

Memorandum

To: City of Tukwila

From: Bangyu Wang, Ph.D., PE and Smith Siromaskul, PE; HDR

Date: March 10, 2025

Subject: Allentown EIS Intersection Study

Introduction

This memorandum presents a comprehensive traffic analysis conducted at six key intersections in Tukwila, Washington, which are critical connections between the local road network, regional freeways, and the Burlington Northern Santa Fe (BNSF) facility. With proposed modifications to the BNSF yard expected to impact traffic flow at these intersections, it is imperative to assess current conditions and forecast future operational performance to inform decision-making.

The study aims to evaluate the existing traffic operations at these intersections, analyze the potential impact of the BNSF yard reconfiguration, and compare future traffic scenarios under both "No Action" and "Build" alternatives. This assessment will help determine necessary infrastructure improvements and traffic management strategies to mitigate adverse impacts.

The primary objectives of this study are:

- **Evaluation of Current Traffic Conditions:** Analyze intersection operations using data collected during peak traffic periods to establish a baseline for comparison.
- **Impact Analysis of Proposed Modifications:** Assess the potential operational effects of the BNSF yard reconfiguration on intersection performance, focusing on changes in traffic volumes, delays, and Levels of Service (LOS).
- **Alternative Scenario Comparison:** Compare the future performance of intersections under "No Action" and "Build" scenarios, incorporating projected traffic growth and evaluating the impacts of potential detours.

To meet these objectives, this memorandum includes:

- **Data Collection:** A summary of the methodologies and datasets used for traffic counts, geometric configurations, annual average daily traffic (AADT), vehicle miles traveled (VMT), and crash data.

- **Data Analysis:** A detailed assessment of current and projected intersection performance using Synchro. LOS and delay metrics were provided for various scenarios. Additionally, truck percentage changes and truck VMT changes were assessed for various scenarios.
- **Findings and Recommendations:** Key takeaways from the analysis, along with actionable recommendations to mitigate identified impacts.

By combining quantitative data and qualitative insights, this memorandum aims to equip the City of Tukwila with the information necessary to make informed decisions regarding infrastructure improvements and traffic management strategies related to the BNSF yard reconfiguration. The study highlights the importance of proactive planning to address potential congestion and environmental concerns, ensuring efficient traffic operations and safety for all road users

Data Collection

Comprehensive and accurate data collection is crucial for understanding current traffic conditions and forecasting future performance at the six study intersections in Tukwila. The intersections under study are:

1. SB I-5 off-ramp & S Boeing Access Rd
2. Interurban Ave S & Gateway Dr (N)
3. Interurban Ave S & Gateway Dr (S)/S 133rd St
4. Interurban Ave S & SB I-5 off-ramp
5. Interurban Ave S & NB I-5 on-ramp
6. Martin Luther King Jr Way S & S 129th St.

The data collection process involved gathering various datasets to support a thorough analysis of the intersections, including turning movement counts (TMCs), intersection geometry, AADT, VMT, and crash data. These datasets provide a comprehensive overview of traffic operations and inform the analysis of both current and future scenarios.

Turning Movement Counts and Intersection Geometry

Traffic data were collected during the PM peak period, specifically from 4:00 PM to 6:00 PM, on April 23, 2024. Video cameras were used for data collection due to their ease of installation and ability to capture detailed TMCs. This method allowed for the accurate documentation of vehicular volumes, turning movements, and classifications, including passenger cars, single-unit trucks, double/triple-unit trucks, and non-motorized users such as pedestrians and bicyclists. Detailed TMCs for each intersection can be found in Appendix A. Peak hour factors vary across the study intersections. **Figure 1** shows an overview of the study intersections marked with red

pins and numbered from 1 to 6. **Figure 1** also displays the existing truck routes and alternative truck routes, which will be analyzed further in the data analysis section. The lane configuration and traffic volumes during the PM peak hour for the study intersections are shown in **Figure 2-Figure 7**.

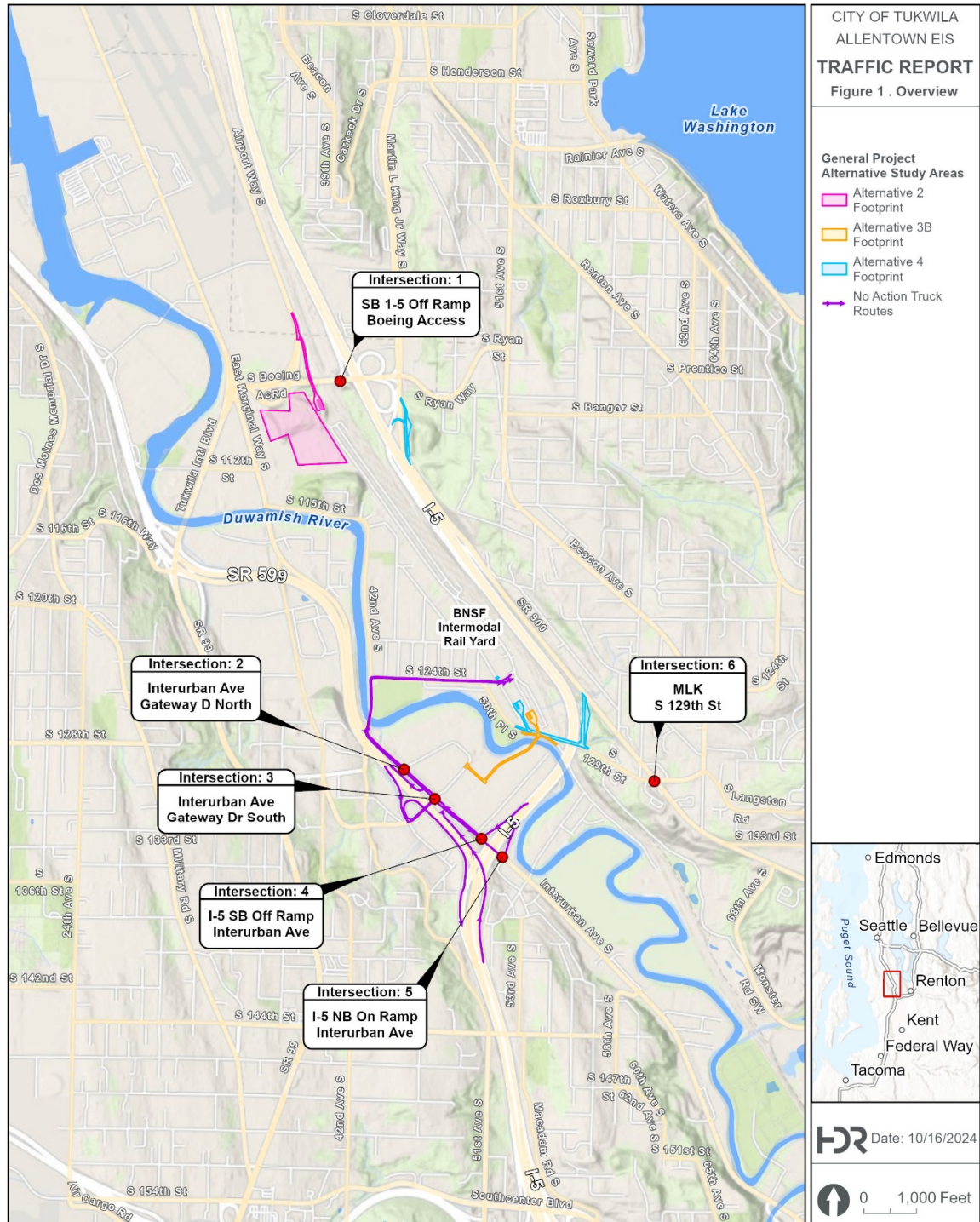


Figure 1. Overview of the study intersections.

1. SB I-5 off-ramp & S Boeing Access Rd

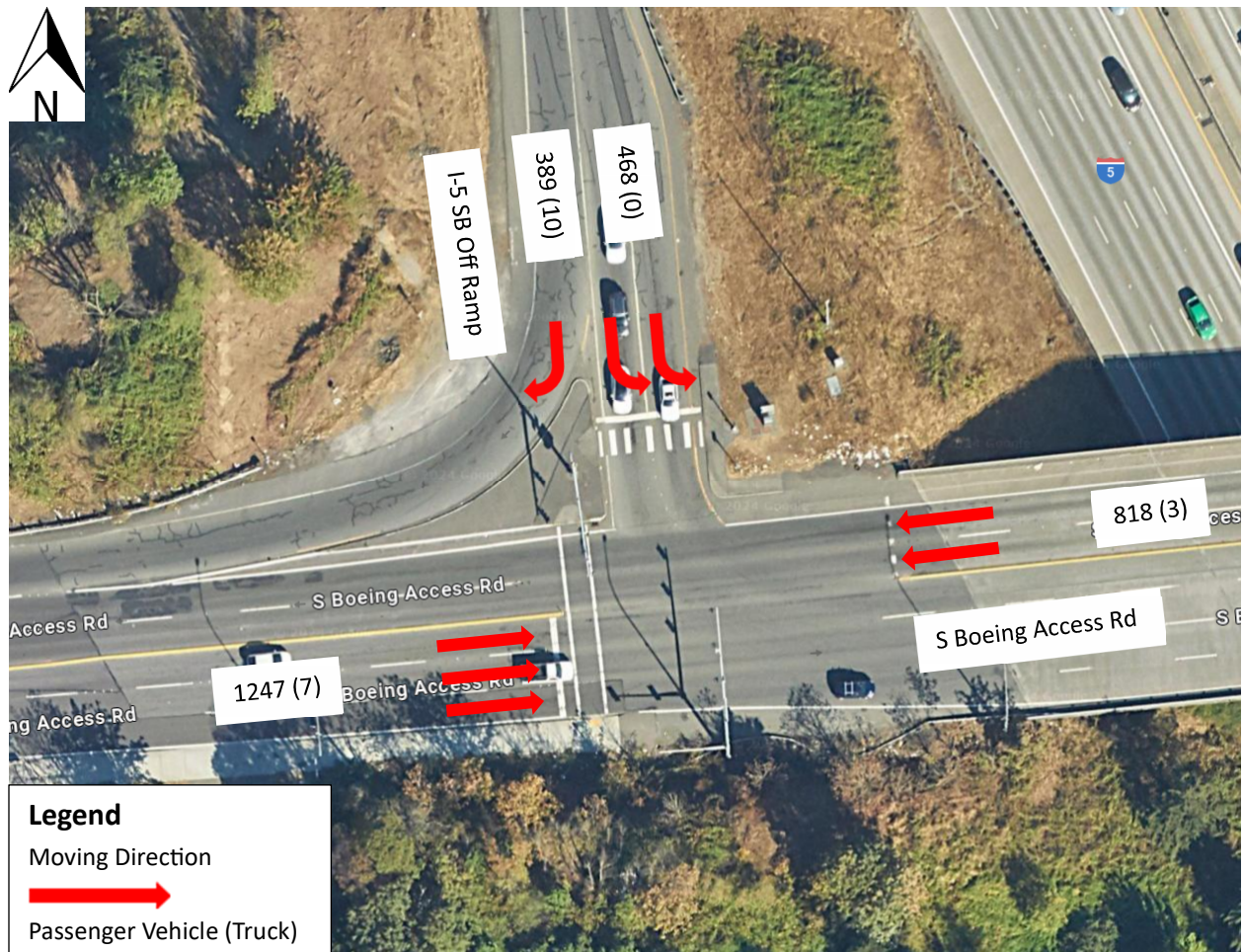


Figure 2. Study intersection at SB I-5 off-ramp and S Boeing Access Rd.

