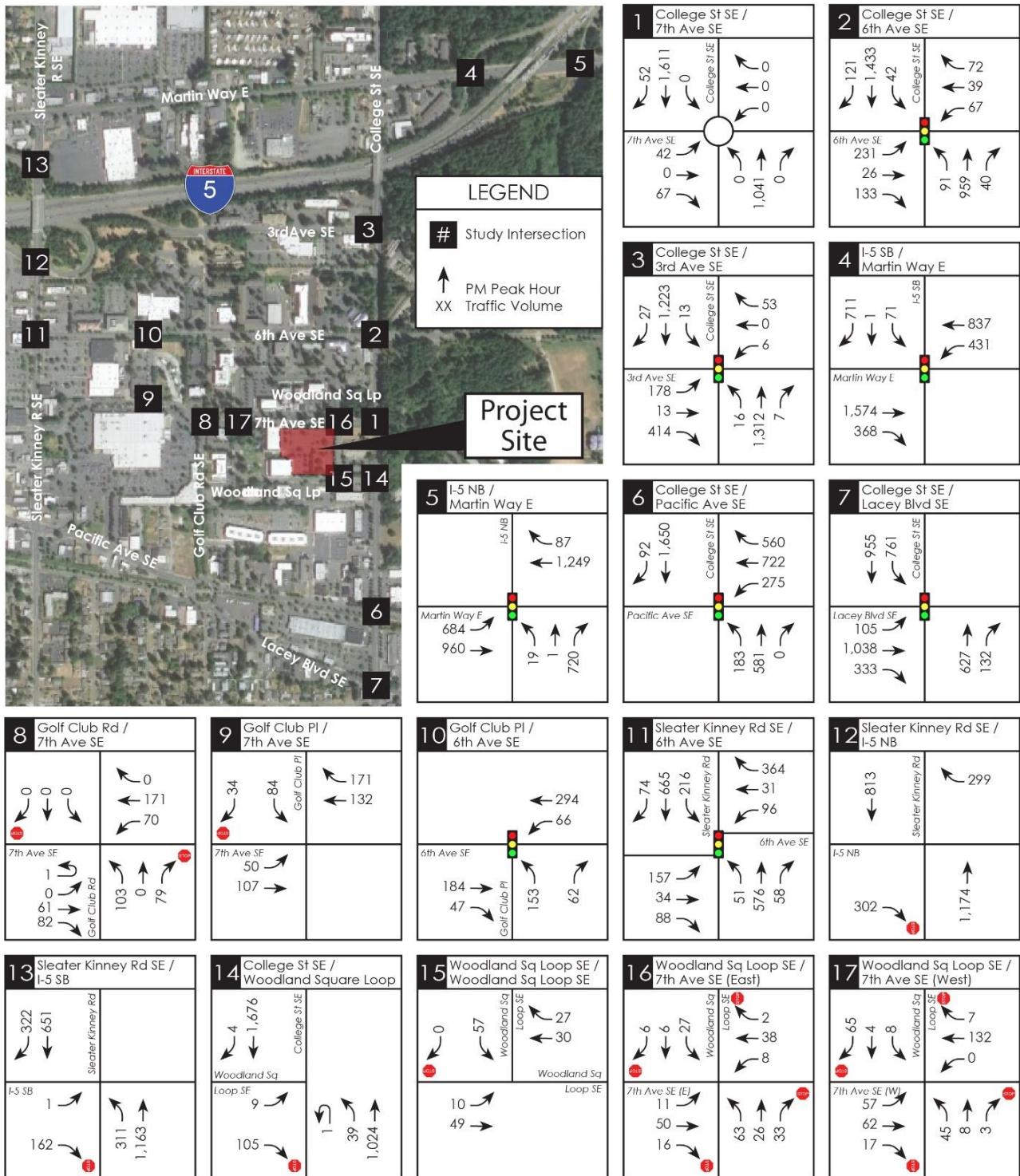


Figure 4: 2026 No Action Weekday PM Peak Hour Traffic Volumes



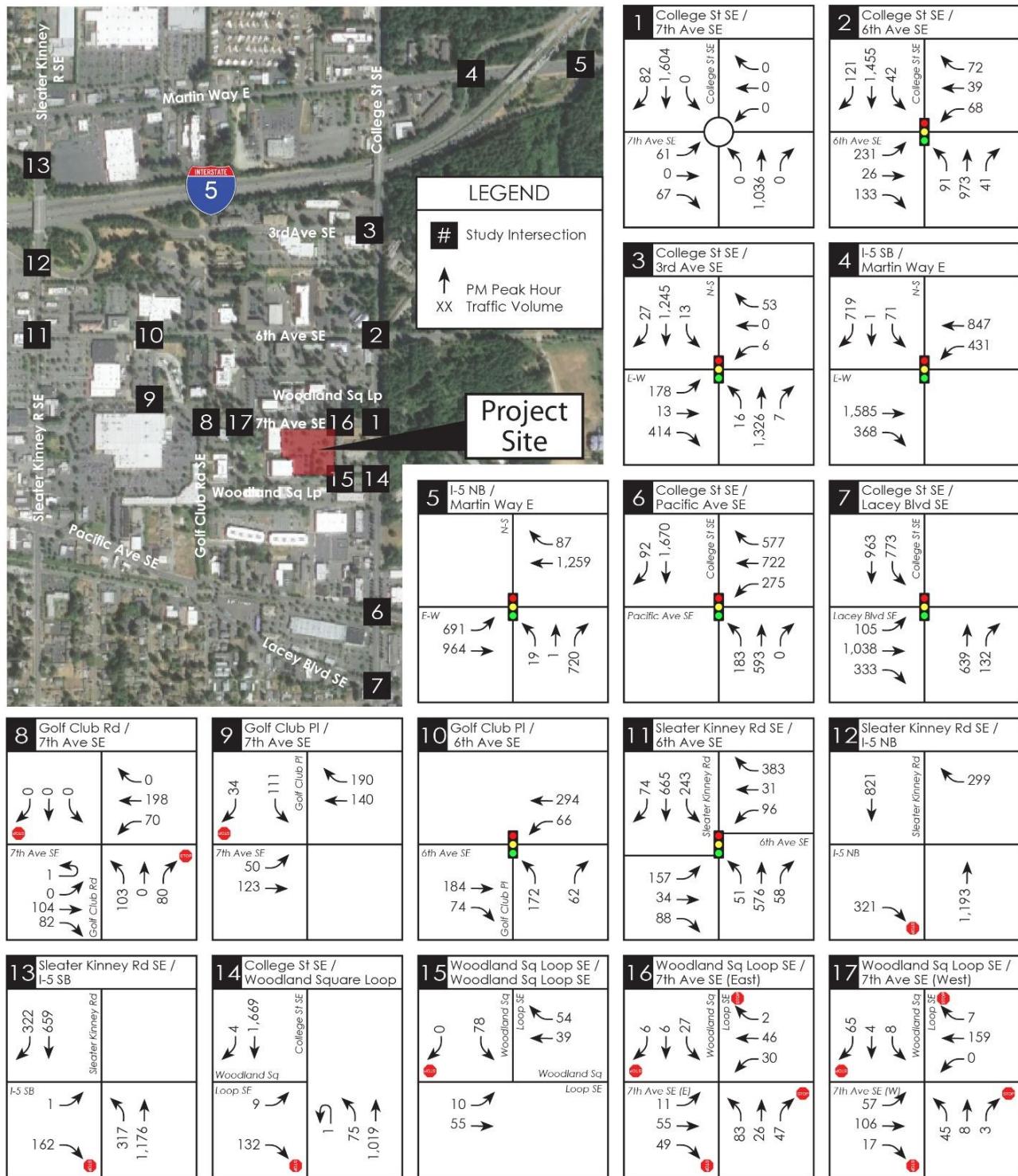


Figure 5: 2026 With Project Weekday PM Peak Hour Traffic Volumes



7. Traffic Operations with Project Buildout

Weekday PM peak hour level of service (LOS) analyses were conducted at the 17 off-site study intersections for three scenarios: (1) 2023 existing, (2) 2026 No Action (without project), and (3) 2026 With Project.

Intersection LOS are established based on the methodology and procedures in the *Highway Capacity Manual*, 6th Edition. Intersection LOS were determined using the Synchro 11 program for signalized and stop-controlled intersections and SIDRA Intersection 9.1 program for roundabouts.

Note that the City of Lacey is planning to construct a new roundabout at the College Street SE/7th Avenue SE intersection and has been included in the future intersection LOS.

The City of Lacey intersection LOS standard is LOS E for intersections within the Lacey Core Area. It should be noted that the following study intersections are located on one of the City of Lacey *Strategy Corridors*, which are exempt from LOS standards.

1. College St SE / 7th Ave SE
2. College St SE / 6th Ave SE
3. College St SE / 3rd Ave SE
4. I-5 SB Ramps / Martin Way E
5. I-5 NB Ramps / Martin Way E
6. College St SE / Pacific Ave SE
7. College St SE / Lacey Blvd SE
11. Sleater Kinney Rd SE / 6th Ave SE
12. Sleater Kinney Rd SE / I-5 NB Off Ramp
13. Sleater Kinney Rd SE / I-5 SB Off Ramp
14. College St SE / Woodland Square Loop SE

The existing 2023 weekday PM peak hour LOS analysis results are summarized in **Table 2**. **Table 3** summarizes the future intersection LOS without and with full buildout of the proposed 7th Ave Mixed-Use project. It should be noted that the LOS reported at the stop-controlled study intersection is based on the control delay of the approach with the highest delay, which tends to be the stop-controlled minor approaches or the left-turn movements from major streets. Detailed LOS worksheets, including a summary by approach, are provided in **Appendix F**.

Table 2
Existing 2023 PM Peak Hour LOS Summary

| Study Intersection | LOS ¹ | Delay (sec) |
|---|------------------|-------------|
| <u>Two-Way Stop-Controlled:</u> | | |
| 1. College St SE / 7th Ave SE ² | B | 14.4 |
| 8. Golf Club Rd / 7th Ave SE | B | 11.9 |
| 9. Golf Club Pl / 7th Ave SE | B | 11.6 |
| 12. Sleater Kinney Rd SE / I-5 NB Off Ramp ² | C | 17.2 |
| 13. Sleater Kinney Rd SE/I-5 SB Off Ramp ² | B | 12.0 |
| 14. Woodland Square Loop SE / College St SE ² | D | 33.5 |
| 15. Woodland Square Loop SE / 7th Ave SE (west) | A | 9.0 |
| <u>Signalized:</u> | | |
| 2. College St SE / 6th Ave SE ² | B | 19.8 |
| 3. College St SE / 3rd Ave SE ² | B | 16.4 |
| 4. I-5 SB Ramps / Martin Way E ² | F | 123.5 |
| 5. I-5 NB Ramps / Martin Way E ² | E | 58.0 |
| 6. College St SE / Pacific Ave SE ² | F | 82.9 |
| 7. College St SE / Lacey Blvd SE ² | D | 37.1 |
| 10. Golf Club Pl / 6th Ave SE | A | 4.9 |
| 11. Sleater Kinney Rd SE / 6th Ave SE ² | C | 22.3 |
| <u>All Way Stop-Controlled</u> | | |
| 16. Woodland Square Loop SE / 7 th Ave SE (east) | A | 7.4 |
| 17. Woodland Square Loop SE / 7 th Ave SE (west) | A | 7.8 |

- 1. LOS = Level of Service, reported as intersection average for signalized and all-way stop controlled intersections. LOS reported by worst movement for stop-controlled intersections.
- 2. Intersection is part of a Strategy Corridor as defined by the City of Lacey.

Table 3
Future 2026 PM Peak Hour LOS Summary

| Study Intersection (approach movement) | 2026 No Action | | 2026 With Project | |
|---|-------------------|----------------|----------------------|----------------|
| | LOS ¹ | Delay (sec) | LOS ¹ | Delay (sec) |
| <u>Roundabout:</u> | | | | |
| 1. College St SE / 7th Ave SE | A | 0.5 | A | 0.6 |
| <u>Two-Way Stop-Controlled:</u> | | | | |
| 8. Golf Club Rd / 7th Ave SE | B | 14.2 | C | 16.0 |
| 9. Golf Club Pl / 7th Ave SE | B | 12.7 | B | 13.6 |
| 12. Sleater Kinney Rd SE / I-5 NB Off Ramp ² | C | 22.8 | D | 25.0 |
| 13. Sleater Kinney Rd SE / I-5 SB Off Ramp ² | B | 13.0 | B | 13.1 |
| 14. Woodland Square Loop SE / College St SE ² | F | 130.7 | F | 236.7 |
| 15. Woodland Square Loop SE / 7th Ave SE (west) | A | 9.4 | A | 9.7 |
| <u>Signalized:</u> | | | | |
| 2. College St SE / 6th Ave SE ² | C | 22.2 | C | 22.4 |
| 3. College St SE / 3rd Ave SE ² | B | 18.3 | B | 18.3 |
| 4. I-5 SB Ramps / Martin Way E ² | F | 178.5 | F | 182.3 |
| 5. I-5 NB Ramps / Martin Way E ² | F | 97.0 | F | 100.2 |
| 6. College St SE / Pacific Ave SE ² | F | 106.9 | F | 112.9 |
| 7. College St SE / Lacey Blvd SE ² | E | 56.0 | E | 57.1 |
| 10. Golf Club Pl / 6th Ave SE | A | 5.5 | A | 5.7 |
| 11. Sleater Kinney Rd SE / 6th Ave SE ² | C | 32.0 | C | 34.7 |
| <u>All Way Stop-Controlled:</u> | | | | |
| 16. Woodland Square Loop SE / 7 th Ave SE (east) | A | 7.9 | A | 8.3 |
| 17. Woodland Square Loop SE / 7 th Ave SE (west) | A | 8.4 | A | 8.9 |

1. LOS = Level of Service, reported as intersection average for signalized and all-way stop-controlled intersections. LOS reported by worst movement for stop-controlled intersections.

2. Intersection is part of a Strategy Corridor as defined by the City of Lacey.

The results of the LOS analyses shown in **Table 3** indicate that all study intersections are anticipated to operate at LOS E or better during the weekday PM peak hour in 2026 with full buildout of the proposed 7th Ave Mixed-Use project with the following exceptions:

Intersections Located on City of Lacey Strategy Corridors:

The following intersections are anticipated to operate at LOS F in 2026 during the weekday PM peak hour without or with full buildout of the proposed 7th Ave Mixed-Use project but are located on City of Lacey Strategy Corridors and are therefore exempt from LOS standards:

4. I-5 SB Ramps / Martin Way E
5. I-5 NB Ramps / Martin Way E
6. College Street SE / Pacific Avenue SE
14. Woodland Square Loop SE / College Street SE

It should also be noted that the failing movement at the Woodland Square Loop SE/College Street SE intersection is the eastbound left-turn. Vehicles destined northbound on College Street SE may use an alternate route including the planned roundabout at College Street SE/7th Avenue SE.

8. Access Management

Access to the 7th Ave Mixed-Use project is proposed at three (3) full access driveways: one (1) via 7th Ave SE, one (1) via Woodland Square Loop SE (east), and one (1) via Woodland Square Loop SE (south). Weekday PM peak hour LOS and queues were evaluated at each of the proposed site access locations. It should be noted that the existing surface parking lot serve the two existing office buildings located west of the site. The existing office workers will be allowed to utilize the new surface parking and parking garage that are proposed as part of this project and have been accounted for in the site access analysis. The 2026 weekday PM peak hour traffic volumes at the three (3) site access locations are shown below:

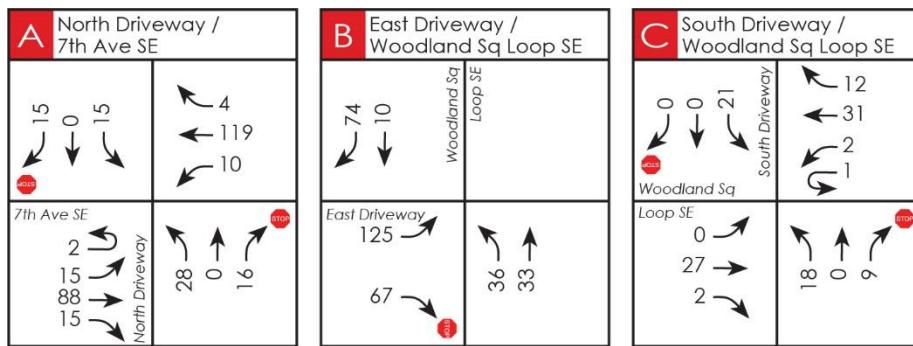


Table 4 summarizes the LOS and queue results at the site access locations for future 2026 with project conditions during the weekday PM peak hour.

Table 4
Site Access PM Peak Hour LOS and Queue Summary

| Site Access Location (approach movement) | LOS | Delay (sec) | 95 th % Queue (ft) |
|--|-----|-------------|-------------------------------|
| <u>Stop Controlled:</u> | | | |
| A. North Driveway/7th Ave SE | | | |
| Northbound Approach (exiting trips) | B | 11.0 | < 25' |
| Westbound Left-Turn (entering trips) | A | 7.5 | 0' |
| B. East Driveway/Woodland Square Loop SE | | | |
| Northbound Left-Turn (entering trips) | A | 7.4 | < 25' |
| Eastbound Approach (exiting trips) | B | 10.5 | 25' |
| C. South Driveway/Woodland Square Loop SE | | | |
| Eastbound Left-Turn (entering trips) | A | 0.0 | 0' |
| Southbound Approach (exiting trips) | A | 9.2 | < 25' |

As shown in **Table 4**, the individual movements entering and exiting the site at each of the proposed site access locations are anticipated to operate at LOS B or better during the PM peak hour in 2026 with the proposed project. Additionally, 95th-percentile queues are estimated to be 25 feet or less at each of the proposed site access locations.

9. Traffic Calming

City development guidelines require that internal traffic calming be incorporated into all developments to control cut-through traffic and reduce speed within the development. Because the project is located within the Woodland Square Loop, cut-through traffic is not anticipated to be a concern within the proposed 7th Ave Mixed-Use project.

10. Alternate Modes of Transportation

The City of Lacey TIA guidelines encourages alternate modes of transportation. New developments are encouraged to implement Transportation Demand Management (TDM) practices. Sidewalks are proposed on the internal site roadways and currently exist along 7th Avenue SE and Woodland Square Loop SE in the project vicinity. Additionally, there are multiple transit stops in the project vicinity including the Lacey Transit Center located less than a quarter of a mile west of the site on the northeast corner of Golf Club Pl SE/7th Ave SE.

11. Mitigation

The following measures have been identified to mitigate the transportation impacts of the proposed 7th Ave Mixed-Use Project.

- **Lacey Impact Fees.** To mitigate impacts to City of Lacey roads, payment of a transportation mitigation cost is required. The mitigation cost calculation will be determined by the City of Lacey Transportation Department and based on the number of PM peak hour trips generated by the proposed project affecting the current City TIP project list.
- **Olympia Impact Fees.** To mitigate impacts to City of Olympia roads, payment of a transportation mitigation cost is required. The mitigation cost calculation is based on the number of PM peak hour trips generated by the proposed project affecting the current City of Olympia Capital Facilities Plan (CFP) project list. Based on the anticipated project trip distribution, the City of Olympia estimated the total transportation mitigation cost for the proposed project to be \$6,378.

Appendix A

City of Lacey Traffic Scoping Approval Letter (dated March 16, 2023)



CITY OF **LACEY**

CITY COUNCIL

ANDY RYDER

Mayor

MALCOLM MILLER

Deputy Mayor

LENNY GREENSTEIN

MICHAEL STEADMAN

CAROLYN COX

ED KUNKEL

ROBIN VAZQUEZ

March 16th, 2023

INTERIM CITY MANAGER

RICK WALK

Spenser Haynie
TENW
11400 SE 8th Street #200
Bellevue, WA 98004

SUBJECT: 7th Avenue Mixed-Use Traffic Scoping Approval

Dear Mr. Haynie,

I have reviewed the Traffic Scoping report submitted for this project and have determined there are transportation impacts that require a Traffic Impact Analysis. The methodology for completing a Traffic Impact Analysis is identified in Chapter 4 of the City of Lacey Development Guidelines and Public Works Standards, and mitigation and concurrency measures are identified in Lacey Municipal Code Chapter 14.21.

Please analyze these intersections in your report:

1. College Street SE & 7th Avenue SE
2. College Street SE & 6th Avenue SE
3. College Street SE & 3rd Avenue SE
4. Martin Way E & I-5 NB Ramps
5. Martin Way E & I-5 SB Ramps
6. College Street SE & Pacific Avenue SE
7. College Street SE & Lacey Boulevard SE
8. Golf Club Road & 7th Avenue SE
9. Golf Club Place & 7th Avenue SE
10. Golf Club Place & 6th Avenue SE
11. Sleater Kinney Road SE & 6th Avenue SE
12. Sleater Kinney Road SE & I-5 NB Ramps
13. Sleater Kinney Road SE & I-5 SB Ramps
14. College Street SE & Woodland Square Loop SE
15. Woodland Square Loop SE & Woodland Square Loop SE
16. Woodland Square Loop SE & 7th Avenue SE (East)
17. Woodland Square Loop SE & 7th Avenue SE (West)
18. All driveways to the site.

The above list includes intersections requested by WSDOT. The City of Olympia has provided a traffic mitigation fee estimate for their projects which is attached.

I will provide pipeline volumes for the study intersections and a printout of the signal programming for signalized intersections.

Please provide a signed and stamped Traffic Impact Analysis for distribution for the review necessary to evaluate this project. If you have any questions, do not hesitate to call me at (360) 438-2640.

Sincerely,

A handwritten signature in cursive script that reads "Christopher Stolberg".

Christopher Stolberg, EIT
Transportation Engineer

CC: Tom Stiles, Development Review Manager
File

Transportation Mitigation Costs for Development (2020 to 2040)

Traffic Analysis Zone (TAZ) : 169

7th Avenue Mixed Use

Development : Lacey

Mixed Use - See TIA for Trip Generation

Net New Development PM Peak Hour Trips : 161

SUMMARY OF PROJECT COST AND SIX YEAR GROWTH

| | | |
|--------------------------|--------------|---|
| Funds Needed | \$60,926,250 | Accounts of Urban Corridor and Downtown Adjustment Factor |
| Cost Assigned to Growth | \$22,811,250 | |
| Six Year Trip Growth (b) | 21,455 | |
| Cost per Trip (2) | \$1,063 | |

| CFP Project | Funds Needed | Cost Assigned to Growth (a) | TAZ Percent Entering CFP Project (c) | New Development Trips (d) | Proportionate Share Cost Assigned to Development |
|-------------|-----------------|-----------------------------------|--|---------------------------------|--|
| | (1) | (3) | (4) | (2)*(4) | |
| | | | | | |

WEST OLYMPIA

| | | | | | |
|---|--------------|-------------|------|---|-----|
| US 101 West Olympia Access - Design ROW | \$40,425,000 | \$5,775,000 | 0.0% | 0 | \$0 |
| 345-0000-345-86-67 | | | | | |

EAST OLYMPIA

| | | | | | |
|---------------------|--------------|--------------|------|---|---------|
| Fones Road Widening | \$18,480,000 | \$15,015,000 | 2.5% | 4 | \$4,252 |
| 130-0000-345-86-58 | | | | | |

SOUTHEAST OLYMPIA

| | | | | | |
|--------------------------|-------------|-------------|------|---|---------|
| Wiggins Rd & 37th Avenue | \$1,155,000 | \$1,155,000 | 0.9% | 2 | \$2,126 |
| 130-0000-345-86-77 | | | | | |
| Cain Road & North Street | \$866,250 | \$866,250 | 0.0% | 0 | \$0 |
| 130-0000-345-86-79 | | | | | |

| | | | | | |
|----------------------------|--------------|--------------|--|---|---------|
| Project Total for Olympia: | \$60,926,250 | \$22,811,250 | | 6 | \$6,378 |
|----------------------------|--------------|--------------|--|---|---------|

(a) Capital Facilities Plan cost is projected to be collected in a twenty year period and be consistent with concurrency. Project cost assigned does not include any grant funding.

(b) Thurston Regional Planning Council (TRPC) Model years from existing 2020 to the beginning of 2040.

(c) Development cost is based on proportion of new growth that impacts the project limits. Project impact is any vehicle trip entering a CFP Project roadway segment and intersection.

(d) Development trips are rounded to the nearest whole number.

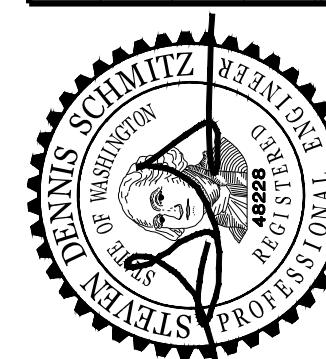
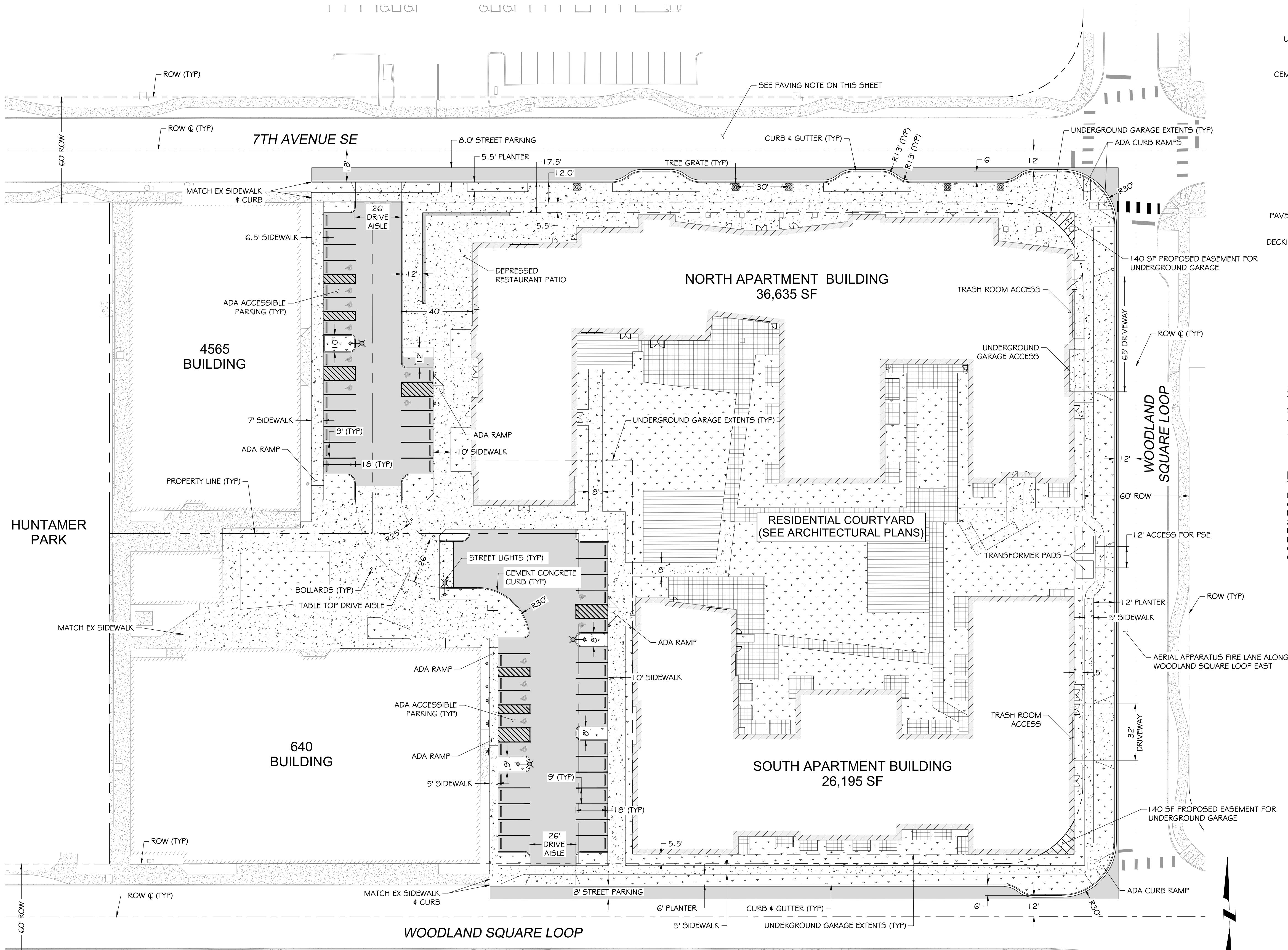
Appendix B

Preliminary Site Plan

**SECTION 17, TOWNSHIP 18 NORTH, RANGE 1 WEST, W.M.
THURSTON COUNTY, WASHINGTON**

PLotted: Apr 18, 2023 - 14:10@4p4 Plotted By: Er

FILE: I:\2021\10182100121 - MJR WSL Apartments\CADD\DWG\BSITE PLAN



| LEGEND | |
|--------------------------------|-----------|
| RIGHT OF WAY LINE | — - - - - |
| PROPERTY LINE | — — — — — |
| RIGHT OF WAY CENTERLINE | — — — — — |
| UNDERGROUND GARAGE OUTLINE | — — — — — |
| 4" WIDE STRIPING LINE | — — — — — |
| CEMENT CONCRETE CURB & GUTTER | ===== |
| CEMENT CONCRETE CURB | ===== |
| BUILDING | |
| CONCRETE | |
| LANDSCAPING | |
| ASPHALT PAVEMENT | |
| VERS (SEE ARCHITECTURAL PLANS) | |
| KING (SEE ARCHITECTURAL PLANS) | |
| WHEEL STOP | — |
| ADA PARKING SYMBOL | |
| TREE GRATE | |
| STREET LIGHT | |

SURFACE PARKING·

| | |
|-----------------|-----------|
| STANDARD: | 33 STALLS |
| ADA ACCESSIBLE: | 15 STALLS |
| TOTAL: | 48 STALLS |

PAVING NOTE:

PAVEMENT WITHIN 7TH AVE WILL BE RESTORED FOLLOWING CONSTRUCTION OF ALL UTILITIES, SITE FEATURES, STRUCTURES, AND FRONTRAGE IMPROVEMENTS. PAVEMENT RESTORATION SHALL INCLUDE 2-INCH GRIND AND OVERLAY OF THE FULL ROADWAY WIDTH FROM THE INTERSECTION OF 7TH AVE AND WOODLAND SQUARE LOOP SE ON THE EAST TO A POINT APPROXIMATELY 40 FEET EAST OF THE INTERSECTION OF GOLF CLUB ROAD AND 7TH AVE, OR THE EDGE OF THE CITY'S 2023 OVERLAY PROJECT.

The logo consists of a large, stylized blue 'KPF' monogram. To the right of the monogram, the company's address is written vertically in black text: '6112 Woodland Square Loop, Suite 100, Lacey, WA 98503'.

H AVE APARTMENTS CEY, WASHINGTON

LAND USE
DRAWING

C4.0

SHEET 4 OF 7

Appendix C

Existing PM Peak Hour Traffic Counts

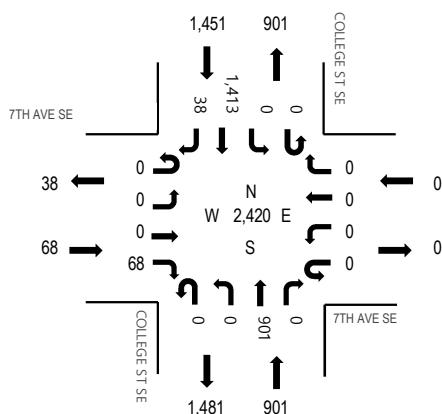
Location: 1 COLLEGE ST SE & 7TH AVE SE PM

Date: Thursday, March 23, 2023

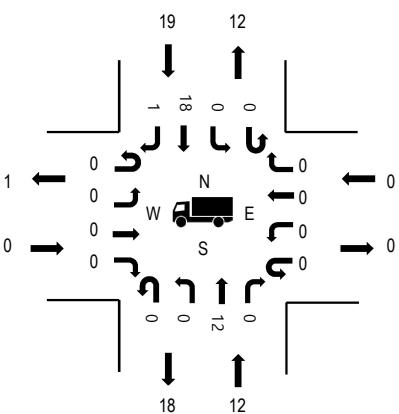
Peak Hour: 04:45 PM - 05:45 PM

Peak Hour

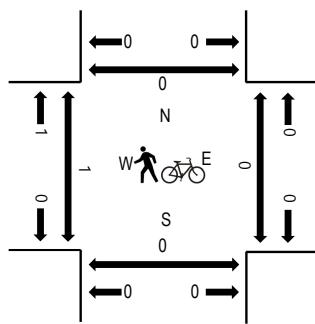
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



| | HV% | PHF |
|-----|------|------|
| EB | 0.0% | 0.59 |
| WB | 0.0% | 0.00 |
| NB | 1.3% | 0.96 |
| SB | 1.3% | 0.95 |
| All | 1.3% | 0.94 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | 7TH AVE SE Eastbound | | | | 7TH AVE SE Westbound | | | | COLLEGE ST SE Northbound | | | | COLLEGE ST SE Southbound | | | | Rolling Hour |
|---------------------|----------------------|------|------|-------|----------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|--------------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| 4:00 PM | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 252 | 0 | 0 | 0 | 370 | 11 |
| 4:15 PM | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 210 | 0 | 0 | 0 | 349 | 8 |
| 4:30 PM | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 223 | 0 | 0 | 0 | 310 | 5 |
| 4:45 PM | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 211 | 0 | 0 | 0 | 331 | 4 |
| 5:00 PM | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 235 | 0 | 0 | 0 | 362 | 18 |
| 5:15 PM | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 223 | 0 | 0 | 0 | 357 | 7 |
| 5:30 PM | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 232 | 0 | 0 | 0 | 363 | 9 |
| 5:45 PM | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 212 | 0 | 0 | 0 | 298 | 13 |
| Count Total | 0 | 0 | 0 | 139 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,798 | 0 | 0 | 0 | 2,740 | 75 |
| Peak Hour | 0 | 0 | 0 | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 901 | 0 | 0 | 0 | 1,413 | 38 |
| | | | | | | | | | | | | | | | | | 2,420 |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 0 | 9 | 0 | 10 | 19 | 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 5 | 0 | 7 | 12 | 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 4 | 0 | 4 | 8 | 4:30 PM | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 2 | 0 | 9 | 11 | 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 4 | 0 | 5 | 9 | 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 3 | 0 | 3 | 6 | 5:15 PM | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 3 | 0 | 2 | 5 | 5:30 PM | 1 | 0 | 0 | 0 | 1 |
| 5:45 PM | 1 | 0 | 0 | 4 | 5 | 5:45 PM | 1 | 0 | 0 | 0 | 1 |
| Count Total | 1 | 30 | 0 | 44 | 75 | Count Total | 2 | 0 | 0 | 0 | 2 |
| Peak Hour | 0 | 12 | 0 | 19 | 31 | Peak Hour | 1 | 0 | 0 | 0 | 1 |

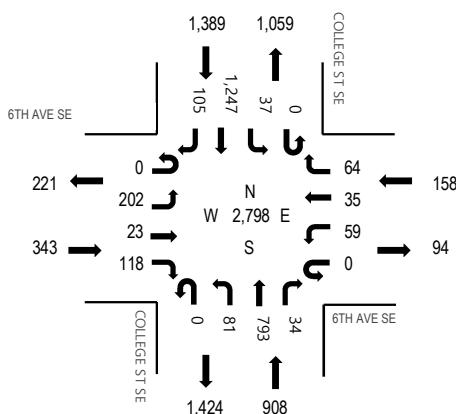
Location: 2 COLLEGE ST SE & 6TH AVE SE PM

Date: Thursday, March 23, 2023

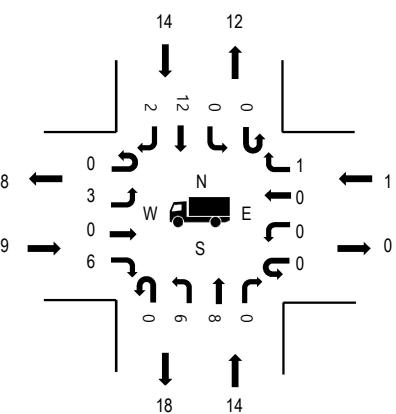
Peak Hour: 04:45 PM - 05:45 PM

Peak Hour

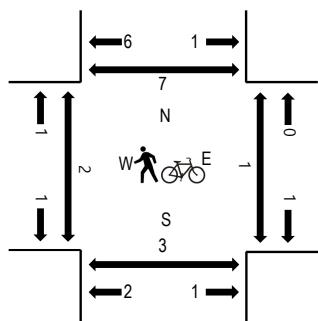
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



HV% PHF

| | HV% | PHF |
|-----|------|------|
| EB | 2.6% | 0.88 |
| WB | 0.6% | 0.69 |
| NB | 1.5% | 0.94 |
| SB | 1.0% | 0.93 |
| All | 1.4% | 0.91 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | 6TH AVE SE | | | | 6TH AVE SE | | | | COLLEGE ST SE | | | | COLLEGE ST SE | | | | Rolling Hour |
|---------------------|------------|-----|-----------|-----|------------|----|------------|-----|---------------|------|-------|-------|---------------|------|-------|-------|--------------|
| | Eastbound | | Westbound | | Northbound | | Southbound | | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| 4:00 PM | 0 | 46 | 6 | 25 | 0 | 12 | 11 | 13 | 0 | 24 | 230 | 11 | 0 | 12 | 356 | 23 | 769 2,777 |
| 4:15 PM | 0 | 55 | 3 | 34 | 0 | 11 | 6 | 11 | 0 | 27 | 186 | 3 | 0 | 9 | 314 | 34 | 693 2,779 |
| 4:30 PM | 0 | 35 | 5 | 32 | 0 | 4 | 10 | 11 | 0 | 21 | 199 | 10 | 0 | 9 | 285 | 33 | 654 2,769 |
| 4:45 PM | 0 | 50 | 11 | 31 | 0 | 12 | 7 | 13 | 0 | 16 | 190 | 9 | 0 | 12 | 282 | 28 | 661 2,798 |
| 5:00 PM | 0 | 60 | 3 | 35 | 0 | 19 | 17 | 21 | 0 | 22 | 212 | 8 | 0 | 14 | 331 | 29 | 771 2,749 |
| 5:15 PM | 0 | 52 | 5 | 28 | 0 | 13 | 6 | 10 | 0 | 23 | 199 | 6 | 0 | 7 | 312 | 22 | 683 |
| 5:30 PM | 0 | 40 | 4 | 24 | 0 | 15 | 5 | 20 | 0 | 20 | 192 | 11 | 0 | 4 | 322 | 26 | 683 |
| 5:45 PM | 0 | 30 | 7 | 22 | 0 | 5 | 7 | 13 | 0 | 23 | 179 | 5 | 0 | 8 | 288 | 25 | 612 |
| Count Total | 0 | 368 | 44 | 231 | 0 | 91 | 69 | 112 | 0 | 176 | 1,587 | 63 | 0 | 75 | 2,490 | 220 | 5,526 |
| Peak Hour | 0 | 202 | 23 | 118 | 0 | 59 | 35 | 64 | 0 | 81 | 793 | 34 | 0 | 37 | 1,247 | 105 | 2,798 |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | | |
|---------------------|----------------|----|----|----|---------------------|-----------------------------------|----|----|----|-------|----|
| | EB | NB | WB | SB | | EB | NB | WB | SB | Total | |
| 4:00 PM | 2 | 13 | 0 | 7 | 22 | 4:00 PM | 0 | 0 | 0 | 2 | 2 |
| 4:15 PM | 3 | 6 | 0 | 7 | 16 | 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 2 | 6 | 0 | 5 | 13 | 4:30 PM | 1 | 0 | 2 | 2 | 5 |
| 4:45 PM | 3 | 3 | 0 | 7 | 13 | 4:45 PM | 0 | 0 | 0 | 1 | 1 |
| 5:00 PM | 1 | 4 | 0 | 4 | 9 | 5:00 PM | 0 | 2 | 1 | 2 | 5 |
| 5:15 PM | 1 | 4 | 1 | 3 | 9 | 5:15 PM | 0 | 1 | 0 | 2 | 3 |
| 5:30 PM | 4 | 3 | 0 | 0 | 7 | 5:30 PM | 2 | 0 | 0 | 2 | 4 |
| 5:45 PM | 2 | 0 | 0 | 3 | 5 | 5:45 PM | 0 | 1 | 0 | 1 | 2 |
| Count Total | 18 | 39 | 1 | 36 | 94 | Count Total | 3 | 4 | 3 | 12 | 22 |
| Peak Hour | 9 | 14 | 1 | 14 | 38 | Peak Hour | 2 | 3 | 1 | 7 | 13 |

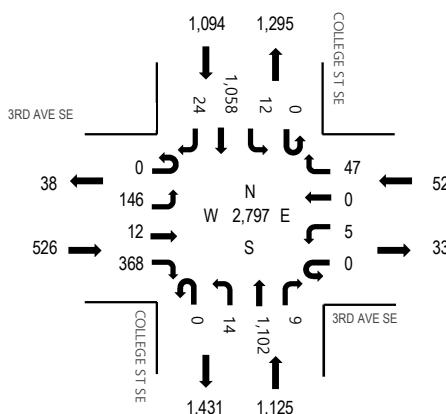
Location: 3 COLLEGE ST SE & 3RD AVE SE PM

Date: Thursday, March 23, 2023

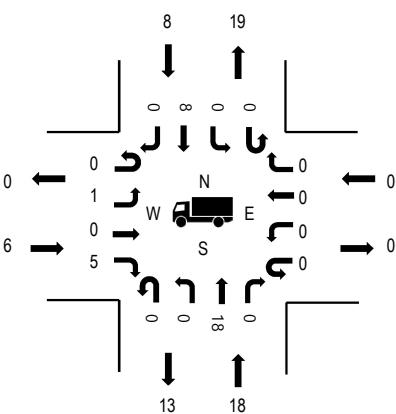
Peak Hour: 04:45 PM - 05:45 PM

Peak Hour

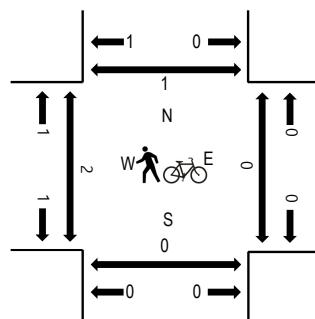
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



| | HV% | PHF |
|-----|------|------|
| EB | 1.1% | 0.82 |
| WB | 0.0% | 0.43 |
| NB | 1.6% | 0.91 |
| SB | 0.7% | 0.90 |
| All | 1.1% | 0.93 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | 3RD AVE SE Eastbound | | | | 3RD AVE SE Westbound | | | | COLLEGE ST SE Northbound | | | | COLLEGE ST SE Southbound | | | | Rolling Hour |
|---------------------|----------------------|------|------|-------|----------------------|------|------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|--------------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| 4:00 PM | 0 | 46 | 5 | 79 | 0 | 0 | 0 | 9 | 0 | 2 | 291 | 2 | 0 | 3 | 329 | 10 | 776 2,782 |
| 4:15 PM | 0 | 42 | 3 | 86 | 0 | 2 | 1 | 13 | 0 | 4 | 259 | 1 | 0 | 4 | 280 | 5 | 700 2,761 |
| 4:30 PM | 0 | 25 | 1 | 75 | 0 | 2 | 0 | 10 | 0 | 2 | 250 | 1 | 0 | 2 | 260 | 5 | 633 2,758 |
| 4:45 PM | 0 | 38 | 1 | 91 | 0 | 0 | 0 | 7 | 0 | 6 | 252 | 1 | 0 | 2 | 269 | 6 | 673 2,797 |
| 5:00 PM | 0 | 29 | 7 | 76 | 0 | 1 | 0 | 29 | 0 | 3 | 303 | 2 | 0 | 0 | 300 | 5 | 755 2,747 |
| 5:15 PM | 0 | 47 | 3 | 110 | 0 | 0 | 0 | 10 | 0 | 0 | 269 | 1 | 0 | 3 | 247 | 7 | 697 |
| 5:30 PM | 0 | 32 | 1 | 91 | 0 | 4 | 0 | 1 | 0 | 5 | 278 | 5 | 0 | 7 | 242 | 6 | 672 |
| 5:45 PM | 0 | 33 | 3 | 82 | 0 | 2 | 1 | 3 | 0 | 3 | 234 | 0 | 0 | 2 | 251 | 9 | 623 |
| Count Total | 0 | 292 | 24 | 690 | 0 | 11 | 2 | 82 | 0 | 25 | 2,136 | 13 | 0 | 23 | 2,178 | 53 | 5,529 |
| Peak Hour | 0 | 146 | 12 | 368 | 0 | 5 | 0 | 47 | 0 | 14 | 1,102 | 9 | 0 | 12 | 1,058 | 24 | 2,797 |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 3 | 11 | 0 | 5 | 19 | 4:00 PM | 0 | 0 | 0 | 1 | 1 |
| 4:15 PM | 5 | 5 | 0 | 3 | 13 | 4:15 PM | 0 | 0 | 0 | 1 | 1 |
| 4:30 PM | 1 | 4 | 0 | 5 | 10 | 4:30 PM | 0 | 0 | 0 | 2 | 2 |
| 4:45 PM | 2 | 4 | 0 | 5 | 11 | 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 3 | 5 | 0 | 3 | 11 | 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 1 | 5 | 0 | 0 | 6 | 5:15 PM | 2 | 0 | 0 | 0 | 2 |
| 5:30 PM | 0 | 4 | 0 | 0 | 4 | 5:30 PM | 0 | 0 | 0 | 1 | 1 |
| 5:45 PM | 1 | 2 | 0 | 3 | 6 | 5:45 PM | 0 | 1 | 0 | 2 | 3 |
| Count Total | 16 | 40 | 0 | 24 | 80 | Count Total | 2 | 1 | 0 | 7 | 10 |
| Peak Hour | 6 | 18 | 0 | 8 | 32 | Peak Hour | 2 | 0 | 0 | 1 | 3 |

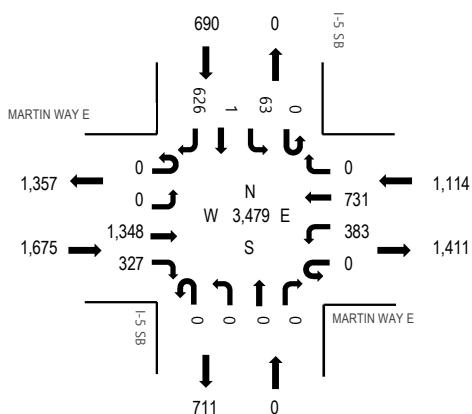
Location: 4 I-5 SB & MARTIN WAY E PM

Date: Thursday, March 23, 2023

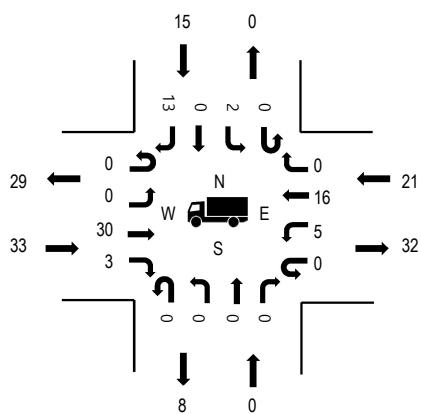
Peak Hour: 04:30 PM - 05:30 PM

Peak Hour

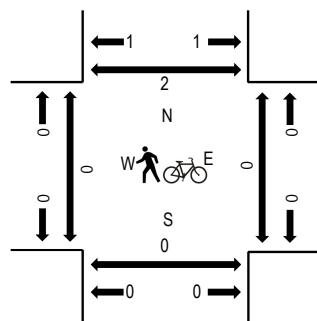
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



HV% PHF

| | HV% | PHF |
|-----|------|------|
| EB | 2.0% | 0.89 |
| WB | 1.9% | 0.97 |
| NB | 0.0% | 0.00 |
| SB | 2.2% | 0.94 |
| All | 2.0% | 0.95 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | MARTIN WAY E | | | | MARTIN WAY E | | | | I-5 SB | | | I-5 SB | | | Total | Rolling Hour | |
|---------------------|--------------|------|-------|-------|--------------|------|-------|-------|--------|------|------|--------|--------|------|-------|--------------|-----------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| 4:00 PM | 0 | 0 | 335 | 108 | 0 | 85 | 179 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 169 | 906 3,467 |
| 4:15 PM | 0 | 0 | 296 | 107 | 0 | 109 | 182 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 146 | 856 3,477 |
| 4:30 PM | 0 | 0 | 332 | 82 | 0 | 87 | 184 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 1 | 161 | 858 3,479 |
| 4:45 PM | 0 | 0 | 302 | 75 | 0 | 100 | 186 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 170 | 847 3,426 |
| 5:00 PM | 0 | 0 | 367 | 101 | 0 | 103 | 183 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 146 | 916 3,364 |
| 5:15 PM | 0 | 0 | 347 | 69 | 0 | 93 | 178 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 149 | 858 |
| 5:30 PM | 0 | 0 | 303 | 64 | 0 | 86 | 168 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 172 | 805 |
| 5:45 PM | 0 | 0 | 262 | 61 | 0 | 79 | 186 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 172 | 785 |
| Count Total | 0 | 0 | 2,544 | 667 | 0 | 742 | 1,446 | 0 | 0 | 0 | 0 | 0 | 0 | 146 | 1 | 1,285 | 6,831 |
| Peak Hour | 0 | 0 | 1,348 | 327 | 0 | 383 | 731 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 1 | 626 | 3,479 |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | Pedestrians/Bicycles on Crosswalk | | | | | | |
|---------------------|----------------|----|----|----|-----------------------------------|-------------|----|----|----|----|----|
| | EB | NB | WB | SB | Total | Start Time | EB | NB | WB | SB | |
| 4:00 PM | 12 | 0 | 3 | 1 | 16 | 4:00 PM | 0 | 2 | 0 | 1 | 3 |
| 4:15 PM | 5 | 0 | 5 | 4 | 14 | 4:15 PM | 0 | 0 | 2 | 2 | 4 |
| 4:30 PM | 13 | 0 | 8 | 7 | 28 | 4:30 PM | 0 | 0 | 0 | 2 | 2 |
| 4:45 PM | 8 | 0 | 6 | 4 | 18 | 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 6 | 0 | 5 | 2 | 13 | 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 6 | 0 | 2 | 2 | 10 | 5:15 PM | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 6 | 0 | 4 | 2 | 12 | 5:30 PM | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 2 | 0 | 2 | 1 | 5 | 5:45 PM | 0 | 1 | 0 | 0 | 1 |
| Count Total | 58 | 0 | 35 | 23 | 116 | Count Total | 0 | 3 | 2 | 5 | 10 |
| Peak Hour | 33 | 0 | 21 | 15 | 69 | Peak Hour | 0 | 0 | 0 | 2 | 2 |