2. Interurban Ave S & Gateway Dr (N)



Figure 3. Study intersection at Interurban Ave S & Gateway Dr (N).

3. Interurban Ave S & Gateway Dr (S)/S 133rd St

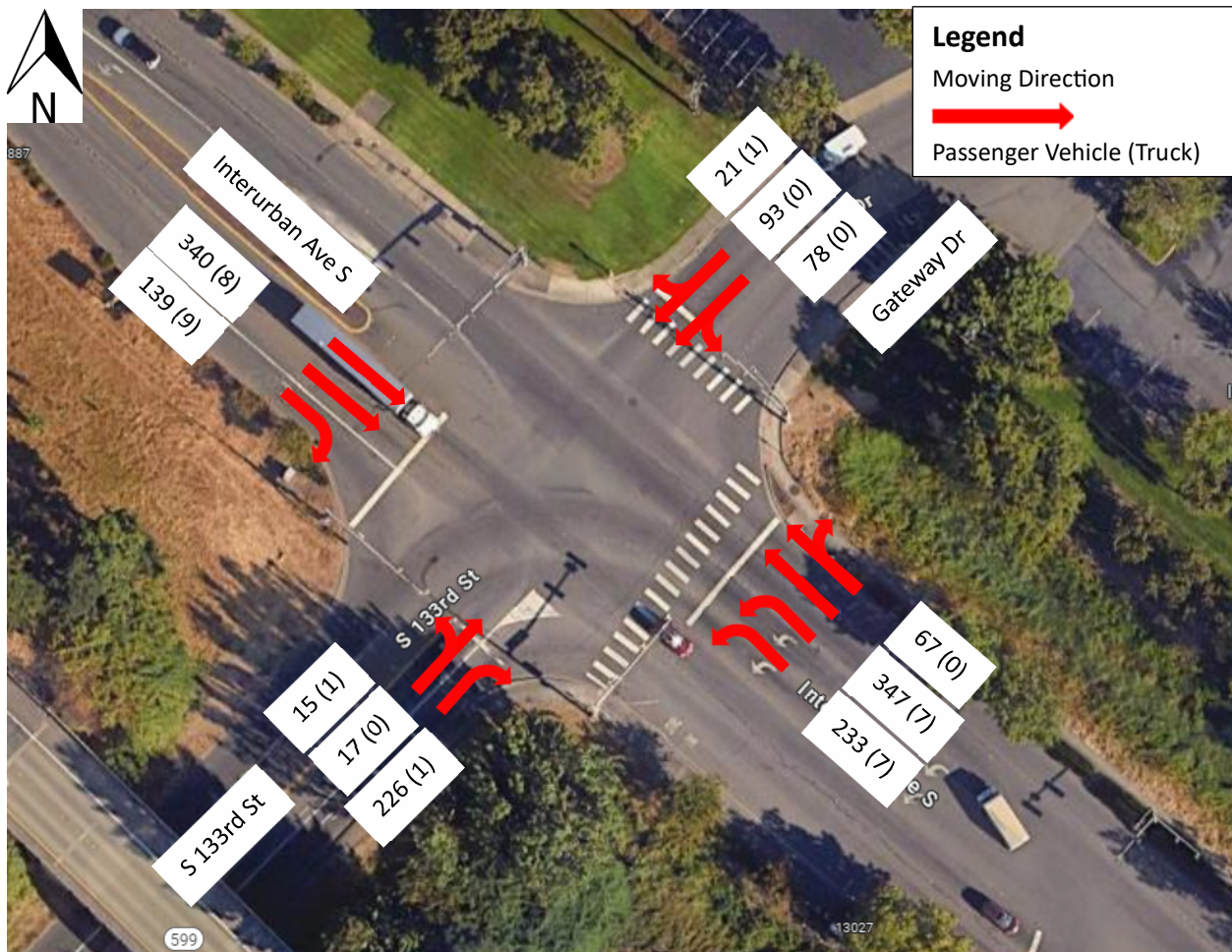


Figure 4. Study intersection at Interurban Ave S & Gateway Dr (S)/S 133rd St.

4. Interurban Ave S & SB I-5 off-ramp



Figure 5. Study intersection at Interurban Ave S & SB I-5 off-ramp.

5. Interurban Ave S & NB I-5 on-ramp

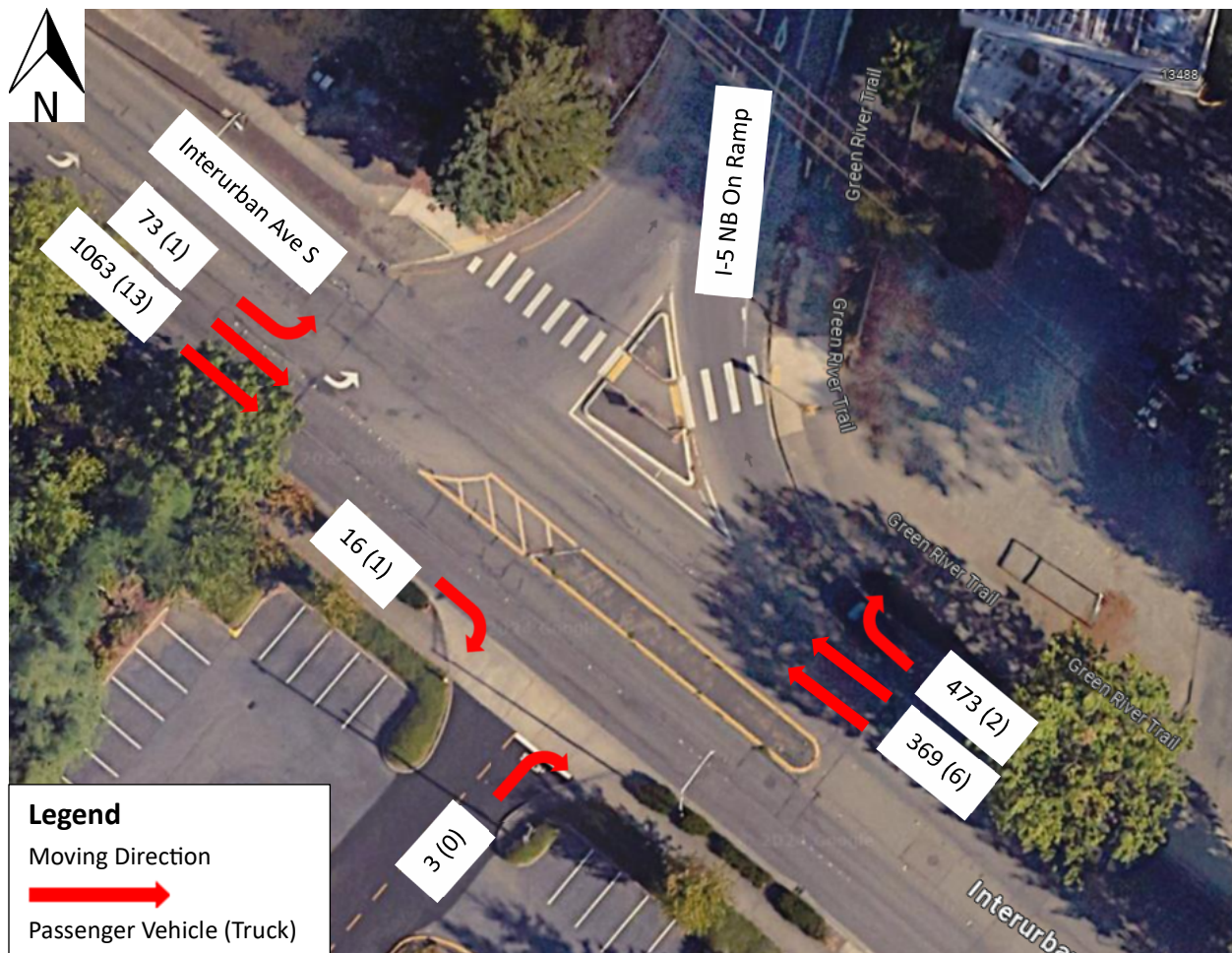


Figure 6. Study intersection at Interurban Ave S & NB I-5 on-ramp.

6. Martin Luther King Jr Way S & S 129th St

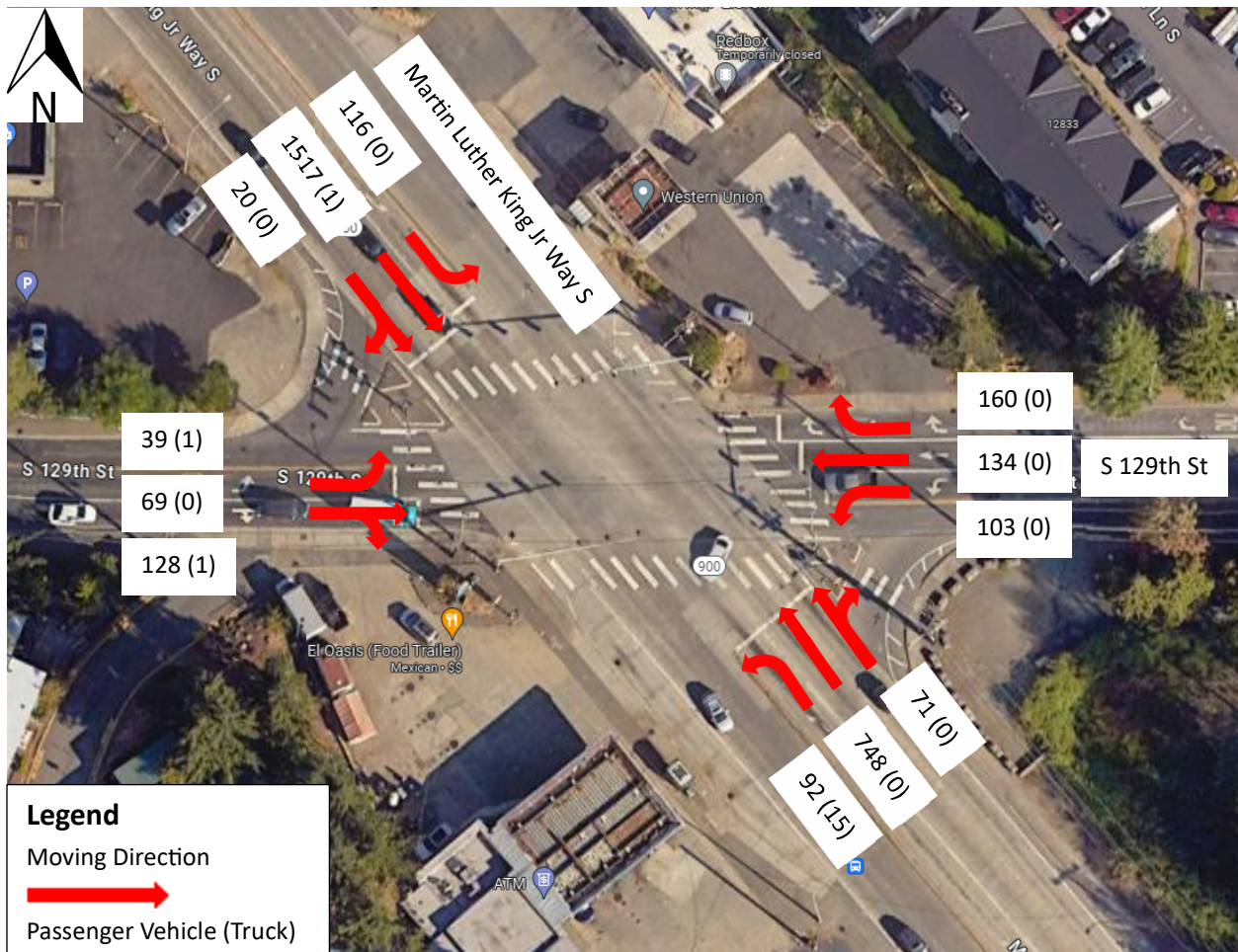


Figure 7. Study intersection at Martin Luther King Jr Way S & S 129th St.

Annual Average Daily Traffic (AADT)

The AADT, K-factor, D-factor, passenger car percentage, single-unit truck percentage, and double/triple-unit truck percentage traffic data were collected from the WSDOT Traffic Data Reporting System¹. WSDOT data are not available for the two study intersections on Interurban Avenue because Interurban Avenue is not a WSDOT facility. The vehicle composition percentages are not available at any of the study intersections. Therefore, some traffic data were estimated using available data from nearby areas and engineering judgment to make reasonable assumptions. Traffic data terms are explained below:

- **AADT:** The total volume of vehicle traffic on a highway or road for a year divided by 365 days.
- **K-factor:** The proportion of AADT occurring during the peak hour of traffic.
- **D-factor:** The directional distribution of traffic during the peak hour.
- **Passenger Car Percentage:** The percentage of total traffic volume composed of passenger cars.
- **Single-Unit Truck Percentage:** The percentage of total traffic volume composed of single-unit trucks.
- **Double/Triple-Unit Truck Percentage:** The percentage of total traffic volume composed of double or triple-unit trucks.

Table 1 displays the traffic data collected from the WSDOT database. The vehicle composition percentages (colored in red) indicate that those data were collected from nearby locations rather than directly from the study intersections.

Table 1. Traffic Data from WSDOT

Location	AADT	K-factor	D-factor	PA car %	SU Truck %	D/TU Truck %
SB I-5 Off Ramp & S Boeing Access Rd	9680	10	100	96.05	2.77	1.18
S Boeing Access Rd	33711	10	78	96.05	2.77	1.18
SB I-5 Off Ramp & Interurban Ave S	4935	12	100	-	-	-
NB I-5 On Ramp & Interurban Ave S	5596	9	100	-	-	-
Marting Luther King Way & S 129th St	25541	10	60	96.57	2.81	0.62

Crash Data

Crash data for the study intersections were obtained for a five-year period, from January 1, 2019, to December 31, 2023, through the WSDOT Public Disclosure Request Center². The data

¹ <https://wsdot.public.ms2soft.com/tcds/tsearch.asp?loc=Wsdot&mod=TCDS>

² [https://wsdot.mycusthelp.com/WEBAPP/_rs/\(S\(sps3y5vjac3yrqoja0tnn0hu\)\)/supporthome.aspx](https://wsdot.mycusthelp.com/WEBAPP/_rs/(S(sps3y5vjac3yrqoja0tnn0hu))/supporthome.aspx)

show a total of 138 crashes. Among the study intersections, Martin Luther King Jr. Way S & S 129th St had the highest number of recorded crashes. There were no recorded fatalities during the study period, and 3 out of the 138 crashes involved serious injuries. Additionally, 49 out of 138 crashes (36%) resulted in minor or possible injuries.

Table 2 summarizes the crash data by year, and **Table 3** summarizes the crash data by severity. The intersection crash rate was calculated based on crash records and estimated daily entering vehicle volumes. The calculated crash rate, ranging between 0.5 and 0.7, is lower than the Washington state average (1.0–1.5). Therefore, further crash analysis is not included in this study.

Tukwila has their own KSI (Fatal and Severe Injury) lists in their local road safety plans (LRSP), which also record crash data from 2017 to 2021. Due to the differing time ranges, it is difficult to compare the crash data between the two sources. Upon adoption of the LRSP, the KSI may be reanalyzed for consistency with the KSI list in the LRSP.

Table 2. Crash Data Summary by Years

	2019	2020	2021	2022	2023	Total
SB I-5 off-ramp & S Boeing Access Rd	6	3	10	12	15	46
Interurban Ave S & Gateway Dr (N)	1	1	0	0	0	2
Interurban Ave S & Gateway Dr (S)/S 133rd St	1	2	5	4	3	15
Interurban Ave S & SB I-5 off-ramp	1	1	3	0	1	6
Interurban Ave S & NB I-5 on-ramp	1	1	0	1	4	7
Martin Luther King Way & S 129th St	13	15	13	12	9	62
Total by Year	23	23	31	29	32	138

Table 3. Crash Data Summary by Severity

	Fatal	Serious Injury	Minor Injury	Possible Injury	No Injury	Total
SB I-5 off-ramp & S Boeing Access Rd	0	2	5	9	30	46
Interurban Ave S & Gateway Dr (N)	0	0	0	1	1	2
Interurban Ave S & Gateway Dr (S)/S 133rd St	0	0	7	0	8	15
Interurban Ave S & SB I-5 off-ramp	0	1	0	0	5	6
Interurban Ave S & NB I-5 on-ramp	0	0	3	0	4	7
Marting Luther King Way & S 129th St	0	0	7	17	38	62
Total by Severity	0	3	22	27	86	138

Data Analysis

To analyze the current traffic operations, the turning movement volumes for different scenarios as well as the accompanying Synchro models were developed to evaluate the intersections' performance based on key parameters such as delay and Level of Service (LOS). Future traffic conditions in year 2045 were projected using an annual growth rate of 1%. Additionally, truck traffic data were analyzed to assess the impact of site-generated truck traffic across various scenarios.

Scenarios Analyzed

Different travel patterns were examined due to varying site configurations and a partial bridge closure. Multiple scenarios were analyzed for existing year 2024 and future year 2045. Below is a description of the analyzed scenarios, along with figures illustrating the proposed inbound and outbound travel routes for the project site.

2024 Existing with Bridge Closure

The existing travel route shown in **Figure 8** reflects current traffic conditions affected by a critical bridge closure. Due to structural damage to the 42nd Avenue bridge, only southbound traffic is permitted on the bridge. A detour has been established, resulting in significant traffic shifts in the study area. Some outbound site traffic could still utilize the 42nd Avenue bridge, but all inbound traffic and some outbound traffic would utilize 129th Street to the east.

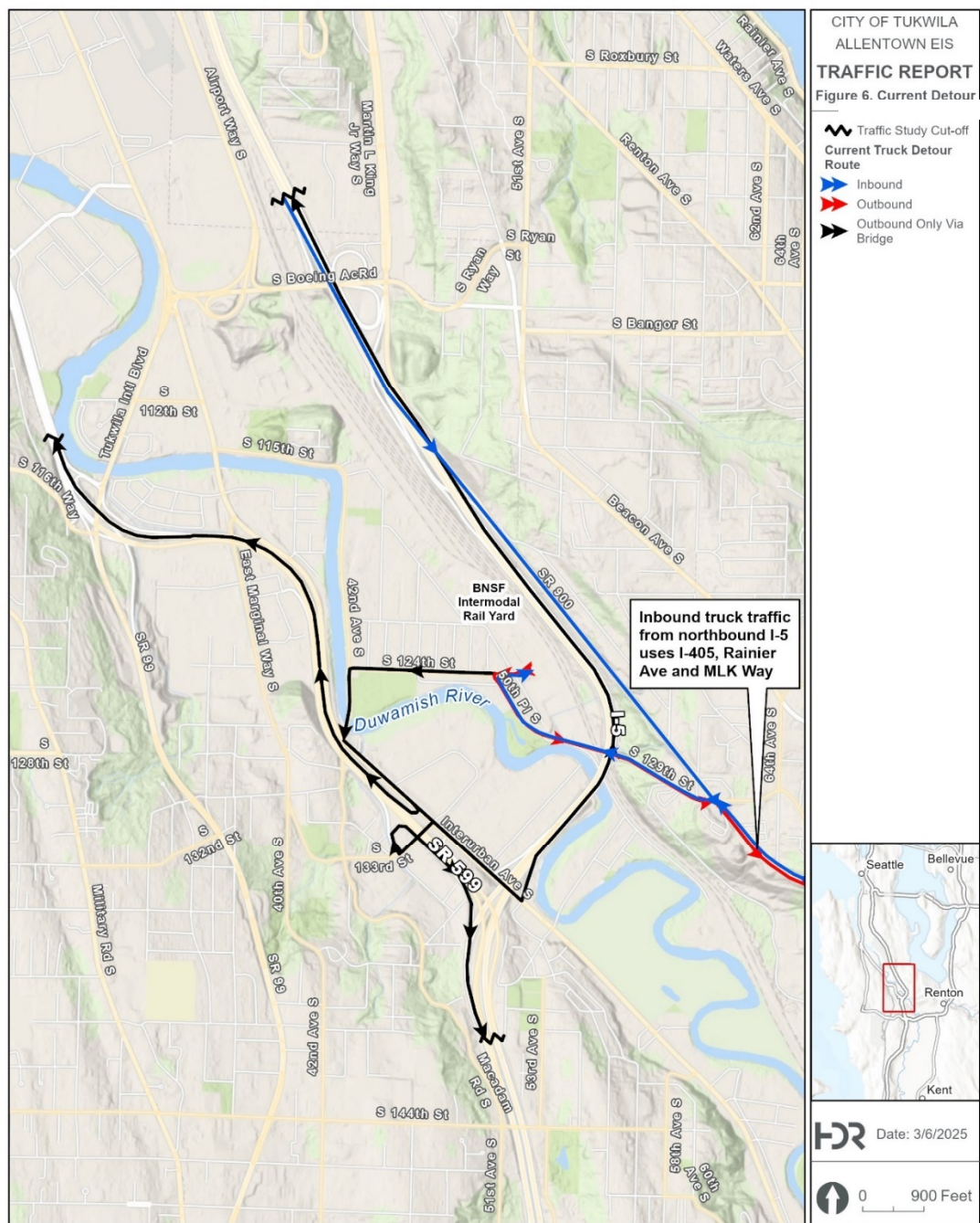


Figure 8. Existing travel route with bridge closure.