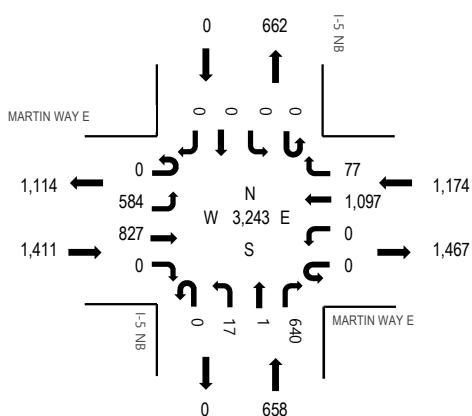
Location: 5 I-5 NB & MARTIN WAY E PM

Date: Thursday, March 23, 2023

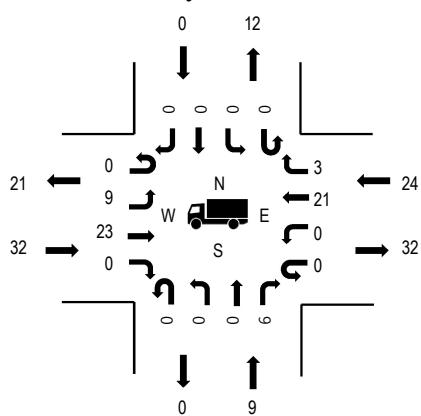
Peak Hour: 04:30 PM - 05:30 PM

Peak Hour

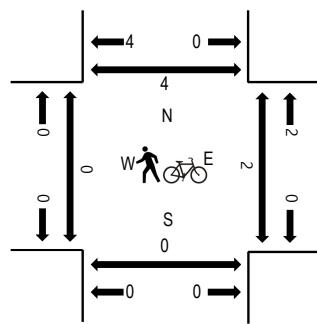
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



HV% PHF

| | HV% | PHF |
|-----|------|------|
| EB | 2.3% | 0.92 |
| WB | 2.0% | 0.96 |
| NB | 1.4% | 0.82 |
| SB | 0.0% | 0.00 |
| All | 2.0% | 0.95 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | MARTIN WAY E Eastbound | | | | MARTIN WAY E Westbound | | | | I-5 NB Northbound | | | | I-5 NB Southbound | | | | Total | Rolling Hour |
|---------------------|------------------------|-------|-------|-------|------------------------|------|-------|-------|-------------------|------|------|-------|-------------------|------|------|-------|-------|--------------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | |
| 4:00 PM | 0 | 129 | 236 | 0 | 0 | 0 | 256 | 23 | 0 | 8 | 0 | 148 | 0 | 0 | 0 | 0 | 800 | 3,090 |
| 4:15 PM | 0 | 141 | 171 | 0 | 0 | 0 | 285 | 12 | 0 | 6 | 0 | 131 | 0 | 0 | 0 | 0 | 746 | 3,138 |
| 4:30 PM | 0 | 132 | 211 | 0 | 0 | 0 | 265 | 17 | 0 | 6 | 0 | 138 | 0 | 0 | 0 | 0 | 769 | 3,243 |
| 4:45 PM | 0 | 141 | 175 | 0 | 0 | 0 | 284 | 22 | 0 | 2 | 1 | 150 | 0 | 0 | 0 | 0 | 775 | 3,182 |
| 5:00 PM | 0 | 147 | 236 | 0 | 0 | 0 | 284 | 20 | 0 | 2 | 0 | 159 | 0 | 0 | 0 | 0 | 848 | 3,088 |
| 5:15 PM | 0 | 164 | 205 | 0 | 0 | 0 | 264 | 18 | 0 | 7 | 0 | 193 | 0 | 0 | 0 | 0 | 851 | |
| 5:30 PM | 0 | 133 | 182 | 0 | 0 | 0 | 246 | 17 | 0 | 8 | 0 | 122 | 0 | 0 | 0 | 0 | 708 | |
| 5:45 PM | 0 | 127 | 160 | 0 | 0 | 0 | 255 | 12 | 0 | 10 | 0 | 117 | 0 | 0 | 0 | 0 | 681 | |
| Count Total | 0 | 1,114 | 1,576 | 0 | 0 | 0 | 2,139 | 141 | 0 | 49 | 1 | 1,158 | 0 | 0 | 0 | 0 | 6,178 | |
| Peak Hour | 0 | 584 | 827 | 0 | 0 | 0 | 1,097 | 77 | 0 | 17 | 1 | 640 | 0 | 0 | 0 | 0 | 3,243 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 8 | 2 | 4 | 0 | 14 | 4:00 PM | 0 | 0 | 0 | 1 | 1 |
| 4:15 PM | 3 | 0 | 6 | 0 | 9 | 4:15 PM | 0 | 1 | 0 | 1 | 2 |
| 4:30 PM | 13 | 1 | 8 | 0 | 22 | 4:30 PM | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 7 | 4 | 7 | 0 | 18 | 4:45 PM | 0 | 0 | 0 | 1 | 1 |
| 5:00 PM | 6 | 1 | 6 | 0 | 13 | 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 6 | 3 | 3 | 0 | 12 | 5:15 PM | 0 | 0 | 2 | 3 | 5 |
| 5:30 PM | 6 | 2 | 3 | 0 | 11 | 5:30 PM | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 2 | 0 | 2 | 0 | 4 | 5:45 PM | 0 | 1 | 0 | 0 | 1 |
| Count Total | 51 | 13 | 39 | 0 | 103 | Count Total | 0 | 2 | 2 | 6 | 10 |
| Peak Hour | 32 | 9 | 24 | 0 | 65 | Peak Hour | 0 | 0 | 2 | 4 | 6 |

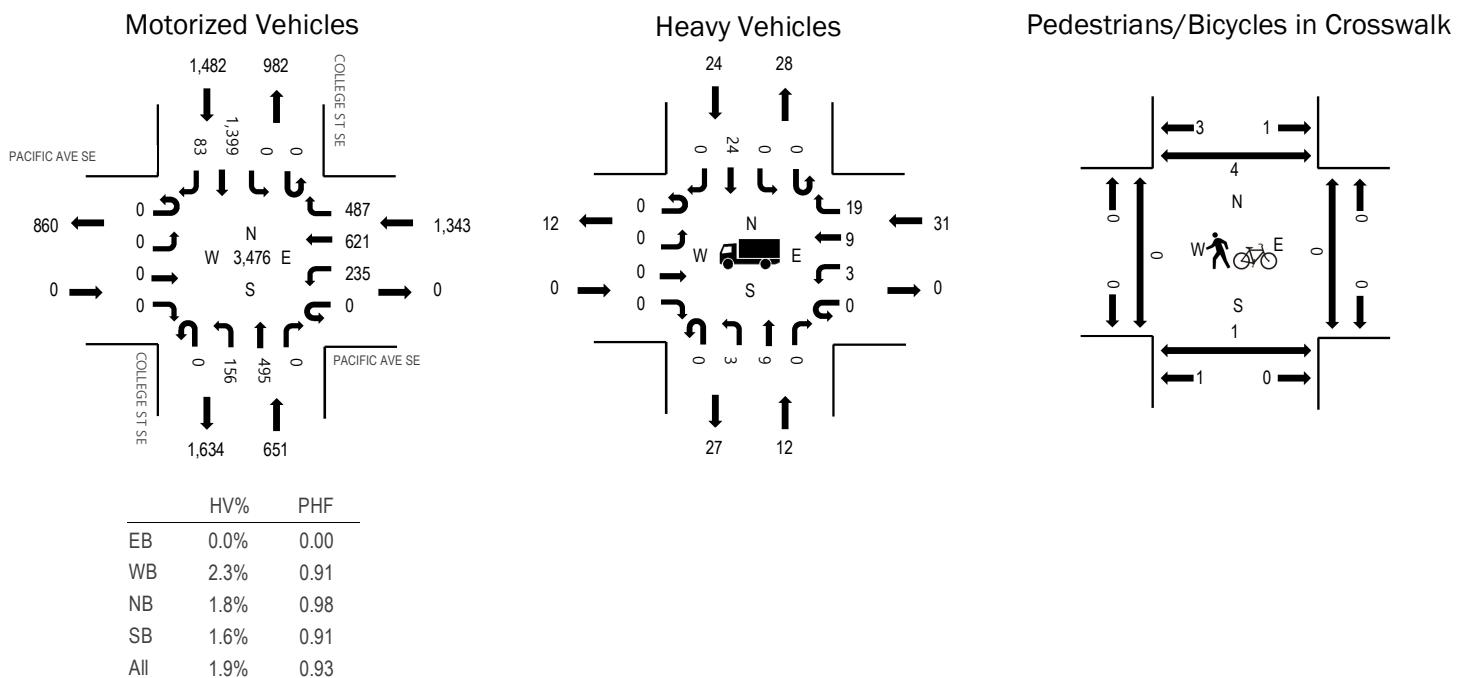


Location: 6 COLLEGE ST SE & PACIFIC AVE SE PM

Date: Thursday, March 23, 2023

Peak Hour: 04:00 PM - 05:00 PM

Peak Hour



Traffic Counts - Motorized Vehicles

| Interval Start Time | PACIFIC AVE SE Eastbound | | | | PACIFIC AVE SE Westbound | | | | COLLEGE ST SE Northbound | | | | COLLEGE ST SE Southbound | | | | Rolling Hour | |
|---------------------|--------------------------|------|------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|---|--|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 62 | 161 | 145 | 0 | 43 | 123 | 0 | 0 | 0 | 371 | 27 | 932 3,476 | |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 57 | 151 | 111 | 0 | 35 | 129 | 0 | 0 | 0 | 390 | 16 | 889 3,432 | |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 66 | 168 | 110 | 0 | 43 | 112 | 0 | 0 | 0 | 301 | 18 | 818 3,386 | |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 50 | 141 | 121 | 0 | 35 | 131 | 0 | 0 | 0 | 337 | 22 | 837 3,387 | |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 70 | 165 | 110 | 0 | 28 | 120 | 0 | 0 | 0 | 369 | 26 | 888 3,319 | |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 57 | 132 | 91 | 0 | 45 | 143 | 0 | 0 | 0 | 352 | 23 | 843 | |
| 5:30 PM | 0 | 0 | 0 | 0 | 2 | 57 | 143 | 109 | 0 | 31 | 117 | 0 | 0 | 0 | 334 | 26 | 819 | |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 45 | 128 | 89 | 0 | 34 | 126 | 0 | 0 | 0 | 318 | 29 | 769 | |
| Count Total | 0 | 0 | 0 | 0 | 2 | 464 | 1,189 | 886 | 0 | 294 | 1,001 | 0 | 0 | 0 | 2,772 | 187 | 6,795 | |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 235 | 621 | 487 | 0 | 156 | 495 | 0 | 0 | 0 | 1,399 | 83 | 3,476 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 0 | 2 | 12 | 6 | 20 | 4:00 PM | 0 | 1 | 0 | 3 | 4 |
| 4:15 PM | 0 | 4 | 8 | 6 | 18 | 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 5 | 7 | 4 | 16 | 4:30 PM | 0 | 0 | 0 | 1 | 1 |
| 4:45 PM | 0 | 1 | 4 | 8 | 13 | 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 4 | 7 | 4 | 15 | 5:00 PM | 0 | 0 | 1 | 0 | 1 |
| 5:15 PM | 0 | 5 | 4 | 2 | 11 | 5:15 PM | 0 | 1 | 0 | 2 | 3 |
| 5:30 PM | 0 | 3 | 6 | 2 | 11 | 5:30 PM | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 2 | 2 | 5 | 9 | 5:45 PM | 0 | 0 | 2 | 0 | 2 |
| Count Total | 0 | 26 | 50 | 37 | 113 | Count Total | 0 | 2 | 3 | 6 | 11 |
| Peak Hour | 0 | 12 | 31 | 24 | 67 | Peak Hour | 0 | 1 | 0 | 4 | 5 |

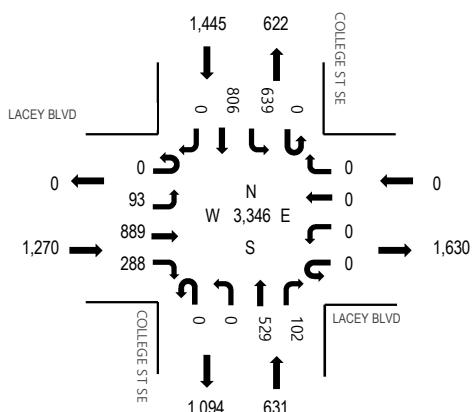
Location: 7 COLLEGE ST SE & LACEY BLVD PM

Date: Thursday, March 23, 2023

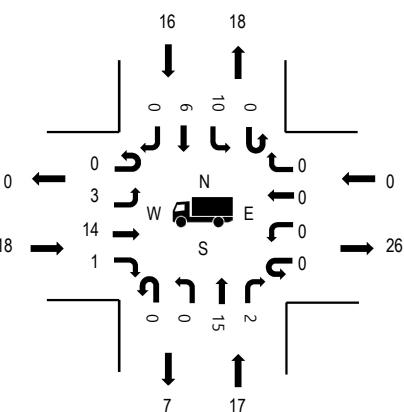
Peak Hour: 04:45 PM - 05:45 PM

Peak Hour

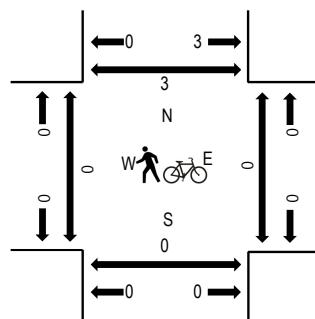
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



HV% PHF

| | HV% | PHF |
|-----|------|------|
| EB | 1.4% | 0.95 |
| WB | 0.0% | 0.00 |
| NB | 2.7% | 0.93 |
| SB | 1.1% | 0.95 |
| All | 1.5% | 0.98 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | LACEY BLVD | | | | LACEY BLVD | | | | COLLEGE ST SE | | | | COLLEGE ST SE | | | | Rolling Hour |
|---------------------|------------|-----|-----------|-----|------------|---|------------|---|---------------|------|-------|-------|---------------|-------|-------|-------|--------------|
| | Eastbound | | Westbound | | Northbound | | Southbound | | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | |
| 4:00 PM | 0 | 21 | 225 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 129 | 18 | 0 | 130 | 246 | 0 | 834 3,300 |
| 4:15 PM | 0 | 11 | 219 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 149 | 23 | 0 | 111 | 262 | 0 | 826 3,321 |
| 4:30 PM | 0 | 30 | 246 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 118 | 19 | 0 | 117 | 208 | 0 | 797 3,345 |
| 4:45 PM | 0 | 22 | 242 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 137 | 29 | 0 | 235 | 117 | 0 | 843 3,346 |
| 5:00 PM | 0 | 22 | 237 | 75 | 0 | 0 | 0 | 0 | 0 | 0 | 118 | 22 | 0 | 134 | 247 | 0 | 855 3,248 |
| 5:15 PM | 0 | 29 | 216 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 151 | 19 | 0 | 140 | 225 | 0 | 850 |
| 5:30 PM | 0 | 20 | 194 | 82 | 0 | 0 | 0 | 0 | 0 | 0 | 123 | 32 | 0 | 130 | 217 | 0 | 798 |
| 5:45 PM | 0 | 22 | 172 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 129 | 24 | 0 | 139 | 198 | 0 | 745 |
| Count Total | 0 | 177 | 1,751 | 524 | 0 | 0 | 0 | 0 | 0 | 0 | 1,054 | 186 | 0 | 1,136 | 1,720 | 0 | 6,548 |
| Peak Hour | 0 | 93 | 889 | 288 | 0 | 0 | 0 | 0 | 0 | 0 | 529 | 102 | 0 | 639 | 806 | 0 | 3,346 |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | | EB | NB | WB | SB | Total |
| 4:00 PM | 9 | 3 | 0 | 6 | 18 | 4:00 PM | 2 | 0 | 0 | 0 |
| 4:15 PM | 5 | 7 | 0 | 3 | 15 | 4:15 PM | 1 | 0 | 0 | 1 |
| 4:30 PM | 6 | 7 | 0 | 4 | 17 | 4:30 PM | 1 | 0 | 0 | 1 |
| 4:45 PM | 5 | 1 | 0 | 8 | 14 | 4:45 PM | 0 | 0 | 0 | 2 |
| 5:00 PM | 8 | 7 | 0 | 4 | 19 | 5:00 PM | 0 | 0 | 0 | 0 |
| 5:15 PM | 3 | 4 | 0 | 1 | 8 | 5:15 PM | 0 | 0 | 0 | 0 |
| 5:30 PM | 2 | 5 | 0 | 3 | 10 | 5:30 PM | 0 | 0 | 0 | 1 |
| 5:45 PM | 5 | 0 | 0 | 8 | 13 | 5:45 PM | 0 | 0 | 0 | 1 |
| Count Total | 43 | 34 | 0 | 37 | 114 | Count Total | 4 | 0 | 0 | 8 |
| Peak Hour | 18 | 17 | 0 | 16 | 51 | Peak Hour | 0 | 0 | 0 | 3 |

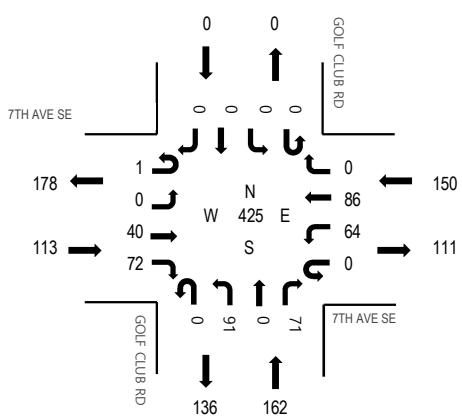
Location: 8 GOLF CLUB RD & 7TH AVE SE PM

Date: Thursday, March 23, 2023

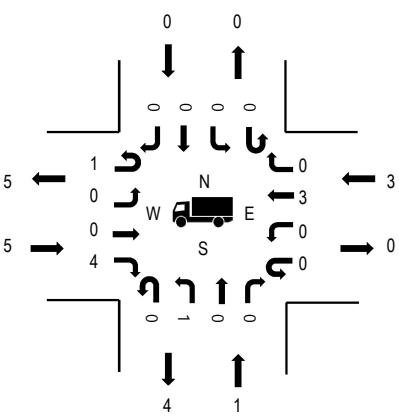
Peak Hour: 04:00 PM - 05:00 PM

Peak Hour

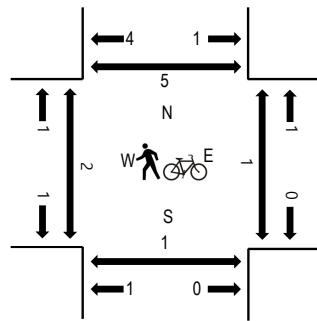
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



| | HV% | PHF |
|-----|------|------|
| EB | 4.4% | 0.78 |
| WB | 2.0% | 0.89 |
| NB | 0.6% | 0.75 |
| SB | 0.0% | 0.00 |
| All | 2.1% | 0.86 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | 7TH AVE SE Eastbound | | | | 7TH AVE SE Westbound | | | | GOLF CLUB RD Northbound | | | | GOLF CLUB RD Southbound | | | | Total | Rolling Hour |
|---------------------|----------------------|------|------|-------|----------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | |
| 4:00 PM | 0 | 0 | 12 | 19 | 0 | 23 | 16 | 0 | 0 | 29 | 0 | 25 | 0 | 0 | 0 | 0 | 124 | 425 |
| 4:15 PM | 0 | 0 | 15 | 21 | 0 | 16 | 26 | 0 | 0 | 20 | 0 | 20 | 0 | 0 | 0 | 0 | 118 | 414 |
| 4:30 PM | 1 | 0 | 6 | 17 | 0 | 14 | 23 | 0 | 0 | 24 | 0 | 13 | 0 | 0 | 0 | 0 | 98 | 393 |
| 4:45 PM | 0 | 0 | 7 | 15 | 0 | 11 | 21 | 0 | 0 | 18 | 0 | 13 | 0 | 0 | 0 | 0 | 85 | 385 |
| 5:00 PM | 0 | 0 | 17 | 16 | 0 | 30 | 16 | 0 | 0 | 24 | 0 | 10 | 0 | 0 | 0 | 0 | 113 | 388 |
| 5:15 PM | 0 | 0 | 11 | 19 | 0 | 12 | 14 | 0 | 0 | 22 | 0 | 19 | 0 | 0 | 0 | 0 | 97 | |
| 5:30 PM | 0 | 0 | 9 | 18 | 0 | 14 | 12 | 0 | 0 | 17 | 0 | 20 | 0 | 0 | 0 | 0 | 90 | |
| 5:45 PM | 0 | 0 | 12 | 17 | 0 | 13 | 18 | 0 | 0 | 14 | 0 | 14 | 0 | 0 | 0 | 0 | 88 | |
| Count Total | 1 | 0 | 89 | 142 | 0 | 133 | 146 | 0 | 0 | 168 | 0 | 134 | 0 | 0 | 0 | 0 | 813 | |
| Peak Hour | 1 | 0 | 40 | 72 | 0 | 64 | 86 | 0 | 0 | 91 | 0 | 71 | 0 | 0 | 0 | 0 | 425 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 2 | 0 | 1 | 0 | 3 | 4:00 PM | 2 | 0 | 0 | 4 | 6 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 4:15 PM | 0 | 0 | 1 | 1 | 2 |
| 4:30 PM | 2 | 1 | 1 | 0 | 4 | 4:30 PM | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 1 | 0 | 1 | 0 | 2 | 4:45 PM | 0 | 1 | 0 | 0 | 1 |
| 5:00 PM | 2 | 2 | 0 | 0 | 4 | 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 1 | 0 | 1 | 5:15 PM | 0 | 0 | 0 | 2 | 2 |
| 5:30 PM | 2 | 1 | 0 | 0 | 3 | 5:30 PM | 2 | 0 | 0 | 1 | 3 |
| 5:45 PM | 2 | 0 | 2 | 0 | 4 | 5:45 PM | 0 | 0 | 0 | 2 | 2 |
| Count Total | 11 | 4 | 6 | 0 | 21 | Count Total | 4 | 1 | 1 | 10 | 16 |
| Peak Hour | 5 | 1 | 3 | 0 | 9 | Peak Hour | 2 | 1 | 1 | 5 | 9 |

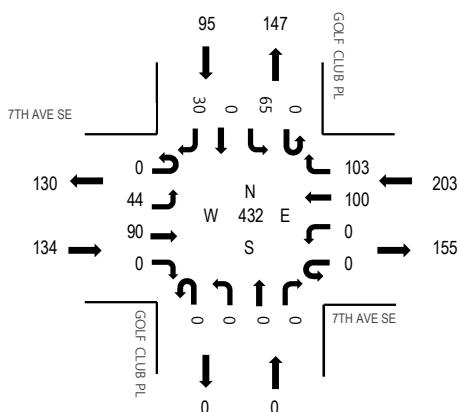
Location: 9 GOLF CLUB PL & 7TH AVE SE PM

Date: Thursday, March 23, 2023

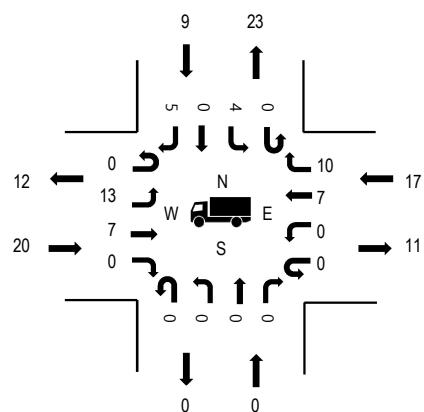
Peak Hour: 04:15 PM - 05:15 PM

Peak Hour

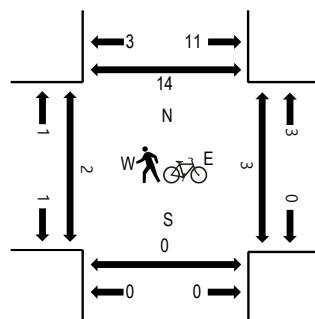
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



HV% PHF

| | HV% | PHF |
|-----|-------|------|
| EB | 14.9% | 0.93 |
| WB | 8.4% | 0.86 |
| NB | 0.0% | 0.00 |
| SB | 9.5% | 0.82 |
| All | 10.6% | 0.92 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | 7TH AVE SE Eastbound | | | | 7TH AVE SE Westbound | | | | GOLF CLUB PL Northbound | | | | GOLF CLUB PL Southbound | | | | Total | Rolling Hour |
|---------------------|----------------------|------|------|-------|----------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | |
| 4:00 PM | 0 | 12 | 20 | 0 | 0 | 0 | 28 | 23 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 8 | 107 | 427 |
| 4:15 PM | 0 | 11 | 25 | 0 | 0 | 0 | 33 | 21 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 7 | 118 | 432 |
| 4:30 PM | 0 | 9 | 19 | 0 | 0 | 0 | 24 | 35 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 9 | 110 | 416 |
| 4:45 PM | 0 | 12 | 23 | 0 | 0 | 0 | 23 | 19 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 5 | 92 | 399 |
| 5:00 PM | 0 | 12 | 23 | 0 | 0 | 0 | 20 | 28 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 9 | 112 | 399 |
| 5:15 PM | 0 | 11 | 23 | 0 | 0 | 0 | 18 | 21 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 6 | 102 | |
| 5:30 PM | 0 | 10 | 19 | 0 | 0 | 0 | 14 | 22 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 8 | 93 | |
| 5:45 PM | 0 | 5 | 18 | 0 | 0 | 0 | 23 | 15 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 5 | 92 | |
| Count Total | 0 | 82 | 170 | 0 | 0 | 0 | 183 | 184 | 0 | 0 | 0 | 0 | 0 | 150 | 0 | 57 | 826 | |
| Peak Hour | 0 | 44 | 90 | 0 | 0 | 0 | 100 | 103 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 30 | 432 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 5 | 0 | 3 | 3 | 11 | 4:00 PM | 0 | 0 | 0 | 2 | 2 |
| 4:15 PM | 4 | 0 | 1 | 3 | 8 | 4:15 PM | 0 | 0 | 0 | 3 | 3 |
| 4:30 PM | 6 | 0 | 7 | 2 | 15 | 4:30 PM | 0 | 0 | 1 | 0 | 1 |
| 4:45 PM | 4 | 0 | 2 | 2 | 8 | 4:45 PM | 1 | 0 | 1 | 4 | 6 |
| 5:00 PM | 6 | 0 | 7 | 2 | 15 | 5:00 PM | 1 | 0 | 1 | 7 | 9 |
| 5:15 PM | 3 | 0 | 2 | 4 | 9 | 5:15 PM | 0 | 0 | 1 | 4 | 5 |
| 5:30 PM | 5 | 0 | 4 | 3 | 12 | 5:30 PM | 0 | 0 | 3 | 5 | 8 |
| 5:45 PM | 6 | 0 | 3 | 1 | 10 | 5:45 PM | 0 | 0 | 0 | 1 | 1 |
| Count Total | 39 | 0 | 29 | 20 | 88 | Count Total | 2 | 0 | 7 | 26 | 35 |
| Peak Hour | 20 | 0 | 17 | 9 | 46 | Peak Hour | 2 | 0 | 3 | 14 | 19 |

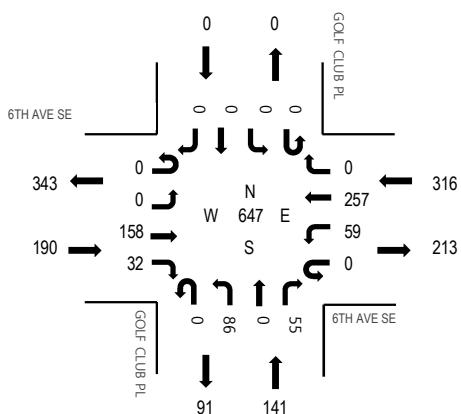
Location: 10 GOLF CLUB PL & 6TH AVE SE PM

Date: Thursday, March 23, 2023

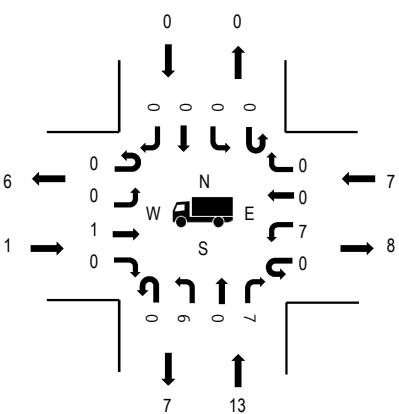
Peak Hour: 04:15 PM - 05:15 PM

Peak Hour

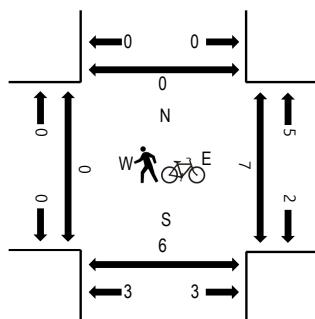
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



| | HV% | PHF |
|-----|------|------|
| EB | 0.5% | 0.88 |
| WB | 2.2% | 0.81 |
| NB | 9.2% | 0.86 |
| SB | 0.0% | 0.00 |
| All | 3.2% | 0.89 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | 6TH AVE SE Eastbound | | | | 6TH AVE SE Westbound | | | | GOLF CLUB PL Northbound | | | | GOLF CLUB PL Southbound | | | | Total | Rolling Hour |
|---------------------|----------------------|------|------|-------|----------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|--------------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | |
| 4:00 PM | 0 | 0 | 32 | 10 | 0 | 16 | 64 | 0 | 0 | 21 | 0 | 17 | 0 | 0 | 0 | 0 | 160 | 625 |
| 4:15 PM | 0 | 0 | 35 | 13 | 0 | 15 | 62 | 0 | 0 | 22 | 0 | 11 | 0 | 0 | 0 | 0 | 158 | 647 |
| 4:30 PM | 0 | 0 | 48 | 6 | 0 | 16 | 60 | 0 | 0 | 28 | 0 | 13 | 0 | 0 | 0 | 0 | 171 | 637 |
| 4:45 PM | 0 | 0 | 36 | 4 | 0 | 10 | 55 | 0 | 0 | 16 | 0 | 15 | 0 | 0 | 0 | 0 | 136 | 613 |
| 5:00 PM | 0 | 0 | 39 | 9 | 0 | 18 | 80 | 0 | 0 | 20 | 0 | 16 | 0 | 0 | 0 | 0 | 182 | 616 |
| 5:15 PM | 0 | 0 | 33 | 12 | 0 | 16 | 53 | 0 | 0 | 21 | 0 | 13 | 0 | 0 | 0 | 0 | 148 | |
| 5:30 PM | 0 | 0 | 37 | 8 | 0 | 21 | 49 | 0 | 0 | 23 | 0 | 9 | 0 | 0 | 0 | 0 | 147 | |
| 5:45 PM | 0 | 0 | 29 | 18 | 0 | 12 | 61 | 0 | 0 | 15 | 0 | 4 | 0 | 0 | 0 | 0 | 139 | |
| Count Total | 0 | 0 | 289 | 80 | 0 | 124 | 484 | 0 | 0 | 166 | 0 | 98 | 0 | 0 | 0 | 0 | 1,241 | |
| Peak Hour | 0 | 0 | 158 | 32 | 0 | 59 | 257 | 0 | 0 | 86 | 0 | 55 | 0 | 0 | 0 | 0 | 647 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 2 | 3 | 2 | 0 | 7 | 4:00 PM | 0 | 1 | 1 | 0 | 2 |
| 4:15 PM | 0 | 2 | 2 | 0 | 4 | 4:15 PM | 0 | 3 | 3 | 0 | 6 |
| 4:30 PM | 1 | 5 | 2 | 0 | 8 | 4:30 PM | 0 | 3 | 2 | 0 | 5 |
| 4:45 PM | 0 | 2 | 1 | 0 | 3 | 4:45 PM | 0 | 0 | 2 | 0 | 2 |
| 5:00 PM | 0 | 4 | 2 | 0 | 6 | 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 1 | 2 | 0 | 3 | 5:15 PM | 0 | 0 | 1 | 0 | 1 |
| 5:30 PM | 3 | 3 | 2 | 0 | 8 | 5:30 PM | 0 | 3 | 3 | 0 | 6 |
| 5:45 PM | 0 | 2 | 0 | 0 | 2 | 5:45 PM | 1 | 1 | 1 | 0 | 3 |
| Count Total | 6 | 22 | 13 | 0 | 41 | Count Total | 1 | 11 | 13 | 0 | 25 |
| Peak Hour | 1 | 13 | 7 | 0 | 21 | Peak Hour | 0 | 6 | 7 | 0 | 13 |

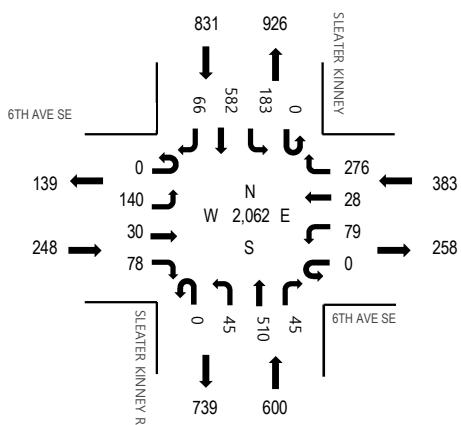
Location: 11 SLEATER KINNEY RD SE & 6TH AVE SE PM

Date: Thursday, March 23, 2023

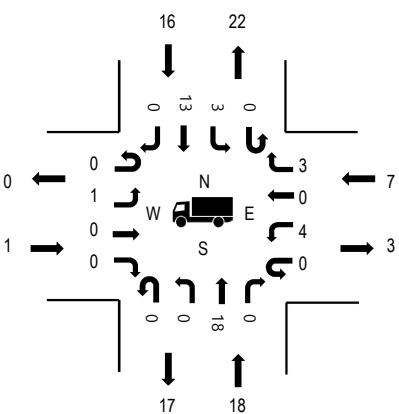
Peak Hour: 04:30 PM - 05:30 PM

Peak Hour

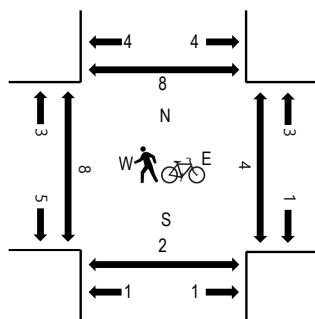
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

| Interval Start Time | 6TH AVE SE | | | | 6TH AVE SE | | | | SLEATER KINNEY RD SE | | | | SLEATER KINNEY RD SE | | | | Rolling Hour | |
|---------------------|------------|--------|------|------|------------|--------|------|------|----------------------|--------|------|------|----------------------|------------|--------|------|--------------|-------|
| | Eastbound | U-Turn | Left | Thru | Westbound | U-Turn | Left | Thru | Northbound | U-Turn | Left | Thru | Right | Southbound | U-Turn | Left | Thru | Right |
| 4:00 PM | 0 | 39 | 5 | 22 | 0 | 23 | 7 | 69 | 0 | 14 | 121 | 12 | 0 | 50 | 151 | 23 | 536 | 2,034 |
| 4:15 PM | 0 | 26 | 6 | 23 | 0 | 24 | 6 | 59 | 0 | 10 | 135 | 7 | 0 | 44 | 146 | 22 | 508 | 2,028 |
| 4:30 PM | 0 | 39 | 8 | 21 | 0 | 20 | 7 | 81 | 0 | 13 | 115 | 14 | 0 | 45 | 142 | 17 | 522 | 2,062 |
| 4:45 PM | 0 | 22 | 8 | 18 | 0 | 18 | 9 | 56 | 0 | 9 | 125 | 13 | 0 | 42 | 133 | 15 | 468 | 1,992 |
| 5:00 PM | 0 | 37 | 8 | 13 | 0 | 26 | 6 | 78 | 0 | 10 | 137 | 8 | 0 | 42 | 149 | 16 | 530 | 1,934 |
| 5:15 PM | 0 | 42 | 6 | 26 | 0 | 15 | 6 | 61 | 0 | 13 | 133 | 10 | 0 | 54 | 158 | 18 | 542 | |
| 5:30 PM | 0 | 32 | 4 | 11 | 0 | 10 | 16 | 68 | 0 | 14 | 100 | 8 | 0 | 47 | 129 | 13 | 452 | |
| 5:45 PM | 0 | 38 | 5 | 16 | 0 | 16 | 7 | 56 | 0 | 10 | 106 | 7 | 0 | 38 | 92 | 19 | 410 | |
| Count Total | 0 | 275 | 50 | 150 | 0 | 152 | 64 | 528 | 0 | 93 | 972 | 79 | 0 | 362 | 1,100 | 143 | 3,968 | |
| Peak Hour | 0 | 140 | 30 | 78 | 0 | 79 | 28 | 276 | 0 | 45 | 510 | 45 | 0 | 183 | 582 | 66 | 2,062 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 0 | 3 | 1 | 7 | 11 | 4:00 PM | 0 | 0 | 1 | 0 | 1 |
| 4:15 PM | 0 | 5 | 1 | 2 | 8 | 4:15 PM | 0 | 0 | 0 | 2 | 2 |
| 4:30 PM | 0 | 3 | 2 | 5 | 10 | 4:30 PM | 2 | 0 | 2 | 1 | 5 |
| 4:45 PM | 0 | 3 | 1 | 4 | 8 | 4:45 PM | 4 | 1 | 0 | 2 | 7 |
| 5:00 PM | 0 | 4 | 2 | 4 | 10 | 5:00 PM | 0 | 0 | 0 | 2 | 2 |
| 5:15 PM | 1 | 8 | 2 | 3 | 14 | 5:15 PM | 2 | 1 | 2 | 3 | 8 |
| 5:30 PM | 1 | 3 | 1 | 4 | 9 | 5:30 PM | 1 | 2 | 0 | 3 | 6 |
| 5:45 PM | 1 | 4 | 1 | 5 | 11 | 5:45 PM | 3 | 1 | 0 | 2 | 6 |
| Count Total | 3 | 33 | 11 | 34 | 81 | Count Total | 12 | 5 | 5 | 15 | 37 |
| Peak Hour | 1 | 18 | 7 | 16 | 42 | Peak Hour | 8 | 2 | 4 | 8 | 22 |

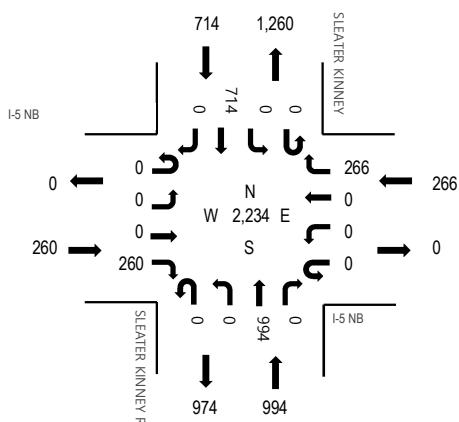
Location: 12 SLEATER KINNEY RD SE & I-5 NB PM

Date: Thursday, March 23, 2023

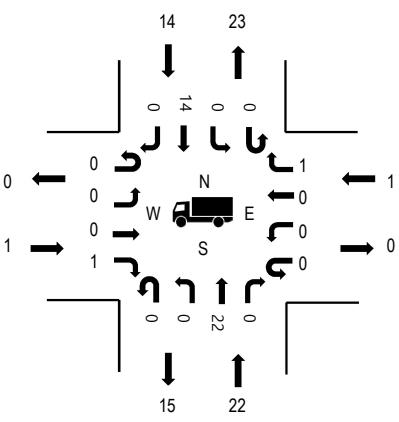
Peak Hour: 04:30 PM - 05:30 PM

Peak Hour

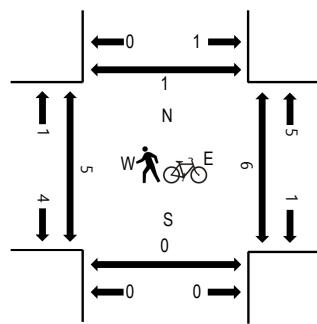
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



HV% PHF

| | HV% | PHF |
|-----|------|------|
| EB | 0.4% | 0.93 |
| WB | 0.4% | 0.89 |
| NB | 2.2% | 0.91 |
| SB | 2.0% | 0.75 |
| All | 1.7% | 0.93 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | I-5 NB Eastbound | | | | I-5 NB Westbound | | | | SLEATER KINNEY RD SE Northbound | | | | SLEATER KINNEY RD SE Southbound | | | | Total | Rolling Hour | |
|---------------------|------------------|------|------|-------|------------------|------|------|-------|---------------------------------|------|-------|-------|---------------------------------|------|------|-------|-------|--------------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | |
| 4:00 PM | 0 | 0 | 0 | 55 | 0 | 0 | 0 | 64 | 0 | 0 | 250 | 0 | 0 | 0 | 0 | 190 | 0 | 559 | 2,192 |
| 4:15 PM | 0 | 1 | 0 | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 228 | 0 | 0 | 0 | 0 | 168 | 0 | 515 | 2,205 |
| 4:30 PM | 0 | 0 | 0 | 60 | 0 | 0 | 0 | 59 | 0 | 0 | 243 | 0 | 0 | 0 | 0 | 237 | 0 | 599 | 2,234 |
| 4:45 PM | 0 | 0 | 0 | 63 | 0 | 0 | 0 | 68 | 0 | 0 | 231 | 0 | 0 | 0 | 0 | 157 | 0 | 519 | 2,136 |
| 5:00 PM | 0 | 0 | 0 | 70 | 0 | 0 | 0 | 64 | 0 | 0 | 273 | 0 | 0 | 0 | 0 | 165 | 0 | 572 | 2,070 |
| 5:15 PM | 0 | 0 | 0 | 67 | 0 | 0 | 0 | 75 | 0 | 0 | 247 | 0 | 0 | 0 | 0 | 155 | 0 | 544 | |
| 5:30 PM | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 61 | 0 | 0 | 221 | 0 | 0 | 0 | 0 | 160 | 0 | 501 | |
| 5:45 PM | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 77 | 0 | 0 | 206 | 0 | 0 | 0 | 0 | 129 | 0 | 453 | |
| Count Total | 0 | 1 | 0 | 474 | 0 | 0 | 0 | 527 | 0 | 0 | 1,899 | 0 | 0 | 0 | 0 | 1,361 | 0 | 4,262 | |
| Peak Hour | 0 | 0 | 0 | 260 | 0 | 0 | 0 | 266 | 0 | 0 | 994 | 0 | 0 | 0 | 0 | 714 | 0 | 2,234 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 1 | 2 | 1 | 3 | 7 | 4:00 PM | 1 | 0 | 0 | 0 | 1 |
| 4:15 PM | 1 | 5 | 0 | 3 | 9 | 4:15 PM | 1 | 0 | 1 | 0 | 2 |
| 4:30 PM | 1 | 4 | 1 | 5 | 11 | 4:30 PM | 2 | 0 | 2 | 0 | 4 |
| 4:45 PM | 0 | 3 | 0 | 3 | 6 | 4:45 PM | 3 | 0 | 0 | 0 | 3 |
| 5:00 PM | 0 | 6 | 0 | 4 | 10 | 5:00 PM | 0 | 0 | 2 | 1 | 3 |
| 5:15 PM | 0 | 9 | 0 | 2 | 11 | 5:15 PM | 0 | 0 | 2 | 0 | 2 |
| 5:30 PM | 1 | 3 | 0 | 3 | 7 | 5:30 PM | 1 | 0 | 3 | 0 | 4 |
| 5:45 PM | 1 | 5 | 1 | 4 | 11 | 5:45 PM | 2 | 0 | 4 | 0 | 6 |
| Count Total | 5 | 37 | 3 | 27 | 72 | Count Total | 10 | 0 | 14 | 1 | 25 |
| Peak Hour | 1 | 22 | 1 | 14 | 38 | Peak Hour | 5 | 0 | 6 | 1 | 12 |

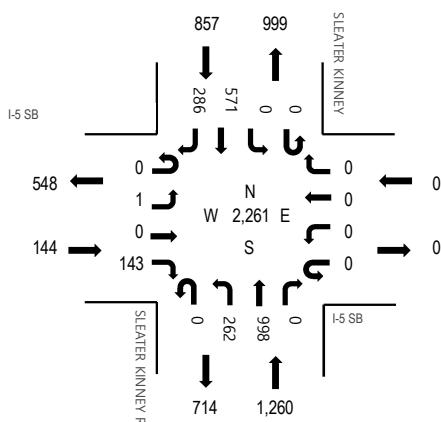
Location: 13 SLEATER KINNEY RD SE & I-5 SB PM

Date: Thursday, March 23, 2023

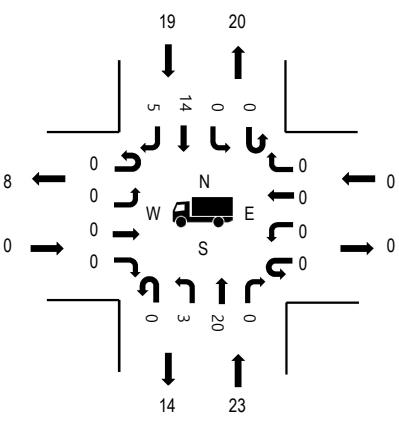
Peak Hour: 04:30 PM - 05:30 PM

Peak Hour

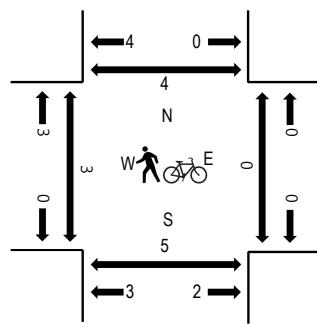
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



HV% and PHF

| | HV% | PHF |
|-----|------|------|
| EB | 0.0% | 0.90 |
| WB | 0.0% | 0.00 |
| NB | 1.8% | 0.93 |
| SB | 2.2% | 0.76 |
| All | 1.9% | 0.92 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | I-5 SB Eastbound | | | | I-5 SB Westbound | | | | SLEATER KINNEY RD SE Northbound | | | | SLEATER KINNEY RD SE Southbound | | | | Total | Rolling Hour |
|---------------------|------------------|------|------|-------|------------------|------|------|-------|---------------------------------|------|-------|-------|---------------------------------|------|-------|-------|-------|--------------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | |
| 4:00 PM | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 82 | 232 | 0 | 0 | 0 | 150 | 71 | 575 2,245 |
| 4:15 PM | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 79 | 208 | 0 | 0 | 0 | 131 | 64 | 519 2,249 |
| 4:30 PM | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 71 | 231 | 0 | 0 | 0 | 204 | 78 | 617 2,261 |
| 4:45 PM | 0 | 1 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 61 | 238 | 0 | 0 | 0 | 124 | 77 | 534 2,156 |
| 5:00 PM | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 74 | 263 | 0 | 0 | 0 | 128 | 77 | 579 2,083 |
| 5:15 PM | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 56 | 266 | 0 | 0 | 0 | 115 | 54 | 531 |
| 5:30 PM | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 56 | 226 | 0 | 0 | 0 | 119 | 70 | 512 |
| 5:45 PM | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 1 | 63 | 219 | 0 | 0 | 0 | 99 | 49 | 461 |
| Count Total | 0 | 1 | 0 | 291 | 0 | 0 | 0 | 0 | 1 | 542 | 1,883 | 0 | 0 | 0 | 1,070 | 540 | 4,328 | |
| Peak Hour | 0 | 1 | 0 | 143 | 0 | 0 | 0 | 0 | 0 | 262 | 998 | 0 | 0 | 0 | 571 | 286 | 2,261 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 0 | 3 | 0 | 6 | 9 | 4:00 PM | 0 | 0 | 0 | 5 | 5 |
| 4:15 PM | 0 | 5 | 0 | 4 | 9 | 4:15 PM | 0 | 2 | 0 | 1 | 3 |
| 4:30 PM | 0 | 5 | 0 | 8 | 13 | 4:30 PM | 0 | 1 | 0 | 0 | 1 |
| 4:45 PM | 0 | 3 | 0 | 4 | 7 | 4:45 PM | 0 | 1 | 0 | 0 | 1 |
| 5:00 PM | 0 | 6 | 0 | 5 | 11 | 5:00 PM | 3 | 0 | 0 | 1 | 4 |
| 5:15 PM | 0 | 9 | 0 | 2 | 11 | 5:15 PM | 0 | 3 | 0 | 3 | 6 |
| 5:30 PM | 0 | 3 | 0 | 3 | 6 | 5:30 PM | 0 | 1 | 0 | 0 | 1 |
| 5:45 PM | 0 | 6 | 0 | 4 | 10 | 5:45 PM | 0 | 2 | 0 | 1 | 3 |
| Count Total | 0 | 40 | 0 | 36 | 76 | Count Total | 3 | 10 | 0 | 11 | 24 |
| Peak Hour | 0 | 23 | 0 | 19 | 42 | Peak Hour | 3 | 5 | 0 | 4 | 12 |