The travel route shown in **Figure 9** assumes traffic patterns as they would be without the bridge closure, reflecting typical traffic flows in the absence of any detour-related impacts.



2045 No Action

Projections of future traffic demand were developed for future year 2045. This scenario represents the No Action condition without a detour, assuming the bridge is repaired, and traffic resumes its pre-closure patterns. The travel routes for this scenario are identical to those in existing scenario, as shown in **Figure 9**.

2045 BNSF Alternative 2

This alternative access would connect the northern end of the BNSF intermodal facility to Airport Way S. A new roadway that is parallel to the existing railroad maintenance road would be constructed as a bi-directional 2-lane roadway providing ingress and egress to the intermodal facility. The inbound and outbound travel routes for this alternative are shown in **Figure 10**.

This alternative connects to the southern end of the BNSF intermodal facility. A new bi-directional roadway will be constructed to the east of where 15th Ave ends, extending along the property edge and crossing the Duwamish River and Green River trail on a new bridge. The new roadway connects at grade to Railroad Ave S and provides ingress and egress to the intermodal facility under the existing S 129th ST bridge. The inbound and outbound travel routes for this alternative are shown in **Figure 11**.



This alternative would widen the S 129th Street bridge over I-5 and construct a new roadway connecting SR-900 (Martin Luther King Jr Way) to S 129th Street. A new roadway would be constructed on BNSF property to provide direct truck access from S 129th Street to the new check in/out location that will be moved to the south of the intermodal facility. Revisions will be made to the I-5 – Boeing Access Road interchange to allow truck traffic to access I-5 in both directions. The inbound and outbound travel routes for this alternative are shown in **Figure 12**.

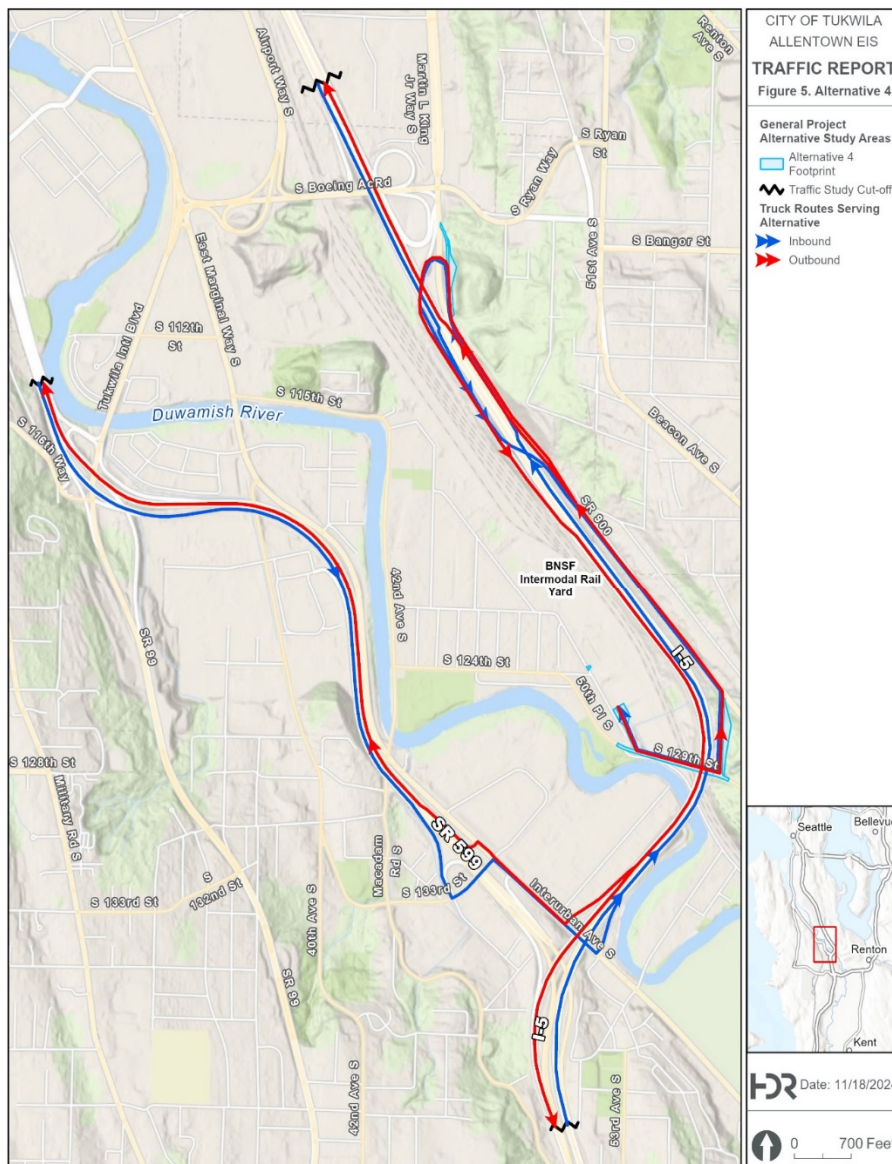


Figure 12. Travel route alternative 4.

Synchro Analysis Results

This section provides detailed results and discussion of the data analysis conducted for the study intersections from the Synchro model. The traffic volumes analyzed vary across the scenarios due to the differences in travel patterns. LOS and delay results for each scenario are shown in the following tables. The detailed Synchro result report for each scenario can be found in Appendix B.

Table 4. 2024 Existing Scenario with Bridge Closure Result Summary

Study Intersections LOS/ Delay (s/veh)	Southbound	Northbound	Eastbound	Westbound	Overall
SB I-5 off-ramp & S Boeing Access Rd	A / 9.2	-	B / 11.6	B / 11.7	B / 11.2
Interurban Ave S & Gateway Dr (N)	-	-	-	B / 13.3	B / 13.3
Interurban Ave S & Gateway Dr (S)/S 133rd St	A / 8.8	A / 9.9	B / 10.8	A / 9.9	A / 9.7
Interurban Ave S & SB I-5 off-ramp	B / 15.4	A / 8.8	-	A / 8.9	B / 11.6
Interurban Ave S & NB I-5 on-ramp	-	B / 13.0	-	-	B / 13.0
Martin Luther King Jr Way S & S 129th St	F / 87.3	B / 14.2	A / 9.4	B / 10.1	D / 51.5

Table 5. 2024 Existing Scenario without Bridge Closure Synchro Result Summary

Study Intersections LOS/ Delay (s/veh)	Southbound	Northbound	Eastbound	Westbound	Overall
SB I-5 off-ramp & S Boeing Access Rd	A / 9.2	-	B / 11.6	B / 11.7	B / 11.2
Interurban Ave S & Gateway Dr (N)	-	-	-	B / 13.6	B / 13.6
Interurban Ave S & Gateway Dr (S)/S 133rd St	A / 8.8	A / 9.9	B / 10.8	A / 9.9	A / 9.7
Interurban Ave S & SB I-5 off-ramp	B / 15.4	A / 8.8	-	A / 9.0	B / 11.6
Interurban Ave S & NB I-5 on-ramp	-	B / 13.0	-	-	B / 13.0
Martin Luther King Jr Way S & S 129th St	F / 87.0	B / 13.3	A / 9.4	B / 10.1	D / 51.4

Table 6. 2045 No Action Scenario without Bridge Closure Synchro Result Summary

Study Intersections LOS/ Delay (s/veh)	Southbound	Northbound	Eastbound	Westbound	Overall
SB I-5 off-ramp & S Boeing Access Rd	A / 9.8	-	B / 14.4	B / 14.4	B / 13.5
Interurban Ave S & Gateway Dr (N)	-	-	-	B / 16.5	B / 16.5
Interurban Ave S & Gateway Dr (S)/S 133rd St	A / 9.2	B / 15.6	B / 12.2	B / 11.1	B / 12.2
Interurban Ave S & SB I-5 off-ramp	B / 17.2	A / 9.3	-	A / 9.5	B / 12.7
Interurban Ave S & NB I-5 on-ramp	-	B / 14.7	-	-	B / 14.7
Martin Luther King Jr Way S & S 129th St	F / 190.6	B / 15.7	B / 10.1	B / 11.2	F / 106.6

Table 7. 2045 BNSF Build Alternative 2 Synchro Results Summary

Study Intersections LOS/ Delay (s/veh)	Southbound	Northbound	Eastbound	Westbound	Overall
SB I-5 off-ramp & S Boeing Access Rd	A / 9.8	-	B / 14.7	B / 14.8	B / 13.9
Interurban Ave S & Gateway Dr (N)	-	-	-	B / 15.8	B / 15.8
Interurban Ave S & Gateway Dr (S)/S 133rd St	A / 9.2	B / 15.4	B / 12.2	B / 11.1	B / 12.1
Interurban Ave S & SB I-5 off-ramp	B / 16.9	A / 9.2	-	A / 9.5	B / 12.5
Interurban Ave S & NB I-5 on-ramp	-	B / 14.6	-	-	B / 14.6
Martin Luther King Jr Way S & S 129th St	F / 190.6	B / 15.7	B / 10.1	B / 11.2	F / 106.6

Table 8. 2045 BNSF Build Alternative 3B Synchro Results Summary

Study Intersections LOS/ Delay (s/veh)	Southbound	Northbound	Eastbound	Westbound	Overall
SB I-5 off-ramp & S Boeing Access Rd	A / 9.8	-	B / 14.4	B / 14.4	B / 13.5
Interurban Ave S & Gateway Dr (N)	-	-	-	B / 15.8	B / 15.8
Interurban Ave S & Gateway Dr (S)/S 133rd St	A / 9.2	B / 15.4	B / 12.7	B / 11.2	B / 12.2
Interurban Ave S & SB I-5 off-ramp	B / 17.2	A / 9.3	-	A / 9.5	B / 12.7
Interurban Ave S & NB I-5 on-ramp	-	B / 14.7	-	-	B / 14.7
Martin Luther King Jr Way S & S 129th St	F / 190.6	B / 15.7	B / 10.1	B / 11.2	F / 106.6

Table 9. 2045 BNSF Build Alternative 4 Synchro Results Summary

Study Intersections LOS/ Delay (s/veh)	Southbound	Northbound	Eastbound	Westbound	Overall
SB I-5 off-ramp & S Boeing Access Rd	A / 9.8	-	B / 14.4	B / 14.4	B / 13.5
Interurban Ave S & Gateway Dr (N)	-	-	-	B / 15.8	B / 15.8
Interurban Ave S & Gateway Dr (S)/S 133rd St	A / 9.2	B / 15.4	B / 12.2	B / 11.1	B / 12.1
Interurban Ave S & SB I-5 off-ramp	B / 16.9	A / 9.2	-	A / 9.5	B / 12.5
Interurban Ave S & NB I-5 on-ramp	-	B / 14.6	-	-	B / 14.6
Martin Luther King Jr Way S & S 129th St	F / 190.6	B / 15.7	B / 10.2	B / 11.2	F / 106.1

Truck Traffic Analysis Results

This section provides detailed calculations and analysis of truck percentage changes and truck VMT changes for each travel route alternative to assess the impact of site-generated truck traffic across the alternatives and to inform quantitative analysis for greenhouse gas emissions in future steps.