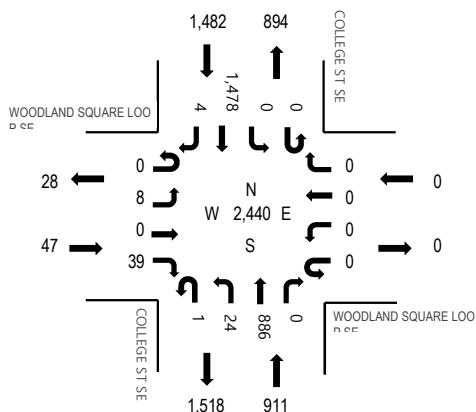
Location: 14 COLLEGE ST SE & WOODLAND SQUARE LOOP SE PM

Date: Thursday, March 23, 2023

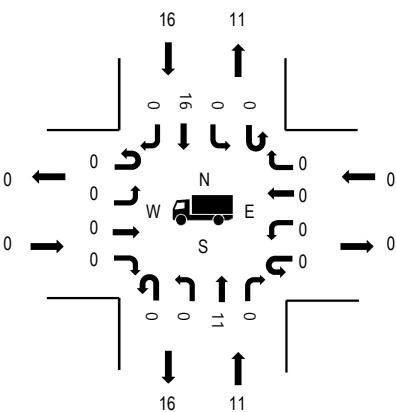
Peak Hour: 04:45 PM - 05:45 PM

Peak Hour

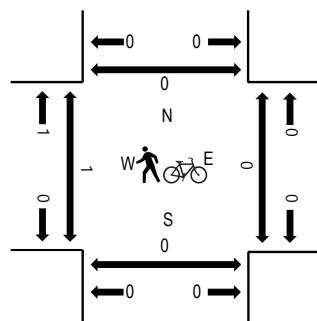
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



HV% PHF

| | HV% | PHF |
|-----|------|------|
| EB | 0.0% | 0.49 |
| WB | 0.0% | 0.00 |
| NB | 1.2% | 0.97 |
| SB | 1.1% | 0.95 |
| All | 1.1% | 0.95 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | WOODLAND SQUARE LOOP Eastbound | | | | WOODLAND SQUARE LOOP Westbound | | | | COLLEGE ST SE Northbound | | | | COLLEGE ST SE Southbound | | | | Total | Rolling Hour | |
|---------------------|--------------------------------|------|------|-------|--------------------------------|------|------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|-------|--------------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | |
| 4:00 PM | 0 | 3 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 231 | 0 | 0 | 0 | 387 | 1 | 638 | 2,406 |
| 4:15 PM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 220 | 0 | 0 | 0 | 371 | 1 | 603 | 2,409 |
| 4:30 PM | 0 | 6 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 224 | 0 | 0 | 0 | 334 | 1 | 580 | 2,403 |
| 4:45 PM | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 225 | 0 | 0 | 0 | 345 | 0 | 585 | 2,440 |
| 5:00 PM | 0 | 3 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 226 | 0 | 0 | 0 | 387 | 2 | 641 | 2,381 |
| 5:15 PM | 0 | 2 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 212 | 0 | 0 | 0 | 370 | 1 | 597 | |
| 5:30 PM | 0 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 223 | 0 | 0 | 0 | 376 | 1 | 617 | |
| 5:45 PM | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 200 | 0 | 0 | 0 | 311 | 0 | 526 | |
| Count Total | 0 | 20 | 0 | 61 | 0 | 0 | 0 | 0 | 1 | 56 | 1,761 | 0 | 0 | 0 | 2,881 | 7 | 4,787 | | |
| Peak Hour | 0 | 8 | 0 | 39 | 0 | 0 | 0 | 0 | 1 | 24 | 886 | 0 | 0 | 0 | 1,478 | 4 | 2,440 | | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 0 | 5 | 0 | 5 | 10 | 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 3 | 0 | 7 | 10 | 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 4 | 0 | 3 | 7 | 4:30 PM | 0 | 1 | 0 | 0 | 1 |
| 4:45 PM | 0 | 2 | 0 | 9 | 11 | 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 3 | 0 | 3 | 6 | 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 3 | 0 | 2 | 5 | 5:15 PM | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 3 | 0 | 2 | 5 | 5:30 PM | 1 | 0 | 0 | 0 | 1 |
| 5:45 PM | 0 | 0 | 0 | 4 | 4 | 5:45 PM | 1 | 0 | 0 | 0 | 1 |
| Count Total | 0 | 23 | 0 | 35 | 58 | Count Total | 2 | 1 | 0 | 0 | 3 |
| Peak Hour | 0 | 11 | 0 | 16 | 27 | Peak Hour | 1 | 0 | 0 | 0 | 1 |

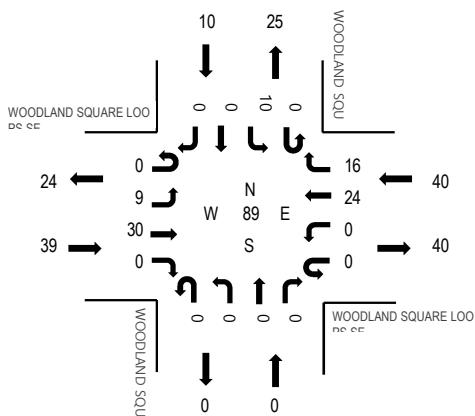
Location: 15 WOODLAND SQUARE LOOPS SE & WOODLAND SQUARE LOOPS SE PM

Date: Thursday, March 23, 2023

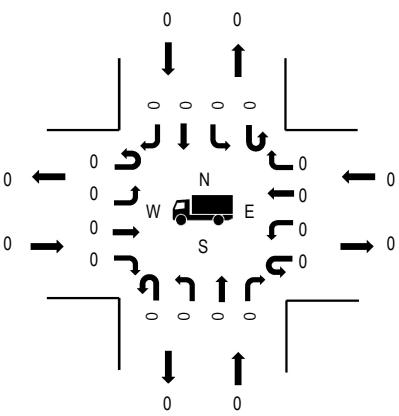
Peak Hour: 04:30 PM - 05:30 PM

Peak Hour

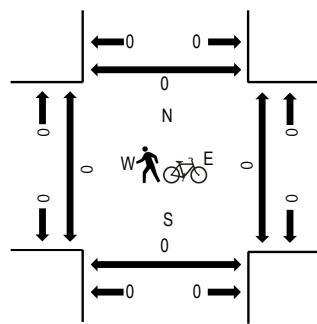
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



| | HV% | PHF |
|-----|------|------|
| EB | 0.0% | 0.81 |
| WB | 0.0% | 0.71 |
| NB | 0.0% | 0.00 |
| SB | 0.0% | 0.50 |
| All | 0.0% | 0.86 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | WOODLAND SQUARE EGRESS | | | | WOODLAND SQUARE WESTSIDE | | | | WOODLAND SQUARE NORTH SIDE | | | | WOODLAND SQUARE SOUTH SIDE | | | | Total | Rolling Hour |
|---------------------|------------------------|------|------|-------|--------------------------|------|------|-------|----------------------------|------|------|-------|----------------------------|------|------|-------|-------|--------------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | |
| 4:00 PM | 0 | 1 | 7 | 0 | 0 | 0 | 5 | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 20 | 82 |
| 4:15 PM | 0 | 1 | 3 | 0 | 0 | 0 | 8 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 17 | 88 |
| 4:30 PM | 0 | 2 | 9 | 0 | 0 | 0 | 6 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 23 | 89 |
| 4:45 PM | 0 | 2 | 4 | 0 | 0 | 0 | 8 | 6 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 22 | 86 |
| 5:00 PM | 0 | 1 | 11 | 0 | 0 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 26 | 81 |
| 5:15 PM | 0 | 4 | 6 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 18 | |
| 5:30 PM | 0 | 0 | 4 | 0 | 0 | 0 | 8 | 5 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 20 | |
| 5:45 PM | 0 | 0 | 7 | 0 | 0 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 17 | |
| Count Total | 0 | 11 | 51 | 0 | 0 | 0 | 52 | 32 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 1 | 163 | |
| Peak Hour | 0 | 9 | 30 | 0 | 0 | 0 | 24 | 16 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 89 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 4:30 PM | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 5:15 PM | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 5:30 PM | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 5:45 PM | 0 | 0 | 0 | 1 | 1 |
| Count Total | 0 | 0 | 0 | 0 | 0 | Count Total | 0 | 0 | 0 | 1 | 1 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | Peak Hour | 0 | 0 | 0 | 0 | 0 |



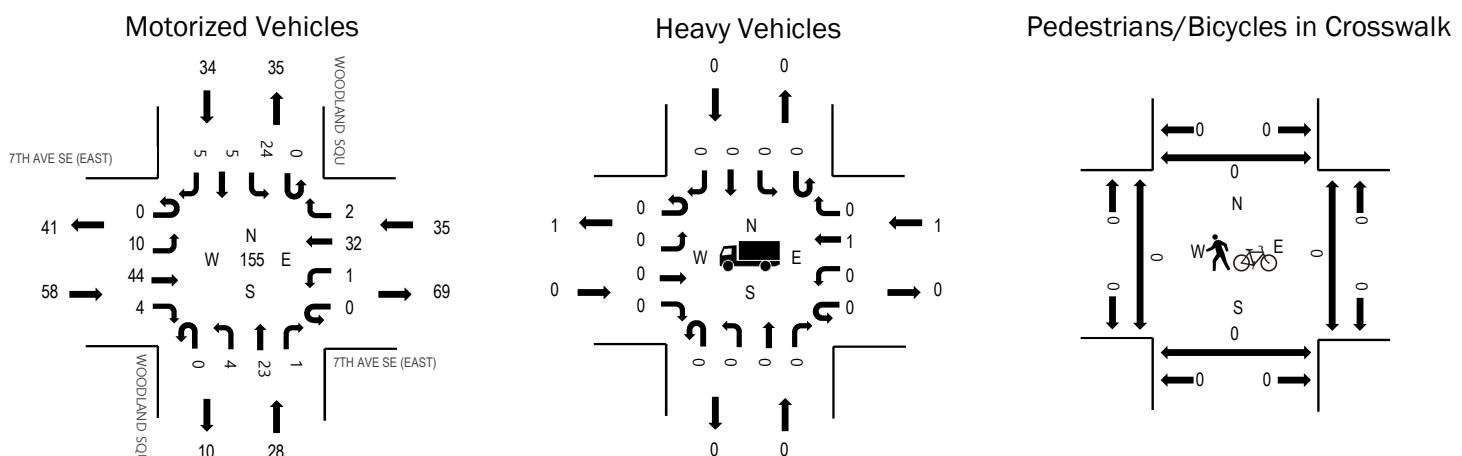
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 16 WOODLAND SQUARE LOOP SE & 7TH AVE SE (EAST) PM

Date: Thursday, March 23, 2023

Peak Hour: 04:15 PM - 05:15 PM

Peak Hour



| | HV% | PHF |
|-----|------|------|
| EB | 0.0% | 0.81 |
| WB | 2.9% | 0.51 |
| NB | 0.0% | 0.70 |
| SB | 0.0% | 0.77 |
| All | 0.6% | 0.88 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | 7TH AVE SE (EAST) | | | | 7TH AVE SE (EAST) | | | | WOODLAND SQUARE LOOP | | | | WOODLAND SQUARE LOOP | | | | Rolling Hour | |
|---------------------|-------------------|------|------|-------|-------------------|------|------|-------|----------------------|------|------|-------|----------------------|------|------|-------|--------------|-----|
| | Eastbound | | | | Westbound | | | | North Bound | | | | South Bound | | | | | |
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | |
| 4:00 PM | 0 | 1 | 11 | 0 | 0 | 0 | 10 | 0 | 0 | 1 | 7 | 0 | 0 | 7 | 0 | 4 | 41 | 152 |
| 4:15 PM | 0 | 4 | 13 | 1 | 0 | 0 | 9 | 0 | 0 | 1 | 3 | 0 | 0 | 4 | 1 | 1 | 37 | 155 |
| 4:30 PM | 0 | 2 | 12 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 8 | 1 | 0 | 8 | 2 | 1 | 40 | 151 |
| 4:45 PM | 0 | 3 | 8 | 1 | 0 | 0 | 4 | 0 | 0 | 2 | 7 | 0 | 0 | 6 | 0 | 3 | 34 | 140 |
| 5:00 PM | 0 | 1 | 11 | 2 | 0 | 1 | 14 | 2 | 0 | 0 | 5 | 0 | 0 | 6 | 2 | 0 | 44 | 132 |
| 5:15 PM | 0 | 1 | 8 | 0 | 0 | 0 | 7 | 1 | 0 | 0 | 7 | 0 | 0 | 7 | 2 | 0 | 33 | |
| 5:30 PM | 0 | 0 | 8 | 2 | 0 | 0 | 5 | 2 | 0 | 2 | 5 | 0 | 0 | 1 | 3 | 1 | 29 | |
| 5:45 PM | 0 | 0 | 5 | 1 | 0 | 0 | 12 | 1 | 0 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 26 | |
| Count Total | 0 | 12 | 76 | 7 | 0 | 1 | 66 | 6 | 0 | 8 | 42 | 1 | 0 | 45 | 10 | 10 | 284 | |
| Peak Hour | 0 | 10 | 44 | 4 | 0 | 1 | 32 | 2 | 0 | 4 | 23 | 1 | 0 | 24 | 5 | 5 | 155 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | | Interval Start Time | Pedestrians/Bicycles on Crosswalk | | | | |
|---------------------|----------------|----|----|----|-------|---------------------|-----------------------------------|----|----|----|-------|
| | EB | NB | WB | SB | Total | | EB | NB | WB | SB | Total |
| 4:00 PM | 0 | 0 | 1 | 0 | 1 | 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 4:30 PM | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 1 | 0 | 1 | 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 5:15 PM | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 5:30 PM | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 1 | 0 | 1 | 0 | 2 | 5:45 PM | 1 | 0 | 0 | 1 | 2 |
| Count Total | 1 | 0 | 3 | 0 | 4 | Count Total | 1 | 0 | 0 | 1 | 2 |
| Peak Hour | 0 | 0 | 1 | 0 | 1 | Peak Hour | 0 | 0 | 0 | 0 | 0 |

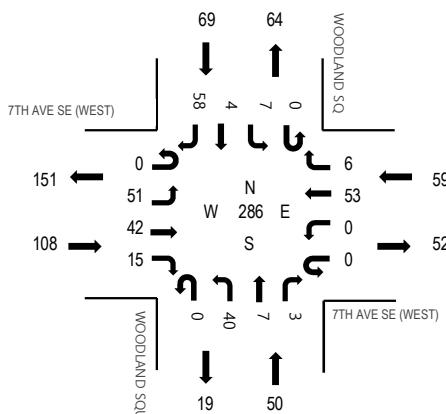
Location: 17 WOODLAND SQUARE LOOP SE & 7TH AVE SE (WEST) PM

Date: Thursday, March 23, 2023

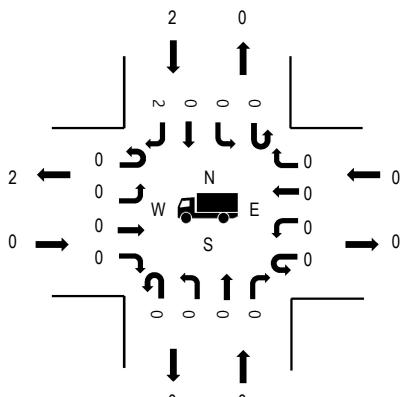
Peak Hour: 04:15 PM - 05:15 PM

Peak Hour

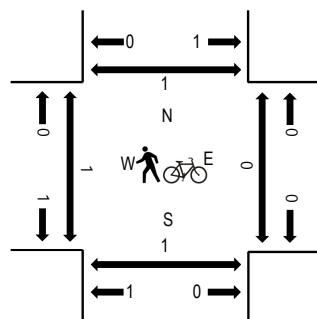
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



HV% PHF

| | HV% | PHF |
|-----|------|------|
| EB | 0.0% | 0.75 |
| WB | 0.0% | 0.78 |
| NB | 0.0% | 0.89 |
| SB | 2.9% | 0.82 |
| All | 0.7% | 0.84 |

Traffic Counts - Motorized Vehicles

| Interval Start Time | 7TH AVE SE (WEST) | | | | 7TH AVE SE (WEST) | | | | WOODLAND SQUARE | | | | WOODLAND SQUARE | | | | Rolling Hour | |
|---------------------|-------------------|------|-----------|--------|-------------------|------|------------|--------|-----------------|------|-----------|--------|-----------------|------|------------|-------|--------------|-----|
| | Eastbound | | Westbound | | Northbound | | Southbound | | Eastbound | | Westbound | | Northbound | | Southbound | | | |
| U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | |
| 4:00 PM | 0 | 19 | 13 | 3 | 0 | 1 | 19 | 2 | 0 | 8 | 1 | 0 | 0 | 1 | 1 | 11 | 79 | 282 |
| 4:15 PM | 0 | 19 | 12 | 5 | 0 | 0 | 18 | 1 | 0 | 12 | 1 | 0 | 0 | 2 | 0 | 15 | 85 | 286 |
| 4:30 PM | 0 | 10 | 7 | 2 | 0 | 0 | 12 | 2 | 0 | 8 | 2 | 1 | 0 | 2 | 2 | 13 | 61 | 262 |
| 4:45 PM | 0 | 12 | 10 | 1 | 0 | 0 | 6 | 2 | 0 | 9 | 1 | 2 | 0 | 0 | 0 | 14 | 57 | 257 |
| 5:00 PM | 0 | 10 | 13 | 7 | 0 | 0 | 17 | 1 | 0 | 11 | 3 | 0 | 0 | 3 | 2 | 16 | 83 | 255 |
| 5:15 PM | 0 | 18 | 8 | 4 | 0 | 1 | 13 | 3 | 0 | 3 | 0 | 1 | 0 | 1 | 0 | 9 | 61 | |
| 5:30 PM | 0 | 12 | 9 | 7 | 0 | 0 | 6 | 1 | 0 | 7 | 2 | 0 | 0 | 0 | 1 | 11 | 56 | |
| 5:45 PM | 0 | 9 | 7 | 5 | 0 | 0 | 14 | 0 | 0 | 6 | 3 | 1 | 0 | 1 | 0 | 9 | 55 | |
| Count Total | 0 | 109 | 79 | 34 | 0 | 2 | 105 | 12 | 0 | 64 | 13 | 5 | 0 | 10 | 6 | 98 | 537 | |
| Peak Hour | 0 | 51 | 42 | 15 | 0 | 0 | 53 | 6 | 0 | 40 | 7 | 3 | 0 | 7 | 4 | 58 | 286 | |

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

| Interval Start Time | Heavy Vehicles | | | | Pedestrians/Bicycles on Crosswalk | | | | | | |
|---------------------|----------------|----|----|----|-----------------------------------|-------------|----|----|----|----|-------|
| | EB | NB | WB | SB | Total | Start Time | EB | NB | WB | SB | Total |
| 4:00 PM | 0 | 1 | 1 | 0 | 2 | 4:00 PM | 1 | 0 | 0 | 1 | 2 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 4:15 PM | 0 | 0 | 0 | 1 | 1 |
| 4:30 PM | 0 | 0 | 0 | 1 | 1 | 4:30 PM | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 1 | 1 | 4:45 PM | 1 | 1 | 0 | 0 | 2 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 1 | 0 | 1 | 5:15 PM | 1 | 1 | 1 | 1 | 4 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 5:30 PM | 0 | 0 | 1 | 0 | 1 |
| 5:45 PM | 1 | 0 | 1 | 1 | 3 | 5:45 PM | 0 | 0 | 0 | 0 | 0 |
| Count Total | 1 | 1 | 3 | 3 | 8 | Count Total | 3 | 2 | 2 | 3 | 10 |
| Peak Hour | 0 | 0 | 0 | 2 | 2 | Peak Hour | 1 | 1 | 0 | 1 | 3 |

Appendix D

Trip Generation Calculations

7th Ave Mixed-Use Weekday Daily Trip Generation

| Land Use | Size | Units ¹ | LUC ² | Trip Rate ² | Directional Distribution | | Vehicle Trip Generation | | |
|--|-----------------------------------|--------------------|------------------|------------------------|--|-----|-------------------------|--------------|--------------|
| | | | | | In | Out | In | Out | Total |
| Proposed Uses: | | | | | | | | | |
| Multifamily Housing (Mid-Rise) | 400 | DU | 221 | 4.54 | 50% | 50% | 908 | 908 | 1,816 |
| | <i>Internal Trips³</i> | | | | | | -92 | -92 | -184 |
| | | | | | | | | | |
| | | | | | Subtotal (less internal) = | | 816 | 816 | 1,632 |
| Shopping Plaza (<40 k) | 8,500 | GLA | 822 | 54.45 | 50% | 50% | 232 | 231 | 463 |
| | <i>Internal Trips³</i> | | | | | | -135 | -136 | -271 |
| | | | | | | | -39 | -38 | -77 |
| | | | | | Subtotal (less internal and passby) = | | 58 | 57 | 115 |
| Fast Casual Restaurant | 4,500 | GFA | 930 | 97.14 | 50% | 50% | 218 | 219 | 437 |
| | <i>Internal Trips³</i> | | | | | | -118 | -118 | -236 |
| | | | | | | | -43 | -43 | -86 |
| | | | | | Subtotal (less internal and passby) = | | 57 | 58 | 115 |
| Existing Nearby Office Buildings (for internal trip capture only) | | | | | | | | | |
| Office | 280,577 | GFA | 710 | 10.84 | 50% | 50% | 1,520 | 1,521 | 3,041 |
| | <i>Internal Trips³</i> | | | | | | -96 | -97 | -193 |
| | | | | | | | | | |
| | | | | | Subtotal (less internal) = | | 1,424 | 1,424 | 2,848 |
| | | | | | Gross Proposed Weekday Daily Trips = | | 1,358 | 1,358 | 2,716 |
| | | | | | Less Total Internal Trips = | | -345 | -346 | -691 |
| | | | | | Less Total Passby Trips = | | -82 | -81 | -163 |
| | | | | | Net New Weekday Daily Trips = | | 931 | 931 | 1,862 |

Notes:

¹ GFA is Gross Floor Area, GLA is Gross Leasable Area, DU is Dwelling Unit.

² Institute of Transportation Engineers, Trip Generation Manual, 11th Edition.

³ Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, 2017.

⁴ Passby trip percentage based on studies documented in the appendices of the ITE Trip Generation Manual, 11th Edition.

7th Ave Mixed-Use AM Peak Hour Trip Generation

| Land Use | Size | Units ¹ | LUC ² | Trip Rate ² | Directional Distribution | | Vehicle Trip Generation | | |
|--|-----------------------------------|--------------------|------------------|------------------------|--|-----|-------------------------|------------|------------|
| | | | | | In | Out | In | Out | Total |
| Proposed Uses: | | | | | | | | | |
| Multifamily Housing (Mid-Rise) | 400 | DU | 221 | 0.37 | 23% | 77% | 34 | 114 | 148 |
| | <i>Internal Trips³</i> | | | | -1 | -4 | -1 | -5 | |
| | | | | | Subtotal (less internal) = | | 33 | 110 | 143 |
| Shopping Plaza (<40 k) | 8,500 | GLA | 822 | 2.36 | 60% | 40% | 12 | 8 | 20 |
| | <i>Internal Trips³</i> | | | | -5 | -4 | -5 | -9 | |
| | <i>Passby Trips⁶</i> | 40% | | | -2 | -2 | -2 | -4 | |
| | | | | | Subtotal (less internal and passby) = | | 5 | 2 | 7 |
| Fast Casual Restaurant | 4,500 | GFA | 930 | 1.43 | 50% | 50% | 3 | 3 | 6 |
| | <i>Internal Trips³</i> | | | | -3 | -1 | -1 | -4 | |
| | <i>Passby Trips⁴</i> | 43% | | | 0 | -1 | -1 | -1 | |
| | | | | | Subtotal (less internal and passby) = | | 0 | 1 | 1 |
| Existing Nearby Office Buildings (for internal trip capture only) | | | | | | | | | |
| Office | 280,577 | GFA | 710 | 1.52 | 88% | 12% | 375 | 51 | 426 |
| | <i>Internal Trips³</i> | | | | -5 | -5 | -5 | -10 | |
| | | | | | Subtotal (less internal) = | | 370 | 46 | 416 |
| | | | | | Gross Proposed AM Peak Hour Trips = | | 49 | 125 | 174 |
| | | | | | Less Total Internal Trips = | | -9 | -9 | -18 |
| | | | | | Less Total Passby Trips = | | -2 | -3 | -5 |
| | | | | | Net New AM Peak Hour Trips = | | 38 | 113 | 151 |

Notes:

¹ GFA is Gross Floor Area, GLA is Gross Leasable Area, DU is Dwelling Unit.

² Institute of Transportation Engineers, Trip Generation Manual, 11th Edition.

³ Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, 2017.

⁴ Passby trip percentage based on studies documented in the appendices of the ITE Trip Generation Manual, 11th Edition.

7th Ave Mixed-Use PM Peak Hour Trip Generation

| Land Use | Size | Units ¹ | LUC ² | Trip Rate ² | Directional Distribution | | Vehicle Trip Generation | | |
|--|-----------------------------------|--------------------|------------------|------------------------|--|-----|-------------------------|------------|------------|
| | | | | | In | Out | In | Out | Total |
| Proposed Uses: | | | | | | | | | |
| Multifamily Housing (Mid-Rise) | 400 | DU | 221 | 0.39 | 61% | 39% | 95 | 61 | 156 |
| | <i>Internal Trips³</i> | | | | | | -16 | -9 | -25 |
| | | | | | | | | | |
| | | | | | Subtotal (less internal) = | | 79 | 52 | 131 |
| Shopping Plaza (<40 k) | 8,500 | GLA | 822 | 6.59 | 50% | 50% | 28 | 28 | 56 |
| | <i>Internal Trips³</i> | | | | | | -15 | -16 | -31 |
| | | | | | | | -5 | -5 | -10 |
| | | | | | Subtotal (less internal and passby) = | | 8 | 7 | 15 |
| Fast Casual Restaurant | 4,500 | GFA | 930 | 12.55 | 55% | 45% | 31 | 25 | 56 |
| | <i>Internal Trips³</i> | | | | | | -13 | -16 | -29 |
| | | | | | | | -7 | -5 | -12 |
| | | | | | Subtotal (less internal and passby) = | | 11 | 4 | 15 |
| Existing Nearby Office Buildings (for internal trip capture only) | | | | | | | | | |
| Office | 280,577 | GFA | 710 | 1.44 | 17% | 83% | 69 | 335 | 404 |
| | <i>Internal Trips³</i> | | | | | | -4 | -7 | -11 |
| | | | | | | | | | |
| | | | | | Subtotal (less internal) = | | 65 | 328 | 393 |
| | | | | | | | | | |
| | | | | | Gross Proposed PM Peak Hour Trips = | | 154 | 114 | 268 |
| | | | | | Less Total Internal Trips = | | -44 | -41 | -85 |
| | | | | | Less Total Passby Trips = | | -12 | -10 | -22 |
| | | | | | Net New PM Peak Hour Trips = | | 98 | 63 | 161 |

Notes:

¹ GFA is Gross Floor Area, GLA is Gross Leasable Area, DU is Dwelling Unit.

² Institute of Transportation Engineers, Trip Generation Manual, 11th Edition.

³ Internal trip reductions based on methodology documented in the ITE Trip Generation Handbook, 3rd Edition, 2017.

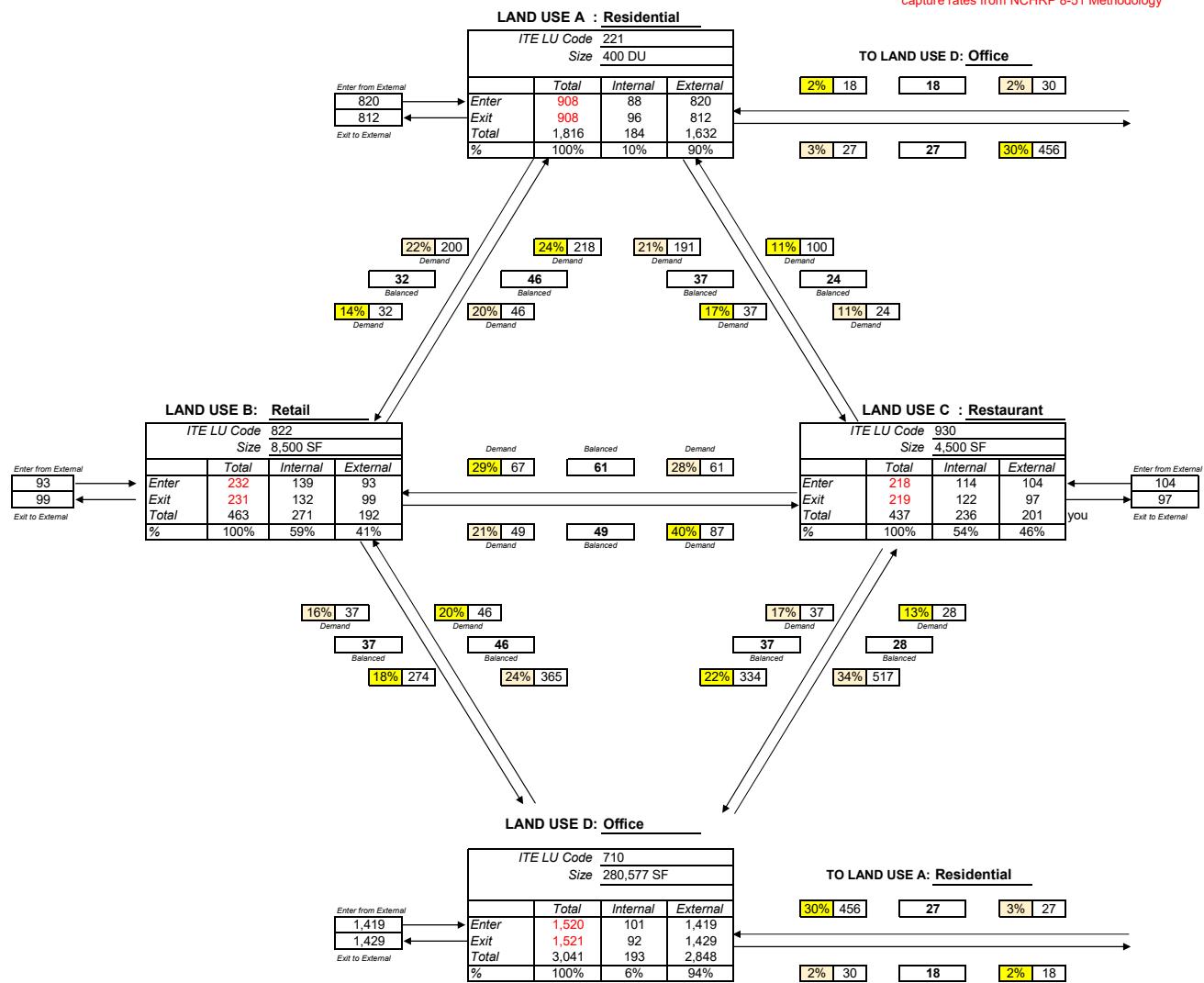
⁴ Passby trip percentage based on studies documented in the appendices of the ITE Trip Generation Manual, 11th Edition.

Analyst TENW
Date 2/3/2023

Multi-Use Development Trip Generation and Internal Capture Summary - Daily

Project Name 7th Ave Mixed Use
Time Period Daily

Assumed Average of AM and PM internal capture rates from NCHRP 8-51 Methodology



| NCHRP 8-51 Internal Trip Capture Estimation Tool | | | | | |
|--|---------------------------|--|---------------|------|--|
| Project Name: | 7th Ave Mixed-Use (Lacey) | | Organization: | TENW | |
| Project Location: | | | Performed By: | | |
| Scenario Description: | | | Date: | | |
| Analysis Year: | | | Checked By: | | |
| Analysis Period: | AM Street Peak Hour | | Date: | | |

| Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate) | | | | | | |
|--|---|----------|-------|-------------------------|----------|---------|
| Land Use | Development Data (For Information Only) | | | Estimated Vehicle-Trips | | |
| | ITE LUCs ¹ | Quantity | Units | Total | Entering | Exiting |
| Office | 710 | 280,577 | SF | 426 | 375 | 51 |
| Retail | 822 | 8,500 | SF | 20 | 12 | 8 |
| Restaurant | 930 | 4,500 | SF | 6 | 3 | 3 |
| Cinema/Entertainment | | | | 0 | | |
| Residential | 221 | 400 | DUs | 148 | 34 | 114 |
| Hotel | | | | 0 | | |
| All Other Land Uses ² | | | | 0 | | |
| Total | | | | 600 | 424 | 176 |

| Table 2-A: Mode Split and Vehicle Occupancy Estimates | | | | | | |
|---|----------------|-----------|-----------------|---------------|-----------|-----------------|
| Land Use | Entering Trips | | | Exiting Trips | | |
| | Veh. Occ. | % Transit | % Non-Motorized | Veh. Occ. | % Transit | % Non-Motorized |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |
| All Other Land Uses ² | | | | | | |

| Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance) | | | | | | |
|---|------------------|--------|------------|----------------------|-------------|-------|
| Origin (From) | Destination (To) | | | | | |
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |

| Table 4-A: Internal Person-Trip Origin-Destination Matrix* | | | | | | |
|--|------------------|--------|------------|----------------------|-------------|-------|
| Origin (From) | Destination (To) | | | | | |
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | | | | | |
| Retail | 2 | | | | | |
| Restaurant | 1 | 0 | | | | |
| Cinema/Entertainment | 0 | 0 | 0 | | | |
| Residential | 2 | 1 | 1 | | | |
| Hotel | 0 | 0 | 0 | | | |

| Table 5-A: Computations Summary | | | | Table 6-A: Internal Trip Capture Percentages by Land Use | | |
|---|-------|----------|---------|--|----------------|---------------|
| | Total | Entering | Exiting | Land Use | Entering Trips | Exiting Trips |
| All Person-Trips | 600 | 424 | 176 | Office | 1% | 10% |
| Internal Capture Percentage | 5% | 3% | 8% | Retail | 42% | 50% |
| External Vehicle-Trips ³ | 572 | 410 | 162 | Restaurant | 100% | 33% |
| External Transit-Trips ⁴ | 0 | 0 | 0 | Cinema/Entertainment | N/A | N/A |
| External Non-Motorized Trips ⁴ | 0 | 0 | 0 | Residential | 3% | 4% |
| | | | | Hotel | N/A | N/A |

¹Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

| | | |
|-------------------------|---------------------------|--|
| Project Name: | 7th Ave Mixed-Use (Lacey) | |
| Analysis Period: | AM Street Peak Hour | |

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

| Land Use | Table 7-A (D): Entering Trips | | | Table 7-A (O): Exiting Trips | | |
|----------------------|-------------------------------|---------------|---------------|------------------------------|---------------|---------------|
| | Veh. Occ. | Vehicle-Trips | Person-Trips* | Veh. Occ. | Vehicle-Trips | Person-Trips* |
| Office | 1.00 | 375 | 375 | 1.00 | 51 | 51 |
| Retail | 1.00 | 12 | 12 | 1.00 | 8 | 8 |
| Restaurant | 1.00 | 3 | 3 | 1.00 | 3 | 3 |
| Cinema/Entertainment | 1.00 | 0 | 0 | 1.00 | 0 | 0 |
| Residential | 1.00 | 34 | 34 | 1.00 | 114 | 114 |
| Hotel | 1.00 | 0 | 0 | 1.00 | 0 | 0 |

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

| Origin (From) | Destination (To) | | | | | |
|----------------------|------------------|--------|------------|----------------------|-------------|-------|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | 14 | 32 | 0 | 1 | 0 |
| Retail | 2 | | 1 | 0 | 1 | 0 |
| Restaurant | 1 | 0 | | 0 | 0 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | | 0 | 0 |
| Residential | 2 | 1 | 23 | 0 | | 0 |
| Hotel | 0 | 0 | 0 | 0 | 0 | |

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

| Origin (From) | Destination (To) | | | | | |
|----------------------|------------------|--------|------------|----------------------|-------------|-------|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | 4 | 1 | 0 | 0 | 0 |
| Retail | 15 | | 2 | 0 | 1 | 0 |
| Restaurant | 53 | 1 | | 0 | 2 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | | 0 | 0 |
| Residential | 11 | 2 | 1 | 0 | | 0 |
| Hotel | 11 | 0 | 0 | 0 | 0 | |

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

| Destination Land Use | Person-Trip Estimates | | | External Trips by Mode* | | |
|----------------------------------|-----------------------|----------|-------|-------------------------|----------------------|----------------------------|
| | Internal | External | Total | Vehicles ¹ | Transit ² | Non-Motorized ² |
| Office | 5 | 370 | 375 | 370 | 0 | 0 |
| Retail | 5 | 7 | 12 | 7 | 0 | 0 |
| Restaurant | 3 | 0 | 3 | 0 | 0 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | 0 | 0 | 0 |
| Residential | 1 | 33 | 34 | 33 | 0 | 0 |
| Hotel | 0 | 0 | 0 | 0 | 0 | 0 |
| All Other Land Uses ³ | 0 | 0 | 0 | 0 | 0 | 0 |

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

| Origin Land Use | Person-Trip Estimates | | | External Trips by Mode* | | |
|----------------------------------|-----------------------|----------|-------|-------------------------|----------------------|----------------------------|
| | Internal | External | Total | Vehicles ¹ | Transit ² | Non-Motorized ² |
| Office | 5 | 46 | 51 | 46 | 0 | 0 |
| Retail | 4 | 4 | 8 | 4 | 0 | 0 |
| Restaurant | 1 | 2 | 3 | 2 | 0 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | 0 | 0 | 0 |
| Residential | 4 | 110 | 114 | 110 | 0 | 0 |
| Hotel | 0 | 0 | 0 | 0 | 0 | 0 |
| All Other Land Uses ³ | 0 | 0 | 0 | 0 | 0 | 0 |

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

²Person-Trips

³Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

| NCHRP 8-51 Internal Trip Capture Estimation Tool | | | | | |
|--|--------------------------|--|---------------|------|--|
| Project Name: | 7th Ave Mixed-Use (Laey) | | Organization: | TENW | |
| Project Location: | | | Performed By: | | |
| Scenario Description: | | | Date: | | |
| Analysis Year: | | | Checked By: | | |
| Analysis Period: | PM Street Peak Hour | | Date: | | |

| Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate) | | | | | | |
|--|---|----------|-------|-------------------------|----------|---------|
| Land Use | Development Data (For Information Only) | | | Estimated Vehicle-Trips | | |
| | ITE LUCs ¹ | Quantity | Units | Total | Entering | Exiting |
| Office | 710 | 280,577 | SF | 404 | 69 | 335 |
| Retail | 822 | 8,500 | SF | 56 | 28 | 28 |
| Restaurant | 930 | 4,500 | SF | 56 | 31 | 25 |
| Cinema/Entertainment | | | | 0 | | |
| Residential | 221 | 400 | DUs | 156 | 95 | 61 |
| Hotel | | | | 0 | | |
| All Other Land Uses ² | | | | 0 | | |
| Total | | | | 672 | 223 | 449 |

| Table 2-P: Mode Split and Vehicle Occupancy Estimates | | | | | | |
|---|----------------|-----------|-----------------|---------------|-----------|-----------------|
| Land Use | Entering Trips | | | Exiting Trips | | |
| | Veh. Occ. | % Transit | % Non-Motorized | Veh. Occ. | % Transit | % Non-Motorized |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |
| All Other Land Uses ² | | | | | | |

| Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance) | | | | | | |
|---|------------------|--------|------------|----------------------|-------------|-------|
| Origin (From) | Destination (To) | | | | | |
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |

| Table 4-P: Internal Person-Trip Origin-Destination Matrix* | | | | | | |
|--|------------------|--------|------------|----------------------|-------------|-------|
| Origin (From) | Destination (To) | | | | | |
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | | | | | |
| Retail | 1 | | | | | |
| Restaurant | 1 | 10 | | | | |
| Cinema/Entertainment | 0 | 0 | 0 | | | |
| Residential | 2 | 3 | 4 | | | |
| Hotel | 0 | 0 | 0 | | | |

| Table 5-P: Computations Summary | | | |
|---|-------|----------|---------|
| | Total | Entering | Exiting |
| All Person-Trips | 672 | 223 | 449 |
| Internal Capture Percentage | 14% | 22% | 11% |
| External Vehicle-Trips ³ | 576 | 175 | 401 |
| External Transit-Trips ⁴ | 0 | 0 | 0 |
| External Non-Motorized Trips ⁴ | 0 | 0 | 0 |

| Table 6-P: Internal Trip Capture Percentages by Land Use | | |
|--|----------------|---------------|
| Land Use | Entering Trips | Exiting Trips |
| Office | 6% | 2% |
| Retail | 54% | 57% |
| Restaurant | 42% | 64% |
| Cinema/Entertainment | N/A | N/A |
| Residential | 17% | 15% |
| Hotel | N/A | N/A |

¹Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

| | |
|-------------------------|--------------------------|
| Project Name: | 7th Ave Mixed-Use (Laey) |
| Analysis Period: | PM Street Peak Hour |

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

| Land Use | Table 7-P (D): Entering Trips | | | Table 7-P (O): Exiting Trips | | |
|----------------------|-------------------------------|---------------|---------------|------------------------------|---------------|---------------|
| | Veh. Occ. | Vehicle-Trips | Person-Trips* | Veh. Occ. | Vehicle-Trips | Person-Trips* |
| Office | 1.00 | 69 | 69 | 1.00 | 335 | 335 |
| Retail | 1.00 | 28 | 28 | 1.00 | 28 | 28 |
| Restaurant | 1.00 | 31 | 31 | 1.00 | 25 | 25 |
| Cinema/Entertainment | 1.00 | 0 | 0 | 1.00 | 0 | 0 |
| Residential | 1.00 | 95 | 95 | 1.00 | 61 | 61 |
| Hotel | 1.00 | 0 | 0 | 1.00 | 0 | 0 |

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

| Origin (From) | Destination (To) | | | | | |
|----------------------|------------------|--------|------------|----------------------|-------------|-------|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | 67 | 13 | 0 | 7 | 0 |
| Retail | 1 | | 8 | 1 | 7 | 1 |
| Restaurant | 1 | 10 | | 2 | 5 | 2 |
| Cinema/Entertainment | 0 | 0 | 0 | | 0 | 0 |
| Residential | 2 | 26 | 13 | 0 | | 2 |
| Hotel | 0 | 0 | 0 | 0 | 0 | |

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

| Origin (From) | Destination (To) | | | | | |
|----------------------|------------------|--------|------------|----------------------|-------------|-------|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | 2 | 1 | 0 | 4 | 0 |
| Retail | 21 | | 9 | 0 | 44 | 0 |
| Restaurant | 21 | 14 | | 0 | 15 | 0 |
| Cinema/Entertainment | 4 | 1 | 1 | | 4 | 0 |
| Residential | 39 | 3 | 4 | 0 | | 0 |
| Hotel | 0 | 1 | 2 | 0 | 0 | |

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

| Destination Land Use | Person-Trip Estimates | | | External Trips by Mode* | | |
|----------------------------------|-----------------------|----------|-------|-------------------------|----------------------|----------------------------|
| | Internal | External | Total | Vehicles ¹ | Transit ² | Non-Motorized ² |
| Office | 4 | 65 | 69 | 65 | 0 | 0 |
| Retail | 15 | 13 | 28 | 13 | 0 | 0 |
| Restaurant | 13 | 18 | 31 | 18 | 0 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | 0 | 0 | 0 |
| Residential | 16 | 79 | 95 | 79 | 0 | 0 |
| Hotel | 0 | 0 | 0 | 0 | 0 | 0 |
| All Other Land Uses ³ | 0 | 0 | 0 | 0 | 0 | 0 |

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

| Origin Land Use | Person-Trip Estimates | | | External Trips by Mode* | | |
|----------------------------------|-----------------------|----------|-------|-------------------------|----------------------|----------------------------|
| | Internal | External | Total | Vehicles ¹ | Transit ² | Non-Motorized ² |
| Office | 7 | 328 | 335 | 328 | 0 | 0 |
| Retail | 16 | 12 | 28 | 12 | 0 | 0 |
| Restaurant | 16 | 9 | 25 | 9 | 0 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | 0 | 0 | 0 |
| Residential | 9 | 52 | 61 | 52 | 0 | 0 |
| Hotel | 0 | 0 | 0 | 0 | 0 | 0 |
| All Other Land Uses ³ | 0 | 0 | 0 | 0 | 0 | 0 |

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Appendix E

TAZ 169 Model Distribution

**TAZ 169 - 2018 Trip Distribution
Committed Project Network**

2020-12-04

South Bay

Carpenter Rd NE

College St SE

Steiner Kinney Rd SE

3rd Ave SE

6th Ave SE

Martin Way E

Pacific Ave SE

14th Ave SE

22nd Ave SE

Judd St SE

23rd Ave SE

25th Ave SE

Rudell Rd SE

Belair Dr SE

Mullen Rd SE

Saint Clair

Bi
Niso
Wi

Water Cst

Appendix F

Level of Service (LOS) Calculations

2023 Existing LOS

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

04/21/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|
| Lane Configurations | | ↑ | | ↑↑ | ↑↓ | |
| Traffic Volume (vph) | 0 | 68 | 0 | 901 | 1413 | 38 |
| Future Volume (vph) | 0 | 68 | 0 | 901 | 1413 | 38 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 277 | | | 447 | 678 | |
| Travel Time (s) | 7.6 | | | 12.2 | 18.5 | |
| Confl. Peds. (#/hr) | | | | 1 | | 1 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 0% | 0% | 1% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |

Intersection

Int Delay, s/veh 0.4

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↑ | | ↑↑ | ↑↑ | |
| Traffic Vol, veh/h | 0 | 68 | 0 | 901 | 1413 | 38 |
| Future Vol, veh/h | 0 | 68 | 0 | 901 | 1413 | 38 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 1 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 1 | 1 | 1 | 1 |
| Mvmt Flow | 0 | 76 | 0 | 1001 | 1570 | 42 |

| Major/Minor | Minor2 | Major1 | Major2 | |
|----------------------|--------|--------|--------|---|
| Conflicting Flow All | - | 807 | - | 0 |
| Stage 1 | - | - | - | - |
| Stage 2 | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - |
| Critical Hdwy Stg 1 | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - |
| Pot Cap-1 Maneuver | 0 | *458 | 0 | - |
| Stage 1 | 0 | - | 0 | - |
| Stage 2 | 0 | - | 0 | - |
| Platoon blocked, % | | 1 | - | - |
| Mov Cap-1 Maneuver | - | *457 | - | - |
| Mov Cap-2 Maneuver | - | - | - | - |
| Stage 1 | - | - | - | - |
| Stage 2 | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 14.4 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | SBT | SBR |
|-----------------------|-----|-------|-----|-----|
| Capacity (veh/h) | - | 457 | - | - |
| HCM Lane V/C Ratio | - | 0.165 | - | - |
| HCM Control Delay (s) | - | 14.4 | - | - |
| HCM Lane LOS | - | B | - | - |
| HCM 95th %tile Q(veh) | - | 0.6 | - | - |

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings

2: College St SE & 6th Ave SE/Abbey Way SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|
| Lane Configurations | ↔↔ | ↑ | ↔ | ↔ | ↑↓ | ↔ | ↔ | ↑↓ | ↑↓ | ↔ | ↑↓ | ↔ |
| Traffic Volume (vph) | 202 | 23 | 118 | 59 | 35 | 64 | 81 | 793 | 34 | 37 | 1247 | 105 |
| Future Volume (vph) | 202 | 23 | 118 | 59 | 35 | 64 | 81 | 793 | 34 | 37 | 1247 | 105 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 175 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Right Turn on Red | | | | Yes | | | Yes | | | Yes | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 35 | | | 35 | |
| Link Distance (ft) | | 660 | | | 395 | | | 678 | | | 822 | |
| Travel Time (s) | | 15.0 | | | 9.0 | | | 13.2 | | | 16.0 | |
| Confl. Peds. (#/hr) | 7 | | 3 | 3 | | 7 | 2 | | 1 | 1 | | 2 |
| 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 (%) | 3% | 3% | 3% | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | | 4 | | | | | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | |
| Minimum Split (s) | 8.5 | 24.5 | 24.5 | 8.0 | 24.0 | | 9.0 | 22.0 | | 9.0 | 24.0 | |
| Total Split (s) | 21.0 | 25.0 | 25.0 | 21.0 | 25.0 | | 17.0 | 54.0 | | 20.0 | 57.0 | |
| Total Split (%) | 17.5% | 20.8% | 20.8% | 17.5% | 20.8% | | 14.2% | 45.0% | | 16.7% | 47.5% | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.0 | 3.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| 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) | 4.5 | 4.5 | 4.5 | 4.0 | 4.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| 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: 120

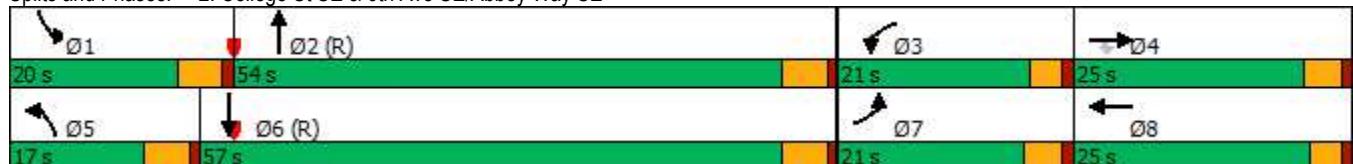
Actuated Cycle Length: 120

Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 2: College St SE & 6th Ave SE/Abbey Way SE



HCM 6th Signalized Intersection Summary
2: College St SE & 6th Ave SE/Abbey Way SE

04/21/2023

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--|------|------|------|------|------|------|------|-------|------|------|------|------|
| Lane Configurations | ↑↑ | ↑ | ↑ | ↑ | ↑↓ | ↓ | ↑ | ↑↓ | ↓ | ↑ | ↑↓ | ↓ |
| Traffic Volume (veh/h) | 202 | 23 | 118 | 59 | 35 | 64 | 81 | 793 | 34 | 37 | 1247 | 105 |
| Future Volume (veh/h) | 202 | 23 | 118 | 59 | 35 | 64 | 81 | 793 | 34 | 37 | 1247 | 105 |
| Initial Q (Q _b), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | No | | No | | No | No | | No |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1885 | 1885 | 1885 | 1870 | 1870 | 1870 | 1885 | 1885 | 1885 |
| Adj Flow Rate, veh/h | 224 | 26 | 131 | 66 | 39 | 71 | 90 | 881 | 38 | 41 | 1386 | 117 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 |
| Cap, veh/h | 286 | 243 | 202 | 85 | 53 | 97 | 113 | 2215 | 96 | 53 | 2020 | 170 |
| Arrive On Green | 0.08 | 0.13 | 0.13 | 0.05 | 0.09 | 0.09 | 0.04 | 0.43 | 0.43 | 0.06 | 1.00 | 1.00 |
| Sat Flow, veh/h | 3428 | 1856 | 1547 | 1795 | 589 | 1073 | 1781 | 3470 | 150 | 1795 | 3344 | 281 |
| Grp Volume(v), veh/h | 224 | 26 | 131 | 66 | 0 | 110 | 90 | 451 | 468 | 41 | 740 | 763 |
| Grp Sat Flow(s), veh/h/ln | 1714 | 1856 | 1547 | 1795 | 0 | 1662 | 1781 | 1777 | 1843 | 1795 | 1791 | 1834 |
| Q Serve(g_s), s | 7.7 | 1.5 | 9.6 | 4.4 | 0.0 | 7.7 | 6.0 | 21.0 | 21.0 | 2.7 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 7.7 | 1.5 | 9.6 | 4.4 | 0.0 | 7.7 | 6.0 | 21.0 | 21.0 | 2.7 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.65 | 1.00 | | 0.08 | 1.00 | | 0.15 |
| Lane Grp Cap(c), veh/h | 286 | 243 | 202 | 85 | 0 | 151 | 113 | 1134 | 1177 | 53 | 1082 | 1108 |
| V/C Ratio(X) | 0.78 | 0.11 | 0.65 | 0.77 | 0.00 | 0.73 | 0.79 | 0.40 | 0.40 | 0.78 | 0.68 | 0.69 |
| Avail Cap(c_a), veh/h | 471 | 317 | 264 | 254 | 0 | 291 | 178 | 1134 | 1177 | 224 | 1082 | 1108 |
| 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 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.85 |
| Uniform Delay (d), s/veh | 53.9 | 46.0 | 49.5 | 56.5 | 0.0 | 53.1 | 56.7 | 18.4 | 18.4 | 56.1 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 3.5 | 0.1 | 2.6 | 5.5 | 0.0 | 2.5 | 5.2 | 1.0 | 1.0 | 7.6 | 3.0 | 3.0 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 3.5 | 0.7 | 3.9 | 2.1 | 0.0 | 3.3 | 2.9 | 9.6 | 9.9 | 1.3 | 0.9 | 0.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 57.5 | 46.1 | 52.1 | 62.0 | 0.0 | 55.7 | 61.9 | 19.5 | 19.4 | 63.7 | 3.0 | 3.0 |
| LnGrp LOS | E | D | D | E | A | E | E | B | B | E | A | A |
| Approach Vol, veh/h | 381 | | | | 176 | | | 1009 | | | 1544 | |
| Approach Delay, s/veh | 54.9 | | | | 58.1 | | | 23.2 | | | 4.6 | |
| Approach LOS | | D | | | E | | | C | | A | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.5 | 81.6 | 9.7 | 20.2 | 12.6 | 77.5 | 14.5 | 15.4 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | 4.0 | 4.5 | 5.0 | 5.0 | 4.5 | * 4.5 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 49.0 | 17.0 | 20.5 | 12.0 | 52.0 | 16.5 | * 21 | | | | |
| Max Q Clear Time (g_c+l1), s | 4.7 | 23.0 | 6.4 | 11.6 | 8.0 | 2.0 | 9.7 | 9.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.3 | 0.0 | 0.2 | 0.0 | 19.0 | 0.3 | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 19.8 | | | | | | | | |
| HCM 6th LOS | | | | B | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Lanes, Volumes, Timings
3: College St SE & 3rd Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| Traffic Volume (vph) | 146 | 12 | 368 | 5 | 0 | 47 | 14 | 1102 | 6 | 12 | 1058 | 24 |
| Future Volume (vph) | 146 | 12 | 368 | 5 | 0 | 47 | 14 | 1102 | 6 | 12 | 1058 | 24 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 0% | | | 0% | | | 0% | | | -3% | | |
| Storage Length (ft) | 125 | | 0 | 75 | | 0 | 125 | | 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) | | 30 | | | 30 | | | 35 | | | 35 | |
| Link Distance (ft) | | 387 | | | 275 | | | 822 | | | 353 | |
| Travel Time (s) | | 8.8 | | | 6.3 | | | 16.0 | | | 6.9 | |
| Confl. Peds. (#/hr) | 1 | | | | 1 | 2 | | | | | | 2 |
| 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% | 0% | 0% | 0% | 2% | 2% | 2% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Perm | NA | |
| Protected Phases | | 8 | | | 4 | | | 2 | | | 6 | |
| Permitted Phases | 8 | | | 4 | | | 2 | | | 6 | | |
| Detector Phase | 8 | 8 | | 4 | 4 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 24.5 | 24.5 | | 21.0 | 21.0 | | 20.0 | 20.0 | |
| Total Split (s) | 45.0 | 45.0 | | 45.0 | 45.0 | | 75.0 | 75.0 | | 75.0 | 75.0 | |
| Total Split (%) | 37.5% | 37.5% | | 37.5% | 37.5% | | 62.5% | 62.5% | | 62.5% | 62.5% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.5 | 3.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| 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) | 4.0 | 4.0 | | 4.5 | 4.5 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | C-Min | C-Min | | C-Min | C-Min | |

Intersection Summary

Area Type: Other

Cycle Length: 120

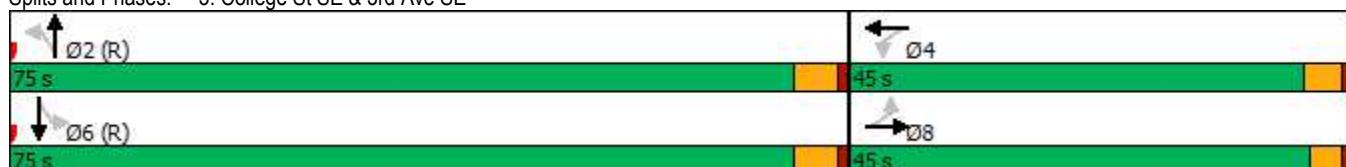
Actuated Cycle Length: 120

Offset: 117 (98%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Splits and Phases: 3: College St SE & 3rd Ave SE



HCM 6th Signalized Intersection Summary

3: College St SE & 3rd Ave SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|------|------|------|------|------|------|------|-------|------|------|------|------|
| Lane Configurations | ↑ ↗ | ↑ ↘ | | ↑ ↗ | ↑ ↘ | | ↑ ↗ | ↑ ↘ | | ↑ ↗ | ↑ ↘ | |
| Traffic Volume (veh/h) | 146 | 12 | 368 | 5 | 0 | 47 | 14 | 1102 | 6 | 12 | 1058 | 24 |
| Future Volume (veh/h) | 146 | 12 | 368 | 5 | 0 | 47 | 14 | 1102 | 6 | 12 | 1058 | 24 |
| Initial Q (Q _b) 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 | 1900 | 1900 | 1900 | 1870 | 1870 | 1870 | 2003 | 2003 | 2003 |
| Adj Flow Rate, veh/h | 162 | 13 | 409 | 6 | 0 | 52 | 16 | 1224 | 7 | 13 | 1176 | 27 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 1 |
| Cap, veh/h | 415 | 14 | 443 | 89 | 0 | 458 | 280 | 2304 | 13 | 368 | 2419 | 56 |
| Arrive On Green | 0.28 | 0.28 | 0.28 | 0.28 | 0.00 | 0.28 | 1.00 | 1.00 | 1.00 | 0.64 | 0.64 | 0.64 |
| Sat Flow, veh/h | 1362 | 49 | 1554 | 980 | 0 | 1608 | 465 | 3623 | 21 | 485 | 3803 | 87 |
| Grp Volume(v), veh/h | 162 | 0 | 422 | 6 | 0 | 52 | 16 | 600 | 631 | 13 | 588 | 615 |
| Grp Sat Flow(s), veh/h/ln | 1362 | 0 | 1604 | 980 | 0 | 1608 | 465 | 1777 | 1867 | 485 | 1903 | 1987 |
| Q Serve(g_s), s | 12.0 | 0.0 | 30.7 | 0.7 | 0.0 | 2.9 | 1.1 | 0.0 | 0.0 | 1.2 | 19.5 | 19.6 |
| Cycle Q Clear(g_c), s | 14.8 | 0.0 | 30.7 | 31.4 | 0.0 | 2.9 | 20.7 | 0.0 | 0.0 | 1.2 | 19.5 | 19.6 |
| Prop In Lane | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.01 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 415 | 0 | 457 | 89 | 0 | 458 | 280 | 1130 | 1187 | 368 | 1210 | 1264 |
| V/C Ratio(X) | 0.39 | 0.00 | 0.92 | 0.07 | 0.00 | 0.11 | 0.06 | 0.53 | 0.53 | 0.04 | 0.49 | 0.49 |
| Avail Cap(c_a), veh/h | 493 | 0 | 548 | 140 | 0 | 543 | 280 | 1130 | 1187 | 368 | 1210 | 1264 |
| 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 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.88 | 0.88 | 0.88 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 37.2 | 0.0 | 41.7 | 56.9 | 0.0 | 31.7 | 2.6 | 0.0 | 0.0 | 8.2 | 11.5 | 11.5 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 18.1 | 0.2 | 0.0 | 0.1 | 0.3 | 1.6 | 1.5 | 0.2 | 1.4 | 1.3 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 4.0 | 0.0 | 14.3 | 0.2 | 0.0 | 1.1 | 0.1 | 0.5 | 0.5 | 0.1 | 8.2 | 8.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 37.4 | 0.0 | 59.8 | 57.1 | 0.0 | 31.8 | 3.0 | 1.6 | 1.5 | 8.3 | 12.9 | 12.8 |
| LnGrp LOS | D | A | E | E | A | C | A | A | A | B | B | |
| Approach Vol, veh/h | | | | | | 58 | | 1247 | | | 1216 | |
| Approach Delay, s/veh | 53.6 | | | | | 34.4 | | 1.6 | | | 12.8 | |
| Approach LOS | | | | | D | C | | A | | | B | |
| Timer - Assigned Phs | | | 2 | | 4 | | 6 | | 8 | | | |
| Phs Duration (G+Y+Rc), s | 81.3 | | | 38.7 | | 81.3 | | 38.7 | | | | |
| Change Period (Y+Rc), s | 5.0 | | | 4.5 | | 5.0 | | * 4.5 | | | | |
| Max Green Setting (Gmax), s | 70.0 | | | 40.5 | | 70.0 | | * 41 | | | | |
| Max Q Clear Time (g_c+l1), s | 22.7 | | | 33.4 | | 21.6 | | 32.7 | | | | |
| Green Ext Time (p_c), s | 13.4 | | | 0.1 | | 12.9 | | 1.5 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 16.4 |
| HCM 6th LOS | B |

Notes

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

Lanes, Volumes, Timings

4: I-5 SB & Martin Way E

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-------|------|------|------|------|------|-------|-------|-------|
| Lane Configurations | | ↑↑ | ↑ | ↑ | ↑↑ | | | | | ↓ | ↓ | ↑ |
| Traffic Volume (vph) | 0 | 1348 | 327 | 383 | 731 | 0 | 0 | 0 | 0 | 63 | 1 | 626 |
| Future Volume (vph) | 0 | 1348 | 327 | 383 | 731 | 0 | 0 | 0 | 0 | 63 | 1 | 626 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | -3% | | | | 0% | | | 0% | | | | 0% |
| Storage Length (ft) | 0 | | 450 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 100 |
| Storage Lanes | 0 | | 1 | 1 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | 25 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 30 | | | 30 | |
| Link Distance (ft) | | 704 | | | 851 | | | 421 | | | 509 | |
| Travel Time (s) | | 13.7 | | | 16.6 | | | 9.6 | | | 11.6 | |
| Confl. Peds. (#/hr) | 2 | | | | 2 | | | | | | | |
| 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 0% | 0% | 0% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | | NA | Perm | Prot | NA | | | | | Perm | NA | Prot |
| Protected Phases | | 6 | | 5 | 2 | | | | | | 8 | 8 |
| Permitted Phases | | | 6 | | | | | | | 8 | | |
| Detector Phase | | 6 | 6 | 5 | 2 | | | | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 6.0 | | | | | | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 29.5 | 29.5 | 11.5 | 23.5 | | | | | | 32.0 | 32.0 | 32.0 |
| Total Split (s) | 50.0 | 50.0 | 38.0 | 73.0 | | | | | | 32.0 | 32.0 | 32.0 |
| Total Split (%) | 41.7% | 41.7% | 31.7% | 60.8% | | | | | | 26.7% | 26.7% | 26.7% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | | | | | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 5.5 | 5.5 | 5.5 | 5.5 | | | | | | 4.0 | 4.0 | |
| Lead/Lag | Lag | Lag | Lead | | | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | | | | | | |
| Recall Mode | C-Min | C-Min | None | C-Min | | | | | | None | None | None |

Intersection Summary

Area Type: Other

Cycle Length: 120

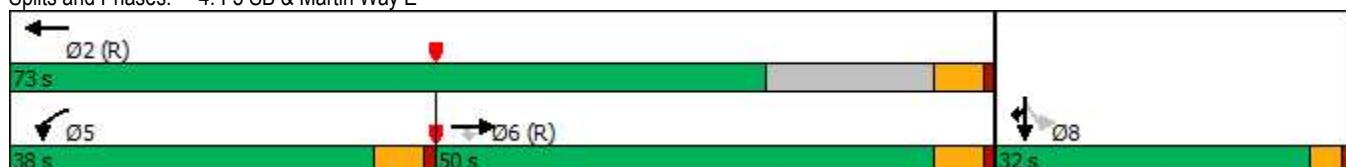
Actuated Cycle Length: 120

Offset: 115 (96%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Splits and Phases: 4: I-5 SB & Martin Way E



HCM 6th Signalized Intersection Summary

4: I-5 SB & Martin Way E

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|------|------|-------|------|------|------|-----|-----|------|------|-------|-------|
| Lane Configurations | | ↑↑ | ↑ | ↑ | ↑↑ | | | | | ↓ | ↓ | ↑ |
| Traffic Volume (veh/h) | 0 | 1348 | 327 | 383 | 731 | 0 | 0 | 0 | 0 | 63 | 1 | 626 |
| Future Volume (veh/h) | 0 | 1348 | 327 | 383 | 731 | 0 | 0 | 0 | 0 | 63 | 1 | 626 |
| Initial Q (Q _b) veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | No | | | | | | No | | |
| Adj Sat Flow, veh/h/ln | 0 | 1988 | 1988 | 1870 | 1870 | 0 | | | | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 0 | 1498 | 363 | 426 | 812 | 0 | | | | 70 | 1 | 696 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | | | | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 0 | 2 | 2 | 2 | 2 | 0 | | | | 2 | 2 | 2 |
| Cap, veh/h | 0 | 1452 | 647 | 458 | 2443 | 0 | | | | 410 | 6 | 370 |
| Arrive On Green | 0.00 | 0.38 | 0.38 | 0.08 | 0.23 | 0.00 | | | | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 0 | 3877 | 1685 | 1781 | 3647 | 0 | | | | 1757 | 25 | 1585 |
| Grp Volume(v), veh/h | 0 | 1498 | 363 | 426 | 812 | 0 | | | | 71 | 0 | 696 |
| Grp Sat Flow(s), veh/h/ln | 0 | 1889 | 1685 | 1781 | 1777 | 0 | | | | 1782 | 0 | 1585 |
| Q Serve(g_s), s | 0.0 | 46.1 | 20.3 | 28.5 | 22.9 | 0.0 | | | | 3.8 | 0.0 | 28.0 |
| Cycle Q Clear(g_c), s | 0.0 | 46.1 | 20.3 | 28.5 | 22.9 | 0.0 | | | | 3.8 | 0.0 | 28.0 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 0.99 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1452 | 647 | 458 | 2443 | 0 | | | | 416 | 0 | 370 |
| V/C Ratio(X) | 0.00 | 1.03 | 0.56 | 0.93 | 0.33 | 0.00 | | | | 0.17 | 0.00 | 1.88 |
| Avail Cap(c_a), veh/h | 0 | 1452 | 647 | 482 | 2443 | 0 | | | | 416 | 0 | 370 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 0.00 | 1.00 | 1.00 | 0.15 | 0.15 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 36.9 | 29.0 | 53.8 | 23.4 | 0.0 | | | | 36.7 | 0.0 | 46.0 |
| Incr Delay (d2), s/veh | 0.0 | 32.2 | 3.5 | 5.5 | 0.1 | 0.0 | | | | 0.2 | 0.0 | 407.0 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 0.0 | 27.0 | 8.7 | 14.3 | 10.9 | 0.0 | | | | 1.7 | 0.0 | 52.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 0.0 | 69.2 | 32.5 | 59.3 | 23.4 | 0.0 | | | | 37.0 | 0.0 | 453.0 |
| LnGrp LOS | A | F | C | E | C | A | | | | D | A | F |
| Approach Vol, veh/h | | 1861 | | | 1238 | | | | | | 767 | |
| Approach Delay, s/veh | | 62.0 | | | 35.8 | | | | | | 414.5 | |
| Approach LOS | | E | | | D | | | | | | F | |
| Timer - Assigned Phs | | 2 | | | 5 | 6 | | | 8 | | | |
| Phs Duration (G+Y+Rc), s | | 88.0 | | | 36.4 | 51.6 | | | 32.0 | | | |
| Change Period (Y+Rc), s | | 5.5 | | | 5.5 | 5.5 | | | 4.0 | | | |
| Max Green Setting (Gmax), s | | 67.5 | | | 32.5 | 44.5 | | | 28.0 | | | |
| Max Q Clear Time (g_c+l1), s | | 24.9 | | | 30.5 | 48.1 | | | 30.0 | | | |
| Green Ext Time (p_c), s | | 7.7 | | | 0.4 | 0.0 | | | 0.0 | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 123.5 | | | | | | | | | |
| HCM 6th LOS | | | F | | | | | | | | | |

Lanes, Volumes, Timings

5: I-5 NB & Martin Way E

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|------|------|-------|-------|-------|-------|-------|------|------|------|
| Lane Configurations | ↑ | ↑↑ | | | ↑↑ | ↑ | | ↑ | ↑ | | | |
| Traffic Volume (vph) | 584 | 827 | 0 | 0 | 1097 | 77 | 17 | 1 | 640 | 0 | 0 | 0 |
| Future Volume (vph) | 584 | 827 | 0 | 0 | 1097 | 77 | 17 | 1 | 640 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 575 | | 0 | 0 | | 475 | 0 | | 0 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 1 | 0 | | 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) | | 851 | | | 629 | | | 630 | | | 582 | |
| Travel Time (s) | | 16.6 | | | 12.3 | | | 14.3 | | | 13.2 | |
| Confl. Peds. (#/hr) | 4 | | | | 4 | | | 2 | 2 | | | |
| 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 1% | 1% | 1% | 0% | 0% | 0% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | | NA | Perm | Perm | NA | Perm | | | |
| Protected Phases | 1 | 6 | | | 2 | | | 4 | | | | |
| Permitted Phases | | | | | | 2 | 4 | | 4 | | | |
| Detector Phase | 1 | 6 | | | 2 | 2 | 4 | 4 | 4 | | | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 6.0 | | | 6.0 | 6.0 | 4.0 | 4.0 | 4.0 | | | |
| Minimum Split (s) | 15.5 | 18.5 | | | 19.5 | 19.5 | 29.0 | 29.0 | 29.0 | | | |
| Total Split (s) | 42.0 | 90.0 | | | 48.0 | 48.0 | 30.0 | 30.0 | 30.0 | | | |
| Total Split (%) | 35.0% | 75.0% | | | 40.0% | 40.0% | 25.0% | 25.0% | 25.0% | | | |
| Yellow Time (s) | 4.5 | 4.5 | | | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | | | |
| All-Red Time (s) | 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 | | | |
| Total Lost Time (s) | 5.5 | 5.5 | | | 5.5 | 5.5 | | 4.0 | 4.0 | | | |
| Lead/Lag | Lead | | | | Lag | Lag | | | | | | |
| Lead-Lag Optimize? | Yes | | | | Yes | Yes | | | | | | |
| Recall Mode | None | C-Min | | | C-Min | C-Min | Max | Max | Max | | | |

Intersection Summary

Area Type: Other

Cycle Length: 120

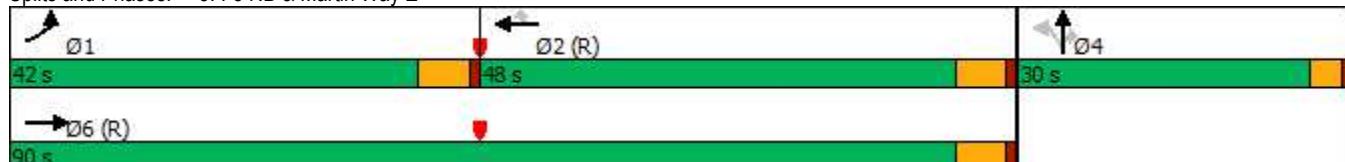
Actuated Cycle Length: 120

Offset: 54 (45%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 5: I-5 NB & Martin Way E



HCM 6th Signalized Intersection Summary

5: I-5 NB & Martin Way E

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|-------|------|------|------|------|------|------|------|------|-----|-----|-----|
| Lane Configurations | ↑ | ↑↑ | | | ↑↑ | ↑ | | ↑ | ↑ | | | |
| Traffic Volume (veh/h) | 584 | 827 | 0 | 0 | 1097 | 77 | 17 | 1 | 640 | 0 | 0 | 0 |
| Future Volume (veh/h) | 584 | 827 | 0 | 0 | 1097 | 77 | 17 | 1 | 640 | 0 | 0 | 0 |
| Initial Q (Q _b) veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 0 | 0 | 1870 | 1870 | 1885 | 1885 | 1885 | | | |
| Adj Flow Rate, veh/h | 649 | 919 | 0 | 0 | 1219 | 0 | 19 | 1 | 0 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | | | |
| Percent Heavy Veh, % | 2 | 2 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | | | |
| Cap, veh/h | 542 | 2502 | 0 | 0 | 1259 | | 370 | 19 | | | | |
| Arrive On Green | 0.30 | 0.70 | 0.00 | 0.00 | 0.35 | 0.00 | 0.22 | 0.22 | 0.00 | | | |
| Sat Flow, veh/h | 1781 | 3647 | 0 | 0 | 3647 | 1585 | 1710 | 90 | 1598 | | | |
| Grp Volume(v), veh/h | 649 | 919 | 0 | 0 | 1219 | 0 | 20 | 0 | 0 | | | |
| Grp Sat Flow(s), veh/h/ln | 1781 | 1777 | 0 | 0 | 1777 | 1585 | 1800 | 0 | 1598 | | | |
| Q Serve(g_s), s | 36.5 | 12.4 | 0.0 | 0.0 | 40.5 | 0.0 | 1.1 | 0.0 | 0.0 | | | |
| Cycle Q Clear(g_c), s | 36.5 | 12.4 | 0.0 | 0.0 | 40.5 | 0.0 | 1.1 | 0.0 | 0.0 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 0.95 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 542 | 2502 | 0 | 0 | 1259 | | 390 | 0 | | | | |
| V/C Ratio(X) | 1.20 | 0.37 | 0.00 | 0.00 | 0.97 | | 0.05 | 0.00 | | | | |
| Avail Cap(c_a), veh/h | 542 | 2502 | 0 | 0 | 1259 | | 390 | 0 | | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(l) | 0.09 | 0.09 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | | | |
| Uniform Delay (d), s/veh | 41.8 | 7.1 | 0.0 | 0.0 | 38.1 | 0.0 | 37.2 | 0.0 | 0.0 | | | |
| Incr Delay (d2), s/veh | 90.8 | 0.0 | 0.0 | 0.0 | 18.9 | 0.0 | 0.2 | 0.0 | 0.0 | | | |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%), veh/ln | 29.3 | 4.2 | 0.0 | 0.0 | 20.4 | 0.0 | 0.5 | 0.0 | 0.0 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 132.6 | 7.1 | 0.0 | 0.0 | 57.0 | 0.0 | 37.5 | 0.0 | 0.0 | | | |
| LnGrp LOS | F | A | A | A | E | | D | A | | | | |
| Approach Vol, veh/h | | 1568 | | | 1219 | | | 20 | | | | |
| Approach Delay, s/veh | | 59.0 | | | 57.0 | | | 37.5 | | | | |
| Approach LOS | | E | | | E | | | D | | | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 42.0 | 48.0 | | 30.0 | | 90.0 | | | | | | |
| Change Period (Y+Rc), s | 5.5 | 5.5 | | 4.0 | | 5.5 | | | | | | |
| Max Green Setting (Gmax), s | 36.5 | 42.5 | | 26.0 | | 84.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 38.5 | 42.5 | | 3.1 | | 14.4 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | 0.0 | | 9.6 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 58.0 | | | | | | | | | |
| HCM 6th LOS | | | E | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay. | | | | | | | | | | | | |

Lanes, Volumes, Timings
6: College St SE & Pacific Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|-------|-------|-------|-------|-------|------|------|-------|------|
| Lane Configurations | | | | ↑ | ↑↑↑ | ↑ | ↑ | ↑↑ | | ↑↑ | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 235 | 621 | 487 | 156 | 495 | 0 | 0 | 1399 | 83 |
| Future Volume (vph) | 0 | 0 | 0 | 235 | 621 | 487 | 156 | 495 | 0 | 0 | 1399 | 83 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 275 | 125 | | 0 | 0 | | 0 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 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) | | 349 | | | 497 | | | 526 | | | 1040 | |
| Travel Time (s) | | 6.8 | | | 9.7 | | | 14.3 | | | 28.4 | |
| Confl. Peds. (#/hr) | 4 | | 1 | 1 | | 4 | | | | | | |
| 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 (%) | 0% | 0% | 0% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | | | | Perm | NA | Perm | Prot | NA | | | NA | |
| Protected Phases | | | | | 2 | | 7 | 4 | | | 8 | |
| Permitted Phases | | | | 2 | | 2 | | | | | | |
| Detector Phase | | | | 2 | 2 | 2 | 7 | 4 | | | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 6.0 | 6.0 | 6.0 | 4.0 | 6.0 | | | 6.0 | |
| Minimum Split (s) | | | | 24.0 | 24.0 | 24.0 | 9.0 | 26.0 | | | 20.0 | |
| Total Split (s) | | | | 27.0 | 27.0 | 27.0 | 21.0 | 93.0 | | | 72.0 | |
| Total Split (%) | | | | 22.5% | 22.5% | 22.5% | 17.5% | 77.5% | | | 60.0% | |
| Yellow Time (s) | | | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | | | | 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 | |
| Total Lost Time (s) | | | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | Lead | | | | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | |
| Recall Mode | | | | None | None | None | None | C-Min | | | C-Min | |

Intersection Summary

Area Type: Other

Cycle Length: 120

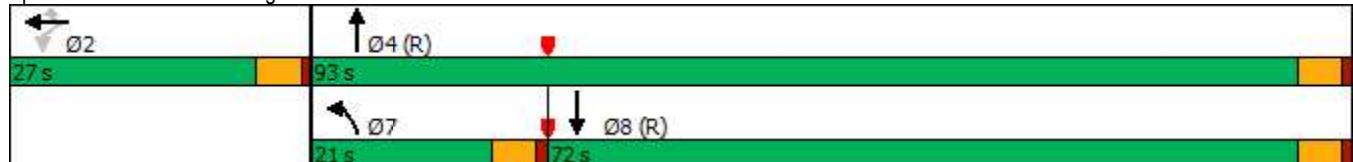
Actuated Cycle Length: 120

Offset: 33 (28%), Referenced to phase 4:NBT and 8:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 6: College St SE & Pacific Ave SE



HCM 6th Signalized Intersection Summary

6: College St SE & Pacific Ave SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|-----|-----|-----|------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | ↑ | ↑↑↑ | ↑ | ↑ | ↑↑ | | ↑↑ | ↑↑ | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 235 | 621 | 487 | 156 | 495 | 0 | 0 | 1399 | 83 |
| Future Volume (veh/h) | 0 | 0 | 0 | 235 | 621 | 487 | 156 | 495 | 0 | 0 | 1399 | 83 |
| Initial Q (Q _b) veh | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | | | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 261 | 690 | 541 | 173 | 550 | 0 | 0 | 1554 | 92 |
| Peak Hour Factor | | | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 327 | 936 | 289 | 200 | 2606 | 0 | 0 | 1975 | 116 |
| Arrive On Green | | | | 0.18 | 0.18 | 0.18 | 0.11 | 0.73 | 0.00 | 0.00 | 1.00 | 1.00 |
| Sat Flow, veh/h | | | | 1781 | 5106 | 1575 | 1781 | 3647 | 0 | 0 | 3504 | 201 |
| Grp Volume(v), veh/h | | | | 261 | 690 | 541 | 173 | 550 | 0 | 0 | 806 | 840 |
| Grp Sat Flow(s), veh/h/ln | | | | 1781 | 1702 | 1575 | 1781 | 1777 | 0 | 0 | 1777 | 1834 |
| Q Serve(g_s), s | | | | 16.8 | 15.3 | 22.0 | 11.5 | 5.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | | | | 16.8 | 15.3 | 22.0 | 11.5 | 5.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 0.11 |
| Lane Grp Cap(c), veh/h | | | | 327 | 936 | 289 | 200 | 2606 | 0 | 0 | 1029 | 1062 |
| V/C Ratio(X) | | | | 0.80 | 0.74 | 1.87 | 0.86 | 0.21 | 0.00 | 0.00 | 0.78 | 0.79 |
| Avail Cap(c_a), veh/h | | | | 327 | 936 | 289 | 238 | 2606 | 0 | 0 | 1029 | 1062 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(l) | | | | 1.00 | 1.00 | 1.00 | 0.49 | 0.49 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 46.9 | 46.3 | 49.0 | 52.3 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | | | | 13.4 | 3.2 | 406.2 | 12.6 | 0.1 | 0.0 | 0.0 | 6.0 | 6.0 |
| Initial Q Delay(d3), s/veh | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | | | | 8.6 | 6.7 | 41.1 | 5.9 | 2.1 | 0.0 | 0.0 | 1.7 | 1.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | | | | 60.3 | 49.5 | 455.2 | 64.9 | 5.1 | 0.0 | 0.0 | 6.0 | 6.0 |
| LnGrp LOS | | | | E | D | F | E | A | A | A | A | A |
| Approach Vol, veh/h | | | | | | 1492 | | | 723 | | | 1646 |
| Approach Delay, s/veh | | | | | | 198.5 | | | 19.4 | | | 6.0 |
| Approach LOS | | | | | | F | | | B | | | A |
| Timer - Assigned Phs | | | | 2 | | 4 | | 7 | 8 | | | |
| Phs Duration (G+Y+Rc), s | | | | 27.0 | | 93.0 | | 18.5 | 74.5 | | | |
| Change Period (Y+Rc), s | | | | 5.0 | | 5.0 | | 5.0 | 5.0 | | | |
| Max Green Setting (Gmax), s | | | | 22.0 | | 88.0 | | 16.0 | 67.0 | | | |
| Max Q Clear Time (g_c+l1), s | | | | 24.0 | | 7.9 | | 13.5 | 2.0 | | | |
| Green Ext Time (p_c), s | | | | 0.0 | | 5.4 | | 0.1 | 27.8 | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | | 82.9 | | | | | | | |
| HCM 6th LOS | | | | | F | | | | | | | |

Lanes, Volumes, Timings
7: College St SE & Lacey Blvd SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|------|------|------|------|------|-------|------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 93 | 889 | 288 | 0 | 0 | 0 | 0 | 529 | 102 | 639 | 806 | 0 |
| Future Volume (vph) | 93 | 889 | 288 | 0 | 0 | 0 | 0 | 529 | 102 | 639 | 806 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 225 | 0 | 0 |
| Storage Lanes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 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) | | 550 | | | 453 | | | 378 | | | 526 | |
| Travel Time (s) | | 10.7 | | | | 8.8 | | | 10.3 | | | 14.3 |
| Confl. Peds. (#/hr) | 3 | | | | | 3 | | | | | | |
| 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% | 0% | 0% | 0% | 3% | 3% | 3% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Perm | NA | | | | | | NA | | Prot | NA | |
| Protected Phases | | 6 | | | | | | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | | | | | | | | | | |
| Detector Phase | 6 | 6 | | | | | | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | | | | | | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 28.0 | 28.0 | | | | | | 22.0 | | 11.0 | 20.0 | |
| Total Split (s) | 43.0 | 43.0 | | | | | | 31.0 | | 46.0 | 77.0 | |
| Total Split (%) | 35.8% | 35.8% | | | | | | 25.8% | | 38.3% | 64.2% | |
| Yellow Time (s) | 4.0 | 4.0 | | | | | | 4.0 | | 4.0 | 4.0 | |
| 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 | |
| Total Lost Time (s) | | 5.0 | | | | | | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | | Yes | | |
| Recall Mode | None | None | | | | | | None | | C-Min | C-Min | |

Intersection Summary

Area Type: Other

Cycle Length: 120

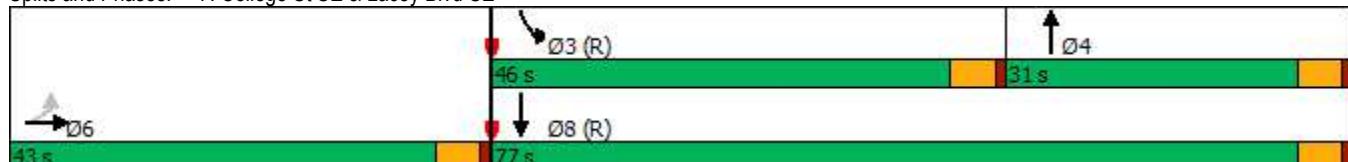
Actuated Cycle Length: 120

Offset: 36 (30%), Referenced to phase 3:SBL and 8:SBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 7: College St SE & Lacey Blvd SE



HCM 6th Signalized Intersection Summary

7: College St SE & Lacey Blvd SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--|------|------|------|-----|------|-----|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 93 | 889 | 288 | 0 | 0 | 0 | 0 | 529 | 102 | 639 | 806 | 0 |
| Future Volume (veh/h) | 93 | 889 | 288 | 0 | 0 | 0 | 0 | 529 | 102 | 639 | 806 | 0 |
| Initial Q (Q _b) veh | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | | | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | | | | No | | No | | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1885 | | | | 0 | 1856 | 1856 | 1885 | 1885 | 0 |
| Adj Flow Rate, veh/h | 103 | 988 | 320 | | | | 0 | 588 | 113 | 710 | 896 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | | | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 1 | 1 | 1 | | | | 0 | 3 | 3 | 1 | 1 | 0 |
| Cap, veh/h | 112 | 1136 | 383 | | | | 0 | 634 | 121 | 1216 | 2169 | 0 |
| Arrive On Green | 0.31 | 0.31 | 0.31 | | | | 0.00 | 0.21 | 0.21 | 0.70 | 1.00 | 0.00 |
| Sat Flow, veh/h | 361 | 3651 | 1231 | | | | 0 | 3044 | 566 | 3483 | 3676 | 0 |
| Grp Volume(v), veh/h | 533 | 446 | 432 | | | | 0 | 351 | 350 | 710 | 896 | 0 |
| Grp Sat Flow(s), veh/h/ln | 1867 | 1716 | 1659 | | | | 0 | 1763 | 1754 | 1742 | 1791 | 0 |
| Q Serve(g_s), s | 33.1 | 29.0 | 29.1 | | | | 0.0 | 23.4 | 23.5 | 12.5 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 33.1 | 29.0 | 29.1 | | | | 0.0 | 23.4 | 23.5 | 12.5 | 0.0 | 0.0 |
| Prop In Lane | 0.19 | | 0.74 | | | | 0.00 | | 0.32 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 581 | 534 | 516 | | | | 0 | 379 | 377 | 1216 | 2169 | 0 |
| V/C Ratio(X) | 0.92 | 0.84 | 0.84 | | | | 0.00 | 0.93 | 0.93 | 0.58 | 0.41 | 0.00 |
| Avail Cap(c_a), veh/h | 591 | 543 | 525 | | | | 0 | 382 | 380 | 1216 | 2169 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.46 | 0.46 | 0.00 |
| Uniform Delay (d), s/veh | 39.9 | 38.5 | 38.5 | | | | 0.0 | 46.2 | 46.2 | 13.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 19.5 | 11.0 | 11.3 | | | | 0.0 | 28.3 | 29.2 | 0.4 | 0.3 | 0.0 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 18.0 | 13.6 | 13.2 | | | | 0.0 | 13.3 | 13.3 | 3.5 | 0.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 59.4 | 49.4 | 49.8 | | | | 0.0 | 74.5 | 75.4 | 14.0 | 0.3 | 0.0 |
| LnGrp LOS | E | D | D | | | | A | E | E | B | A | A |
| Approach Vol, veh/h | 1411 | | | | | | | 701 | | | 1606 | |
| Approach Delay, s/veh | 53.3 | | | | | | | 74.9 | | | 6.3 | |
| Approach LOS | | D | | | | | | | E | | A | |
| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
| Phs Duration (G+Y+R _c), s | | 46.9 | 30.8 | | 42.3 | | 77.7 | | | | | |
| Change Period (Y+R _c), s | | 5.0 | 5.0 | | 5.0 | | 5.0 | | | | | |
| Max Green Setting (Gmax), s | | 41.0 | 26.0 | | 38.0 | | 72.0 | | | | | |
| Max Q Clear Time (g _{c+l1}), s | | 14.5 | 25.5 | | 35.1 | | 2.0 | | | | | |
| Green Ext Time (p _c), s | | 3.5 | 0.2 | | 2.3 | | 10.3 | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | 37.1 | | | | | | | | | | |
| HCM 6th LOS | | D | | | | | | | | | | |

Lanes, Volumes, Timings
8: Golf Club Rd SE & 7th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | | ↑ | ↑ | | ↑ | ↑ | |
| Traffic Volume (vph) | 1 | 40 | 72 | 64 | 86 | 0 | 91 | 0 | 71 | 0 | 0 | 0 |
| Future Volume (vph) | 1 | 40 | 72 | 64 | 86 | 0 | 91 | 0 | 71 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 50 | | | 75 | | | 0 | 0 | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 1 | | 0 | 0 | | 0 | 0 | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Link Speed (mph) | | 25 | | | 25 | | | 30 | | | 30 | |
| Link Distance (ft) | | 444 | | | 260 | | | 250 | | | 196 | |
| Travel Time (s) | | 12.1 | | | 7.1 | | | 5.7 | | | 4.5 | |
| Confl. Peds. (#/hr) | 5 | | 1 | 1 | | 5 | 2 | | 1 | 1 | | 2 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 4% | 4% | 4% | 2% | 2% | 2% | 1% | 1% | 1% | 0% | 0% | 0% |
| Parking (#/hr) | | | | | 0 | | | 0 | | | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection

Int Delay, s/veh 5.7

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | | | ↖ | | ↖ | ↖ | |
| Traffic Vol, veh/h | 1 | 40 | 72 | 64 | 86 | 0 | 91 | 0 | 71 | 0 | 0 | 0 |
| Future Vol, veh/h | 1 | 40 | 72 | 64 | 86 | 0 | 91 | 0 | 71 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 5 | 0 | 1 | 1 | 0 | 5 | 2 | 0 | 1 | 1 | 0 | 2 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None |
| Storage Length | 50 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 4 | 4 | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 47 | 84 | 74 | 100 | 0 | 106 | 0 | 83 | 0 | 0 | 0 |

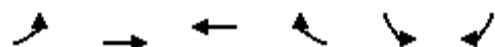
| Major/Minor | Major1 | | Major2 | | Minor1 | | Minor2 | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|-------|
| | Major | Minor | Major | Minor | Major | Minor | Major | Minor |
| Conflicting Flow All | 105 | 0 | 0 | 132 | 0 | 0 | 342 | 345 |
| Stage 1 | - | - | - | - | - | - | 92 | 92 |
| Stage 2 | - | - | - | - | - | - | 250 | 253 |
| Critical Hdwy | 4.14 | - | - | 4.12 | - | - | 7.11 | 6.51 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.11 | 5.51 |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.11 | 5.51 |
| Follow-up Hdwy | 2.236 | - | - | 2.218 | - | - | 3.509 | 4.009 |
| Pot Cap-1 Maneuver | 1474 | - | - | 1453 | - | - | 614 | 580 |
| Stage 1 | - | - | - | - | - | - | 918 | 821 |
| Stage 2 | - | - | - | - | - | - | 756 | 700 |
| Platoon blocked, % | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1467 | - | - | 1452 | - | - | 588 | 546 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 588 | 546 |
| Stage 1 | - | - | - | - | - | - | 916 | 819 |
| Stage 2 | - | - | - | - | - | - | 716 | 661 |

| Approach | EB | WB | NB | SB |
|----------------------|-----|-----|------|----|
| HCM Control Delay, s | 0.1 | 3.2 | 11.9 | 0 |
| HCM LOS | | | B | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 710 | 1467 | - | - | 1452 | - | - | - |
| HCM Lane V/C Ratio | 0.265 | 0.001 | - | - | 0.051 | - | - | - |
| HCM Control Delay (s) | 11.9 | 7.5 | - | - | 7.6 | - | - | 0 |
| HCM Lane LOS | B | A | - | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 1.1 | 0 | - | - | 0.2 | - | - | - |

Lanes, Volumes, Timings
9: 7th Ave SE & Golf Club PI SE

04/21/2023



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-----------------------------|--------------|------|------|------|------|------|
| Lane Configurations | ↑ ↗ | ↑ ↙ | ↗ ↖ | ↖ ↘ | ↑ ↗ | ↑ ↙ |
| Traffic Volume (vph) | 44 | 90 | 100 | 103 | 65 | 30 |
| Future Volume (vph) | 44 | 90 | 100 | 103 | 65 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 125 | | | 0 | 100 | 0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Link Speed (mph) | | 25 | 25 | | | 30 |
| Link Distance (ft) | | 456 | 444 | | | 529 |
| Travel Time (s) | | 12.4 | 12.1 | | | 12.0 |
| Confl. Peds. (#/hr) | 14 | | | 14 | 3 | 2 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 15% | 15% | 8% | 8% | 10% | 10% |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |

Intersection

Int Delay, s/veh 3.2

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑ ↗ | ↑ ↗ | ↗ ↘ | | ↑ ↗ | ↑ ↗ |
| Traffic Vol, veh/h | 44 | 90 | 100 | 103 | 65 | 30 |
| Future Vol, veh/h | 44 | 90 | 100 | 103 | 65 | 30 |
| Conflicting Peds, #/hr | 14 | 0 | 0 | 14 | 3 | 2 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | - | - | - | 100 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 15 | 15 | 8 | 8 | 10 | 10 |
| Mvmt Flow | 49 | 100 | 111 | 114 | 72 | 33 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 239 | 0 | - | 0 | 383 184 |
| Stage 1 | - | - | - | - | 182 - |
| Stage 2 | - | - | - | - | 201 - |
| Critical Hdwy | 4.25 | - | - | - | 6.5 6.3 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.5 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.5 - |
| Follow-up Hdwy | 2.335 | - | - | - | 3.59 3.39 |
| Pot Cap-1 Maneuver | 1255 | - | - | - | 604 838 |
| Stage 1 | - | - | - | - | 830 - |
| Stage 2 | - | - | - | - | 814 - |
| Platoon blocked, % | - | - | - | - | |
| Mov Cap-1 Maneuver | 1238 | - | - | - | 565 825 |
| Mov Cap-2 Maneuver | - | - | - | - | 621 - |
| Stage 1 | - | - | - | - | 787 - |
| Stage 2 | - | - | - | - | 803 - |

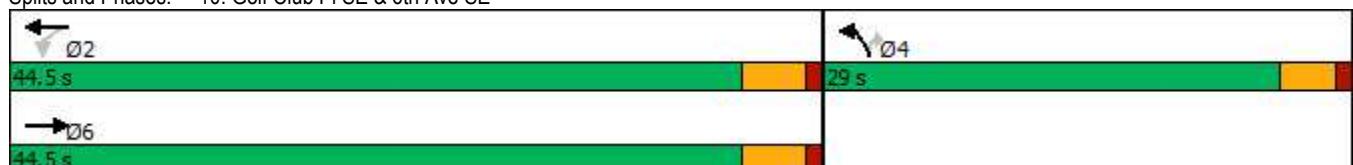
| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 2.6 | 0 | 10.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1238 | - | - | - | 621 | 825 |
| HCM Lane V/C Ratio | 0.039 | - | - | - | 0.116 | 0.04 |
| HCM Control Delay (s) | 8 | - | - | - | 11.6 | 9.5 |
| HCM Lane LOS | A | - | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.4 | 0.1 |



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------------------------|------|-------|-------|-------|-------|
| Lane Configurations | ↑ ↘ | | ↑ ↗ | ↑ ↙ | ↑ ↘ | ↑ ↗ |
| Traffic Volume (vph) | 158 | 32 | 59 | 257 | 86 | 55 |
| Future Volume (vph) | 158 | 32 | 59 | 257 | 86 | 55 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | 100 | | 50 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Right Turn on Red | | Yes | | | | Yes |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 294 | | | 288 | 529 | |
| Travel Time (s) | 6.7 | | | 6.5 | 12.0 | |
| Confl. Peds. (#/hr) | | 6 | 6 | | 7 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 1% | 1% | 2% | 2% | 9% | 9% |
| Parking (#/hr) | | | | 0 | | |
| Shared Lane Traffic (%) | | | | | | |
| Turn Type | NA | | Perm | NA | Prot | Perm |
| Protected Phases | 6 | | | 2 | 4 | |
| Permitted Phases | | | 2 | | | 4 |
| Detector Phase | 6 | | 2 | 2 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 6.0 | | 6.0 | 6.0 | 4.0 | 4.0 |
| Minimum Split (s) | 20.5 | | 10.5 | 10.5 | 23.0 | 23.0 |
| Total Split (s) | 44.5 | | 44.5 | 44.5 | 29.0 | 29.0 |
| Total Split (%) | 60.5% | | 60.5% | 60.5% | 39.5% | 39.5% |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.0 | 3.0 |
| 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) | 4.5 | | 4.5 | 4.5 | 4.0 | 4.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | Min | | Min | Min | None | None |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: | 73.5 | | | | | |
| Actuated Cycle Length: | 32.2 | | | | | |
| Natural Cycle: | 45 | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | |

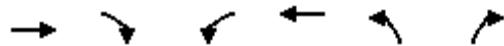
Splits and Phases: 10: Golf Club PI SE & 6th Ave SE