To understand how each site and travel route will impact the new truck percentage, the travel routes and their length were identified for each scenario. Alternative 3B has a similar travel route and site characteristics, so the truck percentage is assumed to remain the same. **Table 10** provides detailed Truck AADT and percentage calculations for segments where truck volumes increase in Alternatives 2 and 4. Due to limited data availability on truck percentages for these routes, some engineering judgment and assumptions were applied. A truck AADT of 900 is assumed to be generated by the site.

Table 10. New Truck Percentage for Alternatives

Alternative Scenarios	Segment Difference	Existing AADT	Existing Truck Percentage	Existing Truck AADT	New AADT	New Truck AADT	New Truck Percentage
Alternative 2	Airport Way S	33000	4.0 %	1320	33900	2220	6.55 %
	Tukwila International Blvd N	21000	4.0 %	840	21900	1740	7.95 %
	Tukwila International Blvd S	21000	4.0 %	840	21300	1140	5.35 %
	Martin Luther King Jr Way S	26000	3.5 %	910	26150	1060	4.05 %
	I-5 Mid	192000	7.75 %	14880	192150	15030	7.82 %
Alternative 4	Martin Luther King Jr Way S	26000	3.5 %	910	26900	1810	6.73 %
	I-5 Mid	192000	7.75 %	14880	192900	15780	8.19 %

The truck VMT is calculated by multiplying site truck AADT, segment length for each alternative, and 365 days in a year. **Table 11** shows the annual truck VMT for each alternative.

Table 11. Annual Truck VMT for alternatives

Alternative Scenarios	Length (miles)	Site Truck AADT (veh/day)	VMT (Annual)
Truck VMT for no action travel route	15.80	900	5,190,000
Truck VMT for travel route alternative 2	15.40	900	5,059,000
Truck VMT for travel route alternative 3B	11.10	900	3,646,000
Truck VMT for travel route alternative 4	26.40	900	8,672,000

Findings and Recommendations

The findings from this study provide comprehensive insights into current and future traffic operations at the study intersections. Existing traffic conditions are generally acceptable, with most intersections operating at LOS C or better. However, the active bridge detour has caused temporary shifts in traffic patterns, leading to significant congestion at specific intersections, notably Martin Luther King Jr Way S & S 129th St, which currently operates at LOS F during peak

hours. This intersection also reported the highest number of crashes, highlighting the need for targeted safety interventions.

Future traffic projections for 2045 indicate that without improvements, several intersections will experience severe congestion in the No Action scenario. In particular, Martin Luther King Jr Way S & S 129th St is expected to continue facing substantial delays, resulting in LOS F with delays exceeding 100 seconds per vehicle. The Build Alternatives analysis evaluated three potential configurations for the BNSF yard reconfiguration – Alternative 2, Alternative 3B and Alternative 4. Since the site truck traffic is insignificant during the PM peak hour, the Synchro analysis for all three alternatives indicates similar traffic performance compared to the No Action scenario. The truck traffic analysis indicates varying impacts on the surrounding roadways, depending on the differences in truck travel routes for each alternative. Among the alternatives, **Alternative 3B** emerged as the best-performing option, providing a balance between traffic distribution, minimizing delays, and managing truck volumes. **Alternative 2** showed improvements at high-demand intersections but led to localized congestion on secondary routes, while **Alternative 4** significantly increased truck VMT, additional environmental analysis will be required should this alternative move forward.

In the long term, opportunities for multimodal integration should be explored to reduce dependency on vehicular traffic. Enhancing pedestrian and bicycle facilities, as well as planning phased infrastructure investments, will help accommodate incremental traffic growth while minimizing disruptions during construction. Finally, engaging local stakeholders, including residents and businesses, will be critical to addressing community concerns related to traffic impacts and environmental considerations. Collaboration with the WSDOT will ensure alignment of local improvements with regional transportation goals, fostering a cohesive and sustainable transportation network for Tukwila.

Short-term traffic mitigation recommendations:

- Implement signal timing adjustments at key intersections, particularly at Martin Luther King Jr Way S & S 129th St (King County jurisdiction), to alleviate congestion and improve overall traffic flow.
- Enhance safety features at high-crash locations, such as improved signage, road markings, and dedicated turn lanes to reduce the likelihood of collisions and improve safety for all road users.

Long-term traffic mitigation recommendations:

- Pursue capacity enhancements at critical intersections, including the addition of lanes or advanced signal optimization, to address projected traffic growth and mitigate future congestion.

- Implement **Alternative 3B** to ensure a balanced distribution of traffic volumes and minimize delays across the network. This alternative also offers environmental benefits by reducing truck VMT compared to other options.
- Consider multimodal integration opportunities, such as enhancing pedestrian and bicycle facilities, to reduce vehicular dependency and promote sustainable transportation options.

Safety considerations:

- Focus on improving safety at high-crash intersections, particularly Martin Luther King Jr Way S & S 129th St (King County jurisdiction), through targeted interventions such as dedicated turn lanes, enhanced crosswalks, and pedestrian refuge islands.
- Collaborate with local stakeholders, including residents and businesses, to address community concerns related to traffic impacts and safety. Engaging with the community will help ensure that improvements align with local needs and contribute to a safer, more efficient transportation network.

Appendix A – TMCs

Location: 1 SB I-5 OFF-RAMP & BOEING ACCESS RD PM

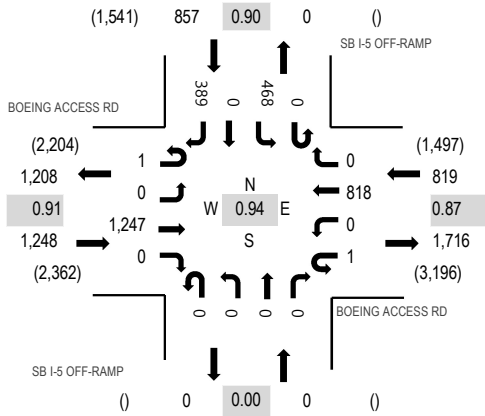
Date: Tuesday, April 23, 2024

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

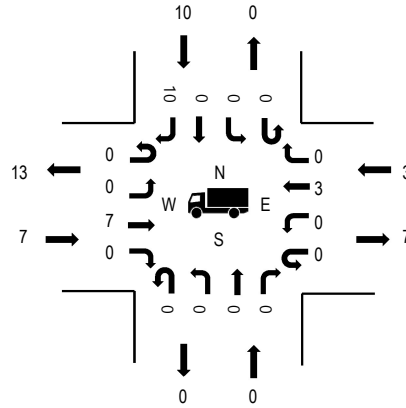
Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour

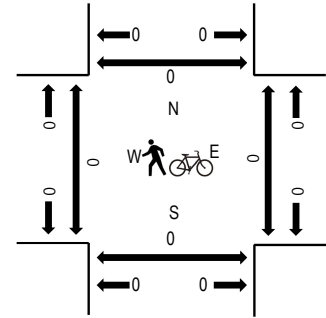
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.6%	0.91
WB	0.4%	0.87
NB	0.0%	0.00
SB	1.2%	0.90
All	0.7%	0.94

Traffic Counts - Motorized Vehicles

Interval Start Time	BOEING ACCESS RD Eastbound				BOEING ACCESS RD Westbound				SB I-5 OFF-RAMP Northbound				SB I-5 OFF-RAMP 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	1	0	342	0	0	0	189	0	0	0	0	0	0	137	0	101	770	2,924
4:15 PM	0	0	302	0	0	0	235	0	0	0	0	0	0	119	0	118	774	2,845
4:30 PM	0	0	319	0	1	0	210	0	0	0	0	0	0	116	0	97	743	2,698
4:45 PM	0	0	284	0	0	0	184	0	0	0	0	0	0	96	0	73	637	2,559
5:00 PM	0	0	321	0	0	0	190	0	0	0	0	0	0	105	0	75	691	2,476
5:15 PM	0	0	269	0	0	0	184	0	0	0	0	0	0	87	0	87	627	
5:30 PM	0	0	288	0	1	0	142	0	0	0	0	0	0	94	0	79	604	
5:45 PM	0	0	236	0	0	0	161	0	0	0	0	0	0	79	0	78	554	
Count Total	1	0	2,361	0	2	0	1,495	0	0	0	0	0	0	833	0	708	5,400	
Peak Hour	1	0	1,247	0	1	0	818	0	0	0	0	0	0	468	0	389	2,924	

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

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	0	2	1	4	4:00 PM	0	0	1	0	1	4:00 PM	0	0	0	0	0
4:15 PM	2	0	1	2	5	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	2	0	0	3	5	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	2	0	0	4	6	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	1	0	1	2	4	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	1	0	1	2	4	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	5	0	1	2	8	5:30 PM	1	0	0	0	1	5:30 PM	0	0	0	0	0
5:45 PM	2	0	1	2	5	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	16	0	7	18	41	Count Total	1	0	1	0	2	Count Total	0	0	0	0	0
Peak Hour	7	0	3	10	20	Peak Hour	0	0	1	0	1	Peak Hour	0	0	0	0	0

Location: 2 MARGINAL WAY & S 115TH ST PM

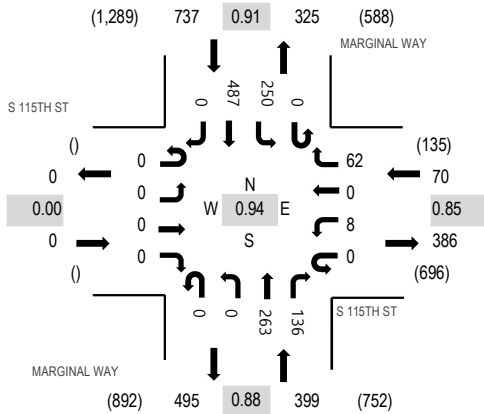
Date: Tuesday, April 23, 2024

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

Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour

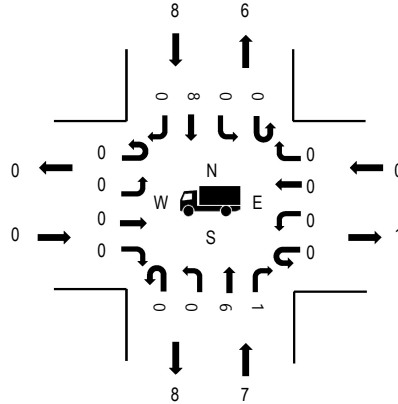
Motorized Vehicles



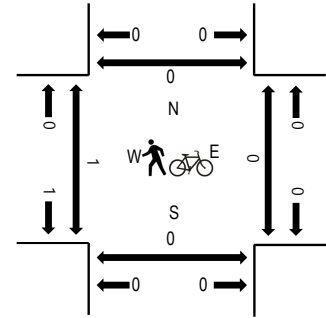
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.0%	0.85
NB	1.8%	0.88
SB	1.1%	0.91
All	1.2%	0.94