HCM 6th Signalized Intersection Summary

10: Golf Club PI SE & 6th Ave SE

04/21/2023



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--|------|------|------|------|------|------|
| Lane Configurations | ↑ ↗ | ↗ | ↖ | ↑ ↘ | ↖ | ↗ |
| Traffic Volume (veh/h) | 158 | 32 | 59 | 257 | 86 | 55 |
| Future Volume (veh/h) | 158 | 32 | 59 | 257 | 86 | 55 |
| Initial Q (Q _b), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 0.99 | 0.99 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1870 | 1870 | 1767 | 1767 |
| Adj Flow Rate, veh/h | 178 | 36 | 66 | 289 | 97 | 62 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 1 | 1 | 2 | 2 | 9 | 9 |
| Cap, veh/h | 565 | 114 | 762 | 696 | 209 | 186 |
| Arrive On Green | 0.37 | 0.37 | 0.37 | 0.37 | 0.12 | 0.12 |
| Sat Flow, veh/h | 1520 | 307 | 1161 | 1870 | 1682 | 1497 |
| Grp Volume(v), veh/h | 0 | 214 | 66 | 289 | 97 | 62 |
| Grp Sat Flow(s), veh/h/ln | 0 | 1827 | 1161 | 1870 | 1682 | 1497 |
| Q Serve(g_s), s | 0.0 | 1.4 | 0.7 | 1.9 | 0.9 | 0.6 |
| Cycle Q Clear(g_c), s | 0.0 | 1.4 | 2.1 | 1.9 | 0.9 | 0.6 |
| Prop In Lane | | 0.17 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 680 | 762 | 696 | 209 | 186 |
| V/C Ratio(X) | 0.00 | 0.31 | 0.09 | 0.42 | 0.46 | 0.33 |
| Avail Cap(c_a), veh/h | 0 | 4328 | 3080 | 4431 | 2491 | 2217 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 3.8 | 4.5 | 3.9 | 6.9 | 6.8 |
| Incr Delay (d2), s/veh | 0.0 | 0.2 | 0.0 | 0.3 | 0.6 | 0.4 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 0.0 | 0.1 | 0.0 | 0.1 | 0.2 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 0.0 | 4.0 | 4.6 | 4.2 | 7.5 | 7.1 |
| LnGrp LOS | A | A | A | A | A | A |
| Approach Vol, veh/h | 214 | | | 355 | 159 | |
| Approach Delay, s/veh | 4.0 | | | 4.3 | 7.3 | |
| Approach LOS | A | | | A | A | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 |
| Phs Duration (G+Y+R _c), s | | 10.8 | | 6.1 | | 10.8 |
| Change Period (Y+R _c), s | | 4.5 | | 4.0 | | 4.5 |
| Max Green Setting (Gmax), s | | 40.0 | | 25.0 | | 40.0 |
| Max Q Clear Time (g _{c+l1}), s | | 4.1 | | 2.9 | | 3.4 |
| Green Ext Time (p _c), s | | 1.7 | | 0.2 | | 1.1 |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 4.9 | | | |
| HCM 6th LOS | | | A | | | |

Lanes, Volumes, Timings

11: Sleater Kinney Rd NE & 6th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 140 | 30 | 78 | 79 | 28 | 276 | 45 | 510 | 45 | 183 | 582 | 66 |
| Future Volume (vph) | 140 | 30 | 78 | 79 | 28 | 276 | 45 | 510 | 45 | 183 | 582 | 66 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 0 | 150 | | 150 | 150 | | 0 | 225 | | 0 |
| Storage Lanes | 0 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 25 | | | 25 | |
| Link Distance (ft) | | 317 | | | 598 | | | 467 | | | 540 | |
| Travel Time (s) | | 7.2 | | | 13.6 | | | 12.7 | | | 14.7 | |
| Confl. Peds. (#/hr) | 8 | | 2 | 2 | | 8 | 8 | | 4 | 4 | | 8 |
| 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% | 3% | 3% | 3% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | 10% | | 44% | | | | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | pm+ov | Prot | NA | Perm | Prot | NA | |
| Protected Phases | | 6 | | | | 2 | 3 | 7 | 4 | | 3 | 8 |
| Permitted Phases | 6 | | 6 | 2 | | 2 | | | | 4 | | |
| Detector Phase | 6 | 6 | 6 | 2 | 2 | 3 | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 6.0 | 6.0 | 4.0 | 6.0 | |
| Minimum Split (s) | 27.0 | 27.0 | 27.0 | 29.0 | 29.0 | 9.5 | 9.5 | 26.0 | 26.0 | 9.5 | 26.0 | |
| Total Split (s) | 37.0 | 37.0 | 37.0 | 38.0 | 38.0 | 34.0 | 29.0 | 43.0 | 43.0 | 34.0 | 43.0 | |
| Total Split (%) | 32.2% | 32.2% | 32.2% | 33.0% | 33.0% | 29.6% | 25.2% | 37.4% | 37.4% | 29.6% | 37.4% | |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 1.0 | 1.0 | 5.0 | 5.0 | 1.0 | 5.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | | 7.0 | 7.0 | 8.0 | 8.0 | 4.0 | 4.0 | 8.0 | 8.0 | 4.0 | 8.0 | |
| Lead/Lag | | | | | | Lead | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | Min | Min | None | Min | |

Intersection Summary

Area Type: Other

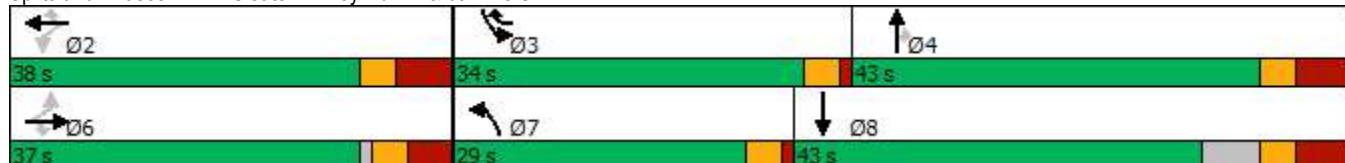
Cycle Length: 115

Actuated Cycle Length: 88.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 11: Sleater Kinney Rd NE & 6th Ave SE



HCM 6th Signalized Intersection Summary

11: Sleater Kinney Rd NE & 6th Ave SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 140 | 30 | 78 | 79 | 28 | 276 | 45 | 510 | 45 | 183 | 582 | 66 |
| Future Volume (veh/h) | 140 | 30 | 78 | 79 | 28 | 276 | 45 | 510 | 45 | 183 | 582 | 66 |
| Initial Q (Q _b), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 0.99 | 0.99 | | 0.98 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1885 | 1870 | 1870 | 1870 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 156 | 33 | 87 | 69 | 0 | 348 | 50 | 567 | 50 | 203 | 647 | 73 |
| 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 | 3 | 3 | 3 | 2 | 2 | 2 |
| Cap, veh/h | 310 | 56 | 385 | 217 | 0 | 1200 | 63 | 641 | 537 | 248 | 1444 | 163 |
| Arrive On Green | 0.24 | 0.24 | 0.24 | 0.24 | 0.00 | 0.24 | 0.04 | 0.35 | 0.35 | 0.14 | 0.45 | 0.45 |
| Sat Flow, veh/h | 908 | 230 | 1582 | 1264 | 0 | 3118 | 1767 | 1856 | 1554 | 1781 | 3216 | 362 |
| Grp Volume(v), veh/h | 189 | 0 | 87 | 69 | 0 | 348 | 50 | 567 | 50 | 203 | 357 | 363 |
| Grp Sat Flow(s), veh/h/ln | 1139 | 0 | 1582 | 1264 | 0 | 1559 | 1767 | 1856 | 1554 | 1781 | 1777 | 1801 |
| Q Serve(g_s), s | 10.6 | 0.0 | 3.2 | 3.8 | 0.0 | 5.7 | 2.1 | 21.2 | 1.6 | 8.1 | 10.2 | 10.2 |
| Cycle Q Clear(g_c), s | 11.0 | 0.0 | 3.2 | 14.8 | 0.0 | 5.7 | 2.1 | 21.2 | 1.6 | 8.1 | 10.2 | 10.2 |
| Prop In Lane | 0.83 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.20 |
| Lane Grp Cap(c), veh/h | 366 | 0 | 385 | 217 | 0 | 1200 | 63 | 641 | 537 | 248 | 798 | 809 |
| V/C Ratio(X) | 0.52 | 0.00 | 0.23 | 0.32 | 0.00 | 0.29 | 0.79 | 0.88 | 0.09 | 0.82 | 0.45 | 0.45 |
| Avail Cap(c_a), veh/h | 552 | 0 | 646 | 426 | 0 | 1715 | 601 | 884 | 740 | 727 | 846 | 858 |
| HCM Platoon Ratio | 1.00 | 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 | 25.1 | 0.0 | 22.3 | 31.9 | 0.0 | 15.8 | 35.2 | 22.7 | 16.3 | 30.7 | 14.0 | 14.0 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 8.0 | 6.5 | 0.0 | 2.5 | 0.1 | 0.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 2.9 | 0.0 | 1.2 | 1.2 | 0.0 | 1.9 | 1.0 | 9.9 | 0.6 | 3.6 | 3.9 | 3.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 25.5 | 0.0 | 22.4 | 32.2 | 0.0 | 15.8 | 43.1 | 29.2 | 16.3 | 33.3 | 14.1 | 14.1 |
| LnGrp LOS | C | A | C | C | A | B | D | C | B | C | B | B |
| Approach Vol, veh/h | | | | | 417 | | | 667 | | | 923 | |
| Approach Delay, s/veh | 24.5 | | | | 18.5 | | | 29.3 | | | 18.3 | |
| Approach LOS | | | C | | B | | | C | | | B | |
| Timer - Assigned Phs | 2 | 3 | 4 | | 6 | 7 | 8 | | | | | |
| Phs Duration (G+Y+Rc), s | 25.9 | 14.2 | 33.4 | | 25.9 | 6.6 | 41.0 | | | | | |
| Change Period (Y+Rc), s | 8.0 | 4.0 | 8.0 | | * 8 | 4.0 | 8.0 | | | | | |
| Max Green Setting (Gmax), s | 30.0 | 30.0 | 35.0 | | * 30 | 25.0 | 35.0 | | | | | |
| Max Q Clear Time (g_c+l1), s | 16.8 | 10.1 | 23.2 | | 13.0 | 4.1 | 12.2 | | | | | |
| Green Ext Time (p_c), s | 0.8 | 0.3 | 2.2 | | 1.0 | 0.0 | 3.2 | | | | | |

Intersection Summary

HCM 6th Ctrl Delay 22.3

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

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

Lanes, Volumes, Timings
12: Sleater Kinney Rd NE & I-5 NB

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | ↑ | | | ↑ | | ↑↑ | | | ↑↑ | |
| Traffic Volume (vph) | 0 | 0 | 260 | 0 | 0 | 266 | 0 | 994 | 0 | 0 | 714 | 0 |
| Future Volume (vph) | 0 | 0 | 260 | 0 | 0 | 266 | 0 | 994 | 0 | 0 | 714 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | | 4% | | | 0% | | 0% | | | -4% | |
| Link Speed (mph) | | | 30 | | | 30 | | 25 | | | 25 | |
| Link Distance (ft) | | | 563 | | | 536 | | 540 | | | 448 | |
| Travel Time (s) | | | 12.8 | | | 12.2 | | 14.7 | | | 12.2 | |
| Confl. Peds. (#/hr) | 1 | | | | | | 1 | 5 | | 6 | 6 | 5 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 1% | 1% | 2% | 2% | 2% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | | Stop | | | Free | | Free | | | Free | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

Intersection

Int Delay, s/veh 2.3

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 260 | 0 | 0 | 266 | 0 | 994 | 0 | 0 | 714 | 0 |
| Future Vol, veh/h | 0 | 0 | 260 | 0 | 0 | 266 | 0 | 994 | 0 | 0 | 714 | 0 |
| Conflicting Peds, #/hr | 1 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 6 | 6 | 0 | 5 |
| Sign Control | Stop | Stop | Stop | Free |
| RT Channelized | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 4 | - | - | 0 | - | - | 0 | - | - | -4 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 289 | 0 | 0 | 296 | 0 | 1104 | 0 | 0 | 793 | 0 |

| Major/Minor | Minor2 | | | Major1 | | | Major2 | | |
|----------------------|--------|---|------|--------|---|---|--------|---|---|
| | | | | | | | | | |
| Conflicting Flow All | - | - | 397 | - | 0 | - | - | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 7.32 | - | - | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.31 | - | - | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 579 | 0 | - | 0 | 0 | - | 0 |
| Stage 1 | 0 | 0 | - | 0 | - | 0 | 0 | - | 0 |
| Stage 2 | 0 | 0 | - | 0 | - | 0 | 0 | - | 0 |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | 0 | 579 | - | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | 0 | - | - | - | - | - | - | - |
| Stage 1 | - | 0 | - | - | - | - | - | - | - |
| Stage 2 | - | 0 | - | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 17.2 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | SBT |
|-----------------------|-----|-------|-----|
| Capacity (veh/h) | - | 579 | - |
| HCM Lane V/C Ratio | - | 0.499 | - |
| HCM Control Delay (s) | - | 17.2 | - |
| HCM Lane LOS | - | C | - |
| HCM 95th %tile Q(veh) | - | 2.8 | - |

Lanes, Volumes, Timings
13: Sleater Kinney Rd NE & I-5 SB

04/21/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 1 | 143 | 262 | 998 | 571 | 286 |
| Future Volume (vph) | 1 | 143 | 262 | 998 | 571 | 286 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 0% | | | -5% | 0% | |
| Storage Length (ft) | 0 | 0 | 200 | | | 0 |
| Storage Lanes | 0 | 1 | 1 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Link Speed (mph) | 30 | | | 25 | 25 | |
| Link Distance (ft) | 425 | | | 316 | 375 | |
| Travel Time (s) | 9.7 | | | 8.6 | 10.2 | |
| Confl. Peds. (#/hr) | 4 | 5 | 3 | | | 3 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| 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 2.3

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|--------------------------|------|--------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 143 | 262 | 998 | 571 | 286 |
| Future Vol, veh/h | 1 | 143 | 262 | 998 | 571 | 286 |
| Conflicting Peds, #/hr | 4 | 5 | 3 | 0 | 0 | 3 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Signal | - | None | - | Free |
| Storage Length | - | 0 | 200 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | -5 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 159 | 291 | 1109 | 634 | 318 |

| Major/Minor | Minor2 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | 1667 | 325 | 637 | 0 | - |
| Stage 1 | 637 | - | - | - | - |
| Stage 2 | 1030 | - | - | - | - |
| Critical Hdwy | 6.25 | 6.9 | 4.14 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 6 | - | - | - | - |
| Follow-up Hdwy | 3.65 | 3.3 | 2.22 | - | - |
| Pot Cap-1 Maneuver | 113 | 677 | 943 | - | 0 |
| Stage 1 | 480 | - | - | - | 0 |
| Stage 2 | 286 | - | - | - | 0 |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 78 | 672 | 940 | - | - |
| Mov Cap-2 Maneuver | 78 | - | - | - | - |
| Stage 1 | 330 | - | - | - | - |
| Stage 2 | 285 | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|-----|----|
| HCM Control Delay, s | 12 | 2.2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT |
|-----------------------|------|-----|-------|-----|
| Capacity (veh/h) | 940 | - | 672 | - |
| HCM Lane V/C Ratio | 0.31 | - | 0.236 | - |
| HCM Control Delay (s) | 10.5 | - | 12 | - |
| HCM Lane LOS | B | - | B | - |
| HCM 95th %tile Q(veh) | 1.3 | - | 0.9 | - |

Lanes, Volumes, Timings

14: College St SE & Woodland Square Loop SE

04/21/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑↑ | ↑↑ | |
| Traffic Volume (vph) | 8 | 39 | 25 | 886 | 1478 | 4 |
| Future Volume (vph) | 8 | 39 | 25 | 886 | 1478 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 175 | 150 | | 0 | |
| Storage Lanes | 1 | 1 | 1 | | 0 | |
| Taper Length (ft) | 25 | | 25 | | | |
| Link Speed (mph) | 30 | | | 25 | 35 | |
| Link Distance (ft) | 277 | | | 1040 | 447 | |
| Travel Time (s) | 6.3 | | | 28.4 | 8.7 | |
| Confl. Peds. (#/hr) | | | | 1 | | 1 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 0% | 0% | 1% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |

Intersection

Int Delay, s/veh 0.4

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑↑ | ↑↑ | 4 |
| Traffic Vol, veh/h | 8 | 39 | 25 | 886 | 1478 | 4 |
| Future Vol, veh/h | 8 | 39 | 25 | 886 | 1478 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 1 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 175 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 1 | 1 | 1 | 1 |
| Mvmt Flow | 9 | 43 | 28 | 984 | 1642 | 4 |

| Major/Minor | Minor2 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | 2193 | 824 | 1647 | 0 | - |
| Stage 1 | 1645 | - | - | - | - |
| Stage 2 | 548 | - | - | - | - |
| Critical Hdwy | 6.8 | 6.9 | 4.12 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.21 | - | - |
| Pot Cap-1 Maneuver | *140 | *464 | *693 | - | - |
| Stage 1 | *437 | - | - | - | - |
| Stage 2 | *661 | - | - | - | - |
| Platoon blocked, % | 1 | 1 | 1 | - | - |
| Mov Cap-1 Maneuver | *135 | *463 | *693 | - | - |
| Mov Cap-2 Maneuver | *135 | - | - | - | - |
| Stage 1 | *419 | - | - | - | - |
| Stage 2 | *661 | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|-----|----|
| HCM Control Delay, s | 17 | 0.3 | 0 |
| HCM LOS | C | | |

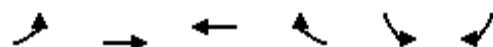
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | * 693 | - | 135 | 463 | - | - |
| HCM Lane V/C Ratio | 0.04 | - | 0.066 | 0.094 | - | - |
| HCM Control Delay (s) | 10.4 | - | 33.5 | 13.6 | - | - |
| HCM Lane LOS | B | - | D | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.2 | 0.3 | - | - |

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
15: Woodland Square Loop SE

04/21/2023



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 9 | 30 | 24 | 16 | 10 | 0 |
| Future Volume (vph) | 9 | 30 | 24 | 16 | 10 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | | 175 | 0 | 0 |
| Storage Lanes | 0 | | | 1 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 334 | 277 | | 216 | |
| Travel Time (s) | | 7.6 | 6.3 | | 4.9 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Parking (#/hr) | | 0 | | | 0 | |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection

Int Delay, s/veh 1.8

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 9 | 30 | 24 | 16 | 10 | 0 |
| Future Vol, veh/h | 9 | 30 | 24 | 16 | 10 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 10 | 35 | 28 | 19 | 12 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|----------|
| Conflicting Flow All | 47 | 0 | - | 0 | 83 28 |
| Stage 1 | - | - | - | - | 28 - |
| Stage 2 | - | - | - | - | 55 - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 3.3 |
| Pot Cap-1 Maneuver | 1573 | - | - | - | 924 1053 |
| Stage 1 | - | - | - | - | 1000 - |
| Stage 2 | - | - | - | - | 973 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1573 | - | - | - | 918 1053 |
| Mov Cap-2 Maneuver | - | - | - | - | 918 - |
| Stage 1 | - | - | - | - | 994 - |
| Stage 2 | - | - | - | - | 973 - |

| Approach | EB | WB | SB | |
|----------------------|-----|----|----|--|
| HCM Control Delay, s | 1.7 | 0 | 9 | |
| HCM LOS | | | A | |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1573 | - | - | - | 918 |
| HCM Lane V/C Ratio | 0.007 | - | - | - | 0.013 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 9 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

Lanes, Volumes, Timings

16: Woodland Square Loop SE & 7th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBC | WBL | WBT | WBC | NBL | NBT | NBC | SBL | SBT | SBC |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 44 | 4 | 1 | 32 | 2 | 4 | 23 | 1 | 24 | 5 | 5 |
| Future Volume (vph) | 10 | 44 | 4 | 1 | 32 | 2 | 4 | 23 | 1 | 24 | 5 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 25 | | | 25 | | | 30 | | | 30 | |
| Link Distance (ft) | | 413 | | | 277 | | | 225 | | | 381 | |
| Travel Time (s) | | 11.3 | | | 7.6 | | | 5.1 | | | 8.7 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 3% | 3% | 3% | 0% | 0% | 0% | 0% | 0% | 0% |
| Parking (#/hr) | | 0 | | | | | | 0 | | | 0 | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

Intersection

Intersection Delay, s/veh 7.4

Intersection LOS A

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↖ | | | ↖ | | | ↖ | | | ↖ | |
| Traffic Vol, veh/h | 10 | 44 | 4 | 1 | 32 | 2 | 4 | 23 | 1 | 24 | 5 | 5 |
| Future Vol, veh/h | 10 | 44 | 4 | 1 | 32 | 2 | 4 | 23 | 1 | 24 | 5 | 5 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 11 | 50 | 5 | 1 | 36 | 2 | 5 | 26 | 1 | 27 | 6 | 6 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB | | | WB | | | NB | | | SB | | |
| Opposing Approach | WB | | | EB | | | SB | | | NB | | |
| Opposing Lanes | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Left | SB | | | NB | | | EB | | | WB | | |
| Conflicting Lanes Left | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Right | NB | | | SB | | | WB | | | EB | | |
| Conflicting Lanes Right | 1 | | | 1 | | | 1 | | | 1 | | |
| HCM Control Delay | 7.4 | | | 7.3 | | | 7.3 | | | 7.4 | | |
| HCM LOS | A | | | A | | | A | | | A | | |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 14% | 17% | 3% | 71% |
| Vol Thru, % | 82% | 76% | 91% | 15% |
| Vol Right, % | 4% | 7% | 6% | 15% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 28 | 58 | 35 | 34 |
| LT Vol | 4 | 10 | 1 | 24 |
| Through Vol | 23 | 44 | 32 | 5 |
| RT Vol | 1 | 4 | 2 | 5 |
| Lane Flow Rate | 32 | 66 | 40 | 39 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.036 | 0.074 | 0.045 | 0.045 |
| Departure Headway (Hd) | 4.12 | 4.044 | 4.094 | 4.16 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 862 | 881 | 869 | 855 |
| Service Time | 2.178 | 2.09 | 2.144 | 2.216 |
| HCM Lane V/C Ratio | 0.037 | 0.075 | 0.046 | 0.046 |
| HCM Control Delay | 7.3 | 7.4 | 7.3 | 7.4 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.1 | 0.2 | 0.1 | 0.1 |

Lanes, Volumes, Timings

17: Woodland Square Loop SE & 7th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 51 | 42 | 15 | 0 | 53 | 6 | 40 | 7 | 3 | 7 | 4 | 58 |
| Future Volume (vph) | 51 | 42 | 15 | 0 | 53 | 6 | 40 | 7 | 3 | 7 | 4 | 58 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | | | | 25 | 25 | | 30 | | 30 | | |
| Link Distance (ft) | | | | | 260 | 382 | | 447 | | 374 | | |
| Travel Time (s) | | | | | 7.1 | 10.4 | | 10.2 | | 8.5 | | |
| Confl. Peds. (#/hr) | 1 | | 1 | 1 | | 1 | 1 | | | | | 1 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 3% | 3% | 3% |
| Parking (#/hr) | | | | | 0 | | 0 | | 0 | | 0 | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | Stop | | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

Intersection

Intersection Delay, s/veh 7.8

Intersection LOS A

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↖ | | | ↖ | | | ↖ | | | ↖ | |
| Traffic Vol, veh/h | 51 | 42 | 15 | 0 | 53 | 6 | 40 | 7 | 3 | 7 | 4 | 58 |
| Future Vol, veh/h | 51 | 42 | 15 | 0 | 53 | 6 | 40 | 7 | 3 | 7 | 4 | 58 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| Mvmt Flow | 61 | 50 | 18 | 0 | 63 | 7 | 48 | 8 | 4 | 8 | 5 | 69 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB | | | WB | | | NB | | | SB | | |
| Opposing Approach | WB | | | EB | | | SB | | | NB | | |
| Opposing Lanes | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Left | SB | | | NB | | | EB | | | WB | | |
| Conflicting Lanes Left | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Right | NB | | | SB | | | WB | | | EB | | |
| Conflicting Lanes Right | 1 | | | 1 | | | 1 | | | 1 | | |
| HCM Control Delay | 8.1 | | | | 7.7 | | 7.9 | | | 7.4 | | |
| HCM LOS | A | | | A | | | A | | | A | | |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 80% | 47% | 0% | 10% |
| Vol Thru, % | 14% | 39% | 90% | 6% |
| Vol Right, % | 6% | 14% | 10% | 84% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 50 | 108 | 59 | 69 |
| LT Vol | 40 | 51 | 0 | 7 |
| Through Vol | 7 | 42 | 53 | 4 |
| RT Vol | 3 | 15 | 6 | 58 |
| Lane Flow Rate | 60 | 129 | 70 | 82 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.075 | 0.15 | 0.084 | 0.091 |
| Departure Headway (Hd) | 4.554 | 4.211 | 4.286 | 3.98 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 790 | 837 | 839 | 904 |
| Service Time | 2.561 | 2.308 | 2.296 | 1.986 |
| HCM Lane V/C Ratio | 0.076 | 0.154 | 0.083 | 0.091 |
| HCM Control Delay | 7.9 | 8.1 | 7.7 | 7.4 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.2 | 0.5 | 0.3 | 0.3 |

2026 Without Project LOS

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [2026 No Action - PM Peak Hour (Site Folder: 1.
College St SE/7th Ave SE)]

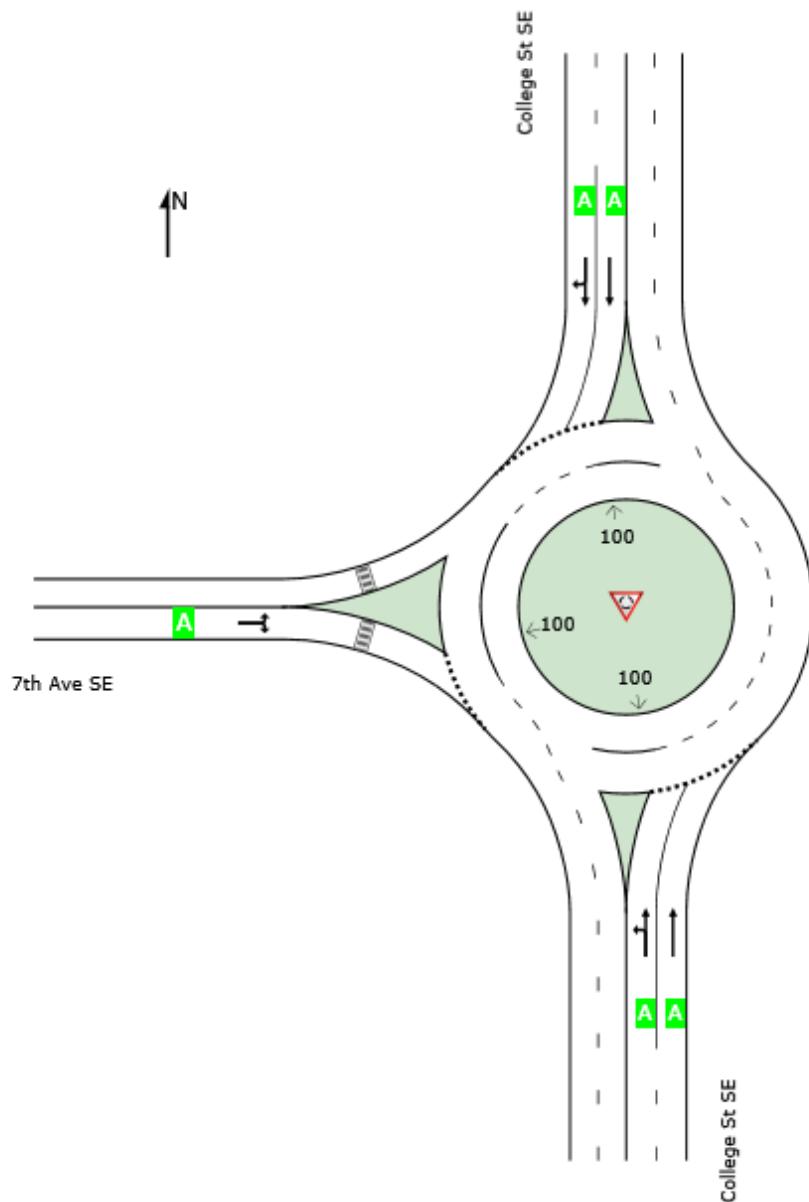
Output produced by SIDRA INTERSECTION Version: 9.1.3.210

7th Ave Mixed-Use (Lacey)

Site Category: (None)

Roundabout

| | Approaches | | | Intersection |
|-----|------------|-------|------|--------------|
| | South | North | West | |
| LOS | A | A | A | A |



Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used).

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

MOVEMENT SUMMARY

▼ Site: 1 [2026 No Action - PM Peak Hour (Site Folder: 1. College St SE/7th Ave SE)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

7th Ave Mixed-Use (Lacey)

Site Category: (None)

Roundabout

| Vehicle Movement Performance | | | | | | | | | | | | | | | |
|------------------------------|------------|-----------|---------------------------------------|--|----------------|--------------------|------------------|-----------------------------------|-----------|----------------|---------------------|-----------------|------|------|------|
| Mov ID | Turn Class | Mov Class | Demand Flows [Total HV] veh/h | Arrival Flows [Total HV] % veh/h | Deg. Satn % | Aver. Delay v/c | Level of Service | 95% Back Of Queue [Veh. veh] | Prop. Que | Eff. Stop Rate | Aver. No. of Cycles | Aver. Speed mph | | | |
| South: College St SE | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 1 | 1.3 | 1 | 1.3 | 0.391 | 5.4 | LOS A | 2.5 | 62.6 | 0.20 | 0.06 | 0.20 | 24.4 |
| 8 | T1 | All MCs | 1107 | 1.3 | 1107 | 1.3 | 0.391 | 0.4 | LOS A | 2.5 | 63.3 | 0.20 | 0.05 | 0.20 | 24.6 |
| Approach | | | 1109 | 1.3 | 1109 | 1.3 | 0.391 | 0.4 | LOS A | 2.5 | 63.3 | 0.20 | 0.05 | 0.20 | 24.6 |
| North: College St SE | | | | | | | | | | | | | | | |
| 4 | T1 | All MCs | 1714 | 1.3 | 1714 | 1.3 | 0.604 | 0.2 | LOS A | 4.8 | 120.5 | 0.03 | 0.03 | 0.03 | 24.9 |
| 14 | R2 | All MCs | 55 | 1.3 | 55 | 1.3 | 0.604 | 1.2 | LOS A | 4.7 | 119.5 | 0.03 | 0.04 | 0.03 | 24.8 |
| Approach | | | 1769 | 1.3 | 1769 | 1.3 | 0.604 | 0.2 | LOS A | 4.8 | 120.5 | 0.03 | 0.03 | 0.03 | 24.9 |
| West: 7th Ave SE | | | | | | | | | | | | | | | |
| 5 | L2 | All MCs | 45 | 0.0 | 45 | 0.0 | 0.148 | 9.1 | LOS A | 0.5 | 13.5 | 0.61 | 0.72 | 0.61 | 23.2 |
| 12 | R2 | All MCs | 71 | 0.0 | 71 | 0.0 | 0.148 | 4.8 | LOS A | 0.5 | 13.5 | 0.61 | 0.72 | 0.61 | 23.3 |
| Approach | | | 116 | 0.0 | 116 | 0.0 | 0.148 | 6.5 | LOS A | 0.5 | 13.5 | 0.61 | 0.72 | 0.61 | 23.3 |
| All Vehicles | | | 2994 | 1.2 | 2994 | 1.2 | 0.604 | 0.5 | LOS A | 4.8 | 120.5 | 0.11 | 0.07 | 0.11 | 24.7 |

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: TENW | Licence: PLUS / 1PC | Processed: Wednesday, April 19, 2023 2:58:34 PM

Project: T:\Active Projects\7th Ave Mixed-Use (Lacey) - 2022-379\Planning\LOS\7th Ave Mixed-Use - College-7th Future RAB.sip9

Lanes, Volumes, Timings

2: College St SE & 6th Ave SE/Abbey Way SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|
| Lane Configurations | ↔↔ | ↑ | ↔ | ↔ | ↑↓ | ↔ | ↔ | ↑↓ | ↑↓ | ↔ | ↑↓ | ↔ |
| Traffic Volume (vph) | 231 | 26 | 133 | 67 | 39 | 72 | 91 | 959 | 40 | 42 | 1433 | 121 |
| Future Volume (vph) | 231 | 26 | 133 | 67 | 39 | 72 | 91 | 959 | 40 | 42 | 1433 | 121 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 175 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Right Turn on Red | | | | Yes | | | Yes | | | Yes | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 35 | | | 35 | |
| Link Distance (ft) | | 660 | | | 395 | | | 678 | | | 822 | |
| Travel Time (s) | | 15.0 | | | 9.0 | | | 13.2 | | | 16.0 | |
| Confl. Peds. (#/hr) | 7 | | 3 | 3 | | 7 | 2 | | 1 | 1 | | 2 |
| 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 (%) | 3% | 3% | 3% | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | | 4 | | | | | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | |
| Minimum Split (s) | 8.5 | 24.5 | 24.5 | 8.0 | 24.0 | | 9.0 | 22.0 | | 9.0 | 24.0 | |
| Total Split (s) | 21.0 | 25.0 | 25.0 | 21.0 | 25.0 | | 17.0 | 54.0 | | 20.0 | 57.0 | |
| Total Split (%) | 17.5% | 20.8% | 20.8% | 17.5% | 20.8% | | 14.2% | 45.0% | | 16.7% | 47.5% | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.0 | 3.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| 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) | 4.5 | 4.5 | 4.5 | 4.0 | 4.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| 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: 120

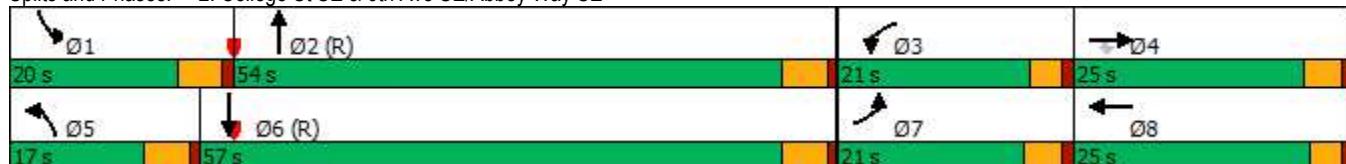
Actuated Cycle Length: 120

Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Splits and Phases: 2: College St SE & 6th Ave SE/Abbey Way SE



HCM 6th Signalized Intersection Summary
2: College St SE & 6th Ave SE/Abbey Way SE

04/21/2023

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--|------|------|------|------|------|------|------|-------|------|------|------|------|
| Lane Configurations | ↑↑ | ↑ | ↑ | ↑ | ↑↓ | | ↑ | ↑↓ | | ↑ | ↑↓ | |
| Traffic Volume (veh/h) | 231 | 26 | 133 | 67 | 39 | 72 | 91 | 959 | 40 | 42 | 1433 | 121 |
| Future Volume (veh/h) | 231 | 26 | 133 | 67 | 39 | 72 | 91 | 959 | 40 | 42 | 1433 | 121 |
| Initial Q (Q _b), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 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 | | No | No | | No |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1885 | 1885 | 1885 | 1870 | 1870 | 1870 | 1885 | 1885 | 1885 |
| Adj Flow Rate, veh/h | 257 | 29 | 148 | 74 | 43 | 80 | 101 | 1066 | 44 | 47 | 1592 | 134 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 |
| Cap, veh/h | 319 | 264 | 221 | 95 | 57 | 106 | 126 | 2145 | 89 | 61 | 1941 | 162 |
| Arrive On Green | 0.09 | 0.14 | 0.14 | 0.05 | 0.10 | 0.10 | 0.05 | 0.41 | 0.41 | 0.07 | 1.00 | 1.00 |
| Sat Flow, veh/h | 3428 | 1856 | 1549 | 1795 | 581 | 1081 | 1781 | 3478 | 144 | 1795 | 3346 | 279 |
| Grp Volume(v), veh/h | 257 | 29 | 148 | 74 | 0 | 123 | 101 | 545 | 565 | 47 | 846 | 880 |
| Grp Sat Flow(s), veh/h/ln | 1714 | 1856 | 1549 | 1795 | 0 | 1663 | 1781 | 1777 | 1844 | 1795 | 1791 | 1834 |
| Q Serve(g_s), s | 8.8 | 1.6 | 10.9 | 4.9 | 0.0 | 8.6 | 6.7 | 27.2 | 27.2 | 3.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 8.8 | 1.6 | 10.9 | 4.9 | 0.0 | 8.6 | 6.7 | 27.2 | 27.2 | 3.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.65 | 1.00 | | | 0.08 | 1.00 | 0.15 |
| Lane Grp Cap(c), veh/h | 319 | 264 | 221 | 95 | 0 | 163 | 126 | 1096 | 1138 | 61 | 1039 | 1064 |
| V/C Ratio(X) | 0.81 | 0.11 | 0.67 | 0.78 | 0.00 | 0.75 | 0.80 | 0.50 | 0.50 | 0.78 | 0.81 | 0.83 |
| Avail Cap(c_a), veh/h | 471 | 317 | 265 | 254 | 0 | 291 | 178 | 1096 | 1138 | 224 | 1039 | 1064 |
| 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 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 0.75 | 0.75 |
| Uniform Delay (d), s/veh | 53.4 | 44.8 | 48.8 | 56.1 | 0.0 | 52.7 | 56.3 | 21.5 | 21.5 | 55.5 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.2 | 0.1 | 4.2 | 5.1 | 0.0 | 2.6 | 10.6 | 1.6 | 1.6 | 5.9 | 5.3 | 5.7 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 4.0 | 0.8 | 4.5 | 2.3 | 0.0 | 3.7 | 3.4 | 12.5 | 12.9 | 1.5 | 1.5 | 1.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 58.6 | 45.0 | 53.0 | 61.2 | 0.0 | 55.3 | 67.0 | 23.1 | 23.0 | 61.4 | 5.3 | 5.7 |
| LnGrp LOS | E | D | D | E | A | E | E | C | C | E | A | A |
| Approach Vol, veh/h | 434 | | | | 197 | | | 1211 | | | 1773 | |
| Approach Delay, s/veh | 55.8 | | | | 57.6 | | | 26.7 | | | 7.0 | |
| Approach LOS | | E | | | E | | | C | | | A | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.0 | 79.0 | 10.3 | 21.6 | 13.5 | 74.6 | 15.7 | 16.3 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | 4.0 | 4.5 | 5.0 | 5.0 | 4.5 | * 4.5 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 49.0 | 17.0 | 20.5 | 12.0 | 52.0 | 16.5 | * 21 | | | | |
| Max Q Clear Time (g_c+l1), s | 5.1 | 29.2 | 6.9 | 12.9 | 8.7 | 2.0 | 10.8 | 10.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.3 | 0.0 | 0.3 | 0.0 | 24.6 | 0.3 | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 22.2 | | | | | | | | |
| HCM 6th LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Lanes, Volumes, Timings
3: College St SE & 3rd Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| Traffic Volume (vph) | 178 | 13 | 414 | 6 | 0 | 53 | 16 | 1312 | 7 | 13 | 1223 | 27 |
| Future Volume (vph) | 178 | 13 | 414 | 6 | 0 | 53 | 16 | 1312 | 7 | 13 | 1223 | 27 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 0% | | | 0% | | | 0% | | | -3% | | |
| Storage Length (ft) | 125 | | 0 | 75 | | 0 | 125 | | 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) | | 30 | | | 30 | | | 35 | | | 35 | |
| Link Distance (ft) | | 387 | | | 275 | | | 822 | | | 353 | |
| Travel Time (s) | | 8.8 | | | 6.3 | | | 16.0 | | | 6.9 | |
| Confl. Peds. (#/hr) | 1 | | | | 1 | 2 | | | | | 2 | |
| 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% | 0% | 0% | 0% | 2% | 2% | 2% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Perm | NA | |
| Protected Phases | | 8 | | | 4 | | | 2 | | | 6 | |
| Permitted Phases | 8 | | | 4 | | | 2 | | | 6 | | |
| Detector Phase | 8 | 8 | | 4 | 4 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 24.5 | 24.5 | | 21.0 | 21.0 | | 20.0 | 20.0 | |
| Total Split (s) | 45.0 | 45.0 | | 45.0 | 45.0 | | 75.0 | 75.0 | | 75.0 | 75.0 | |
| Total Split (%) | 37.5% | 37.5% | | 37.5% | 37.5% | | 62.5% | 62.5% | | 62.5% | 62.5% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.5 | 3.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| 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) | 4.0 | 4.0 | | 4.5 | 4.5 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | C-Min | C-Min | | C-Min | C-Min | |

Intersection Summary

Area Type: Other

Cycle Length: 120

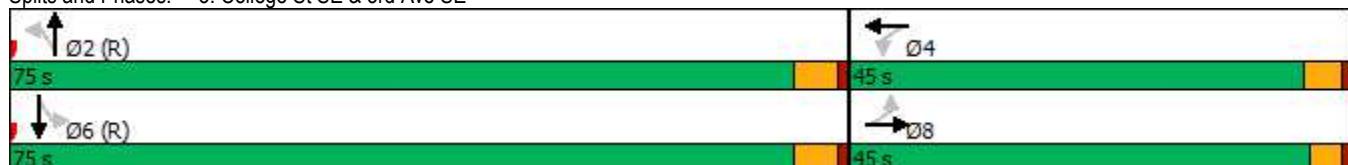
Actuated Cycle Length: 120

Offset: 117 (98%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 3: College St SE & 3rd Ave SE



HCM 6th Signalized Intersection Summary

3: College St SE & 3rd Ave SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↑ ↗ | ↑ ↘ | | ↑ ↗ | ↑ ↘ | | ↑ ↗ | ↑ ↘ | | ↑ ↗ | ↑ ↘ | |
| Traffic Volume (veh/h) | 178 | 13 | 414 | 6 | 0 | 53 | 16 | 1312 | 7 | 13 | 1223 | 27 |
| Future Volume (veh/h) | 178 | 13 | 414 | 6 | 0 | 53 | 16 | 1312 | 7 | 13 | 1223 | 27 |
| Initial Q (Q _b) 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 | 1900 | 1900 | 1900 | 1870 | 1870 | 1870 | 2003 | 2003 | 2003 |
| Adj Flow Rate, veh/h | 198 | 14 | 460 | 7 | 0 | 59 | 18 | 1458 | 8 | 14 | 1359 | 30 |
| 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 | 0 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 1 |
| Cap, veh/h | 450 | 15 | 489 | 85 | 0 | 506 | 211 | 2198 | 12 | 295 | 2309 | 51 |
| Arrive On Green | 0.31 | 0.31 | 0.31 | 0.31 | 0.00 | 0.31 | 1.00 | 1.00 | 1.00 | 0.61 | 0.61 | 0.61 |
| Sat Flow, veh/h | 1354 | 47 | 1556 | 934 | 0 | 1609 | 389 | 3624 | 20 | 387 | 3807 | 84 |
| Grp Volume(v), veh/h | 198 | 0 | 474 | 7 | 0 | 59 | 18 | 715 | 751 | 14 | 679 | 710 |
| Grp Sat Flow(s), veh/h/ln | 1354 | 0 | 1603 | 934 | 0 | 1609 | 389 | 1777 | 1867 | 387 | 1903 | 1988 |
| Q Serve(g_s), s | 14.6 | 0.0 | 34.5 | 0.9 | 0.0 | 3.1 | 2.2 | 0.0 | 0.0 | 1.8 | 26.2 | 26.2 |
| Cycle Q Clear(g_c), s | 17.8 | 0.0 | 34.5 | 35.4 | 0.0 | 3.1 | 28.4 | 0.0 | 0.0 | 1.8 | 26.2 | 26.2 |
| Prop In Lane | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.01 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 450 | 0 | 504 | 85 | 0 | 506 | 211 | 1078 | 1132 | 295 | 1154 | 1206 |
| V/C Ratio(X) | 0.44 | 0.00 | 0.94 | 0.08 | 0.00 | 0.12 | 0.09 | 0.66 | 0.66 | 0.05 | 0.59 | 0.59 |
| Avail Cap(c_a), veh/h | 487 | 0 | 548 | 106 | 0 | 543 | 211 | 1078 | 1132 | 295 | 1154 | 1206 |
| 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 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.82 | 0.82 | 0.82 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.6 | 0.0 | 40.1 | 57.3 | 0.0 | 29.3 | 5.1 | 0.0 | 0.0 | 9.6 | 14.4 | 14.5 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 22.9 | 0.3 | 0.0 | 0.1 | 0.7 | 2.6 | 2.5 | 0.3 | 2.2 | 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 | 4.9 | 0.0 | 16.6 | 0.2 | 0.0 | 1.2 | 0.2 | 0.8 | 0.8 | 0.2 | 11.3 | 11.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 35.9 | 0.0 | 63.0 | 57.6 | 0.0 | 29.4 | 5.8 | 2.6 | 2.5 | 9.9 | 16.6 | 16.6 |
| LnGrp LOS | D | A | E | E | A | C | A | A | A | A | B | B |
| Approach Vol, veh/h | 672 | | | | 66 | | | 1484 | | | 1403 | |
| Approach Delay, s/veh | 55.0 | | | | 32.4 | | | 2.6 | | | 16.5 | |
| Approach LOS | D | | | | C | | | A | | | B | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | | 8 | | | | | |
| Phs Duration (G+Y+Rc), s | 77.8 | | 42.2 | | 77.8 | | 42.2 | | | | | |
| Change Period (Y+Rc), s | 5.0 | | 4.5 | | 5.0 | | * 4.5 | | | | | |
| Max Green Setting (Gmax), s | 70.0 | | 40.5 | | 70.0 | | * 41 | | | | | |
| Max Q Clear Time (g_c+l1), s | 30.4 | | 37.4 | | 28.2 | | 36.5 | | | | | |
| Green Ext Time (p_c), s | 17.1 | | 0.0 | | 15.9 | | 1.2 | | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 18.3 |
| HCM 6th LOS | B |

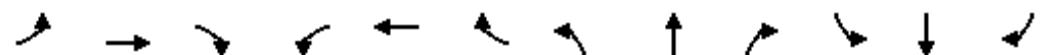
Notes

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

Lanes, Volumes, Timings

4: I-5 SB & Martin Way E

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-------|------|------|------|------|------|-------|-------|-------|
| Lane Configurations | | ↑↑ | ↑ | ↑ | ↑↑ | | | | | ↓ | ↓ | ↑ |
| Traffic Volume (vph) | 0 | 1574 | 368 | 431 | 837 | 0 | 0 | 0 | 0 | 71 | 1 | 711 |
| Future Volume (vph) | 0 | 1574 | 368 | 431 | 837 | 0 | 0 | 0 | 0 | 71 | 1 | 711 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | -3% | | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 450 | 0 | | 0 | 0 | | 0 | 0 | 0 | 100 |
| Storage Lanes | 0 | | 1 | 1 | | 0 | 0 | | 0 | 0 | 0 | 1 |
| 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) | | 704 | | | 851 | | | 421 | | | 509 | |
| Travel Time (s) | | 13.7 | | | 16.6 | | | 9.6 | | | 11.6 | |
| Confl. Peds. (#/hr) | 2 | | | | 2 | | | | | | | |
| 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 0% | 0% | 0% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | | NA | Perm | Prot | NA | | | | | Perm | NA | Prot |
| Protected Phases | | 6 | | 5 | 2 | | | | | | 8 | 8 |
| Permitted Phases | | | 6 | | | | | | | | 8 | |
| Detector Phase | | 6 | 6 | 5 | 2 | | | | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 6.0 | | | | | | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 29.5 | 29.5 | 11.5 | 23.5 | | | | | | 32.0 | 32.0 | 32.0 |
| Total Split (s) | 50.0 | 50.0 | 38.0 | 73.0 | | | | | | 32.0 | 32.0 | 32.0 |
| Total Split (%) | 41.7% | 41.7% | 31.7% | 60.8% | | | | | | 26.7% | 26.7% | 26.7% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | | | | | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 5.5 | 5.5 | 5.5 | 5.5 | | | | | | 4.0 | 4.0 | |
| Lead/Lag | Lag | Lag | Lead | | | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | | | | | | |
| Recall Mode | C-Min | C-Min | None | C-Min | | | | | | None | None | None |

Intersection Summary

Area Type: Other

Cycle Length: 120

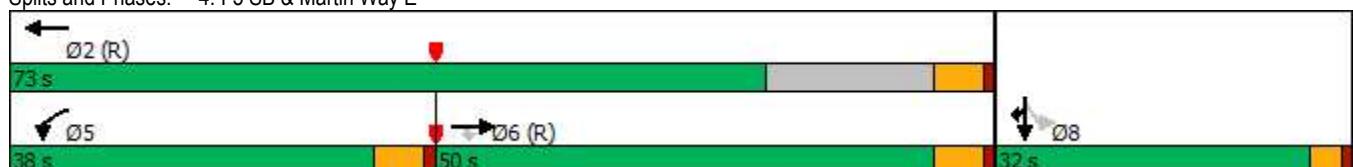
Actuated Cycle Length: 120

Offset: 115 (96%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 4: I-5 SB & Martin Way E



HCM 6th Signalized Intersection Summary

4: I-5 SB & Martin Way E

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|------|-------|-------|------|------|------|-----|-----|------|------|-------|-------|
| Lane Configurations | | ↑↑ | ↑ | ↑↑ | | | | | | ↓ | ↓ | ↑ |
| Traffic Volume (veh/h) | 0 | 1574 | 368 | 431 | 837 | 0 | 0 | 0 | 0 | 71 | 1 | 711 |
| Future Volume (veh/h) | 0 | 1574 | 368 | 431 | 837 | 0 | 0 | 0 | 0 | 71 | 1 | 711 |
| Initial Q (Q _b) veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | No | | | | | | No | | |
| Adj Sat Flow, veh/h/ln | 0 | 1988 | 1988 | 1870 | 1870 | 0 | | | | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 0 | 1749 | 409 | 479 | 930 | 0 | | | | 79 | 1 | 790 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | | | | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 0 | 2 | 2 | 2 | 2 | 0 | | | | 2 | 2 | 2 |
| Cap, veh/h | 0 | 1401 | 625 | 482 | 2443 | 0 | | | | 411 | 5 | 370 |
| Arrive On Green | 0.00 | 0.37 | 0.37 | 0.09 | 0.23 | 0.00 | | | | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 0 | 3877 | 1685 | 1781 | 3647 | 0 | | | | 1760 | 22 | 1585 |
| Grp Volume(v), veh/h | 0 | 1749 | 409 | 479 | 930 | 0 | | | | 80 | 0 | 790 |
| Grp Sat Flow(s), veh/h/ln | 0 | 1889 | 1685 | 1781 | 1777 | 0 | | | | 1782 | 0 | 1585 |
| Q Serve(g_s), s | 0.0 | 44.5 | 24.2 | 32.2 | 26.6 | 0.0 | | | | 4.3 | 0.0 | 28.0 |
| Cycle Q Clear(g_c), s | 0.0 | 44.5 | 24.2 | 32.2 | 26.6 | 0.0 | | | | 4.3 | 0.0 | 28.0 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 0.99 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1401 | 625 | 482 | 2443 | 0 | | | | 416 | 0 | 370 |
| V/C Ratio(X) | 0.00 | 1.25 | 0.65 | 0.99 | 0.38 | 0.00 | | | | 0.19 | 0.00 | 2.14 |
| Avail Cap(c_a), veh/h | 0 | 1401 | 625 | 482 | 2443 | 0 | | | | 416 | 0 | 370 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 0.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 37.8 | 31.4 | 54.5 | 24.8 | 0.0 | | | | 36.9 | 0.0 | 46.0 |
| Incr Delay (d2), s/veh | 0.0 | 118.0 | 5.3 | 10.7 | 0.0 | 0.0 | | | | 0.3 | 0.0 | 520.2 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 0.0 | 42.8 | 10.6 | 16.8 | 12.6 | 0.0 | | | | 1.9 | 0.0 | 64.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 0.0 | 155.8 | 36.6 | 65.2 | 24.8 | 0.0 | | | | 37.2 | 0.0 | 566.2 |
| LnGrp LOS | A | F | D | E | C | A | | | | D | A | F |
| Approach Vol, veh/h | | 2158 | | | 1409 | | | | | | 870 | |
| Approach Delay, s/veh | | 133.2 | | | 38.5 | | | | | | 517.6 | |
| Approach LOS | | F | | | D | | | | | | F | |
| Timer - Assigned Phs | | 2 | | | 5 | 6 | | | 8 | | | |
| Phs Duration (G+Y+Rc), s | | 88.0 | | | 38.0 | 50.0 | | | 32.0 | | | |
| Change Period (Y+Rc), s | | 5.5 | | | 5.5 | 5.5 | | | 4.0 | | | |
| Max Green Setting (Gmax), s | | 67.5 | | | 32.5 | 44.5 | | | 28.0 | | | |
| Max Q Clear Time (g_c+l1), s | | 28.6 | | | 34.2 | 46.5 | | | 30.0 | | | |
| Green Ext Time (p_c), s | | 9.1 | | | 0.0 | 0.0 | | | 0.0 | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 178.5 | | | | | | | | | |
| HCM 6th LOS | | | F | | | | | | | | | |

Lanes, Volumes, Timings

5: I-5 NB & Martin Way E

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|------|------|-------|-------|-------|-------|-------|------|------|------|
| Lane Configurations | ↑ | ↑↑ | | | ↑↑ | ↑ | ↑ | ↑↑ | ↑ | | | |
| Traffic Volume (vph) | 684 | 960 | 0 | 0 | 1249 | 87 | 19 | 1 | 720 | 0 | 0 | 0 |
| Future Volume (vph) | 684 | 960 | 0 | 0 | 1249 | 87 | 19 | 1 | 720 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 575 | | 0 | 0 | | 475 | 0 | | 0 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 1 | 0 | | 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) | | 851 | | | 629 | | | 630 | | | 582 | |
| Travel Time (s) | | 16.6 | | | 12.3 | | | 14.3 | | | 13.2 | |
| Confl. Peds. (#/hr) | 4 | | | | 4 | | | 2 | 2 | | | |
| 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 1% | 1% | 1% | 0% | 0% | 0% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | | NA | Perm | Perm | NA | Perm | | | |
| Protected Phases | 1 | 6 | | | 2 | | | 4 | | | | |
| Permitted Phases | | | | | | 2 | 4 | | 4 | | | |
| Detector Phase | 1 | 6 | | | 2 | 2 | 4 | 4 | 4 | | | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 6.0 | | | 6.0 | 6.0 | 4.0 | 4.0 | 4.0 | | | |
| Minimum Split (s) | 15.5 | 18.5 | | | 19.5 | 19.5 | 29.0 | 29.0 | 29.0 | | | |
| Total Split (s) | 42.0 | 90.0 | | | 48.0 | 48.0 | 30.0 | 30.0 | 30.0 | | | |
| Total Split (%) | 35.0% | 75.0% | | | 40.0% | 40.0% | 25.0% | 25.0% | 25.0% | | | |
| Yellow Time (s) | 4.5 | 4.5 | | | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | | | |
| All-Red Time (s) | 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 | | | |
| Total Lost Time (s) | 5.5 | 5.5 | | | 5.5 | 5.5 | | 4.0 | 4.0 | | | |
| Lead/Lag | Lead | | | | Lag | Lag | | | | | | |
| Lead-Lag Optimize? | Yes | | | | Yes | Yes | | | | | | |
| Recall Mode | None | C-Min | | | C-Min | C-Min | Max | Max | Max | | | |

Intersection Summary

Area Type: Other

Cycle Length: 120

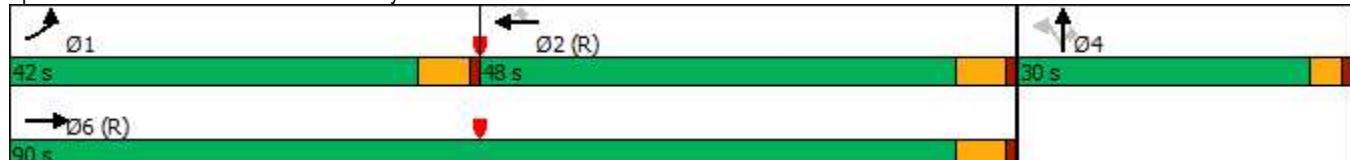
Actuated Cycle Length: 120

Offset: 54 (45%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Splits and Phases: 5: I-5 NB & Martin Way E



HCM 6th Signalized Intersection Summary

5: I-5 NB & Martin Way E

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|-------|------|------|------|------|------|------|------|------|-----|-----|-----|
| Lane Configurations | ↑ | ↑↑ | | | ↑↑ | ↑ | | ↑ | ↑ | | | |
| Traffic Volume (veh/h) | 684 | 960 | 0 | 0 | 1249 | 87 | 19 | 1 | 720 | 0 | 0 | 0 |
| Future Volume (veh/h) | 684 | 960 | 0 | 0 | 1249 | 87 | 19 | 1 | 720 | 0 | 0 | 0 |
| Initial Q (Q _b) veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 0 | 0 | 1870 | 1870 | 1885 | 1885 | 1885 | | | |
| Adj Flow Rate, veh/h | 760 | 1067 | 0 | 0 | 1388 | 0 | 21 | 1 | 0 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | | | |
| Percent Heavy Veh, % | 2 | 2 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | | | |
| Cap, veh/h | 542 | 2502 | 0 | 0 | 1259 | | 372 | 18 | | | | |
| Arrive On Green | 0.30 | 0.70 | 0.00 | 0.00 | 0.35 | 0.00 | 0.22 | 0.22 | 0.00 | | | |
| Sat Flow, veh/h | 1781 | 3647 | 0 | 0 | 3647 | 1585 | 1718 | 82 | 1598 | | | |
| Grp Volume(v), veh/h | 760 | 1067 | 0 | 0 | 1388 | 0 | 22 | 0 | 0 | | | |
| Grp Sat Flow(s), veh/h/ln | 1781 | 1777 | 0 | 0 | 1777 | 1585 | 1799 | 0 | 1598 | | | |
| Q Serve(g_s), s | 36.5 | 15.2 | 0.0 | 0.0 | 42.5 | 0.0 | 1.2 | 0.0 | 0.0 | | | |
| Cycle Q Clear(g_c), s | 36.5 | 15.2 | 0.0 | 0.0 | 42.5 | 0.0 | 1.2 | 0.0 | 0.0 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 0.95 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 542 | 2502 | 0 | 0 | 1259 | | 390 | 0 | | | | |
| V/C Ratio(X) | 1.40 | 0.43 | 0.00 | 0.00 | 1.10 | | 0.06 | 0.00 | | | | |
| Avail Cap(c_a), veh/h | 542 | 2502 | 0 | 0 | 1259 | | 390 | 0 | | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(l) | 0.09 | 0.09 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | | | |
| Uniform Delay (d), s/veh | 41.8 | 7.5 | 0.0 | 0.0 | 38.8 | 0.0 | 37.3 | 0.0 | 0.0 | | | |
| Incr Delay (d2), s/veh | 182.3 | 0.0 | 0.0 | 0.0 | 58.4 | 0.0 | 0.3 | 0.0 | 0.0 | | | |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%), veh/ln | 43.1 | 5.2 | 0.0 | 0.0 | 28.1 | 0.0 | 0.5 | 0.0 | 0.0 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 224.0 | 7.6 | 0.0 | 0.0 | 97.2 | 0.0 | 37.5 | 0.0 | 0.0 | | | |
| LnGrp LOS | F | A | A | A | F | | D | A | | | | |
| Approach Vol, veh/h | | 1827 | | | 1388 | | | 22 | | | | |
| Approach Delay, s/veh | | 97.6 | | | 97.2 | | | 37.5 | | | | |
| Approach LOS | | F | | | F | | | D | | | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 42.0 | 48.0 | | 30.0 | | 90.0 | | | | | | |
| Change Period (Y+Rc), s | 5.5 | 5.5 | | 4.0 | | 5.5 | | | | | | |
| Max Green Setting (Gmax), s | 36.5 | 42.5 | | 26.0 | | 84.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 38.5 | 44.5 | | 3.2 | | 17.2 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | 0.1 | | 12.0 | | | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 97.0 |
| HCM 6th LOS | F |

Notes

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

Lanes, Volumes, Timings
6: College St SE & Pacific Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|-------|-------|-------|-------|-------|------|------|-------|------|
| Lane Configurations | | | | ↑ | ↑↑↑ | ↑ | ↑ | ↑↑ | | | ↑↑ | |
| Traffic Volume (vph) | 0 | 0 | 0 | 275 | 722 | 560 | 183 | 581 | 0 | 0 | 1650 | 92 |
| Future Volume (vph) | 0 | 0 | 0 | 275 | 722 | 560 | 183 | 581 | 0 | 0 | 1650 | 92 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 275 | 125 | | 0 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | 0 | 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) | | 349 | | | 497 | | | | 526 | | 1040 | |
| Travel Time (s) | | 6.8 | | | 9.7 | | | | 14.3 | | 28.4 | |
| Confl. Peds. (#/hr) | 4 | | 1 | 1 | | 4 | | | | | | |
| 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 (%) | 0% | 0% | 0% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | | | | Perm | NA | Perm | Prot | NA | | | NA | |
| Protected Phases | | | | | 2 | | | 7 | 4 | | 8 | |
| Permitted Phases | | | | 2 | | 2 | | | | | | |
| Detector Phase | | | | 2 | 2 | 2 | 7 | 4 | | | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 6.0 | 6.0 | 6.0 | 4.0 | 6.0 | | | 6.0 | |
| Minimum Split (s) | | | | 24.0 | 24.0 | 24.0 | 9.0 | 26.0 | | | 20.0 | |
| Total Split (s) | | | | 27.0 | 27.0 | 27.0 | 21.0 | 93.0 | | | 72.0 | |
| Total Split (%) | | | | 22.5% | 22.5% | 22.5% | 17.5% | 77.5% | | | 60.0% | |
| Yellow Time (s) | | | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | | | | 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 | |
| Total Lost Time (s) | | | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | Lead | | | | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | |
| Recall Mode | | | | None | None | None | None | C-Min | | | C-Min | |

Intersection Summary

Area Type: Other

Cycle Length: 120

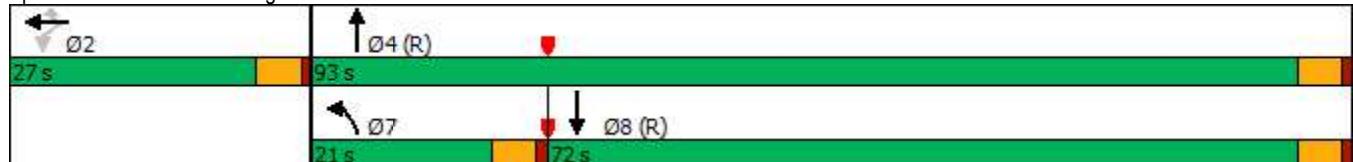
Actuated Cycle Length: 120

Offset: 33 (28%), Referenced to phase 4:NBT and 8:SBT, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Splits and Phases: 6: College St SE & Pacific Ave SE



HCM 6th Signalized Intersection Summary

6: College St SE & Pacific Ave SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|-----|-----|-----|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | ↑ | ↑↑↑ | ↑ | ↑ | ↑↑ | | | ↑↑ | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 275 | 722 | 560 | 183 | 581 | 0 | 0 | 1650 | 92 |
| Future Volume (veh/h) | 0 | 0 | 0 | 275 | 722 | 560 | 183 | 581 | 0 | 0 | 1650 | 92 |
| Initial Q (Q _b) veh | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | | | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 306 | 802 | 622 | 203 | 646 | 0 | 0 | 1833 | 102 |
| Peak Hour Factor | | | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 327 | 936 | 289 | 229 | 2606 | 0 | 0 | 1928 | 106 |
| Arrive On Green | | | | 0.18 | 0.18 | 0.18 | 0.13 | 0.73 | 0.00 | 0.00 | 1.00 | 1.00 |
| Sat Flow, veh/h | | | | 1781 | 5106 | 1575 | 1781 | 3647 | 0 | 0 | 3518 | 189 |
| Grp Volume(v), veh/h | | | | 306 | 802 | 622 | 203 | 646 | 0 | 0 | 943 | 992 |
| Grp Sat Flow(s), veh/h/ln | | | | 1781 | 1702 | 1575 | 1781 | 1777 | 0 | 0 | 1777 | 1836 |
| Q Serve(g_s), s | | | | 20.3 | 18.3 | 22.0 | 13.4 | 7.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | | | | 20.3 | 18.3 | 22.0 | 13.4 | 7.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 0.10 |
| Lane Grp Cap(c), veh/h | | | | 327 | 936 | 289 | 229 | 2606 | 0 | 0 | 1000 | 1034 |
| V/C Ratio(X) | | | | 0.94 | 0.86 | 2.15 | 0.88 | 0.25 | 0.00 | 0.00 | 0.94 | 0.96 |
| Avail Cap(c_a), veh/h | | | | 327 | 936 | 289 | 238 | 2606 | 0 | 0 | 1000 | 1034 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(l) | | | | 1.00 | 1.00 | 1.00 | 0.25 | 0.25 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 48.3 | 47.5 | 49.0 | 51.4 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | | | | 33.8 | 8.0 | 530.9 | 9.6 | 0.1 | 0.0 | 0.0 | 17.6 | 19.8 |
| Initial Q Delay(d3), s/veh | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | | | | 12.0 | 8.3 | 51.1 | 6.7 | 2.5 | 0.0 | 0.0 | 4.9 | 5.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | | | | 82.2 | 55.5 | 579.9 | 61.0 | 5.3 | 0.0 | 0.0 | 17.6 | 19.8 |
| LnGrp LOS | | | | F | E | F | E | A | A | A | B | B |
| Approach Vol, veh/h | | | | | | 1730 | | | 849 | | | 1935 |
| Approach Delay, s/veh | | | | | | 248.8 | | | 18.6 | | | 18.7 |
| Approach LOS | | | | | | F | | | B | | | B |
| Timer - Assigned Phs | | | | 2 | | 4 | | | 7 | | 8 | |
| Phs Duration (G+Y+Rc), s | | | | 27.0 | | 93.0 | | | 20.5 | | 72.5 | |
| Change Period (Y+Rc), s | | | | 5.0 | | 5.0 | | | 5.0 | | 5.0 | |
| Max Green Setting (Gmax), s | | | | 22.0 | | 88.0 | | | 16.0 | | 67.0 | |
| Max Q Clear Time (g_c+l1), s | | | | 24.0 | | 9.1 | | | 15.4 | | 2.0 | |
| Green Ext Time (p_c), s | | | | 0.0 | | 6.6 | | | 0.0 | | 38.6 | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 106.9 | | | | | | | | |
| HCM 6th LOS | | | | F | | | | | | | | |

Lanes, Volumes, Timings
7: College St SE & Lacey Blvd SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|------|------|------|------|------|-------|------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 105 | 1038 | 333 | 0 | 0 | 0 | 0 | 627 | 132 | 761 | 955 | 0 |
| Future Volume (vph) | 105 | 1038 | 333 | 0 | 0 | 0 | 0 | 627 | 132 | 761 | 955 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 225 | 0 | 0 |
| Storage Lanes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 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) | | 550 | | | 453 | | | 378 | | | 526 | |
| Travel Time (s) | | 10.7 | | | | 8.8 | | | 10.3 | | | 14.3 |
| Confl. Peds. (#/hr) | 3 | | | | | 3 | | | | | | |
| 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% | 0% | 0% | 0% | 3% | 3% | 3% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Perm | NA | | | | | | NA | | Prot | NA | |
| Protected Phases | | 6 | | | | | | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | | | | | | | | | | |
| Detector Phase | 6 | 6 | | | | | | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | | | | | | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 28.0 | 28.0 | | | | | | 22.0 | | 11.0 | 20.0 | |
| Total Split (s) | 43.0 | 43.0 | | | | | | 31.0 | | 46.0 | 77.0 | |
| Total Split (%) | 35.8% | 35.8% | | | | | | 25.8% | | 38.3% | 64.2% | |
| Yellow Time (s) | 4.0 | 4.0 | | | | | | 4.0 | | 4.0 | 4.0 | |
| 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 | |
| Total Lost Time (s) | | 5.0 | | | | | | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | | Yes | | |
| Recall Mode | None | None | | | | | | None | | C-Min | C-Min | |

Intersection Summary

Area Type: Other

Cycle Length: 120

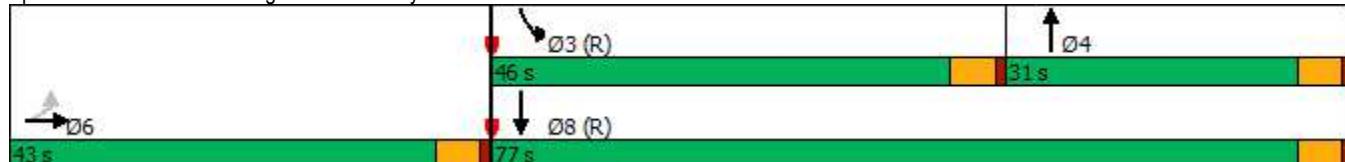
Actuated Cycle Length: 120

Offset: 36 (30%), Referenced to phase 3:SBL and 8:SBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 7: College St SE & Lacey Blvd SE



HCM 6th Signalized Intersection Summary

7: College St SE & Lacey Blvd SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|------|------|------|-----|------|-----|------|-------|-------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 105 | 1038 | 333 | 0 | 0 | 0 | 0 | 627 | 132 | 761 | 955 | 0 |
| Future Volume (veh/h) | 105 | 1038 | 333 | 0 | 0 | 0 | 0 | 627 | 132 | 761 | 955 | 0 |
| Initial Q (Q _b) veh | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | | | | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | | | | No | | No | | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1885 | | | | 0 | 1856 | 1856 | 1885 | 1885 | 0 |
| Adj Flow Rate, veh/h | 117 | 1153 | 370 | | | | 0 | 697 | 147 | 846 | 1061 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | | | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 1 | 1 | 1 | | | | 0 | 3 | 3 | 1 | 1 | 0 |
| Cap, veh/h | 112 | 1162 | 387 | | | | 0 | 628 | 132 | 1190 | 2149 | 0 |
| Arrive On Green | 0.32 | 0.32 | 0.32 | | | | 0.00 | 0.22 | 0.22 | 0.68 | 1.00 | 0.00 |
| Sat Flow, veh/h | 353 | 3668 | 1223 | | | | 0 | 2990 | 611 | 3483 | 3676 | 0 |
| Grp Volume(v), veh/h | 620 | 518 | 502 | | | | 0 | 424 | 420 | 846 | 1061 | 0 |
| Grp Sat Flow(s), veh/h/ln | 1868 | 1716 | 1661 | | | | 0 | 1763 | 1746 | 1742 | 1791 | 0 |
| Q Serve(g_s), s | 38.0 | 35.5 | 35.6 | | | | 0.0 | 26.0 | 26.0 | 17.9 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 38.0 | 35.5 | 35.6 | | | | 0.0 | 26.0 | 26.0 | 17.9 | 0.0 | 0.0 |
| Prop In Lane | 0.19 | | 0.74 | | | | 0.00 | | 0.35 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 591 | 543 | 526 | | | | 0 | 382 | 378 | 1190 | 2149 | 0 |
| V/C Ratio(X) | 1.05 | 0.95 | 0.96 | | | | 0.00 | 1.11 | 1.11 | 0.71 | 0.49 | 0.00 |
| Avail Cap(c_a), veh/h | 591 | 543 | 526 | | | | 0 | 382 | 378 | 1190 | 2149 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.15 | 0.15 | 0.00 |
| Uniform Delay (d), s/veh | 41.0 | 40.1 | 40.2 | | | | 0.0 | 47.0 | 47.0 | 15.4 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 50.2 | 27.4 | 28.3 | | | | 0.0 | 79.1 | 79.7 | 0.3 | 0.1 | 0.0 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 25.3 | 18.7 | 18.3 | | | | 0.0 | 19.8 | 19.7 | 4.5 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 91.2 | 67.5 | 68.5 | | | | 0.0 | 126.1 | 126.7 | 15.7 | 0.1 | 0.0 |
| LnGrp LOS | F | E | E | | | | A | F | F | B | A | A |
| Approach Vol, veh/h | 1640 | | | | | | | 844 | | | 1907 | |
| Approach Delay, s/veh | 76.7 | | | | | | | 126.4 | | | 7.0 | |
| Approach LOS | | E | | | | | | | F | | A | |
| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
| Phs Duration (G+Y+Rc), s | | 46.0 | 31.0 | | 43.0 | | 77.0 | | | | | |
| Change Period (Y+Rc), s | | 5.0 | 5.0 | | 5.0 | | 5.0 | | | | | |
| Max Green Setting (Gmax), s | | 41.0 | 26.0 | | 38.0 | | 72.0 | | | | | |
| Max Q Clear Time (g_c+l1), s | | 19.9 | 28.0 | | 40.0 | | 2.0 | | | | | |
| Green Ext Time (p_c), s | | 4.1 | 0.0 | | 0.0 | | 13.4 | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 56.0 | | | | | | | | | |
| HCM 6th LOS | | | E | | | | | | | | | |

Lanes, Volumes, Timings
8: Golf Club Rd SE & 7th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | | ↑ | ↑ | | ↑ | ↑ | |
| Traffic Volume (vph) | 1 | 61 | 82 | 70 | 171 | 0 | 103 | 0 | 79 | 0 | 0 | 0 |
| Future Volume (vph) | 1 | 61 | 82 | 70 | 171 | 0 | 103 | 0 | 79 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 50 | | | 75 | | | 0 | 0 | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 1 | | | 0 | 0 | | 0 | 0 | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Link Speed (mph) | | 25 | | | 25 | | | 30 | | | 30 | |
| Link Distance (ft) | | 444 | | | 260 | | | 250 | | | 196 | |
| Travel Time (s) | | 12.1 | | | 7.1 | | | 5.7 | | | 4.5 | |
| Confl. Peds. (#/hr) | 5 | | 1 | 1 | | 5 | 2 | | 1 | 1 | | 2 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 4% | 4% | 4% | 2% | 2% | 2% | 1% | 1% | 1% | 0% | 0% | 0% |
| Parking (#/hr) | | | | | 0 | | | 0 | | | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection

Int Delay, s/veh 5.5

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | | | ↖ | | ↖ | ↖ | |
| Traffic Vol, veh/h | 1 | 61 | 82 | 70 | 171 | 0 | 103 | 0 | 79 | 0 | 0 | 0 |
| Future Vol, veh/h | 1 | 61 | 82 | 70 | 171 | 0 | 103 | 0 | 79 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 5 | 0 | 1 | 1 | 0 | 5 | 2 | 0 | 1 | 1 | 0 | 2 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None |
| Storage Length | 50 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 4 | 4 | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 71 | 95 | 81 | 199 | 0 | 120 | 0 | 92 | 0 | 0 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor1 | | Minor2 | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|-------|
| | Major | Minor | Major | Minor | Major | Minor | Major | Minor |
| Conflicting Flow All | 204 | 0 | 0 | 167 | 0 | 0 | 485 | 488 |
| Stage 1 | - | - | - | - | - | - | 122 | 122 |
| Stage 2 | - | - | - | - | - | - | 363 | 366 |
| Critical Hdwy | 4.14 | - | - | 4.12 | - | - | 7.11 | 6.51 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.11 | 5.51 |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.11 | 5.51 |
| Follow-up Hdwy | 2.236 | - | - | 2.218 | - | - | 3.509 | 4.009 |
| Pot Cap-1 Maneuver | 1356 | - | - | 1411 | - | - | 494 | 482 |
| Stage 1 | - | - | - | - | - | - | 885 | 797 |
| Stage 2 | - | - | - | - | - | - | 658 | 624 |
| Platoon blocked, % | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1350 | - | - | 1410 | - | - | 471 | 451 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 471 | 451 |
| Stage 1 | - | - | - | - | - | - | 883 | 795 |
| Stage 2 | - | - | - | - | - | - | 619 | 585 |

| Approach | EB | WB | NB | SB |
|----------------------|-----|-----|------|----|
| HCM Control Delay, s | 0.1 | 2.2 | 14.2 | 0 |
| HCM LOS | | | B | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 600 | 1350 | - | - | 1410 | - | - | - |
| HCM Lane V/C Ratio | 0.353 | 0.001 | - | - | 0.058 | - | - | - |
| HCM Control Delay (s) | 14.2 | 7.7 | - | - | 7.7 | - | - | 0 |
| HCM Lane LOS | B | A | - | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 1.6 | 0 | - | - | 0.2 | - | - | - |

Lanes, Volumes, Timings
9: 7th Ave SE & Golf Club PI SE

04/21/2023



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|--------------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| Traffic Volume (vph) | 50 | 107 | 132 | 171 | 84 | 34 |
| Future Volume (vph) | 50 | 107 | 132 | 171 | 84 | 34 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 125 | | | 0 | 100 | 0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Link Speed (mph) | | 25 | 25 | | | 30 |
| Link Distance (ft) | | 456 | 444 | | | 529 |
| Travel Time (s) | | 12.4 | 12.1 | | | 12.0 |
| Confl. Peds. (#/hr) | 14 | | | 14 | 3 | 2 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 15% | 15% | 8% | 8% | 10% | 10% |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |

Intersection

Int Delay, s/veh 3.2

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑ ↗ | ↑ ↗ | ↗ ↗ | | ↑ ↗ | ↑ ↗ |
| Traffic Vol, veh/h | 50 | 107 | 132 | 171 | 84 | 34 |
| Future Vol, veh/h | 50 | 107 | 132 | 171 | 84 | 34 |
| Conflicting Peds, #/hr | 14 | 0 | 0 | 14 | 3 | 2 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | - | - | - | 100 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 15 | 15 | 8 | 8 | 10 | 10 |
| Mvmt Flow | 56 | 119 | 147 | 190 | 93 | 38 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 351 | 0 | - | 0 | 490 258 |
| Stage 1 | - | - | - | - | 256 - |
| Stage 2 | - | - | - | - | 234 - |
| Critical Hdwy | 4.25 | - | - | - | 6.5 6.3 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.5 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.5 - |
| Follow-up Hdwy | 2.335 | - | - | - | 3.59 3.39 |
| Pot Cap-1 Maneuver | 1139 | - | - | - | 523 762 |
| Stage 1 | - | - | - | - | 768 - |
| Stage 2 | - | - | - | - | 786 - |
| Platoon blocked, % | - | - | - | - | |
| Mov Cap-1 Maneuver | 1124 | - | - | - | 484 750 |
| Mov Cap-2 Maneuver | - | - | - | - | 561 - |
| Stage 1 | - | - | - | - | 720 - |
| Stage 2 | - | - | - | - | 776 - |

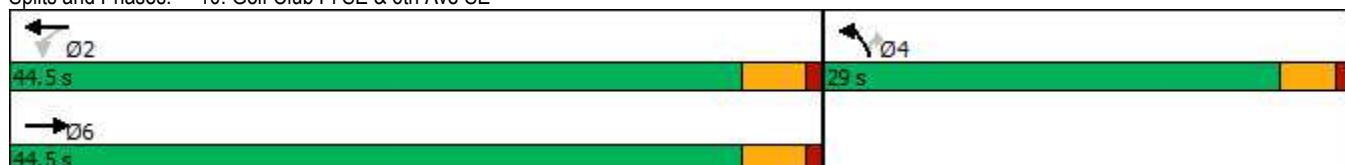
| Approach | EB | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 2.7 | 0 | 12 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1124 | - | - | - | 561 | 750 |
| HCM Lane V/C Ratio | 0.049 | - | - | - | 0.166 | 0.05 |
| HCM Control Delay (s) | 8.4 | - | - | - | 12.7 | 10.1 |
| HCM Lane LOS | A | - | - | - | B | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.6 | 0.2 |



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------------------------|------|-------|-------|-------|-------|
| Lane Configurations | ↑ | | ↑ | ↑ | ↑ | ↑ |
| Traffic Volume (vph) | 184 | 47 | 66 | 294 | 153 | 62 |
| Future Volume (vph) | 184 | 47 | 66 | 294 | 153 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | 100 | | 50 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Right Turn on Red | | Yes | | | | Yes |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 294 | | | 288 | 529 | |
| Travel Time (s) | 6.7 | | | 6.5 | 12.0 | |
| Confl. Peds. (#/hr) | 6 | 6 | | | 7 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 1% | 1% | 2% | 2% | 9% | 9% |
| Parking (#/hr) | | | | 0 | | |
| Shared Lane Traffic (%) | | | | | | |
| Turn Type | NA | | Perm | NA | Prot | Perm |
| Protected Phases | 6 | | | 2 | 4 | |
| Permitted Phases | | | 2 | | | 4 |
| Detector Phase | 6 | | 2 | 2 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 6.0 | | 6.0 | 6.0 | 4.0 | 4.0 |
| Minimum Split (s) | 20.5 | | 10.5 | 10.5 | 23.0 | 23.0 |
| Total Split (s) | 44.5 | | 44.5 | 44.5 | 29.0 | 29.0 |
| Total Split (%) | 60.5% | | 60.5% | 60.5% | 39.5% | 39.5% |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.0 | 3.0 |
| 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) | 4.5 | | 4.5 | 4.5 | 4.0 | 4.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | Min | | Min | Min | None | None |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: | 73.5 | | | | | |
| Actuated Cycle Length: | 31.2 | | | | | |
| Natural Cycle: | 45 | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | |

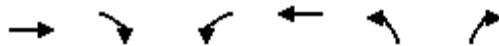
Splits and Phases: 10: Golf Club PI SE & 6th Ave SE



HCM 6th Signalized Intersection Summary

10: Golf Club PI SE & 6th Ave SE

04/21/2023



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--|------|------|------|------|------|------|
| Lane Configurations | ↑ ↗ | ↗ | ↖ | ↑ ↘ | ↖ | ↗ |
| Traffic Volume (veh/h) | 184 | 47 | 66 | 294 | 153 | 62 |
| Future Volume (veh/h) | 184 | 47 | 66 | 294 | 153 | 62 |
| Initial Q (Q _b), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 0.99 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1870 | 1870 | 1767 | 1767 |
| Adj Flow Rate, veh/h | 207 | 53 | 74 | 330 | 172 | 70 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 1 | 1 | 2 | 2 | 9 | 9 |
| Cap, veh/h | 541 | 138 | 696 | 700 | 267 | 237 |
| Arrive On Green | 0.37 | 0.37 | 0.37 | 0.37 | 0.16 | 0.16 |
| Sat Flow, veh/h | 1445 | 370 | 1114 | 1870 | 1682 | 1497 |
| Grp Volume(v), veh/h | 0 | 260 | 74 | 330 | 172 | 70 |
| Grp Sat Flow(s), veh/h/ln | 0 | 1815 | 1114 | 1870 | 1682 | 1497 |
| Q Serve(g_s), s | 0.0 | 1.9 | 0.9 | 2.4 | 1.7 | 0.8 |
| Cycle Q Clear(g_c), s | 0.0 | 1.9 | 2.8 | 2.4 | 1.7 | 0.8 |
| Prop In Lane | | 0.20 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 679 | 696 | 700 | 267 | 237 |
| V/C Ratio(X) | 0.00 | 0.38 | 0.11 | 0.47 | 0.64 | 0.29 |
| Avail Cap(c_a), veh/h | 0 | 3992 | 2729 | 4113 | 2313 | 2058 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 4.2 | 5.2 | 4.3 | 7.2 | 6.8 |
| Incr Delay (d2), s/veh | 0.0 | 0.3 | 0.0 | 0.4 | 1.0 | 0.3 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 0.0 | 4.4 | 5.2 | 4.7 | 8.1 | 7.0 |
| LnGrp LOS | A | A | A | A | A | A |
| Approach Vol, veh/h | 260 | | | 404 | 242 | |
| Approach Delay, s/veh | 4.4 | | | 4.8 | 7.8 | |
| Approach LOS | A | | | A | A | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 |
| Phs Duration (G+Y+R _c), s | | 11.3 | | 6.9 | | 11.3 |
| Change Period (Y+R _c), s | | 4.5 | | 4.0 | | 4.5 |
| Max Green Setting (Gmax), s | | 40.0 | | 25.0 | | 40.0 |
| Max Q Clear Time (g _{c+l1}), s | | 4.8 | | 3.7 | | 3.9 |
| Green Ext Time (p _c), s | | 2.0 | | 0.3 | | 1.3 |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 5.5 | | | |
| HCM 6th LOS | | | A | | | |

Lanes, Volumes, Timings

11: Sleater Kinney Rd NE & 6th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 157 | 34 | 88 | 96 | 31 | 364 | 51 | 576 | 58 | 216 | 665 | 74 |
| Future Volume (vph) | 157 | 34 | 88 | 96 | 31 | 364 | 51 | 576 | 58 | 216 | 665 | 74 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 0 | 150 | | 150 | 150 | | 0 | 225 | | 0 |
| Storage Lanes | 0 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 25 | | | 25 | |
| Link Distance (ft) | | 317 | | | 598 | | | 467 | | | 540 | |
| Travel Time (s) | | 7.2 | | | 13.6 | | | 12.7 | | | 14.7 | |
| Confl. Peds. (#/hr) | 8 | | 2 | 2 | | 8 | 8 | | 4 | 4 | | 8 |
| 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% | 3% | 3% | 3% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | 10% | | 45% | | | | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | pm+ov | Prot | NA | Perm | Prot | NA | |
| Protected Phases | | 6 | | | | 2 | 3 | 7 | 4 | | 3 | 8 |
| Permitted Phases | 6 | | 6 | 2 | | 2 | | | | 4 | | |
| Detector Phase | 6 | 6 | 6 | 2 | 2 | 3 | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 6.0 | 6.0 | 4.0 | 6.0 | |
| Minimum Split (s) | 27.0 | 27.0 | 27.0 | 29.0 | 29.0 | 9.5 | 9.5 | 26.0 | 26.0 | 9.5 | 26.0 | |
| Total Split (s) | 37.0 | 37.0 | 37.0 | 38.0 | 38.0 | 34.0 | 29.0 | 43.0 | 43.0 | 34.0 | 43.0 | |
| Total Split (%) | 32.2% | 32.2% | 32.2% | 33.0% | 33.0% | 29.6% | 25.2% | 37.4% | 37.4% | 29.6% | 37.4% | |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 1.0 | 1.0 | 5.0 | 5.0 | 1.0 | 5.0 | |
| 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) | | 7.0 | 7.0 | 8.0 | 8.0 | 4.0 | 4.0 | 8.0 | 8.0 | 4.0 | 8.0 | |
| Lead/Lag | | | | | | Lead | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | Min | Min | None | Min | |

Intersection Summary

Area Type: Other

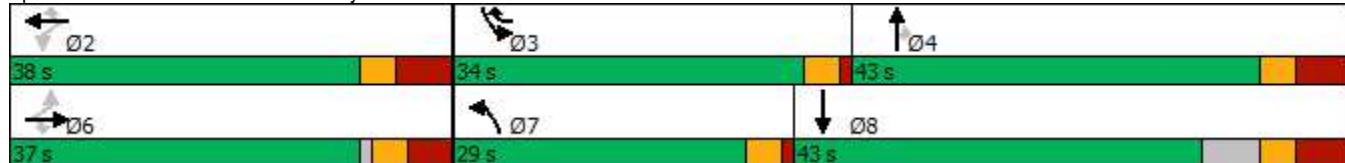
Cycle Length: 115

Actuated Cycle Length: 98.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 11: Sleater Kinney Rd NE & 6th Ave SE



HCM 6th Signalized Intersection Summary

11: Sleater Kinney Rd NE & 6th Ave SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 157 | 34 | 88 | 96 | 31 | 364 | 51 | 576 | 58 | 216 | 665 | 74 |
| Future Volume (veh/h) | 157 | 34 | 88 | 96 | 31 | 364 | 51 | 576 | 58 | 216 | 665 | 74 |
| Initial Q (Q _b), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1885 | 1870 | 1870 | 1870 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 174 | 38 | 98 | 83 | 0 | 453 | 57 | 640 | 64 | 240 | 739 | 82 |
| 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 | 3 | 3 | 3 | 2 | 2 | 2 |
| Cap, veh/h | 303 | 51 | 439 | 189 | 0 | 1359 | 74 | 668 | 560 | 277 | 1525 | 169 |
| Arrive On Green | 0.28 | 0.28 | 0.28 | 0.28 | 0.00 | 0.28 | 0.04 | 0.36 | 0.36 | 0.16 | 0.47 | 0.47 |
| Sat Flow, veh/h | 848 | 185 | 1584 | 1252 | 0 | 3124 | 1767 | 1856 | 1555 | 1781 | 3222 | 357 |
| Grp Volume(v), veh/h | 212 | 0 | 98 | 83 | 0 | 453 | 57 | 640 | 64 | 240 | 407 | 414 |
| Grp Sat Flow(s), veh/h/ln | 1034 | 0 | 1584 | 1252 | 0 | 1562 | 1767 | 1856 | 1555 | 1781 | 1777 | 1802 |
| Q Serve(g_s), s | 18.0 | 0.0 | 4.6 | 6.2 | 0.0 | 9.3 | 3.1 | 32.5 | 2.6 | 12.7 | 15.1 | 15.1 |
| Cycle Q Clear(g_c), s | 18.0 | 0.0 | 4.6 | 24.2 | 0.0 | 9.3 | 3.1 | 32.5 | 2.6 | 12.7 | 15.1 | 15.1 |
| Prop In Lane | 0.82 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.20 |
| Lane Grp Cap(c), veh/h | 355 | 0 | 439 | 189 | 0 | 1359 | 74 | 668 | 560 | 277 | 841 | 853 |
| V/C Ratio(X) | 0.60 | 0.00 | 0.22 | 0.44 | 0.00 | 0.33 | 0.77 | 0.96 | 0.11 | 0.87 | 0.48 | 0.48 |
| Avail Cap(c_a), veh/h | 390 | 0 | 493 | 231 | 0 | 1464 | 458 | 674 | 564 | 554 | 841 | 853 |
| HCM Platoon Ratio | 1.00 | 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 | 31.7 | 0.0 | 26.8 | 42.7 | 0.0 | 18.1 | 45.7 | 30.2 | 20.6 | 39.8 | 17.3 | 17.3 |
| Incr Delay (d2), s/veh | 1.2 | 0.0 | 0.1 | 0.6 | 0.0 | 0.1 | 6.3 | 24.5 | 0.0 | 3.3 | 0.2 | 0.2 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 4.5 | 0.0 | 1.8 | 1.9 | 0.0 | 3.3 | 1.5 | 18.7 | 1.0 | 5.8 | 6.1 | 6.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 32.9 | 0.0 | 26.9 | 43.3 | 0.0 | 18.2 | 52.1 | 54.6 | 20.6 | 43.0 | 17.5 | 17.5 |
| LnGrp LOS | C | A | C | D | A | B | D | D | C | D | B | B |
| Approach Vol, veh/h | | 310 | | | 536 | | | 761 | | | 1061 | |
| Approach Delay, s/veh | | 31.0 | | | 22.1 | | | 51.6 | | | 23.3 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer - Assigned Phs | 2 | 3 | 4 | | 6 | 7 | 8 | | | | | |
| Phs Duration (G+Y+Rc), s | 34.8 | 19.0 | 42.7 | | 34.8 | 8.0 | 53.6 | | | | | |
| Change Period (Y+Rc), s | 8.0 | 4.0 | 8.0 | | * 8 | 4.0 | 8.0 | | | | | |
| Max Green Setting (Gmax), s | 30.0 | 30.0 | 35.0 | | * 30 | 25.0 | 35.0 | | | | | |
| Max Q Clear Time (g_c+l1), s | 26.2 | 14.7 | 34.5 | | 20.0 | 5.1 | 17.1 | | | | | |
| Green Ext Time (p_c), s | 0.6 | 0.3 | 0.2 | | 1.0 | 0.1 | 3.5 | | | | | |

Intersection Summary

HCM 6th Ctrl Delay 32.0

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

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

Lanes, Volumes, Timings
12: Sleater Kinney Rd NE & I-5 NB

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | ↑ | | | ↑ | | ↑↑ | | | ↑↑ | |
| Traffic Volume (vph) | 0 | 0 | 302 | 0 | 0 | 299 | 0 | 1174 | 0 | 0 | 813 | 0 |
| Future Volume (vph) | 0 | 0 | 302 | 0 | 0 | 299 | 0 | 1174 | 0 | 0 | 813 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | | 4% | | | 0% | | 0% | | | -4% | |
| Link Speed (mph) | | | 30 | | | 30 | | 25 | | | 25 | |
| Link Distance (ft) | | | 563 | | | 536 | | 540 | | | 448 | |
| Travel Time (s) | | | 12.8 | | | 12.2 | | 14.7 | | | 12.2 | |
| Confl. Peds. (#/hr) | 1 | | | | | | 1 | 5 | | 6 | 6 | 5 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 1% | 1% | 2% | 2% | 2% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | | Stop | | | Free | | Free | | | Free | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

Intersection

Int Delay, s/veh 3

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | ↑ | | | ↑ | | ↑↑ | | | ↑↑ | |
| Traffic Vol, veh/h | 0 | 0 | 302 | 0 | 0 | 299 | 0 | 1174 | 0 | 0 | 813 | 0 |
| Future Vol, veh/h | 0 | 0 | 302 | 0 | 0 | 299 | 0 | 1174 | 0 | 0 | 813 | 0 |
| Conflicting Peds, #/hr | 1 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 6 | 6 | 0 | 5 |
| Sign Control | Stop | Stop | Stop | Free |
| RT Channelized | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 4 | - | - | 0 | - | - | 0 | - | - | -4 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 336 | 0 | 0 | 332 | 0 | 1304 | 0 | 0 | 903 | 0 |

| Major/Minor | Minor2 | Major1 | | | | Major2 | | | | | |
|----------------------|--------|----------------------|---------|---------|---------------|---------------------|---------------------|----------------|--------------------|---|---|
| | | Conflicting Flow All | Stage 1 | Stage 2 | Critical Hdwy | Critical Hdwy Stg 1 | Critical Hdwy Stg 2 | Follow-up Hdwy | Pot Cap-1 Maneuver | | |
| Conflicting Flow All | - | - | 452 | | | - | 0 | - | - | - | 0 |
| Stage 1 | - | - | - | | | - | - | - | - | - | - |
| Stage 2 | - | - | - | | | - | - | - | - | - | - |
| Critical Hdwy | - | - | 7.32 | | | - | - | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | | | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | | | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.31 | | | - | - | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 530 | | | 0 | - | 0 | 0 | - | 0 |
| Stage 1 | 0 | 0 | - | | | 0 | - | 0 | 0 | - | 0 |
| Stage 2 | 0 | 0 | - | | | 0 | - | 0 | 0 | - | 0 |
| Platoon blocked, % | | | | | | - | | | | | - |
| Mov Cap-1 Maneuver | - | 0 | 530 | | | - | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | 0 | - | | | - | - | - | - | - | - |
| Stage 1 | - | 0 | - | | | - | - | - | - | - | - |
| Stage 2 | - | 0 | - | | | - | - | - | - | - | - |

| Approach | EB | | NB | | SB |
|----------------------|------|--|----|--|----|
| HCM Control Delay, s | 22.8 | | 0 | | 0 |
| HCM LOS | C | | | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | SBT |
|-----------------------|-----|-------|-----|
| Capacity (veh/h) | - | 530 | - |
| HCM Lane V/C Ratio | - | 0.633 | - |
| HCM Control Delay (s) | - | 22.8 | - |
| HCM Lane LOS | - | C | - |
| HCM 95th %tile Q(veh) | - | 4.4 | - |

Lanes, Volumes, Timings
13: Sleater Kinney Rd NE & I-5 SB

04/21/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 1 | 162 | 311 | 1163 | 651 | 322 |
| Future Volume (vph) | 1 | 162 | 311 | 1163 | 651 | 322 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 0% | | | -5% | 0% | |
| Storage Length (ft) | 0 | 0 | 200 | | | 0 |
| Storage Lanes | 0 | 1 | 1 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Link Speed (mph) | 30 | | | 25 | 25 | |
| Link Distance (ft) | 425 | | | 316 | 375 | |
| Travel Time (s) | 9.7 | | | 8.6 | 10.2 | |
| Confl. Peds. (#/hr) | 4 | 5 | 3 | | | 3 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| 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 2.5

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|--------------------------|------|--------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 162 | 311 | 1163 | 651 | 322 |
| Future Vol, veh/h | 1 | 162 | 311 | 1163 | 651 | 322 |
| Conflicting Peds, #/hr | 4 | 5 | 3 | 0 | 0 | 3 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Signal | - | None | - | Free |
| Storage Length | - | 0 | 200 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | -5 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 180 | 346 | 1292 | 723 | 358 |

| Major/Minor | Minor2 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | 1939 | 370 | 726 | 0 | - |
| Stage 1 | 726 | - | - | - | - |
| Stage 2 | 1213 | - | - | - | - |
| Critical Hdwy | 6.25 | 6.9 | 4.14 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 6 | - | - | - | - |
| Follow-up Hdwy | 3.65 | 3.3 | 2.22 | - | - |
| Pot Cap-1 Maneuver | 78 | 633 | 873 | - | 0 |
| Stage 1 | 433 | - | - | - | 0 |
| Stage 2 | 227 | - | - | - | 0 |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 47 | 628 | 871 | - | - |
| Mov Cap-2 Maneuver | 47 | - | - | - | - |
| Stage 1 | 260 | - | - | - | - |
| Stage 2 | 226 | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|----|-----|----|
| HCM Control Delay, s | 13 | 2.5 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT |
|-----------------------|-------|-----|-------|-----|
| Capacity (veh/h) | 871 | - | 628 | - |
| HCM Lane V/C Ratio | 0.397 | - | 0.287 | - |
| HCM Control Delay (s) | 11.8 | - | 13 | - |
| HCM Lane LOS | B | - | B | - |
| HCM 95th %tile Q(veh) | 1.9 | - | 1.2 | - |

Lanes, Volumes, Timings

14: College St SE & Woodland Square Loop SE

04/21/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|
| Lane Configurations | ↑ ↗ | ↗ ↘ | ↖ ↗ | ↑↑ | ↑↓ | |
| Traffic Volume (vph) | 9 | 105 | 40 | 1024 | 1676 | 4 |
| Future Volume (vph) | 9 | 105 | 40 | 1024 | 1676 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 175 | 150 | | | 0 |
| Storage Lanes | 1 | 1 | 1 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Link Speed (mph) | 30 | | | 25 | 35 | |
| Link Distance (ft) | 277 | | | 1040 | 447 | |
| Travel Time (s) | 6.3 | | | 28.4 | 8.7 | |
| Confl. Peds. (#/hr) | | | | 1 | | 1 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 0% | 0% | 1% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |

Intersection

Int Delay, s/veh 1.2

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑↑ | ↑↑ | 4 |
| Traffic Vol, veh/h | 9 | 105 | 40 | 1024 | 1676 | 4 |
| Future Vol, veh/h | 9 | 105 | 40 | 1024 | 1676 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 1 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 175 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 1 | 1 | 1 | 1 |
| Mvmt Flow | 10 | 117 | 44 | 1138 | 1862 | 4 |

| Major/Minor | Minor2 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | 2522 | 934 | 1867 | 0 | - |
| Stage 1 | 1865 | - | - | - | - |
| Stage 2 | 657 | - | - | - | - |
| Critical Hdwy | 6.8 | 6.9 | 4.12 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.21 | - | - |
| Pot Cap-1 Maneuver | *41 | *386 | *578 | - | - |
| Stage 1 | *364 | - | - | - | - |
| Stage 2 | *610 | - | - | - | - |
| Platoon blocked, % | 1 | 1 | 1 | - | - |
| Mov Cap-1 Maneuver | *38 | *386 | *577 | - | - |
| Mov Cap-2 Maneuver | *38 | - | - | - | - |
| Stage 1 | *336 | - | - | - | - |
| Stage 2 | *610 | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 27.2 | 0.4 | 0 |
| HCM LOS | D | | |