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	S 115TH ST Eastbound				S 115TH ST Westbound				MARGINAL WAY Northbound				MARGINAL WAY Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	0	0	0	1	0	11	0	0	72	41	0	61	130	0	316	1,206
4:15 PM	0	0	0	0	0	1	0	15	0	0	67	36	0	67	135	0	321	1,166
4:30 PM	0	0	0	0	0	4	0	16	0	0	69	26	0	71	126	0	312	1,125
4:45 PM	0	0	0	0	0	2	0	20	0	0	55	33	0	51	96	0	257	1,044
5:00 PM	0	0	0	0	0	4	0	12	0	0	64	36	0	46	114	0	276	970
5:15 PM	0	0	0	0	0	2	0	15	0	0	49	43	0	48	123	0	280	
5:30 PM	0	0	0	0	0	1	0	15	0	0	51	33	1	44	86	0	231	
5:45 PM	0	0	0	0	0	1	0	15	0	0	41	36	0	24	66	0	183	
Count Total	0	0	0	0	0	16	0	119	0	0	468	284	1	412	876	0	2,176	
Peak Hour	0	0	0	0	0	8	0	62	0	0	263	136	0	250	487	0	1,206	

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

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



ALL TRAFFIC DATA SERVICES

(303) 216-2439

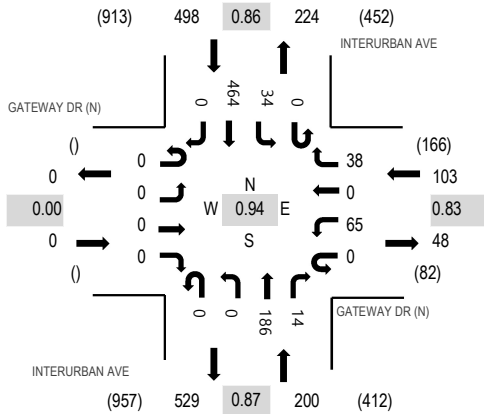
www.alltrafficdata.net

Location: 3 INTERURBAN AVE & GATEWAY DR (N) PM

Date: Tuesday, April 23, 2024

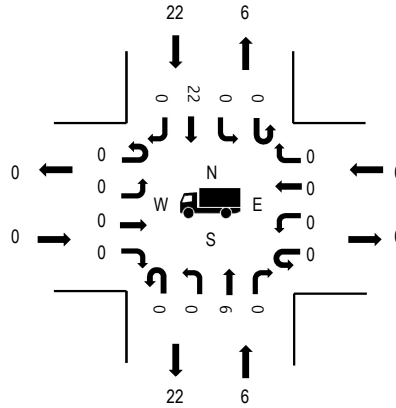
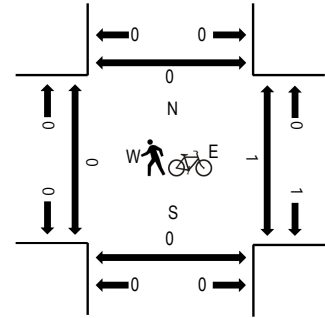
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour**Motorized Vehicles**

Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.0%	0.83
NB	3.0%	0.87
SB	4.4%	0.86
All	3.5%	0.94

Heavy Vehicles**Pedestrians/Bicycles in Crosswalk****Traffic Counts - Motorized Vehicles**

Interval Start Time	GATEWAY DR (N) Eastbound				GATEWAY DR (N) Westbound				INTERURBAN AVE Northbound				INTERURBAN AVE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	0	0	0	13	0	6	0	0	51	4	0	3	124	0	201	793
4:15 PM	0	0	0	0	0	15	0	8	0	0	61	4	0	10	102	0	200	801
4:30 PM	0	0	0	0	0	20	0	6	0	0	39	2	0	9	136	0	212	791
4:45 PM	0	0	0	0	0	19	0	12	0	0	35	4	0	11	99	0	180	738
5:00 PM	0	0	0	0	0	11	0	12	0	0	51	4	0	4	127	0	209	698
5:15 PM	0	0	0	0	0	12	0	10	0	0	59	2	0	12	95	0	190	
5:30 PM	0	0	0	0	0	7	0	5	0	0	44	0	0	9	94	0	159	
5:45 PM	0	0	0	0	0	6	0	4	0	0	49	3	0	1	77	0	140	
Count Total	0	0	0	0	0	103	0	63	0	0	389	23	0	59	854	0	1,491	
Peak Hour	0	0	0	0	0	65	0	38	0	0	186	14	0	34	464	0	801	

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

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



ALL TRAFFIC DATA SERVICES

(303) 216-2439

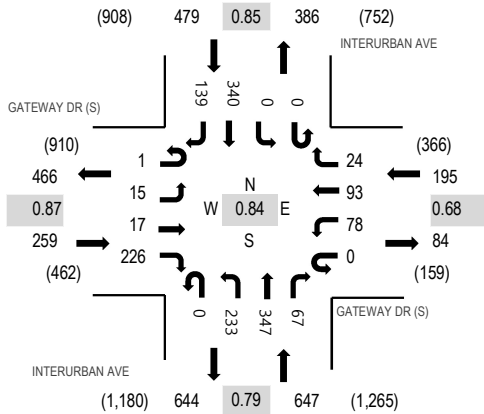
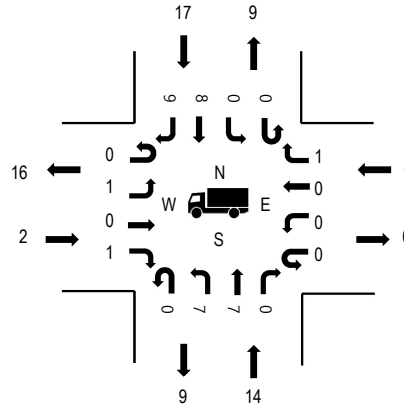
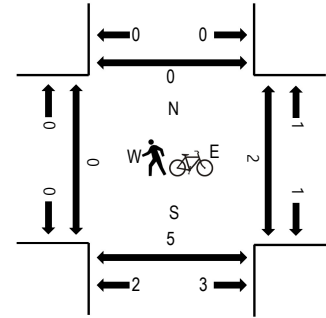
www.alltrafficdata.net

Location: 4 INTERURBAN AVE & GATEWAY DR (S) PM

Date: Tuesday, April 23, 2024

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

Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour**Motorized Vehicles****Heavy Vehicles****Pedestrians/Bicycles in Crosswalk**

	HV%	PHF
EB	0.8%	0.87
WB	0.5%	0.68
NB	2.2%	0.79
SB	3.5%	0.85
All	2.2%	0.84

Traffic Counts - Motorized Vehicles

Interval Start Time	GATEWAY DR (S) Eastbound				GATEWAY DR (S) Westbound				INTERURBAN AVE Northbound				INTERURBAN AVE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	6	6	66	0	20	26	7	0	65	92	28	0	0	101	49	466	1,577
4:15 PM	0	2	5	60	0	14	13	3	0	52	108	9	0	0	74	34	374	1,580
4:30 PM	1	5	4	59	0	20	23	5	0	53	74	17	0	0	94	43	398	1,554
4:45 PM	0	6	4	46	0	16	21	4	0	46	64	19	0	0	81	32	339	1,482
5:00 PM	0	2	4	61	0	28	36	12	0	82	101	22	0	0	91	30	469	1,424
5:15 PM	0	3	4	36	0	22	17	2	0	51	95	11	0	0	76	31	348	
5:30 PM	0	1	4	41	0	22	23	4	0	56	67	13	0	0	64	31	326	
5:45 PM	0	2	3	31	0	11	13	4	0	51	83	6	0	0	46	31	281	
Count Total	1	27	34	400	0	153	172	41	0	456	684	125	0	0	627	281	3,001	
Peak Hour	1	15	17	226	0	78	93	24	0	233	347	67	0	0	340	139	1,580	

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

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	3	5	0	3	11	4:00 PM	0	0	0	1	1	4:00 PM	0	1	1	0	2
4:15 PM	0	6	0	3	9	4:15 PM	0	0	0	1	1	4:15 PM	0	2	1	0	3
4:30 PM	1	4	1	6	12	4:30 PM	1	0	0	0	1	4:30 PM	0	0	1	0	1
4:45 PM	0	1	0	6	7	4:45 PM	0	0	0	0	0	4:45 PM	0	3	0	0	3
5:00 PM	1	3	0	2	6	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	0	1	0	2	3	5:15 PM	0	0	0	0	0	5:15 PM	0	0	1	0	1
5:30 PM	1	0	0	6	7	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	0	1	0	4	5	5:45 PM	0	0	0	0	0	5:45 PM	0	2	2	0	4
Count Total	6	21	1	32	60	Count Total	1	0	0	2	3	Count Total	0	8	6	0	14
Peak Hour	2	14	1	17	34	Peak Hour	1	0	0	1	2	Peak Hour	0	5	2	0	7

Location: 5 INTERURBAN AVE & SB I-5 OFF RAMP PM

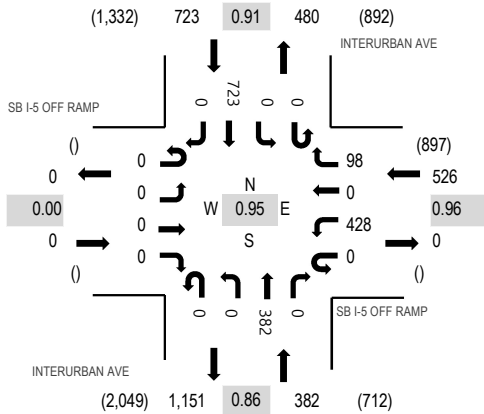
Date: Tuesday, April 23, 2024

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

Peak 15-Minutes: 04:00 PM - 04:15 PM

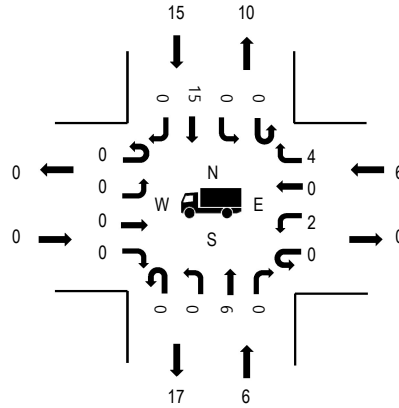
Peak Hour

Motorized Vehicles

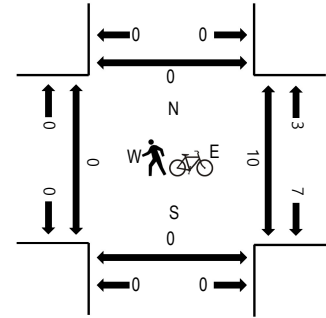


	HV%	PHF
EB	0.0%	0.00
WB	1.1%	0.96
NB	1.6%	0.86
SB	2.1%	0.91
All	1.7%	0.95

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	SB I-5 OFF RAMP Eastbound				SB I-5 OFF RAMP Westbound				INTERURBAN AVE Northbound				INTERURBAN AVE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	0	0	0	103	0	21	0	0	109	0	0	0	198	0	431	1,631
4:15 PM	0	0	0	0	0	107	0	26	0	0	97	0	0	0	180	0	410	1,624
4:30 PM	0	0	0	0	0	112	0	20	0	0	81	0	0	0	187	0	400	1,560
4:45 PM	0	0	0	0	0	106	0	31	0	0	95	0	0	0	158	0	390	1,461
5:00 PM	0	0	0	0	0	86	0	26	0	0	112	0	0	0	200	0	424	1,310
5:15 PM	0	0	0	0	0	84	0	26	0	0	76	0	0	0	160	0	346	
5:30 PM	0	0	0	0	0	60	0	17	0	0	70	0	0	0	154	0	301	
5:45 PM	0	0	0	0	0	59	0	13	0	0	72	0	0	0	95	0	239	
Count Total	0	0	0	0	0	717	0	180	0	0	712	0	0	0	1,332	0	2,941	
Peak Hour	0	0	0	0	0	428	0	98	0	0	382	0	0	0	723	0	1,631	