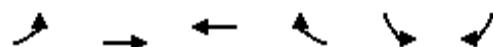
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | * 577 | - | 38 | 386 | - | - |
| HCM Lane V/C Ratio | 0.077 | - | 0.263 | 0.302 | - | - |
| HCM Control Delay (s) | 11.8 | - | 130.7 | 18.3 | - | - |
| HCM Lane LOS | B | - | F | C | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.9 | 1.3 | - | - |

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
15: Woodland Square Loop SE

04/21/2023



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 10 | 49 | 30 | 27 | 57 | 0 |
| Future Volume (vph) | 10 | 49 | 30 | 27 | 57 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | | 175 | 0 | 0 |
| Storage Lanes | 0 | | | 1 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 334 | 277 | | 216 | |
| Travel Time (s) | | 7.6 | 6.3 | | 4.9 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Parking (#/hr) | | 0 | | | 0 | |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

| Intersection | | | | | | |
|--------------------------|--------|--------|--------|------|-------|------|
| Int Delay, s/veh | 3.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | | | | 0 |
| Traffic Vol, veh/h | 10 | 49 | 30 | 27 | 57 | 0 |
| Future Vol, veh/h | 10 | 49 | 30 | 27 | 57 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 12 | 57 | 35 | 31 | 66 | 0 |
| Major/Minor | Major1 | Major2 | Minor2 | | | |
| Conflicting Flow All | 66 | 0 | - | 0 | 116 | 35 |
| Stage 1 | - | - | - | - | 35 | - |
| Stage 2 | - | - | - | - | 81 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1549 | - | - | - | 885 | 1044 |
| Stage 1 | - | - | - | - | 993 | - |
| Stage 2 | - | - | - | - | 947 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1549 | - | - | - | 878 | 1044 |
| Mov Cap-2 Maneuver | - | - | - | - | 878 | - |
| Stage 1 | - | - | - | - | 985 | - |
| Stage 2 | - | - | - | - | 947 | - |
| Approach | EB | WB | SB | | | |
| HCM Control Delay, s | 1.2 | 0 | 9.4 | | | |
| HCM LOS | | | A | | | |
| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | |
| Capacity (veh/h) | 1549 | - | - | - | 878 | |
| HCM Lane V/C Ratio | 0.008 | - | - | - | 0.075 | |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 9.4 | |
| HCM Lane LOS | A | A | - | - | A | |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 | |

Lanes, Volumes, Timings

16: Woodland Square Loop SE & 7th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 11 | 50 | 16 | 8 | 38 | 2 | 63 | 26 | 33 | 27 | 6 | 6 |
| Future Volume (vph) | 11 | 50 | 16 | 8 | 38 | 2 | 63 | 26 | 33 | 27 | 6 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 25 | | | 25 | | | 30 | | | 30 | |
| Link Distance (ft) | | 413 | | | 277 | | | 225 | | | 381 | |
| Travel Time (s) | | 11.3 | | | 7.6 | | | 5.1 | | | 8.7 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 3% | 3% | 3% | 0% | 0% | 0% | 0% | 0% | 0% |
| Parking (#/hr) | | 0 | | | | | | 0 | | | 0 | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | Stop | | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

Intersection

Intersection Delay, s/veh

7.9

Intersection LOS

A

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↖ ↗ | | | ↖ ↗ | | | ↖ ↗ | | | ↖ ↗ | |
| Traffic Vol, veh/h | 11 | 50 | 16 | 8 | 38 | 2 | 63 | 26 | 33 | 27 | 6 | 6 |
| Future Vol, veh/h | 11 | 50 | 16 | 8 | 38 | 2 | 63 | 26 | 33 | 27 | 6 | 6 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 13 | 57 | 18 | 9 | 43 | 2 | 72 | 30 | 38 | 31 | 7 | 7 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB | | | WB | | | NB | | | SB | | |
| Opposing Approach | WB | | | EB | | | SB | | | NB | | |
| Opposing Lanes | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Left | SB | | | NB | | | EB | | | WB | | |
| Conflicting Lanes Left | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Right | NB | | | SB | | | WB | | | EB | | |
| Conflicting Lanes Right | 1 | | | 1 | | | 1 | | | 1 | | |
| HCM Control Delay | 7.8 | | | 7.8 | | | 8 | | | 7.7 | | |
| HCM LOS | A | | | A | | | A | | | A | | |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 52% | 14% | 17% | 69% |
| Vol Thru, % | 21% | 65% | 79% | 15% |
| Vol Right, % | 27% | 21% | 4% | 15% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 122 | 77 | 48 | 39 |
| LT Vol | 63 | 11 | 8 | 27 |
| Through Vol | 26 | 50 | 38 | 6 |
| RT Vol | 33 | 16 | 2 | 6 |
| Lane Flow Rate | 139 | 88 | 55 | 44 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.163 | 0.104 | 0.068 | 0.054 |
| Departure Headway (Hd) | 4.222 | 4.275 | 4.464 | 4.414 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 855 | 841 | 805 | 814 |
| Service Time | 2.222 | 2.286 | 2.476 | 2.428 |
| HCM Lane V/C Ratio | 0.163 | 0.105 | 0.068 | 0.054 |
| HCM Control Delay | 8 | 7.8 | 7.8 | 7.7 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.6 | 0.3 | 0.2 | 0.2 |

Lanes, Volumes, Timings

17: Woodland Square Loop SE & 7th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 57 | 62 | 17 | 0 | 132 | 7 | 45 | 8 | 3 | 8 | 4 | 65 |
| Future Volume (vph) | 57 | 62 | 17 | 0 | 132 | 7 | 45 | 8 | 3 | 8 | 4 | 65 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 25 | | | 25 | | | 30 | | | 30 | |
| Link Distance (ft) | | 260 | | | 382 | | | 447 | | | 374 | |
| Travel Time (s) | | 7.1 | | | 10.4 | | | 10.2 | | | 8.5 | |
| Confl. Peds. (#/hr) | 1 | | 1 | 1 | | 1 | 1 | | | | | 1 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 3% | 3% | 3% |
| Parking (#/hr) | | | | | 0 | | | 0 | | | 0 | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

Intersection

Intersection Delay, s/veh 8.4

Intersection LOS A

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↖ ↗ | | | ↖ ↗ | | | ↖ ↗ | | | ↖ ↗ | |
| Traffic Vol, veh/h | 57 | 62 | 17 | 0 | 132 | 7 | 45 | 8 | 3 | 8 | 4 | 65 |
| Future Vol, veh/h | 57 | 62 | 17 | 0 | 132 | 7 | 45 | 8 | 3 | 8 | 4 | 65 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| Mvmt Flow | 68 | 74 | 20 | 0 | 157 | 8 | 54 | 10 | 4 | 10 | 5 | 77 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB | | | WB | | | NB | | | SB | | |
| Opposing Approach | WB | | | EB | | | SB | | | NB | | |
| Opposing Lanes | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Left | SB | | | NB | | | EB | | | WB | | |
| Conflicting Lanes Left | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Right | NB | | | SB | | | WB | | | EB | | |
| Conflicting Lanes Right | 1 | | | 1 | | | 1 | | | 1 | | |
| HCM Control Delay | 8.6 | | | 8.6 | | | 8.4 | | | 7.8 | | |
| HCM LOS | A | | | A | | | A | | | A | | |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 80% | 42% | 0% | 10% |
| Vol Thru, % | 14% | 46% | 95% | 5% |
| Vol Right, % | 5% | 12% | 5% | 84% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 56 | 136 | 139 | 77 |
| LT Vol | 45 | 57 | 0 | 8 |
| Through Vol | 8 | 62 | 132 | 4 |
| RT Vol | 3 | 17 | 7 | 65 |
| Lane Flow Rate | 67 | 162 | 165 | 92 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.09 | 0.2 | 0.203 | 0.109 |
| Departure Headway (Hd) | 4.876 | 4.456 | 4.415 | 4.289 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 735 | 806 | 814 | 835 |
| Service Time | 2.906 | 2.481 | 2.439 | 2.318 |
| HCM Lane V/C Ratio | 0.091 | 0.201 | 0.203 | 0.11 |
| HCM Control Delay | 8.4 | 8.6 | 8.6 | 7.8 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.3 | 0.7 | 0.8 | 0.4 |

2026 With Project LOS

LANE LEVEL OF SERVICE

Lane Level of Service

Site: 1 [2026 With Project - PM Peak Hour (Site Folder: 1.
College St SE/7th Ave SE)]

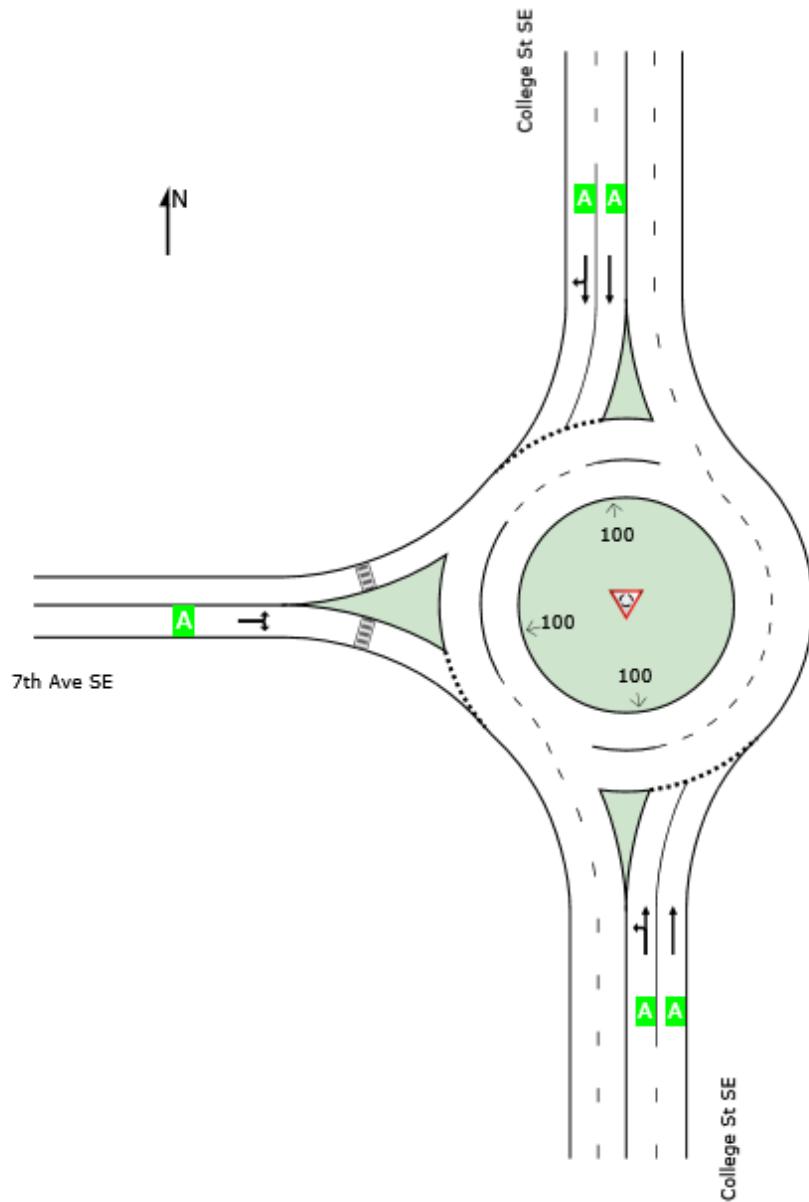
Output produced by SIDRA INTERSECTION Version: 9.1.3.210

7th Ave Mixed-Use (Lacey)

Site Category: (None)

Roundabout

| | Approaches | | | Intersection |
|-----|------------|-------|------|--------------|
| | South | North | West | |
| LOS | A | A | A | A |



Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used).

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

MOVEMENT SUMMARY

▼ Site: 1 [2026 With Project - PM Peak Hour (Site Folder: 1. College St SE/7th Ave SE)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

7th Ave Mixed-Use (Lacey)

Site Category: (None)

Roundabout

| Vehicle Movement Performance | | | | | | | | | | | | | | |
|------------------------------|------------|-----------|---------------------------------------|--|----------------|--------------------|------------------|-----------------------------------|-----------|----------------|---------------------|-----------------|------|--|
| Mov ID | Turn Class | Mov Class | Demand Flows [Total HV] veh/h | Arrival Flows [Total HV] % veh/h | Deg. Satn % | Aver. Delay v/c | Level of Service | 95% Back Of Queue [Veh. veh] | Prop. Que | Eff. Stop Rate | Aver. No. of Cycles | Aver. Speed mph | | |
| South: College St SE | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 1 1.3 | 1 1.3 | 0.394 | 5.5 | LOS A | 2.5 | 63.1 | 0.24 | 0.07 | 0.24 | 24.4 | |
| 8 | T1 | All MCs | 1102 1.3 | 1102 1.3 | 0.394 | 0.5 | LOS A | 2.5 | 63.9 | 0.24 | 0.07 | 0.24 | 24.5 | |
| Approach | | | 1103 1.3 | 1103 1.3 | 0.394 | 0.5 | LOS A | 2.5 | 63.9 | 0.24 | 0.07 | 0.24 | 24.5 | |
| North: College St SE | | | | | | | | | | | | | | |
| 4 | T1 | All MCs | 1706 1.3 | 1706 1.3 | 0.612 | 0.2 | LOS A | 5.0 | 126.6 | 0.03 | 0.03 | 0.03 | 24.9 | |
| 14 | R2 | All MCs | 87 1.3 | 87 1.3 | 0.612 | 1.2 | LOS A | 5.0 | 125.7 | 0.03 | 0.04 | 0.03 | 24.8 | |
| Approach | | | 1794 1.3 | 1794 1.3 | 0.612 | 0.2 | LOS A | 5.0 | 126.6 | 0.03 | 0.03 | 0.03 | 24.9 | |
| West: 7th Ave SE | | | | | | | | | | | | | | |
| 5 | L2 | All MCs | 65 0.0 | 65 0.0 | 0.175 | 9.2 | LOS A | 0.7 | 16.3 | 0.62 | 0.74 | 0.62 | 23.1 | |
| 12 | R2 | All MCs | 71 0.0 | 71 0.0 | 0.175 | 5.0 | LOS A | 0.7 | 16.3 | 0.62 | 0.74 | 0.62 | 23.2 | |
| Approach | | | 136 0.0 | 136 0.0 | 0.175 | 7.0 | LOS A | 0.7 | 16.3 | 0.62 | 0.74 | 0.62 | 23.1 | |
| All Vehicles | | | 3033 1.2 | 3033 1.2 | 0.612 | 0.6 | LOS A | 5.0 | 126.6 | 0.13 | 0.08 | 0.13 | 24.7 | |

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: TENW | Licence: PLUS / 1PC | Processed: Wednesday, April 19, 2023 2:58:36 PM

Project: T:\Active Projects\7th Ave Mixed-Use (Lacey) - 2022-379\Planning\LOS\7th Ave Mixed-Use - College-7th Future RAB.sip9

Lanes, Volumes, Timings

2: College St SE & 6th Ave SE/Abbey Way SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|
| Lane Configurations | ↔↔ | ↑ | ↔ | ↔ | ↑↓ | | ↔ | ↑↓ | | ↔ | ↑↓ | |
| Traffic Volume (vph) | 231 | 26 | 133 | 68 | 39 | 72 | 91 | 973 | 41 | 42 | 1455 | 121 |
| Future Volume (vph) | 231 | 26 | 133 | 68 | 39 | 72 | 91 | 973 | 41 | 42 | 1455 | 121 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 175 | 150 | | 0 | 150 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Right Turn on Red | | | | Yes | | | Yes | | | Yes | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 35 | | | 35 | |
| Link Distance (ft) | | 660 | | | 395 | | | 678 | | | 822 | |
| Travel Time (s) | | 15.0 | | | 9.0 | | | 13.2 | | | 16.0 | |
| Confl. Peds. (#/hr) | 7 | | 3 | 3 | | 7 | 2 | | 1 | 1 | | 2 |
| 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 (%) | 3% | 3% | 3% | 1% | 1% | 1% | 2% | 2% | 2% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | | Prot | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | | 4 | | | | | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | |
| Minimum Split (s) | 8.5 | 24.5 | 24.5 | 8.0 | 24.0 | | 9.0 | 22.0 | | 9.0 | 24.0 | |
| Total Split (s) | 21.0 | 25.0 | 25.0 | 21.0 | 25.0 | | 17.0 | 54.0 | | 20.0 | 57.0 | |
| Total Split (%) | 17.5% | 20.8% | 20.8% | 17.5% | 20.8% | | 14.2% | 45.0% | | 16.7% | 47.5% | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.0 | 3.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| 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) | 4.5 | 4.5 | 4.5 | 4.0 | 4.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| 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: 120

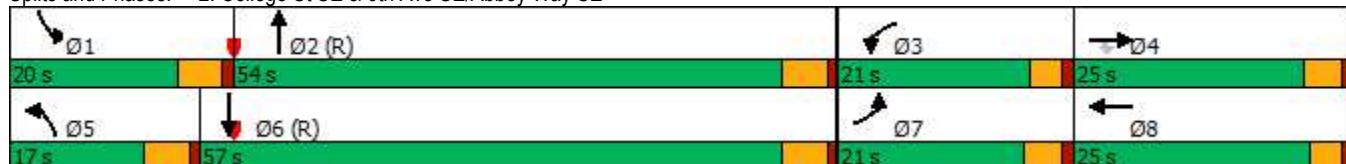
Actuated Cycle Length: 120

Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Splits and Phases: 2: College St SE & 6th Ave SE/Abbey Way SE



HCM 6th Signalized Intersection Summary
2: College St SE & 6th Ave SE/Abbey Way SE

04/21/2023

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--|------|------|------|------|------|------|------|-------|------|------|------|------|
| Lane Configurations | ↑↑ | ↑ | ↑ | ↑ | ↑↓ | | ↑ | ↑↓ | | ↑ | ↑↓ | |
| Traffic Volume (veh/h) | 231 | 26 | 133 | 68 | 39 | 72 | 91 | 973 | 41 | 42 | 1455 | 121 |
| Future Volume (veh/h) | 231 | 26 | 133 | 68 | 39 | 72 | 91 | 973 | 41 | 42 | 1455 | 121 |
| Initial Q (Q _b), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 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 | | No | No | | No |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1885 | 1885 | 1885 | 1870 | 1870 | 1870 | 1885 | 1885 | 1885 |
| Adj Flow Rate, veh/h | 257 | 29 | 148 | 76 | 43 | 80 | 101 | 1081 | 46 | 47 | 1617 | 134 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 |
| Cap, veh/h | 319 | 262 | 219 | 97 | 57 | 106 | 126 | 2142 | 91 | 61 | 1943 | 160 |
| Arrive On Green | 0.09 | 0.14 | 0.14 | 0.05 | 0.10 | 0.10 | 0.05 | 0.41 | 0.41 | 0.07 | 1.00 | 1.00 |
| Sat Flow, veh/h | 3428 | 1856 | 1549 | 1795 | 581 | 1081 | 1781 | 3473 | 148 | 1795 | 3351 | 275 |
| Grp Volume(v), veh/h | 257 | 29 | 148 | 76 | 0 | 123 | 101 | 553 | 574 | 47 | 857 | 894 |
| Grp Sat Flow(s), veh/h/ln | 1714 | 1856 | 1549 | 1795 | 0 | 1663 | 1781 | 1777 | 1843 | 1795 | 1791 | 1835 |
| Q Serve(g_s), s | 8.8 | 1.6 | 10.9 | 5.0 | 0.0 | 8.6 | 6.7 | 27.7 | 27.7 | 3.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 8.8 | 1.6 | 10.9 | 5.0 | 0.0 | 8.6 | 6.7 | 27.7 | 27.7 | 3.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.65 | 1.00 | | 0.08 | 1.00 | | 0.15 |
| Lane Grp Cap(c), veh/h | 319 | 262 | 219 | 97 | 0 | 163 | 126 | 1096 | 1137 | 61 | 1039 | 1064 |
| V/C Ratio(X) | 0.81 | 0.11 | 0.68 | 0.78 | 0.00 | 0.75 | 0.80 | 0.50 | 0.50 | 0.78 | 0.83 | 0.84 |
| Avail Cap(c_a), veh/h | 471 | 317 | 265 | 254 | 0 | 291 | 178 | 1096 | 1137 | 224 | 1039 | 1064 |
| 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 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.74 | 0.74 | 0.74 |
| Uniform Delay (d), s/veh | 53.4 | 45.0 | 48.9 | 56.0 | 0.0 | 52.7 | 56.3 | 21.6 | 21.6 | 55.5 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 5.2 | 0.1 | 4.4 | 5.0 | 0.0 | 2.6 | 10.6 | 1.7 | 1.6 | 5.8 | 5.7 | 6.0 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 4.0 | 0.8 | 4.5 | 2.4 | 0.0 | 3.7 | 3.4 | 12.7 | 13.2 | 1.5 | 1.6 | 1.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 58.6 | 45.1 | 53.3 | 61.1 | 0.0 | 55.3 | 67.0 | 23.3 | 23.2 | 61.3 | 5.7 | 6.0 |
| LnGrp LOS | E | D | D | E | A | E | E | C | C | E | A | A |
| Approach Vol, veh/h | 434 | | | | 199 | | | 1228 | | | 1798 | |
| Approach Delay, s/veh | 55.9 | | | | 57.5 | | | 26.8 | | | 7.3 | |
| Approach LOS | | E | | | E | | | C | | | A | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.0 | 79.0 | 10.5 | 21.4 | 13.5 | 74.6 | 15.7 | 16.3 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | 4.0 | 4.5 | 5.0 | 5.0 | 4.5 | * 4.5 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 49.0 | 17.0 | 20.5 | 12.0 | 52.0 | 16.5 | * 21 | | | | |
| Max Q Clear Time (g_c+l1), s | 5.1 | 29.7 | 7.0 | 12.9 | 8.7 | 2.0 | 10.8 | 10.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 8.3 | 0.0 | 0.3 | 0.0 | 25.3 | 0.3 | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 22.4 | | | | | | | | |
| HCM 6th LOS | | | | C | | | | | | | | |
| Notes | | | | | | | | | | | | |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | | | | | | | |

Lanes, Volumes, Timings
3: College St SE & 3rd Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| Traffic Volume (vph) | 178 | 13 | 414 | 6 | 0 | 53 | 16 | 1326 | 7 | 13 | 1245 | 27 |
| Future Volume (vph) | 178 | 13 | 414 | 6 | 0 | 53 | 16 | 1326 | 7 | 13 | 1245 | 27 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 0% | | | 0% | | | 0% | | | -3% | | |
| Storage Length (ft) | 125 | | 0 | 75 | | 0 | 125 | | 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) | | 30 | | | 30 | | | 35 | | | 35 | |
| Link Distance (ft) | | 387 | | | 275 | | | 822 | | | 353 | |
| Travel Time (s) | | 8.8 | | | 6.3 | | | 16.0 | | | 6.9 | |
| Confl. Peds. (#/hr) | 1 | | | | 1 | 2 | | | | | 2 | |
| 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% | 0% | 0% | 0% | 2% | 2% | 2% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Perm | NA | |
| Protected Phases | | 8 | | | 4 | | | 2 | | | 6 | |
| Permitted Phases | 8 | | | 4 | | | 2 | | | 6 | | |
| Detector Phase | 8 | 8 | | 4 | 4 | | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 25.0 | 25.0 | | 24.5 | 24.5 | | 21.0 | 21.0 | | 20.0 | 20.0 | |
| Total Split (s) | 45.0 | 45.0 | | 45.0 | 45.0 | | 75.0 | 75.0 | | 75.0 | 75.0 | |
| Total Split (%) | 37.5% | 37.5% | | 37.5% | 37.5% | | 62.5% | 62.5% | | 62.5% | 62.5% | |
| Yellow Time (s) | 3.0 | 3.0 | | 3.5 | 3.5 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| 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) | 4.0 | 4.0 | | 4.5 | 4.5 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | | None | None | | C-Min | C-Min | | C-Min | C-Min | |

Intersection Summary

Area Type: Other

Cycle Length: 120

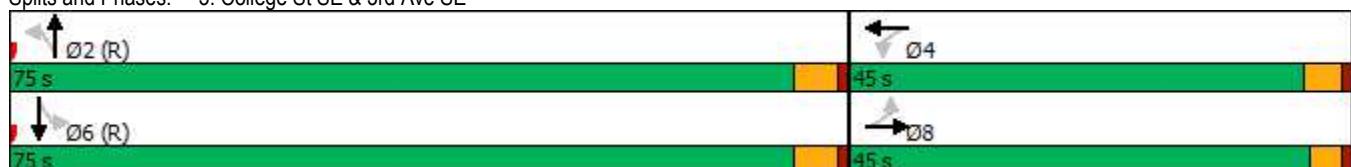
Actuated Cycle Length: 120

Offset: 117 (98%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 3: College St SE & 3rd Ave SE



HCM 6th Signalized Intersection Summary

3: College St SE & 3rd Ave SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------------|------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Configurations | ↑ ↗ | ↑ ↘ | | ↑ ↗ | ↑ ↘ | | ↑ ↗ | ↑ ↘ | | ↑ ↗ | ↑ ↘ | |
| Traffic Volume (veh/h) | 178 | 13 | 414 | 6 | 0 | 53 | 16 | 1326 | 7 | 13 | 1245 | 27 |
| Future Volume (veh/h) | 178 | 13 | 414 | 6 | 0 | 53 | 16 | 1326 | 7 | 13 | 1245 | 27 |
| Initial Q (Q _b), 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 | 1900 | 1900 | 1900 | 1870 | 1870 | 1870 | 2003 | 2003 | 2003 |
| Adj Flow Rate, veh/h | 198 | 14 | 460 | 7 | 0 | 59 | 18 | 1473 | 8 | 14 | 1383 | 30 |
| 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 | 0 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 1 |
| Cap, veh/h | 450 | 15 | 489 | 85 | 0 | 506 | 205 | 2198 | 12 | 291 | 2310 | 50 |
| Arrive On Green | 0.31 | 0.31 | 0.31 | 0.31 | 0.00 | 0.31 | 1.00 | 1.00 | 1.00 | 0.61 | 0.61 | 0.61 |
| Sat Flow, veh/h | 1354 | 47 | 1556 | 934 | 0 | 1609 | 380 | 3624 | 20 | 382 | 3808 | 83 |
| Grp Volume(v), veh/h | 198 | 0 | 474 | 7 | 0 | 59 | 18 | 722 | 759 | 14 | 691 | 722 |
| Grp Sat Flow(s), veh/h/ln | 1354 | 0 | 1603 | 934 | 0 | 1609 | 380 | 1777 | 1867 | 382 | 1903 | 1988 |
| Q Serve(g_s), s | 14.6 | 0.0 | 34.5 | 0.9 | 0.0 | 3.1 | 2.3 | 0.0 | 0.0 | 1.8 | 26.9 | 27.0 |
| Cycle Q Clear(g_c), s | 17.8 | 0.0 | 34.5 | 35.4 | 0.0 | 3.1 | 29.2 | 0.0 | 0.0 | 1.8 | 26.9 | 27.0 |
| Prop In Lane | 1.00 | | 0.97 | 1.00 | | 1.00 | 1.00 | | 0.01 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 450 | 0 | 504 | 85 | 0 | 506 | 205 | 1078 | 1132 | 291 | 1154 | 1206 |
| V/C Ratio(X) | 0.44 | 0.00 | 0.94 | 0.08 | 0.00 | 0.12 | 0.09 | 0.67 | 0.67 | 0.05 | 0.60 | 0.60 |
| Avail Cap(c_a), veh/h | 487 | 0 | 548 | 106 | 0 | 543 | 205 | 1078 | 1132 | 291 | 1154 | 1206 |
| 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 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.81 | 0.81 | 0.81 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.6 | 0.0 | 40.1 | 57.3 | 0.0 | 29.3 | 5.4 | 0.0 | 0.0 | 9.6 | 14.6 | 14.6 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 22.9 | 0.3 | 0.0 | 0.1 | 0.7 | 2.7 | 2.6 | 0.3 | 2.3 | 2.2 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 4.9 | 0.0 | 16.6 | 0.2 | 0.0 | 1.2 | 0.2 | 0.8 | 0.8 | 0.2 | 11.6 | 12.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 35.9 | 0.0 | 63.0 | 57.6 | 0.0 | 29.4 | 6.1 | 2.7 | 2.6 | 10.0 | 16.9 | 16.8 |
| LnGrp LOS | D | A | E | E | A | C | A | A | A | A | B | B |
| Approach Vol, veh/h | 672 | | | | 66 | | | 1499 | | | 1427 | |
| Approach Delay, s/veh | 55.0 | | | | 32.4 | | | 2.7 | | | 16.8 | |
| Approach LOS | D | | | | C | | | A | | | B | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | | 8 | | | | | |
| Phs Duration (G+Y+Rc), s | 77.8 | | 42.2 | | 77.8 | | 42.2 | | | | | |
| Change Period (Y+Rc), s | 5.0 | | 4.5 | | 5.0 | | * 4.5 | | | | | |
| Max Green Setting (Gmax), s | 70.0 | | 40.5 | | 70.0 | | * 41 | | | | | |
| Max Q Clear Time (g_c+l1), s | 31.2 | | 37.4 | | 29.0 | | 36.5 | | | | | |
| Green Ext Time (p_c), s | 17.3 | | 0.0 | | 16.3 | | 1.2 | | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 18.3 |
| HCM 6th LOS | B |

Notes

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

Lanes, Volumes, Timings

4: I-5 SB & Martin Way E

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-------|------|------|------|------|------|-------|-------|-------|
| Lane Configurations | | ↑↑ | ↑ | ↑ | ↑↑ | | | | | ↓ | ↓ | ↑ |
| Traffic Volume (vph) | 0 | 1585 | 368 | 431 | 847 | 0 | 0 | 0 | 0 | 71 | 1 | 719 |
| Future Volume (vph) | 0 | 1585 | 368 | 431 | 847 | 0 | 0 | 0 | 0 | 71 | 1 | 719 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | -3% | | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 0 | | 450 | 0 | | 0 | 0 | | 0 | 0 | | 100 |
| Storage Lanes | 0 | | 1 | 1 | | 0 | 0 | | 0 | 0 | | 1 |
| 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) | | 704 | | | 851 | | | 421 | | | 509 | |
| Travel Time (s) | | 13.7 | | | 16.6 | | | 9.6 | | | 11.6 | |
| Confl. Peds. (#/hr) | 2 | | | | 2 | | | | | | | |
| 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 0% | 0% | 0% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | | NA | Perm | Prot | NA | | | | | Perm | NA | Prot |
| Protected Phases | | 6 | | 5 | 2 | | | | | | 8 | 8 |
| Permitted Phases | | | 6 | | | | | | | | 8 | |
| Detector Phase | | 6 | 6 | 5 | 2 | | | | | 8 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 6.0 | | | | | | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 29.5 | 29.5 | 11.5 | 23.5 | | | | | | 32.0 | 32.0 | 32.0 |
| Total Split (s) | 50.0 | 50.0 | 38.0 | 73.0 | | | | | | 32.0 | 32.0 | 32.0 |
| Total Split (%) | 41.7% | 41.7% | 31.7% | 60.8% | | | | | | 26.7% | 26.7% | 26.7% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | | | | | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 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 |
| Total Lost Time (s) | 5.5 | 5.5 | 5.5 | 5.5 | | | | | | 4.0 | 4.0 | |
| Lead/Lag | Lag | Lag | Lead | | | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | | | | | | |
| Recall Mode | C-Min | C-Min | None | C-Min | | | | | | None | None | None |

Intersection Summary

Area Type: Other

Cycle Length: 120

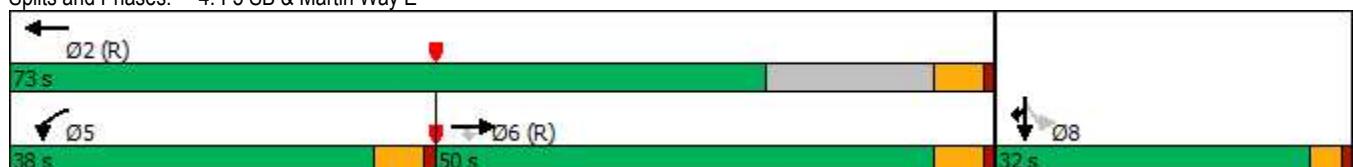
Actuated Cycle Length: 120

Offset: 115 (96%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 4: I-5 SB & Martin Way E



HCM 6th Signalized Intersection Summary

4: I-5 SB & Martin Way E

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|------|-------|-------|------|------|------|-----|-----|------|------|-------|-------|
| Lane Configurations | | ↑↑ | ↑ | ↑↑ | | | | | | ↓ | ↓ | ↑ |
| Traffic Volume (veh/h) | 0 | 1585 | 368 | 431 | 847 | 0 | 0 | 0 | 0 | 71 | 1 | 719 |
| Future Volume (veh/h) | 0 | 1585 | 368 | 431 | 847 | 0 | 0 | 0 | 0 | 71 | 1 | 719 |
| Initial Q (Q _b) veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | No | | | | | | No | | |
| Adj Sat Flow, veh/h/ln | 0 | 1988 | 1988 | 1870 | 1870 | 0 | | | | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 0 | 1761 | 409 | 479 | 941 | 0 | | | | 79 | 1 | 799 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | | | | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 0 | 2 | 2 | 2 | 2 | 0 | | | | 2 | 2 | 2 |
| Cap, veh/h | 0 | 1401 | 625 | 482 | 2443 | 0 | | | | 411 | 5 | 370 |
| Arrive On Green | 0.00 | 0.37 | 0.37 | 0.09 | 0.23 | 0.00 | | | | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 0 | 3877 | 1685 | 1781 | 3647 | 0 | | | | 1760 | 22 | 1585 |
| Grp Volume(v), veh/h | 0 | 1761 | 409 | 479 | 941 | 0 | | | | 80 | 0 | 799 |
| Grp Sat Flow(s), veh/h/ln | 0 | 1889 | 1685 | 1781 | 1777 | 0 | | | | 1782 | 0 | 1585 |
| Q Serve(g_s), s | 0.0 | 44.5 | 24.2 | 32.2 | 26.9 | 0.0 | | | | 4.3 | 0.0 | 28.0 |
| Cycle Q Clear(g_c), s | 0.0 | 44.5 | 24.2 | 32.2 | 26.9 | 0.0 | | | | 4.3 | 0.0 | 28.0 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 0.99 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1401 | 625 | 482 | 2443 | 0 | | | | 416 | 0 | 370 |
| V/C Ratio(X) | 0.00 | 1.26 | 0.65 | 0.99 | 0.39 | 0.00 | | | | 0.19 | 0.00 | 2.16 |
| Avail Cap(c_a), veh/h | 0 | 1401 | 625 | 482 | 2443 | 0 | | | | 416 | 0 | 370 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 0.00 | 1.00 | 1.00 | 0.09 | 0.09 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 37.8 | 31.4 | 54.5 | 24.9 | 0.0 | | | | 36.9 | 0.0 | 46.0 |
| Incr Delay (d2), s/veh | 0.0 | 121.7 | 5.3 | 10.7 | 0.0 | 0.0 | | | | 0.3 | 0.0 | 531.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 0.0 | 43.5 | 10.6 | 16.8 | 12.8 | 0.0 | | | | 1.9 | 0.0 | 65.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 0.0 | 159.5 | 36.6 | 65.2 | 24.9 | 0.0 | | | | 37.2 | 0.0 | 577.1 |
| LnGrp LOS | A | F | D | E | C | A | | | | D | A | F |
| Approach Vol, veh/h | | 2170 | | | 1420 | | | | | | 879 | |
| Approach Delay, s/veh | | 136.3 | | | 38.5 | | | | | | 527.9 | |
| Approach LOS | | F | | | D | | | | | | F | |
| Timer - Assigned Phs | | 2 | | | 5 | 6 | | | 8 | | | |
| Phs Duration (G+Y+Rc), s | | 88.0 | | | 38.0 | 50.0 | | | 32.0 | | | |
| Change Period (Y+Rc), s | | 5.5 | | | 5.5 | 5.5 | | | 4.0 | | | |
| Max Green Setting (Gmax), s | | 67.5 | | | 32.5 | 44.5 | | | 28.0 | | | |
| Max Q Clear Time (g_c+l1), s | | 28.9 | | | 34.2 | 46.5 | | | 30.0 | | | |
| Green Ext Time (p_c), s | | 9.3 | | | 0.0 | 0.0 | | | 0.0 | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 182.3 | | | | | | | | | |
| HCM 6th LOS | | | F | | | | | | | | | |

Lanes, Volumes, Timings

5: I-5 NB & Martin Way E

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|------|------|-------|-------|-------|-------|-------|------|------|------|
| Lane Configurations | ↑ | ↑↑ | | | ↑↑ | ↑ | ↑ | ↑ | ↑ | | | |
| Traffic Volume (vph) | 691 | 964 | 0 | 0 | 1259 | 87 | 19 | 1 | 720 | 0 | 0 | 0 |
| Future Volume (vph) | 691 | 964 | 0 | 0 | 1259 | 87 | 19 | 1 | 720 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 575 | | 0 | 0 | | 475 | 0 | | 0 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 1 | 0 | | 1 | 0 | | 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) | | 851 | | | 629 | | | 630 | | | 582 | |
| Travel Time (s) | | 16.6 | | | 12.3 | | | 14.3 | | | 13.2 | |
| Confl. Peds. (#/hr) | 4 | | | | 4 | | | 2 | 2 | | | |
| 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 1% | 1% | 1% | 0% | 0% | 0% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | | NA | Perm | Perm | NA | Perm | | | |
| Protected Phases | 1 | 6 | | | 2 | | | 4 | | | | |
| Permitted Phases | | | | | | 2 | 4 | | 4 | | | |
| Detector Phase | 1 | 6 | | | 2 | 2 | 4 | 4 | 4 | | | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 6.0 | | | 6.0 | 6.0 | 4.0 | 4.0 | 4.0 | | | |
| Minimum Split (s) | 15.5 | 18.5 | | | 19.5 | 19.5 | 29.0 | 29.0 | 29.0 | | | |
| Total Split (s) | 42.0 | 90.0 | | | 48.0 | 48.0 | 30.0 | 30.0 | 30.0 | | | |
| Total Split (%) | 35.0% | 75.0% | | | 40.0% | 40.0% | 25.0% | 25.0% | 25.0% | | | |
| Yellow Time (s) | 4.5 | 4.5 | | | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | | | |
| All-Red Time (s) | 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 | | | |
| Total Lost Time (s) | 5.5 | 5.5 | | | 5.5 | 5.5 | | 4.0 | 4.0 | | | |
| Lead/Lag | Lead | | | | Lag | Lag | | | | | | |
| Lead-Lag Optimize? | Yes | | | | Yes | Yes | | | | | | |
| Recall Mode | None | C-Min | | | C-Min | C-Min | Max | Max | Max | | | |

Intersection Summary

Area Type: Other

Cycle Length: 120

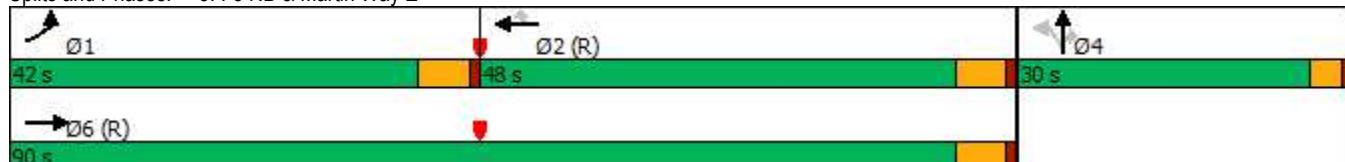
Actuated Cycle Length: 120

Offset: 54 (45%), Referenced to phase 2:WBT and 6:EBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 5: I-5 NB & Martin Way E



HCM 6th Signalized Intersection Summary

5: I-5 NB & Martin Way E

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|-------|-------|------|------|-------|------|------|------|------|-----|-----|-----|
| Lane Configurations | ↑ | ↑↑ | | | ↑↑ | ↑ | | ↑ | ↑ | | | |
| Traffic Volume (veh/h) | 691 | 964 | 0 | 0 | 1259 | 87 | 19 | 1 | 720 | 0 | 0 | 0 |
| Future Volume (veh/h) | 691 | 964 | 0 | 0 | 1259 | 87 | 19 | 1 | 720 | 0 | 0 | 0 |
| Initial Q (Q _b) veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 0 | 0 | 1870 | 1870 | 1885 | 1885 | 1885 | | | |
| Adj Flow Rate, veh/h | 768 | 1071 | 0 | 0 | 1399 | 0 | 21 | 1 | 0 | | | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | | | |
| Percent Heavy Veh, % | 2 | 2 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | | | |
| Cap, veh/h | 542 | 2502 | 0 | 0 | 1259 | | 372 | 18 | | | | |
| Arrive On Green | 0.30 | 0.70 | 0.00 | 0.00 | 0.35 | 0.00 | 0.22 | 0.22 | 0.00 | | | |
| Sat Flow, veh/h | 1781 | 3647 | 0 | 0 | 3647 | 1585 | 1718 | 82 | 1598 | | | |
| Grp Volume(v), veh/h | 768 | 1071 | 0 | 0 | 1399 | 0 | 22 | 0 | 0 | | | |
| Grp Sat Flow(s), veh/h/ln | 1781 | 1777 | 0 | 0 | 1777 | 1585 | 1799 | 0 | 1598 | | | |
| Q Serve(g_s), s | 36.5 | 15.3 | 0.0 | 0.0 | 42.5 | 0.0 | 1.2 | 0.0 | 0.0 | | | |
| Cycle Q Clear(g_c), s | 36.5 | 15.3 | 0.0 | 0.0 | 42.5 | 0.0 | 1.2 | 0.0 | 0.0 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 0.95 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 542 | 2502 | 0 | 0 | 1259 | | 390 | 0 | | | | |
| V/C Ratio(X) | 1.42 | 0.43 | 0.00 | 0.00 | 1.11 | | 0.06 | 0.00 | | | | |
| Avail Cap(c_a), veh/h | 542 | 2502 | 0 | 0 | 1259 | | 390 | 0 | | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(l) | 0.09 | 0.09 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | | | |
| Uniform Delay (d), s/veh | 41.8 | 7.5 | 0.0 | 0.0 | 38.8 | 0.0 | 37.3 | 0.0 | 0.0 | | | |
| Incr Delay (d2), s/veh | 188.9 | 0.0 | 0.0 | 0.0 | 61.8 | 0.0 | 0.3 | 0.0 | 0.0 | | | |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%), veh/ln | 44.1 | 5.2 | 0.0 | 0.0 | 28.7 | 0.0 | 0.5 | 0.0 | 0.0 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 230.6 | 7.6 | 0.0 | 0.0 | 100.5 | 0.0 | 37.5 | 0.0 | 0.0 | | | |
| LnGrp LOS | F | A | A | A | F | | D | A | | | | |
| Approach Vol, veh/h | | 1839 | | | 1399 | | | 22 | | | | |
| Approach Delay, s/veh | | 100.7 | | | 100.5 | | | 37.5 | | | | |
| Approach LOS | | F | | | F | | | D | | | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 42.0 | 48.0 | | 30.0 | | 90.0 | | | | | | |
| Change Period (Y+Rc), s | 5.5 | 5.5 | | 4.0 | | 5.5 | | | | | | |
| Max Green Setting (Gmax), s | 36.5 | 42.5 | | 26.0 | | 84.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 38.5 | 44.5 | | 3.2 | | 17.3 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | 0.1 | | 12.1 | | | | | | |

Intersection Summary

HCM 6th Ctrl Delay 100.2

HCM 6th LOS F

Notes

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

Lanes, Volumes, Timings
6: College St SE & Pacific Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|-------|-------|-------|-------|-------|------|------|-------|------|
| Lane Configurations | | | | ↑ | ↑↑↑ | ↑ | ↑ | ↑↑ | | | ↑↑ | |
| Traffic Volume (vph) | 0 | 0 | 0 | 275 | 722 | 577 | 183 | 593 | 0 | 0 | 1670 | 92 |
| Future Volume (vph) | 0 | 0 | 0 | 275 | 722 | 577 | 183 | 593 | 0 | 0 | 1670 | 92 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 275 | 125 | | 0 | 0 | 0 | 0 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | 0 | 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) | | 349 | | | 497 | | | | 526 | | 1040 | |
| Travel Time (s) | | 6.8 | | | 9.7 | | | | 14.3 | | 28.4 | |
| Confl. Peds. (#/hr) | 4 | | 1 | 1 | | 4 | | | | | | |
| 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 (%) | 0% | 0% | 0% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | | | | Perm | NA | Perm | Prot | NA | | | NA | |
| Protected Phases | | | | | 2 | | | 7 | 4 | | 8 | |
| Permitted Phases | | | | 2 | | 2 | | | | | | |
| Detector Phase | | | | 2 | 2 | 2 | 7 | 4 | | | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 6.0 | 6.0 | 6.0 | 4.0 | 6.0 | | | 6.0 | |
| Minimum Split (s) | | | | 24.0 | 24.0 | 24.0 | 9.0 | 26.0 | | | 20.0 | |
| Total Split (s) | | | | 27.0 | 27.0 | 27.0 | 21.0 | 93.0 | | | 72.0 | |
| Total Split (%) | | | | 22.5% | 22.5% | 22.5% | 17.5% | 77.5% | | | 60.0% | |
| Yellow Time (s) | | | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | | | | 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 | |
| Total Lost Time (s) | | | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | Lead | | | | Lag | |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | |
| Recall Mode | | | | None | None | None | None | C-Min | | | C-Min | |

Intersection Summary

Area Type: Other

Cycle Length: 120

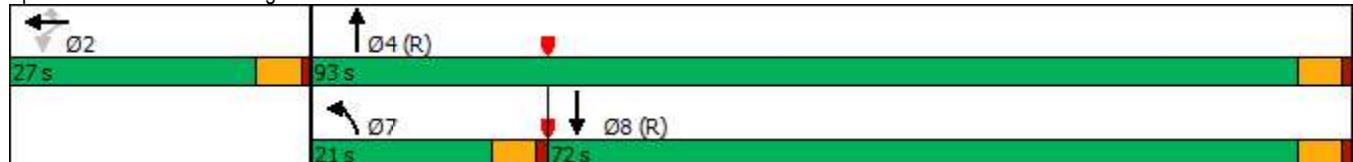
Actuated Cycle Length: 120

Offset: 33 (28%), Referenced to phase 4:NBT and 8:SBT, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Splits and Phases: 6: College St SE & Pacific Ave SE



HCM 6th Signalized Intersection Summary

6: College St SE & Pacific Ave SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------------|-----|-----|-----|-------|------|-------|------|------|------|------|------|------|
| Lane Configurations | | | | ↑ | ↑↑↑ | ↑ | ↑ | ↑↑ | | ↑↑ | ↑↑ | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 275 | 722 | 577 | 183 | 593 | 0 | 0 | 1670 | 92 |
| Future Volume (veh/h) | 0 | 0 | 0 | 275 | 722 | 577 | 183 | 593 | 0 | 0 | 1670 | 92 |
| Initial Q (Q _b) veh | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | | | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | | | | No | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 306 | 802 | 641 | 203 | 659 | 0 | 0 | 1856 | 102 |
| Peak Hour Factor | | | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 327 | 936 | 289 | 229 | 2606 | 0 | 0 | 1929 | 105 |
| Arrive On Green | | | | 0.18 | 0.18 | 0.18 | 0.13 | 0.73 | 0.00 | 0.00 | 1.00 | 1.00 |
| Sat Flow, veh/h | | | | 1781 | 5106 | 1575 | 1781 | 3647 | 0 | 0 | 3521 | 187 |
| Grp Volume(v), veh/h | | | | 306 | 802 | 641 | 203 | 659 | 0 | 0 | 954 | 1004 |
| Grp Sat Flow(s), veh/h/ln | | | | 1781 | 1702 | 1575 | 1781 | 1777 | 0 | 0 | 1777 | 1837 |
| Q Serve(g_s), s | | | | 20.3 | 18.3 | 22.0 | 13.4 | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | | | | 20.3 | 18.3 | 22.0 | 13.4 | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 0.10 |
| Lane Grp Cap(c), veh/h | | | | 327 | 936 | 289 | 229 | 2606 | 0 | 0 | 1000 | 1034 |
| V/C Ratio(X) | | | | 0.94 | 0.86 | 2.22 | 0.88 | 0.25 | 0.00 | 0.00 | 0.95 | 0.97 |
| Avail Cap(c_a), veh/h | | | | 327 | 936 | 289 | 238 | 2606 | 0 | 0 | 1000 | 1034 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(l) | | | | 1.00 | 1.00 | 1.00 | 0.20 | 0.20 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 48.3 | 47.5 | 49.0 | 51.4 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | | | | 33.8 | 8.0 | 560.3 | 7.9 | 0.0 | 0.0 | 0.0 | 19.3 | 21.9 |
| Initial Q Delay(d3), s/veh | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | | | | 12.0 | 8.3 | 53.4 | 6.5 | 2.5 | 0.0 | 0.0 | 5.4 | 6.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | | | | 82.2 | 55.5 | 609.3 | 59.3 | 5.3 | 0.0 | 0.0 | 19.3 | 21.9 |
| LnGrp LOS | | | | F | E | F | E | A | A | A | B | C |
| Approach Vol, veh/h | | | | | | 1749 | | | 862 | | | 1958 |
| Approach Delay, s/veh | | | | | | 263.1 | | | 18.0 | | | 20.6 |
| Approach LOS | | | | | | F | | | B | | | C |
| Timer - Assigned Phs | | | | 2 | | 4 | | 7 | 8 | | | |
| Phs Duration (G+Y+Rc), s | | | | 27.0 | | 93.0 | | 20.5 | 72.5 | | | |
| Change Period (Y+Rc), s | | | | 5.0 | | 5.0 | | 5.0 | 5.0 | | | |
| Max Green Setting (Gmax), s | | | | 22.0 | | 88.0 | | 16.0 | 67.0 | | | |
| Max Q Clear Time (g_c+l1), s | | | | 24.0 | | 9.3 | | 15.4 | 2.0 | | | |
| Green Ext Time (p_c), s | | | | 0.0 | | 6.8 | | 0.0 | 39.4 | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 112.9 | | | | | | | | |
| HCM 6th LOS | | | | F | | | | | | | | |

Lanes, Volumes, Timings
7: College St SE & Lacey Blvd SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|------|------|------|------|------|-------|------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 105 | 1038 | 333 | 0 | 0 | 0 | 0 | 639 | 132 | 773 | 963 | 0 |
| Future Volume (vph) | 105 | 1038 | 333 | 0 | 0 | 0 | 0 | 639 | 132 | 773 | 963 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 225 | 0 | 0 |
| Storage Lanes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 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) | | 550 | | | 453 | | | 378 | | | 526 | |
| Travel Time (s) | | 10.7 | | | | 8.8 | | | 10.3 | | | 14.3 |
| Confl. Peds. (#/hr) | 3 | | | | | 3 | | | | | | |
| 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% | 0% | 0% | 0% | 3% | 3% | 3% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Perm | NA | | | | | | NA | | Prot | NA | |
| Protected Phases | | 6 | | | | | | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | | | | | | | | | | |
| Detector Phase | 6 | 6 | | | | | | 4 | | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | | | | | | 6.0 | | 6.0 | 6.0 | |
| Minimum Split (s) | 28.0 | 28.0 | | | | | | 22.0 | | 11.0 | 20.0 | |
| Total Split (s) | 43.0 | 43.0 | | | | | | 31.0 | | 46.0 | 77.0 | |
| Total Split (%) | 35.8% | 35.8% | | | | | | 25.8% | | 38.3% | 64.2% | |
| Yellow Time (s) | 4.0 | 4.0 | | | | | | 4.0 | | 4.0 | 4.0 | |
| 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 | |
| Total Lost Time (s) | | 5.0 | | | | | | 5.0 | | 5.0 | 5.0 | |
| Lead/Lag | | | | | | | | Lag | | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | | Yes | | |
| Recall Mode | None | None | | | | | | None | | C-Min | C-Min | |

Intersection Summary

Area Type: Other

Cycle Length: 120

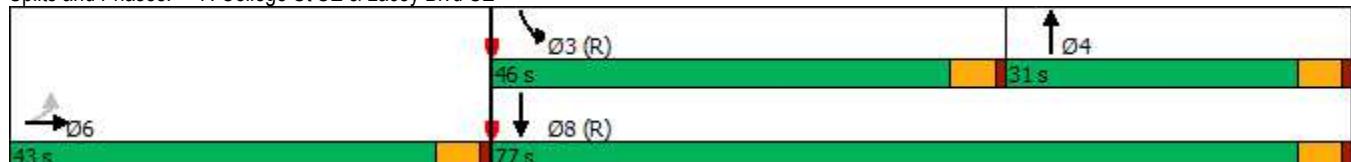
Actuated Cycle Length: 120

Offset: 36 (30%), Referenced to phase 3:SBL and 8:SBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 7: College St SE & Lacey Blvd SE



HCM 6th Signalized Intersection Summary

7: College St SE & Lacey Blvd SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------------|------|------|------|-----|------|-----|------|-------|-------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 105 | 1038 | 333 | 0 | 0 | 0 | 0 | 639 | 132 | 773 | 963 | 0 |
| Future Volume (veh/h) | 105 | 1038 | 333 | 0 | 0 | 0 | 0 | 639 | 132 | 773 | 963 | 0 |
| Initial Q (Q _b), veh | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | | | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | | | | No | | No | | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1885 | | | | 0 | 1856 | 1856 | 1885 | 1885 | 0 |
| Adj Flow Rate, veh/h | 117 | 1153 | 370 | | | | 0 | 710 | 147 | 859 | 1070 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | | | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 1 | 1 | 1 | | | | 0 | 3 | 3 | 1 | 1 | 0 |
| Cap, veh/h | 112 | 1162 | 387 | | | | 0 | 630 | 130 | 1190 | 2149 | 0 |
| Arrive On Green | 0.32 | 0.32 | 0.32 | | | | 0.00 | 0.22 | 0.22 | 0.68 | 1.00 | 0.00 |
| Sat Flow, veh/h | 353 | 3668 | 1223 | | | | 0 | 3001 | 602 | 3483 | 3676 | 0 |
| Grp Volume(v), veh/h | 620 | 518 | 502 | | | | 0 | 430 | 427 | 859 | 1070 | 0 |
| Grp Sat Flow(s), veh/h/ln | 1868 | 1716 | 1661 | | | | 0 | 1763 | 1747 | 1742 | 1791 | 0 |
| Q Serve(g_s), s | 38.0 | 35.5 | 35.6 | | | | 0.0 | 26.0 | 26.0 | 18.5 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 38.0 | 35.5 | 35.6 | | | | 0.0 | 26.0 | 26.0 | 18.5 | 0.0 | 0.0 |
| Prop In Lane | 0.19 | | 0.74 | | | | 0.00 | | 0.34 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 591 | 543 | 526 | | | | 0 | 382 | 379 | 1190 | 2149 | 0 |
| V/C Ratio(X) | 1.05 | 0.95 | 0.96 | | | | 0.00 | 1.13 | 1.13 | 0.72 | 0.50 | 0.00 |
| Avail Cap(c_a), veh/h | 591 | 543 | 526 | | | | 0 | 382 | 379 | 1190 | 2149 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.13 | 0.13 | 0.00 |
| Uniform Delay (d), s/veh | 41.0 | 40.1 | 40.2 | | | | 0.0 | 47.0 | 47.0 | 15.4 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 50.2 | 27.4 | 28.3 | | | | 0.0 | 85.0 | 85.5 | 0.3 | 0.1 | 0.0 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 25.3 | 18.7 | 18.3 | | | | 0.0 | 20.4 | 20.3 | 4.6 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 91.2 | 67.5 | 68.5 | | | | 0.0 | 132.0 | 132.5 | 15.7 | 0.1 | 0.0 |
| LnGrp LOS | F | E | E | | | | A | F | F | B | A | A |
| Approach Vol, veh/h | 1640 | | | | | | | 857 | | | 1929 | |
| Approach Delay, s/veh | 76.7 | | | | | | | 132.3 | | | 7.1 | |
| Approach LOS | | E | | | | | | | F | | A | |
| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
| Phs Duration (G+Y+Rc), s | | 46.0 | 31.0 | | 43.0 | | 77.0 | | | | | |
| Change Period (Y+Rc), s | | 5.0 | 5.0 | | 5.0 | | 5.0 | | | | | |
| Max Green Setting (Gmax), s | | 41.0 | 26.0 | | 38.0 | | 72.0 | | | | | |
| Max Q Clear Time (g_c+l1), s | | 20.5 | 28.0 | | 40.0 | | 2.0 | | | | | |
| Green Ext Time (p_c), s | | 4.2 | 0.0 | | 0.0 | | 13.6 | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 57.1 | | | | | | | | | |
| HCM 6th LOS | | | E | | | | | | | | | |

Lanes, Volumes, Timings
8: Golf Club Rd SE & 7th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | | ↑ | ↑ | | ↑ | ↑ | |
| Traffic Volume (vph) | 1 | 104 | 82 | 70 | 198 | 0 | 103 | 0 | 80 | 0 | 0 | 0 |
| Future Volume (vph) | 1 | 104 | 82 | 70 | 198 | 0 | 103 | 0 | 80 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 50 | | | 75 | | | 0 | 0 | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 1 | | 0 | 0 | | 0 | 0 | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Link Speed (mph) | | 25 | | | 25 | | | 30 | | | 30 | |
| Link Distance (ft) | | 444 | | | 260 | | | 250 | | | 196 | |
| Travel Time (s) | | 12.1 | | | 7.1 | | | 5.7 | | | 4.5 | |
| Confl. Peds. (#/hr) | 5 | | 1 | 1 | | 5 | 2 | | 1 | 1 | | 2 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 4% | 4% | 4% | 2% | 2% | 2% | 1% | 1% | 1% | 0% | 0% | 0% |
| Parking (#/hr) | | | | | 0 | | | 0 | | | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection

Int Delay, s/veh 5.4

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | | | ↔ | | ↔ | ↔ | |
| Traffic Vol, veh/h | 1 | 104 | 82 | 70 | 198 | 0 | 103 | 0 | 80 | 0 | 0 | 0 |
| Future Vol, veh/h | 1 | 104 | 82 | 70 | 198 | 0 | 103 | 0 | 80 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 5 | 0 | 1 | 1 | 0 | 5 | 2 | 0 | 1 | 1 | 0 | 2 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None |
| Storage Length | 50 | - | - | 75 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 4 | 4 | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 121 | 95 | 81 | 230 | 0 | 120 | 0 | 93 | 0 | 0 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor1 | | Minor2 | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|-------|
| | Major | Minor | Major | Minor | Major | Minor | Major | Minor |
| Conflicting Flow All | 235 | 0 | 0 | 217 | 0 | 0 | 566 | 569 |
| Stage 1 | - | - | - | - | - | - | 172 | 172 |
| Stage 2 | - | - | - | - | - | - | 394 | 397 |
| Critical Hdwy | 4.14 | - | - | 4.12 | - | - | 7.11 | 6.51 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.11 | 5.51 |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.11 | 5.51 |
| Follow-up Hdwy | 2.236 | - | - | 2.218 | - | - | 3.509 | 4.009 |
| Pot Cap-1 Maneuver | 1321 | - | - | 1353 | - | - | 436 | 433 |
| Stage 1 | - | - | - | - | - | - | 832 | 758 |
| Stage 2 | - | - | - | - | - | - | 633 | 605 |
| Platoon blocked, % | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1315 | - | - | 1352 | - | - | 415 | 404 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 415 | 404 |
| Stage 1 | - | - | - | - | - | - | 830 | 756 |
| Stage 2 | - | - | - | - | - | - | 594 | 566 |

| Approach | EB | WB | NB | SB |
|----------------------|----|----|----|----|
| HCM Control Delay, s | 0 | 2 | 16 | 0 |
| HCM LOS | | | C | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|
| Capacity (veh/h) | 539 | 1315 | - | - | 1352 | - | - | - |
| HCM Lane V/C Ratio | 0.395 | 0.001 | - | - | 0.06 | - | - | - |
| HCM Control Delay (s) | 16 | 7.7 | - | - | 7.8 | - | - | 0 |
| HCM Lane LOS | C | A | - | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 1.9 | 0 | - | - | 0.2 | - | - | - |

Lanes, Volumes, Timings
9: 7th Ave SE & Golf Club PI SE

04/21/2023



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-----------------------------|--------------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| Traffic Volume (vph) | 50 | 123 | 140 | 190 | 111 | 34 |
| Future Volume (vph) | 50 | 123 | 140 | 190 | 111 | 34 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 125 | | | 0 | 100 | 0 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Link Speed (mph) | | 25 | 25 | | | 30 |
| Link Distance (ft) | | 456 | 444 | | | 529 |
| Travel Time (s) | | 12.4 | 12.1 | | | 12.0 |
| Confl. Peds. (#/hr) | 14 | | | 14 | 3 | 2 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 15% | 15% | 8% | 8% | 10% | 10% |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |

Intersection

Int Delay, s/veh 3.5

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑ ↗ | ↑ ↗ | ↗ ↘ | | ↑ ↗ | ↑ ↗ |
| Traffic Vol, veh/h | 50 | 123 | 140 | 190 | 111 | 34 |
| Future Vol, veh/h | 50 | 123 | 140 | 190 | 111 | 34 |
| Conflicting Peds, #/hr | 14 | 0 | 0 | 14 | 3 | 2 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | - | - | - | 100 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 15 | 15 | 8 | 8 | 10 | 10 |
| Mvmt Flow | 56 | 137 | 156 | 211 | 123 | 38 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 381 | 0 | - | 0 | 528 |
| Stage 1 | - | - | - | - | 276 |
| Stage 2 | - | - | - | - | 252 |
| Critical Hdwy | 4.25 | - | - | - | 6.5 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.5 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.5 |
| Follow-up Hdwy | 2.335 | - | - | - | 3.39 |
| Pot Cap-1 Maneuver | 1110 | - | - | - | 497 |
| Stage 1 | - | - | - | - | 752 |
| Stage 2 | - | - | - | - | 772 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1095 | - | - | - | 459 |
| Mov Cap-2 Maneuver | - | - | - | - | 543 |
| Stage 1 | - | - | - | - | 705 |
| Stage 2 | - | - | - | - | 762 |

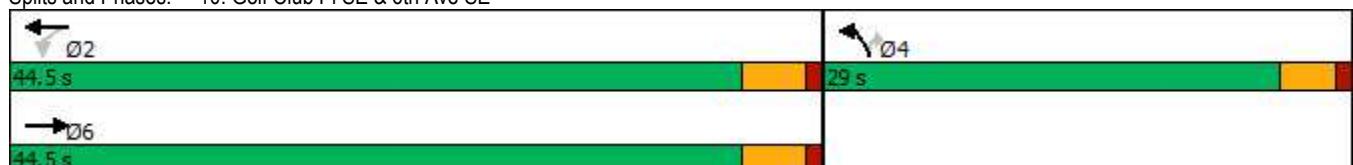
| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 2.4 | 0 | 12.8 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1095 | - | - | - | 543 | 731 |
| HCM Lane V/C Ratio | 0.051 | - | - | - | 0.227 | 0.052 |
| HCM Control Delay (s) | 8.5 | - | - | - | 13.6 | 10.2 |
| HCM Lane LOS | A | - | - | - | B | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.9 | 0.2 |



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------------------------|------|-------|-------|-------|-------|
| Lane Configurations | ↑ | | ↑ | ↑ | ↑ | ↑ |
| Traffic Volume (vph) | 184 | 74 | 66 | 294 | 172 | 62 |
| Future Volume (vph) | 184 | 74 | 66 | 294 | 172 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | | 0 | 100 | | 50 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Right Turn on Red | | Yes | | | | Yes |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 294 | | | 288 | 529 | |
| Travel Time (s) | 6.7 | | | 6.5 | 12.0 | |
| Confl. Peds. (#/hr) | 6 | 6 | | | 7 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 1% | 1% | 2% | 2% | 9% | 9% |
| Parking (#/hr) | | | | 0 | | |
| Shared Lane Traffic (%) | | | | | | |
| Turn Type | NA | | Perm | NA | Prot | Perm |
| Protected Phases | 6 | | | 2 | 4 | |
| Permitted Phases | | | 2 | | | 4 |
| Detector Phase | 6 | | 2 | 2 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 6.0 | | 6.0 | 6.0 | 4.0 | 4.0 |
| Minimum Split (s) | 20.5 | | 10.5 | 10.5 | 23.0 | 23.0 |
| Total Split (s) | 44.5 | | 44.5 | 44.5 | 29.0 | 29.0 |
| Total Split (%) | 60.5% | | 60.5% | 60.5% | 39.5% | 39.5% |
| Yellow Time (s) | 3.5 | | 3.5 | 3.5 | 3.0 | 3.0 |
| 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) | 4.5 | | 4.5 | 4.5 | 4.0 | 4.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | Min | | Min | Min | None | None |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Cycle Length: | 73.5 | | | | | |
| Actuated Cycle Length: | 31.3 | | | | | |
| Natural Cycle: | 45 | | | | | |
| Control Type: | Actuated-Uncoordinated | | | | | |

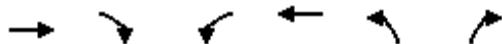
Splits and Phases: 10: Golf Club PI SE & 6th Ave SE



HCM 6th Signalized Intersection Summary

10: Golf Club PI SE & 6th Ave SE

04/21/2023



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--|------|------|------|------|------|------|
| Lane Configurations | ↑ ↗ | | ↑ ↗ | ↑ ↘ | ↑ ↗ | ↑ ↗ |
| Traffic Volume (veh/h) | 184 | 74 | 66 | 294 | 172 | 62 |
| Future Volume (veh/h) | 184 | 74 | 66 | 294 | 172 | 62 |
| Initial Q (Q _b), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 0.99 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1870 | 1870 | 1767 | 1767 |
| Adj Flow Rate, veh/h | 207 | 83 | 74 | 330 | 193 | 70 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 1 | 1 | 2 | 2 | 9 | 9 |
| Cap, veh/h | 487 | 195 | 660 | 713 | 293 | 261 |
| Arrive On Green | 0.38 | 0.38 | 0.38 | 0.38 | 0.17 | 0.17 |
| Sat Flow, veh/h | 1276 | 512 | 1084 | 1870 | 1682 | 1497 |
| Grp Volume(v), veh/h | 0 | 290 | 74 | 330 | 193 | 70 |
| Grp Sat Flow(s), veh/h/ln | 0 | 1788 | 1084 | 1870 | 1682 | 1497 |
| Q Serve(g_s), s | 0.0 | 2.3 | 1.0 | 2.5 | 2.0 | 0.8 |
| Cycle Q Clear(g_c), s | 0.0 | 2.3 | 3.3 | 2.5 | 2.0 | 0.8 |
| Prop In Lane | | 0.29 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 682 | 660 | 713 | 293 | 261 |
| V/C Ratio(X) | 0.00 | 0.43 | 0.11 | 0.46 | 0.66 | 0.27 |
| Avail Cap(c_a), veh/h | 0 | 3741 | 2515 | 3913 | 2200 | 1957 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 4.4 | 5.6 | 4.4 | 7.4 | 6.8 |
| Incr Delay (d2), s/veh | 0.0 | 0.3 | 0.1 | 0.3 | 0.9 | 0.2 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 0.0 | 0.2 | 0.1 | 0.2 | 0.4 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 0.0 | 4.7 | 5.6 | 4.8 | 8.3 | 7.0 |
| LnGrp LOS | A | A | A | A | A | A |
| Approach Vol, veh/h | 290 | | | 404 | 263 | |
| Approach Delay, s/veh | 4.7 | | | 4.9 | 8.0 | |
| Approach LOS | A | | | A | A | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 |
| Phs Duration (G+Y+R _c), s | | 11.8 | | 7.3 | | 11.8 |
| Change Period (Y+R _c), s | | 4.5 | | 4.0 | | 4.5 |
| Max Green Setting (Gmax), s | | 40.0 | | 25.0 | | 40.0 |
| Max Q Clear Time (g _{c+l1}), s | | 5.3 | | 4.0 | | 4.3 |
| Green Ext Time (p _c), s | | 2.0 | | 0.4 | | 1.5 |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 5.7 | | | |
| HCM 6th LOS | | | A | | | |

Lanes, Volumes, Timings

11: Sleater Kinney Rd NE & 6th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 157 | 34 | 88 | 96 | 31 | 383 | 51 | 576 | 58 | 243 | 665 | 74 |
| Future Volume (vph) | 157 | 34 | 88 | 96 | 31 | 383 | 51 | 576 | 58 | 243 | 665 | 74 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 0 | 150 | | 150 | 150 | | 0 | 225 | | 0 |
| Storage Lanes | 0 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 25 | | | 25 | |
| Link Distance (ft) | | 317 | | | 598 | | | 467 | | | 540 | |
| Travel Time (s) | | 7.2 | | | 13.6 | | | 12.7 | | | 14.7 | |
| Confl. Peds. (#/hr) | 8 | | 2 | 2 | | 8 | 8 | | 4 | 4 | | 8 |
| 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% | 3% | 3% | 3% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | 10% | | 45% | | | | | | |
| Turn Type | Perm | NA | Perm | Perm | NA | pm+ov | Prot | NA | Perm | Prot | NA | |
| Protected Phases | | 6 | | | | 2 | 3 | 7 | 4 | | 3 | 8 |
| Permitted Phases | 6 | | 6 | 2 | | 2 | | | | 4 | | |
| Detector Phase | 6 | 6 | 6 | 2 | 2 | 3 | 7 | 4 | 4 | 3 | 8 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 6.0 | 6.0 | 4.0 | 6.0 | |
| Minimum Split (s) | 27.0 | 27.0 | 27.0 | 29.0 | 29.0 | 9.5 | 9.5 | 26.0 | 26.0 | 9.5 | 26.0 | |
| Total Split (s) | 37.0 | 37.0 | 37.0 | 38.0 | 38.0 | 34.0 | 29.0 | 43.0 | 43.0 | 34.0 | 43.0 | |
| Total Split (%) | 32.2% | 32.2% | 32.2% | 33.0% | 33.0% | 29.6% | 25.2% | 37.4% | 37.4% | 29.6% | 37.4% | |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 1.0 | 1.0 | 5.0 | 5.0 | 1.0 | 5.0 | |
| 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) | | 7.0 | 7.0 | 8.0 | 8.0 | 4.0 | 4.0 | 8.0 | 8.0 | 4.0 | 8.0 | |
| Lead/Lag | | | | | | Lead | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | Min | Min | None | Min | |

Intersection Summary

Area Type: Other

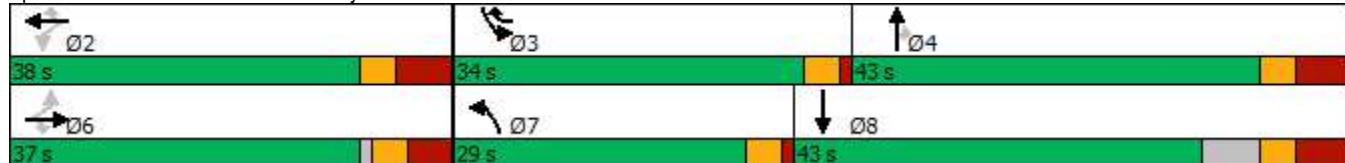
Cycle Length: 115

Actuated Cycle Length: 101.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Splits and Phases: 11: Sleater Kinney Rd NE & 6th Ave SE



HCM 6th Signalized Intersection Summary

11: Sleater Kinney Rd NE & 6th Ave SE

04/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 157 | 34 | 88 | 96 | 31 | 383 | 51 | 576 | 58 | 243 | 665 | 74 |
| Future Volume (veh/h) | 157 | 34 | 88 | 96 | 31 | 383 | 51 | 576 | 58 | 243 | 665 | 74 |
| Initial Q (Q _b), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1885 | 1870 | 1870 | 1870 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 174 | 38 | 98 | 83 | 0 | 475 | 57 | 640 | 64 | 270 | 739 | 82 |
| 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 | 3 | 3 | 3 | 2 | 2 | 2 |
| Cap, veh/h | 298 | 51 | 442 | 183 | 0 | 1415 | 74 | 649 | 544 | 305 | 1544 | 171 |
| Arrive On Green | 0.28 | 0.28 | 0.28 | 0.28 | 0.00 | 0.28 | 0.04 | 0.35 | 0.35 | 0.17 | 0.48 | 0.48 |
| Sat Flow, veh/h | 833 | 182 | 1584 | 1253 | 0 | 3125 | 1767 | 1856 | 1555 | 1781 | 3222 | 357 |
| Grp Volume(v), veh/h | 212 | 0 | 98 | 83 | 0 | 475 | 57 | 640 | 64 | 270 | 407 | 414 |
| Grp Sat Flow(s), veh/h/ln | 1015 | 0 | 1584 | 1253 | 0 | 1562 | 1767 | 1856 | 1555 | 1781 | 1777 | 1802 |
| Q Serve(g_s), s | 19.0 | 0.0 | 4.8 | 6.5 | 0.0 | 9.9 | 3.2 | 34.3 | 2.8 | 14.8 | 15.5 | 15.5 |
| Cycle Q Clear(g_c), s | 19.0 | 0.0 | 4.8 | 25.5 | 0.0 | 9.9 | 3.2 | 34.3 | 2.8 | 14.8 | 15.5 | 15.5 |
| Prop In Lane | 0.82 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.20 |
| Lane Grp Cap(c), veh/h | 349 | 0 | 442 | 183 | 0 | 1415 | 74 | 649 | 544 | 305 | 852 | 864 |
| V/C Ratio(X) | 0.61 | 0.00 | 0.22 | 0.45 | 0.00 | 0.34 | 0.77 | 0.99 | 0.12 | 0.88 | 0.48 | 0.48 |
| Avail Cap(c_a), veh/h | 370 | 0 | 475 | 209 | 0 | 1480 | 441 | 649 | 544 | 534 | 852 | 864 |
| HCM Platoon Ratio | 1.00 | 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 | 32.9 | 0.0 | 27.7 | 44.5 | 0.0 | 17.8 | 47.5 | 32.3 | 22.1 | 40.5 | 17.6 | 17.6 |
| Incr Delay (d2), s/veh | 1.7 | 0.0 | 0.1 | 0.7 | 0.0 | 0.1 | 6.3 | 31.7 | 0.0 | 3.8 | 0.2 | 0.2 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 4.8 | 0.0 | 1.8 | 2.0 | 0.0 | 3.5 | 1.5 | 20.8 | 1.0 | 6.8 | 6.3 | 6.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d), s/veh | 34.6 | 0.0 | 27.8 | 45.1 | 0.0 | 17.9 | 53.8 | 64.0 | 22.1 | 44.3 | 17.8 | 17.8 |
| LnGrp LOS | C | A | C | D | A | B | D | E | C | D | B | B |
| Approach Vol, veh/h | | 310 | | | 558 | | | 761 | | | 1091 | |
| Approach Delay, s/veh | | 32.4 | | | 21.9 | | | 59.7 | | | 24.3 | |
| Approach LOS | | C | | | C | | | E | | | C | |
| Timer - Assigned Phs | 2 | 3 | 4 | | 6 | 7 | 8 | | | | | |
| Phs Duration (G+Y+Rc), s | 35.9 | 21.1 | 43.0 | | 35.9 | 8.2 | 56.0 | | | | | |
| Change Period (Y+Rc), s | 8.0 | 4.0 | 8.0 | | * 8 | 4.0 | 8.0 | | | | | |
| Max Green Setting (Gmax), s | 30.0 | 30.0 | 35.0 | | * 30 | 25.0 | 35.0 | | | | | |
| Max Q Clear Time (g_c+l1), s | 27.5 | 16.8 | 36.3 | | 21.0 | 5.2 | 17.5 | | | | | |
| Green Ext Time (p_c), s | 0.4 | 0.3 | 0.0 | | 0.9 | 0.1 | 3.5 | | | | | |

Intersection Summary

HCM 6th Ctrl Delay 34.7

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

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

Lanes, Volumes, Timings
12: Sleater Kinney Rd NE & I-5 NB

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 321 | 0 | 0 | 299 | 0 | 1193 | 0 | 0 | 821 | 0 |
| Future Volume (vph) | 0 | 0 | 321 | 0 | 0 | 299 | 0 | 1193 | 0 | 0 | 821 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | | 4% | | | 0% | | | 0% | | | -4% |
| Link Speed (mph) | | | 30 | | | 30 | | | 25 | | | 25 |
| Link Distance (ft) | | | 563 | | | 536 | | | 540 | | | 448 |
| Travel Time (s) | | | 12.8 | | | 12.2 | | | 14.7 | | | 12.2 |
| Confl. Peds. (#/hr) | 1 | | | | | | 1 | 5 | | 6 | 6 | 5 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 1% | 1% | 1% | 2% | 2% | 2% | 2% | 2% | 2% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | | Stop | | | Free | | | Free | | | Free |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

Intersection

Int Delay, s/veh 3.4

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | ↑ | | | ↑ | | ↑↑ | | | ↑↑ | |
| Traffic Vol, veh/h | 0 | 0 | 321 | 0 | 0 | 299 | 0 | 1193 | 0 | 0 | 821 | 0 |
| Future Vol, veh/h | 0 | 0 | 321 | 0 | 0 | 299 | 0 | 1193 | 0 | 0 | 821 | 0 |
| Conflicting Peds, #/hr | 1 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 6 | 6 | 0 | 5 |
| Sign Control | Stop | Stop | Stop | Free |
| RT Channelized | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 4 | - | - | 0 | - | - | 0 | - | - | -4 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 357 | 0 | 0 | 332 | 0 | 1326 | 0 | 0 | 912 | 0 |

| Major/Minor | Minor2 | Major1 | | | | Major2 | | | | | | |
|----------------------|--------|--------|------|-----|-----|--------|-----|-----|-----|---|---|---|
| | | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | | | |
| Conflicting Flow All | - | - | 456 | | | | | - | 0 | - | - | 0 |
| Stage 1 | - | - | - | | | | | - | - | - | - | - |
| Stage 2 | - | - | - | | | | | - | - | - | - | - |
| Critical Hdwy | - | - | 7.32 | | | | | - | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | | | | | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | | | | | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.31 | | | | | - | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 527 | | | | | 0 | - | 0 | 0 | - |
| Stage 1 | 0 | 0 | - | | | | | 0 | - | 0 | 0 | - |
| Stage 2 | 0 | 0 | - | | | | | 0 | - | 0 | 0 | - |
| Platoon blocked, % | - | - | - | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | 0 | 527 | | | | | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | 0 | - | | | | | - | - | - | - | - |
| Stage 1 | - | 0 | - | | | | | - | - | - | - | - |
| Stage 2 | - | 0 | - | | | | | - | - | - | - | - |

| Approach | EB | | NB | | SB |
|----------------------|----|--|----|--|----|
| HCM Control Delay, s | 25 | | 0 | | 0 |
| HCM LOS | D | | | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | SBT |
|-----------------------|-----|-------|-----|
| Capacity (veh/h) | - | 527 | - |
| HCM Lane V/C Ratio | - | 0.677 | - |
| HCM Control Delay (s) | - | 25 | - |
| HCM Lane LOS | - | D | - |
| HCM 95th %tile Q(veh) | - | 5.1 | - |

Lanes, Volumes, Timings
13: Sleater Kinney Rd NE & I-5 SB

04/21/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 1 | 162 | 317 | 1176 | 659 | 322 |
| Future Volume (vph) | 1 | 162 | 317 | 1176 | 659 | 322 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 0% | | | -5% | 0% | |
| Storage Length (ft) | 0 | 0 | 200 | | | 0 |
| Storage Lanes | 0 | 1 | 1 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Link Speed (mph) | 30 | | | 25 | 25 | |
| Link Distance (ft) | 425 | | | 316 | 375 | |
| Travel Time (s) | 9.7 | | | 8.6 | 10.2 | |
| Confl. Peds. (#/hr) | 4 | 5 | 3 | | | 3 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| 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 2.5

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|--------------------------|------|--------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 162 | 317 | 1176 | 659 | 322 |
| Future Vol, veh/h | 1 | 162 | 317 | 1176 | 659 | 322 |
| Conflicting Peds, #/hr | 4 | 5 | 3 | 0 | 0 | 3 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Signal | - | None | - | Free |
| Storage Length | - | 0 | 200 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | -5 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 180 | 352 | 1307 | 732 | 358 |

| Major/Minor | Minor2 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | 1966 | 374 | 735 | 0 | - |
| Stage 1 | 735 | - | - | - | - |
| Stage 2 | 1231 | - | - | - | - |
| Critical Hdwy | 6.25 | 6.9 | 4.14 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 6 | - | - | - | - |
| Follow-up Hdwy | 3.65 | 3.3 | 2.22 | - | - |
| Pot Cap-1 Maneuver | 75 | 629 | 866 | - | 0 |
| Stage 1 | 428 | - | - | - | 0 |
| Stage 2 | 222 | - | - | - | 0 |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 44 | 624 | 864 | - | - |
| Mov Cap-2 Maneuver | 44 | - | - | - | - |
| Stage 1 | 253 | - | - | - | - |
| Stage 2 | 221 | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 13.1 | 2.5 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT |
|-----------------------|-------|-----|-------|-----|
| Capacity (veh/h) | 864 | - | 624 | - |
| HCM Lane V/C Ratio | 0.408 | - | 0.288 | - |
| HCM Control Delay (s) | 12 | - | 13.1 | - |
| HCM Lane LOS | B | - | B | - |
| HCM 95th %tile Q(veh) | 2 | - | 1.2 | - |

Lanes, Volumes, Timings

14: College St SE & Woodland Square Loop SE

04/21/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑↑ | ↑↑ | |
| Traffic Volume (vph) | 9 | 132 | 76 | 1019 | 1669 | 4 |
| Future Volume (vph) | 9 | 132 | 76 | 1019 | 1669 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 175 | 150 | | | 0 |
| Storage Lanes | 1 | 1 | 1 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Link Speed (mph) | 30 | | | 25 | 35 | |
| Link Distance (ft) | 277 | | | 1040 | 447 | |
| Travel Time (s) | 6.3 | | | 28.4 | 8.7 | |
| Confl. Peds. (#/hr) | | | | 1 | | 1 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 0% | 0% | 1% | 1% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |

Intersection

Int Delay, s/veh 2

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑↑ | ↑↑ | 4 |
| Traffic Vol, veh/h | 9 | 132 | 76 | 1019 | 1669 | 4 |
| Future Vol, veh/h | 9 | 132 | 76 | 1019 | 1669 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 1 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 175 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 1 | 1 | 1 | 1 |
| Mvmt Flow | 10 | 147 | 84 | 1132 | 1854 | 4 |

| Major/Minor | Minor2 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | 2591 | 930 | 1859 | 0 | - |
| Stage 1 | 1857 | - | - | - | - |
| Stage 2 | 734 | - | - | - | - |
| Critical Hdwy | 6.8 | 6.9 | 4.12 | - | - |
| Critical Hdwy Stg 1 | 5.8 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.8 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.21 | - | - |
| Pot Cap-1 Maneuver | *29 | *386 | *578 | - | - |
| Stage 1 | *364 | - | - | - | - |
| Stage 2 | *610 | - | - | - | - |
| Platoon blocked, % | 1 | 1 | 1 | - | - |
| Mov Cap-1 Maneuver | *24 | *386 | *577 | - | - |
| Mov Cap-2 Maneuver | *24 | - | - | - | - |
| Stage 1 | *311 | - | - | - | - |
| Stage 2 | *610 | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 33.7 | 0.9 | 0 |
| HCM LOS | D | | |

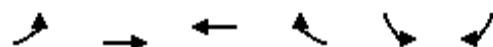
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | * 577 | - | 24 | 386 | - | - |
| HCM Lane V/C Ratio | 0.146 | - | 0.417 | 0.38 | - | - |
| HCM Control Delay (s) | 12.3 | - | 236.7 | 19.9 | - | - |
| HCM Lane LOS | B | - | F | C | - | - |
| HCM 95th %tile Q(veh) | 0.5 | - | 1.2 | 1.7 | - | - |

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lanes, Volumes, Timings
15: Woodland Square Loop SE

04/21/2023



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 10 | 55 | 39 | 54 | 78 | 0 |
| Future Volume (vph) | 10 | 55 | 39 | 54 | 78 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | | 175 | 0 | 0 |
| Storage Lanes | 0 | | | 1 | 1 | 0 |
| Taper Length (ft) | 25 | | | | 25 | |
| Link Speed (mph) | | 30 | 30 | | 30 | |
| Link Distance (ft) | | 334 | 277 | | 216 | |
| Travel Time (s) | | 7.6 | 6.3 | | 4.9 | |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Parking (#/hr) | | 0 | | | 0 | |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection

Int Delay, s/veh 3.5

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 10 | 55 | 39 | 54 | 78 | 0 |
| Future Vol, veh/h | 10 | 55 | 39 | 54 | 78 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 175 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 12 | 64 | 45 | 63 | 91 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|----------|
| Conflicting Flow All | 108 | 0 | - | 0 | 133 45 |
| Stage 1 | - | - | - | - | 45 - |
| Stage 2 | - | - | - | - | 88 - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 3.3 |
| Pot Cap-1 Maneuver | 1495 | - | - | - | 866 1031 |
| Stage 1 | - | - | - | - | 983 - |
| Stage 2 | - | - | - | - | 940 - |
| Platoon blocked, % | - | - | - | - | |
| Mov Cap-1 Maneuver | 1495 | - | - | - | 859 1031 |
| Mov Cap-2 Maneuver | - | - | - | - | 859 - |
| Stage 1 | - | - | - | - | 975 - |
| Stage 2 | - | - | - | - | 940 - |

| Approach | EB | WB | SB | |
|----------------------|-----|----|-----|--|
| HCM Control Delay, s | 1.1 | 0 | 9.7 | |
| HCM LOS | | | A | |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1495 | - | - | - | 859 |
| HCM Lane V/C Ratio | 0.008 | - | - | - | 0.106 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9.7 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.4 |

Lanes, Volumes, Timings

16: Woodland Square Loop SE & 7th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 11 | 55 | 49 | 30 | 46 | 2 | 83 | 26 | 47 | 27 | 6 | 6 |
| Future Volume (vph) | 11 | 55 | 49 | 30 | 46 | 2 | 83 | 26 | 47 | 27 | 6 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 25 | | | 25 | | | 30 | | | 30 | |
| Link Distance (ft) | | 413 | | | 277 | | | 225 | | | 381 | |
| Travel Time (s) | | 11.3 | | | 7.6 | | | 5.1 | | | 8.7 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 3% | 3% | 3% | 0% | 0% | 0% | 0% | 0% | 0% |
| Parking (#/hr) | | 0 | | | | | | 0 | | | 0 | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | Stop | | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

Intersection

Intersection Delay, s/veh

8.3

Intersection LOS

A

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↖ ↗ | | | ↖ ↗ | | | ↖ ↗ | | | ↖ ↗ | |
| Traffic Vol, veh/h | 11 | 55 | 49 | 30 | 46 | 2 | 83 | 26 | 47 | 27 | 6 | 6 |
| Future Vol, veh/h | 11 | 55 | 49 | 30 | 46 | 2 | 83 | 26 | 47 | 27 | 6 | 6 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 13 | 63 | 56 | 34 | 52 | 2 | 94 | 30 | 53 | 31 | 7 | 7 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB | | | WB | | | NB | | | SB | | |
| Opposing Approach | WB | | | EB | | | SB | | | NB | | |
| Opposing Lanes | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Left | SB | | | NB | | | EB | | | WB | | |
| Conflicting Lanes Left | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Right | NB | | | SB | | | WB | | | EB | | |
| Conflicting Lanes Right | 1 | | | 1 | | | 1 | | | 1 | | |
| HCM Control Delay | 8.1 | | | 8.3 | | | 8.6 | | | 8 | | |
| HCM LOS | A | | | A | | | A | | | A | | |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 53% | 10% | 38% | 69% |
| Vol Thru, % | 17% | 48% | 59% | 15% |
| Vol Right, % | 30% | 43% | 3% | 15% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 156 | 115 | 78 | 39 |
| LT Vol | 83 | 11 | 30 | 27 |
| Through Vol | 26 | 55 | 46 | 6 |
| RT Vol | 47 | 49 | 2 | 6 |
| Lane Flow Rate | 177 | 131 | 89 | 44 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.215 | 0.155 | 0.115 | 0.057 |
| Departure Headway (Hd) | 4.376 | 4.278 | 4.666 | 4.646 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 821 | 840 | 769 | 772 |
| Service Time | 2.397 | 2.297 | 2.687 | 2.671 |
| HCM Lane V/C Ratio | 0.216 | 0.156 | 0.116 | 0.057 |
| HCM Control Delay | 8.6 | 8.1 | 8.3 | 8 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.8 | 0.5 | 0.4 | 0.2 |

Lanes, Volumes, Timings

17: Woodland Square Loop SE & 7th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 57 | 106 | 17 | 0 | 159 | 7 | 45 | 8 | 3 | 8 | 4 | 65 |
| Future Volume (vph) | 57 | 106 | 17 | 0 | 159 | 7 | 45 | 8 | 3 | 8 | 4 | 65 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 25 | | | 25 | | | 30 | | | 30 | |
| Link Distance (ft) | | 260 | | | 382 | | | 447 | | | 374 | |
| Travel Time (s) | | 7.1 | | | 10.4 | | | 10.2 | | | 8.5 | |
| Confl. Peds. (#/hr) | 1 | | 1 | 1 | | 1 | 1 | | | | | 1 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 3% | 3% | 3% |
| Parking (#/hr) | | | | | 0 | | | 0 | | | 0 | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

Intersection

Intersection Delay, s/veh 8.9

Intersection LOS A

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 57 | 106 | 17 | 0 | 159 | 7 | 45 | 8 | 3 | 8 | 4 | 65 |
| Future Vol, veh/h | 57 | 106 | 17 | 0 | 159 | 7 | 45 | 8 | 3 | 8 | 4 | 65 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| Mvmt Flow | 68 | 126 | 20 | 0 | 189 | 8 | 54 | 10 | 4 | 10 | 5 | 77 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB | | | WB | | | NB | | | SB | | |
| Opposing Approach | WB | | | EB | | | SB | | | NB | | |
| Opposing Lanes | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Left | SB | | | NB | | | EB | | | WB | | |
| Conflicting Lanes Left | 1 | | | 1 | | | 1 | | | 1 | | |
| Conflicting Approach Right | NB | | | SB | | | WB | | | EB | | |
| Conflicting Lanes Right | 1 | | | 1 | | | 1 | | | 1 | | |
| HCM Control Delay | 9.2 | | | | 9 | | 8.7 | | | 8.1 | | |
| HCM LOS | A | | | A | | | A | | | A | | |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 80% | 32% | 0% | 10% |
| Vol Thru, % | 14% | 59% | 96% | 5% |
| Vol Right, % | 5% | 9% | 4% | 84% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 56 | 180 | 166 | 77 |
| LT Vol | 45 | 57 | 0 | 8 |
| Through Vol | 8 | 106 | 159 | 4 |
| RT Vol | 3 | 17 | 7 | 65 |
| Lane Flow Rate | 67 | 214 | 198 | 92 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.094 | 0.268 | 0.247 | 0.114 |
| Departure Headway (Hd) | 5.076 | 4.504 | 4.491 | 4.488 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 704 | 797 | 798 | 796 |
| Service Time | 3.121 | 2.538 | 2.525 | 2.53 |
| HCM Lane V/C Ratio | 0.095 | 0.269 | 0.248 | 0.116 |
| HCM Control Delay | 8.7 | 9.2 | 9 | 8.1 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.3 | 1.1 | 1 | 0.4 |

Lanes, Volumes, Timings
18: North Driveway & 7th Ave SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 17 | 88 | 15 | 10 | 119 | 4 | 28 | 0 | 16 | 15 | 0 | 15 |
| Future Volume (vph) | 17 | 88 | 15 | 10 | 119 | 4 | 28 | 0 | 16 | 15 | 0 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 25 | | | 25 | | | 30 | | | 30 | |
| Link Distance (ft) | | 382 | | | 413 | | | 230 | | | 236 | |
| Travel Time (s) | | 10.4 | | | 11.3 | | | 5.2 | | | 5.4 | |
| Confl. Peds. (#/hr) | | | | | | | | | 1 | 1 | | |
| Peak Hour Factor | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 3% | 3% | 3% | 0% | 0% | 0% | 0% | 0% | 0% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|-------|--------|-------|-------|--------|------|------|--------|------|-------|------|------|
| Int Delay, s/veh | 3.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↖ ↗ | | | ↖ ↗ | | | ↖ ↗ | | | ↖ ↗ | |
| Traffic Vol, veh/h | 17 | 88 | 15 | 10 | 119 | 4 | 28 | 0 | 16 | 15 | 0 | 15 |
| Future Vol, veh/h | 17 | 88 | 15 | 10 | 119 | 4 | 28 | 0 | 16 | 15 | 0 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 |
| Heavy Vehicles, % | 0 | 0 | 0 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 22 | 116 | 20 | 13 | 157 | 5 | 37 | 0 | 21 | 20 | 0 | 20 |
| Major/Minor | | | | | | | | | | | | |
| Major1 | | Major2 | | | Minor1 | | | Minor2 | | | | |
| Conflicting Flow All | 162 | 0 | 0 | 136 | 0 | 0 | 366 | 358 | 127 | 368 | 366 | 160 |
| Stage 1 | - | - | - | - | - | - | 170 | 170 | - | 186 | 186 | - |
| Stage 2 | - | - | - | - | - | - | 196 | 188 | - | 182 | 180 | - |
| Critical Hdwy | 4.1 | - | - | 4.13 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.227 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1429 | - | - | 1442 | - | - | 594 | 572 | 929 | 592 | 566 | 890 |
| Stage 1 | - | - | - | - | - | - | 837 | 762 | - | 820 | 750 | - |
| Stage 2 | - | - | - | - | - | - | 810 | 748 | - | 824 | 754 | - |
| Platoon blocked, % | - | - | - | - | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1429 | - | - | 1442 | - | - | 569 | 557 | 928 | 566 | 551 | 890 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 569 | 557 | - | 566 | 551 | - |
| Stage 1 | - | - | - | - | - | - | 823 | 749 | - | 806 | 743 | - |
| Stage 2 | - | - | - | - | - | - | 784 | 741 | - | 791 | 741 | - |
| Approach | | | | | | | | | | | | |
| EB | | | WB | | | NB | | | SB | | | |
| HCM Control Delay, s | 1.1 | | 0.6 | | | 11 | | | 10.5 | | | |
| HCM LOS | B | | | | | | B | | | | | |
| Minor Lane/Major Mvmt | | | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | | |
| Capacity (veh/h) | 662 | 1429 | - | - | 1442 | - | - | - | - | 692 | | |
| HCM Lane V/C Ratio | 0.087 | 0.016 | - | - | 0.009 | - | - | - | - | 0.057 | | |
| HCM Control Delay (s) | 11 | 7.6 | 0 | - | 7.5 | 0 | - | - | - | 10.5 | | |
| HCM Lane LOS | B | A | A | - | A | A | - | - | - | B | | |
| HCM 95th %tile Q(veh) | 0.3 | 0 | - | - | 0 | - | - | - | - | 0.2 | | |

Lanes, Volumes, Timings

19: Woodland Square Loop SE & East Driveway

04/21/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 125 | 67 | 36 | 33 | 10 | 74 |
| Future Volume (vph) | 125 | 67 | 36 | 33 | 10 | 74 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 222 | | | 216 | 225 | |
| Travel Time (s) | 5.0 | | | 4.9 | 5.1 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Parking (#/hr) | | | | 0 | 0 | |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |

Intersection

Int Delay, s/veh 6.6

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | W | | | ↑ | ↑ | |
| Traffic Vol, veh/h | 125 | 67 | 36 | 33 | 10 | 74 |
| Future Vol, veh/h | 125 | 67 | 36 | 33 | 10 | 74 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 139 | 74 | 40 | 37 | 11 | 82 |

| Major/Minor | Minor2 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | 169 | 52 | 93 | 0 | - |
| Stage 1 | 52 | - | - | - | - |
| Stage 2 | 117 | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - |
| Pot Cap-1 Maneuver | 826 | 1021 | 1514 | - | - |
| Stage 1 | 976 | - | - | - | - |
| Stage 2 | 913 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 804 | 1021 | 1514 | - | - |
| Mov Cap-2 Maneuver | 804 | - | - | - | - |
| Stage 1 | 950 | - | - | - | - |
| Stage 2 | 913 | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 10.5 | 3.9 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 1514 | - | 868 | - | - |
| HCM Lane V/C Ratio | 0.026 | - | 0.246 | - | - |
| HCM Control Delay (s) | 7.4 | 0 | 10.5 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 1 | - | - |

Lanes, Volumes, Timings
20: South Driveway & Woodland Square Loop SE

04/21/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 27 | 2 | 3 | 31 | 12 | 18 | 0 | 9 | 21 | 0 | 0 |
| Future Volume (vph) | 0 | 27 | 2 | 3 | 31 | 12 | 18 | 0 | 9 | 21 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 402 | | | 334 | | | 207 | | | 204 | |
| Travel Time (s) | | 9.1 | | | 7.6 | | | 4.7 | | | 4.6 | |
| Peak Hour Factor | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Parking (#/hr) | | 0 | | | 0 | | | | | | | |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |

Intersection

Int Delay, s/veh 3.7

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 27 | 2 | 3 | 31 | 12 | 18 | 0 | 9 | 21 | 0 | 0 |
| Future Vol, veh/h | 0 | 27 | 2 | 3 | 31 | 12 | 18 | 0 | 9 | 21 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 34 | 3 | 4 | 39 | 15 | 23 | 0 | 11 | 27 | 0 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor1 | | Minor2 | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|-------|
| | Major | Minor | Major | Minor | Major | Minor | Major | Minor |
| Conflicting Flow All | 54 | 0 | 0 | 37 | 0 | 0 | 91 | 98 |
| Stage 1 | - | - | - | - | - | - | 36 | 36 |
| Stage 2 | - | - | - | - | - | - | 55 | 62 |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 |
| Pot Cap-1 Maneuver | 1564 | - | - | 1587 | - | - | 898 | 796 |
| Stage 1 | - | - | - | - | - | - | 985 | 869 |
| Stage 2 | - | - | - | - | - | - | 962 | 847 |
| Platoon blocked, % | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1564 | - | - | 1587 | - | - | 896 | 794 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 896 | 794 |
| Stage 1 | - | - | - | - | - | - | 985 | 869 |
| Stage 2 | - | - | - | - | - | - | 959 | 844 |

| Approach | EB | WB | NB | SB |
|----------------------|----|-----|----|-----|
| HCM Control Delay, s | 0 | 0.5 | 9 | 9.2 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|-----------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h) | 940 | 1564 | - | - | 1587 | - | - | 879 |
| HCM Lane V/C Ratio | 0.036 | - | - | - | 0.002 | - | - | 0.03 |
| HCM Control Delay (s) | 9 | 0 | - | - | 7.3 | 0 | - | 9.2 |
| HCM Lane LOS | A | A | - | - | A | A | - | A |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.1 |