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

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	4	2	5	11	4:00 PM	0	0	0	0	0	4:00 PM	0	0	2	0	2
4:15 PM	0	0	2	4	6	4:15 PM	0	0	0	0	0	4:15 PM	0	0	2	0	2
4:30 PM	0	1	0	2	3	4:30 PM	0	0	0	0	0	4:30 PM	0	0	4	0	4
4:45 PM	0	1	2	4	7	4:45 PM	0	0	0	0	0	4:45 PM	0	0	2	0	2
5:00 PM	0	1	2	3	6	5:00 PM	0	0	0	0	0	5:00 PM	0	0	1	0	1
5:15 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	1	0	4	5	5:30 PM	0	0	0	0	0	5:30 PM	0	0	2	0	2
5:45 PM	0	0	1	3	4	5:45 PM	0	0	0	0	0	5:45 PM	0	0	3	0	3
Count Total	0	8	9	25	42	Count Total	0	0	0	0	0	Count Total	0	0	16	0	16
Peak Hour	0	6	6	15	27	Peak Hour	0	0	0	0	0	Peak Hour	0	0	10	0	10



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

Location: 6 INTERURBAN AVE & NB I-5 ON RAMP PM

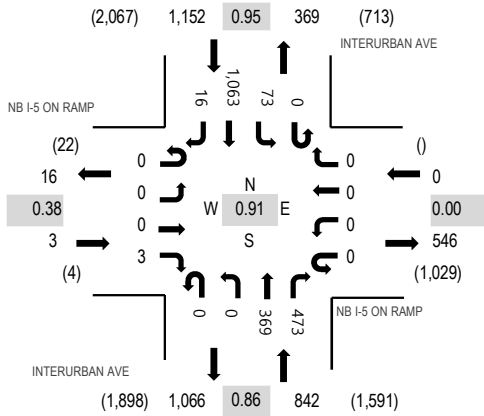
Date: Tuesday, April 23, 2024

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

Peak 15-Minutes: 04:00 PM - 04:15 PM

Peak Hour

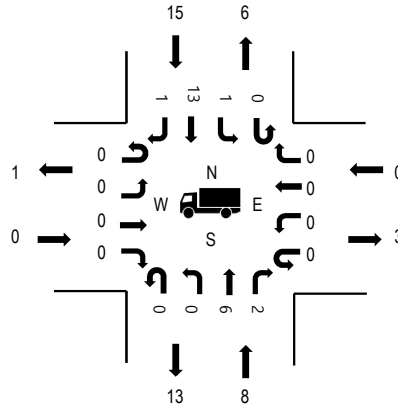
Motorized Vehicles



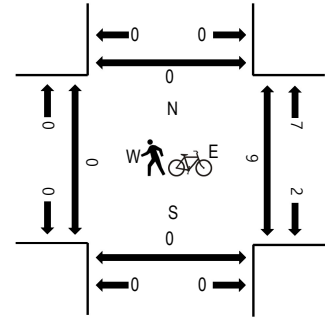
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.38
WB	0.0%	0.00
NB	1.0%	0.86
SB	1.3%	0.95
All	1.2%	0.91

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	NB I-5 ON RAMP Eastbound				NB I-5 ON RAMP Westbound				INTERURBAN AVE Northbound				INTERURBAN AVE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	0	2	0	0	0	0	0	0	111	135	0	20	279	3	550	1,997
4:15 PM	0	0	0	0	0	0	0	0	0	0	96	130	0	22	247	5	500	1,971
4:30 PM	0	0	0	1	0	0	0	0	0	0	84	98	0	16	276	5	480	1,921
4:45 PM	0	0	0	0	0	0	0	0	0	0	78	110	0	15	261	3	467	1,836
5:00 PM	0	0	0	0	0	0	0	0	0	0	119	111	0	22	269	3	524	1,665
5:15 PM	0	0	0	1	0	0	0	0	0	0	80	117	0	22	229	1	450	
5:30 PM	0	0	0	0	0	0	0	0	0	0	76	91	0	21	206	1	395	
5:45 PM	0	0	0	0	0	0	0	0	0	0	69	86	0	13	127	1	296	
Count Total	0	0	0	4	0	0	0	0	0	0	713	878	0	151	1,894	22	3,662	
Peak Hour	0	0	0	3	0	0	0	0	0	0	369	473	0	73	1,063	16	1,997	

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

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	4	0	4	8	4:00 PM	0	0	0	0	0	4:00 PM	0	0	1	0	1
4:15 PM	0	1	0	4	5	4:15 PM	0	0	0	0	0	4:15 PM	0	0	2	0	2
4:30 PM	0	0	0	5	5	4:30 PM	0	0	0	0	0	4:30 PM	0	0	3	0	3
4:45 PM	0	3	0	2	5	4:45 PM	0	0	0	0	0	4:45 PM	0	0	3	0	3
5:00 PM	0	1	0	6	7	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	2	2	5:15 PM	0	0	0	0	0	5:15 PM	0	0	1	0	1
5:30 PM	0	0	0	4	4	5:30 PM	0	0	0	0	0	5:30 PM	0	0	1	0	1
5:45 PM	0	3	0	2	5	5:45 PM	0	0	0	0	0	5:45 PM	0	0	3	0	3
Count Total	0	12	0	29	41	Count Total	0	0	0	0	0	Count Total	0	0	14	0	14
Peak Hour	0	8	0	15	23	Peak Hour	0	0	0	0	0	Peak Hour	0	0	9	0	9

Location: 7 MLK WAY & S 129TH ST PM

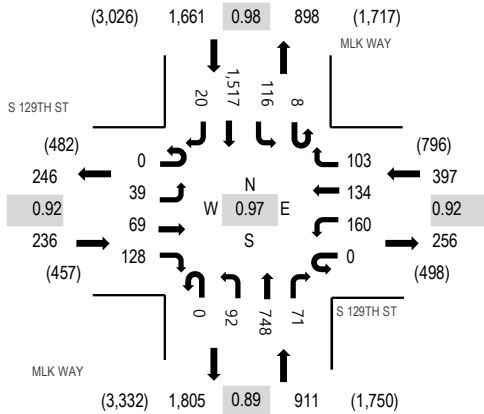
Date: Tuesday, April 23, 2024

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

Peak 15-Minutes: 04:45 PM - 05:00 PM

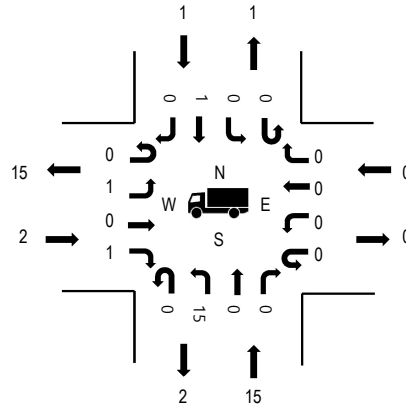
Peak Hour

Motorized Vehicles

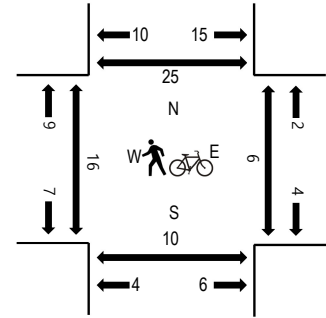


	HV%	PHF
EB	0.8%	0.92
WB	0.0%	0.92
NB	1.6%	0.89
SB	0.1%	0.98
All	0.6%	0.97

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	S 129TH ST Eastbound				S 129TH ST Westbound				MLK WAY Northbound				MLK WAY 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	7	15	40	0	43	28	13	0	18	194	16	1	9	297	5	686	3,070
4:15 PM	0	5	16	41	0	45	22	25	1	19	209	17	3	22	331	6	762	3,186
4:30 PM	0	11	19	42	0	45	27	27	0	20	179	11	2	29	381	4	797	3,205
4:45 PM	0	14	16	39	0	46	36	27	0	19	182	21	3	19	396	7	825	3,145
5:00 PM	0	9	19	20	0	32	34	29	0	30	213	20	1	30	362	3	802	2,959
5:15 PM	0	5	15	27	0	37	37	20	0	23	174	19	2	38	378	6	781	
5:30 PM	0	6	13	25	0	42	48	22	0	22	162	11	1	42	337	6	737	
5:45 PM	0	9	16	28	0	51	35	25	0	24	133	13	4	52	246	3	639	
Count Total	0	66	129	262	0	341	267	188	1	175	1,446	128	17	241	2,728	40	6,029	
Peak Hour	0	39	69	128	0	160	134	103	0	92	748	71	8	116	1,517	20	3,205	

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

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	5	0	2	8	4:00 PM	0	0	0	0	0	4:00 PM	1	1	0	1	3
4:15 PM	1	2	0	0	3	4:15 PM	0	0	0	0	0	4:15 PM	4	5	0	2	11
4:30 PM	1	5	0	0	6	4:30 PM	0	0	0	0	0	4:30 PM	4	2	1	6	13
4:45 PM	0	2	0	1	3	4:45 PM	0	0	0	0	0	4:45 PM	4	3	3	6	16
5:00 PM	0	3	0	0	3	5:00 PM	0	0	0	0	0	5:00 PM	6	4	0	7	17
5:15 PM	1	5	0	0	6	5:15 PM	0	0	0	0	0	5:15 PM	2	1	2	6	11
5:30 PM	2	7	0	0	9	5:30 PM	0	1	0	0	1	5:30 PM	1	4	1	3	9
5:45 PM	2	5	0	1	8	5:45 PM	0	0	0	0	0	5:45 PM	1	0	1	1	3
Count Total	8	34	0	4	46	Count Total	0	1	0	0	1	Count Total	23	20	8	32	83
Peak Hour	2	15	0	1	18	Peak Hour	0	0	0	0	0	Peak Hour	16	10	6	25	57



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

Location: 8 MLK WAY & S 133RD ST PM

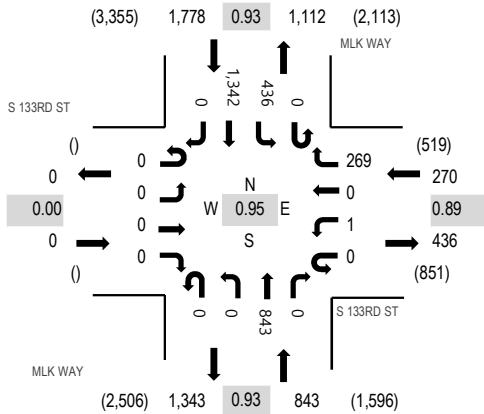
Date: Tuesday, April 23, 2024

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

Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour

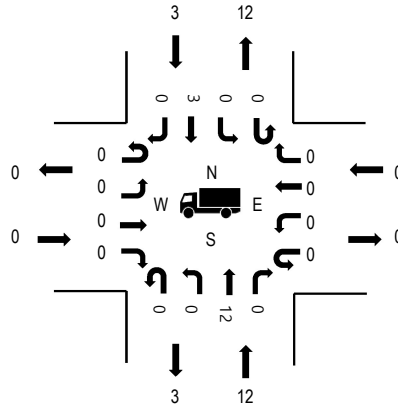
Motorized Vehicles



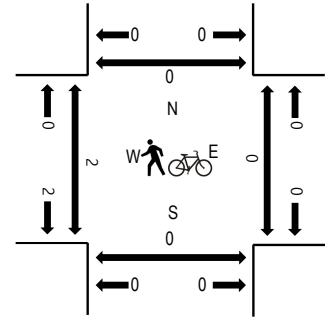
Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.0%	0.89
NB	1.4%	0.93
SB	0.2%	0.93
All	0.5%	0.95

Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	S 133RD ST Eastbound				S 133RD ST Westbound				MLK WAY Northbound				MLK WAY Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	0	0	0	0	0	73	0	0	199	1	0	71	298	0	642	2,843
4:15 PM	0	0	0	0	0	1	0	75	0	0	213	0	0	107	320	0	716	2,891
4:30 PM	0	0	0	0	0	0	0	64	0	0	212	0	0	119	363	0	758	2,883
4:45 PM	0	0	0	0	0	0	0	58	0	0	191	0	0	113	365	0	727	2,777
5:00 PM	0	0	0	0	0	0	0	72	0	0	227	0	0	97	294	0	690	2,627
5:15 PM	0	0	0	0	0	0	0	71	0	0	187	0	0	140	310	0	708	
5:30 PM	0	0	0	0	0	0	0	59	0	0	176	0	0	125	292	0	652	
5:45 PM	0	0	0	0	0	0	0	46	0	0	190	0	0	78	263	0	577	
Count Total	0	0	0	0	0	1	0	518	0	0	1,595	1	0	850	2,505	0	5,470	
Peak Hour	0	0	0	0	0	1	0	269	0	0	843	0	0	436	1,342	0	2,891	

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

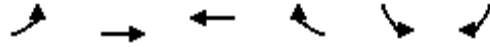
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	6	0	1	7	4:00 PM	0	0	0	0	0	4:00 PM	1	0	0	0	1
4:15 PM	0	2	0	1	3	4:15 PM	0	0	0	0	0	4:15 PM	1	0	0	0	1
4:30 PM	0	4	0	2	6	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	0	2	0	0	2	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	0	4	0	0	4	5:00 PM	0	0	0	0	0	5:00 PM	1	0	0	0	1
5:15 PM	0	5	0	0	5	5:15 PM	0	0	0	0	0	5:15 PM	1	1	0	1	3
5:30 PM	0	7	0	2	9	5:30 PM	0	0	0	0	0	5:30 PM	1	0	0	0	1
5:45 PM	0	4	0	1	5	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	0	34	0	7	41	Count Total	0	0	0	0	0	Count Total	5	1	0	1	7
Peak Hour	0	12	0	3	15	Peak Hour	0	0	0	0	0	Peak Hour	2	0	0	0	2

Appendix B – Synchro Model Reports

HCM 6th Signalized Intersection Summary

4: S Boeing Access Rd & I-5 Off Ramp

03/06/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1254	821	0	468	399
Future Volume (veh/h)	0	1254	821	0	468	399
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1363	892	0	509	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2042	1421	0	1382	
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.00
Sat Flow, veh/h	0	5443	3741	0	3456	1585
Grp Volume(v), veh/h	0	1363	892	0	509	0
Grp Sat Flow(s),veh/h/ln	0	1702	1777	0	1728	1585
Q Serve(g_s), s	0.0	8.7	8.0	0.0	4.1	0.0
Cycle Q Clear(g_c), s	0.0	8.7	8.0	0.0	4.1	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2042	1421	0	1382	
V/C Ratio(X)	0.00	0.67	0.63	0.00	0.37	
Avail Cap(c_a), veh/h	0	2042	1421	0	1382	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	9.8	9.6	0.0	8.4	0.0
Incr Delay (d2), s/veh	0.0	1.7	2.1	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	2.7	0.0	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	11.6	11.7	0.0	9.2	0.0
LnGrp LOS	A	B	B	A	A	
Approach Vol, veh/h		1363	892		509	A
Approach Delay, s/veh		11.6	11.7		9.2	
Approach LOS		B	B		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				20.0	20.0	20.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				16.0	16.0	16.0
Max Q Clear Time (g_c+I1), s				10.7	6.1	10.0
Green Ext Time (p_c), s				3.7	1.4	3.0
Intersection Summary						
HCM 6th Ctrl Delay			11.2			
HCM 6th LOS			B			

Notes

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

HCM 6th Signalized Intersection Summary

11: Interurban Ave S & Gateway Dr S

03/06/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑			↑↑	
Traffic Volume (veh/h)	0	382	152	216	249	59	14	17	242	84	93	20
Future Volume (veh/h)	0	382	152	216	249	59	14	17	242	84	93	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	415	165	235	271	64	15	18	263	91	101	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1421	634	879	1145	266	633	41	599	443	580	132
Arrive On Green	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	0	3647	1585	1618	2863	665	1268	103	1498	687	1450	330
Grp Volume(v), veh/h	0	415	165	235	166	169	15	0	281	105	0	109
Grp Sat Flow(s),veh/h/ln	0	1777	1585	809	1777	1751	1268	0	1601	825	0	1643
Q Serve(g_s), s	0.0	3.2	2.8	4.6	2.5	2.6	0.3	0.0	5.1	2.4	0.0	1.7
Cycle Q Clear(g_c), s	0.0	3.2	2.8	7.8	2.5	2.6	2.0	0.0	5.1	7.5	0.0	1.7
Prop In Lane	0.00		1.00	1.00		0.38	1.00		0.94	0.87		0.20
Lane Grp Cap(c), veh/h	0	1421	634	879	711	700	633	0	640	498	0	657
V/C Ratio(X)	0.00	0.29	0.26	0.27	0.23	0.24	0.02	0.00	0.44	0.21	0.00	0.17
Avail Cap(c_a), veh/h	0	1421	634	879	711	700	633	0	640	498	0	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.2	8.0	10.8	7.9	8.0	8.4	0.0	8.7	10.6	0.0	7.7
Incr Delay (d2), s/veh	0.0	0.5	1.0	0.7	0.8	0.8	0.1	0.0	2.2	1.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	0.9	0.7	0.8	0.9	0.1	0.0	1.7	0.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.7	9.0	11.5	8.7	8.8	8.4	0.0	10.9	11.6	0.0	8.3
LnGrp LOS	A	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h		580			570			296			214	
Approach Delay, s/veh		8.8			9.9			10.8			9.9	
Approach LOS		A			A			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		9.8		7.1		5.2		9.5				
Green Ext Time (p_c), s		1.9		1.2		2.5		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				9.7								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary 16: Interurban Ave S & I-5 Off Ramp

03/06/2025



Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	708	408	0	438	118
Future Volume (veh/h)	0	708	408	0	438	118
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	770	443	0	476	128
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	1421	1421	0	1382	634
Arrive On Green	0.00	0.13	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	3741	3741	0	3456	1585
Grp Volume(v), veh/h	0	770	443	0	476	128
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1728	1585
Q Serve(g_s), s	0.0	8.1	3.4	0.0	3.8	2.1
Cycle Q Clear(g_c), s	0.0	8.1	3.4	0.0	3.8	2.1
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1421	1421	0	1382	634
V/C Ratio(X)	0.00	0.54	0.31	0.00	0.34	0.20
Avail Cap(c_a), veh/h	0	1421	1421	0	1382	634
HCM Platoon Ratio	1.00	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.9	8.2	0.0	8.4	7.8
Incr Delay (d2), s/veh	0.0	1.5	0.6	0.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.4	1.1	0.0	1.2	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	15.4	8.8	0.0	9.0	8.5
LnGrp LOS	A	B	A	A	A	A
Approach Vol, veh/h		770	443		604	
Approach Delay, s/veh		15.4	8.8		8.9	
Approach LOS		B	A		A	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.0			20.0	20.0
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s		5.4			10.1	5.8
Green Ext Time (p_c), s		2.1			2.6	1.7
Intersection Summary						
HCM 6th Ctrl Delay			11.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary 22: S 129th St & Martin Luther King Jr Way S

03/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	40	69	129	160	134	103	116	1518	20	107	748	71
Future Volume (veh/h)	40	69	129	160	134	103	116	1518	20	107	748	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	75	140	174	146	112	126	1650	0	116	813	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	572	234	436	543	748	634	329	1421		180	1421	
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.00
Sat Flow, veh/h	1121	584	1090	1166	1870	1585	671	3647	0	303	3647	0
Grp Volume(v), veh/h	43	0	215	174	146	112	126	1650	0	116	813	0
Grp Sat Flow(s),veh/h/ln	1121	0	1674	1166	1870	1585	671	1777	0	303	1777	0
Q Serve(g_s), s	1.0	0.0	3.5	4.8	2.0	1.8	7.2	16.0	0.0	0.0	7.1	0.0
Cycle Q Clear(g_c), s	3.1	0.0	3.5	8.4	2.0	1.8	14.3	16.0	0.0	16.0	7.1	0.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	572	0	670	543	748	634	329	1421		180	1421	
V/C Ratio(X)	0.08	0.00	0.32	0.32	0.20	0.18	0.38	1.16		0.64	0.57	
Avail Cap(c_a), veh/h	572	0	670	543	748	634	329	1421		180	1421	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.8	0.0	8.3	11.1	7.8	7.7	14.9	12.0	0.0	20.0	9.3	0.0
Incr Delay (d2), s/veh	0.3	0.0	1.3	1.6	0.6	0.6	3.4	80.6	0.0	16.4	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.2	1.2	0.7	0.6	1.2	20.4	0.0	1.8	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	0.0	9.5	12.7	8.4	8.4	18.3	92.6	0.0	36.4	11.0	0.0
LnGrp LOS	A	A	A	B	A	A	B	F		D	B	
Approach Vol, veh/h		258			432			1776	A		929	A
Approach Delay, s/veh		9.4			10.1			87.3			14.2	
Approach LOS		A			B			F			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		18.0		5.5		18.0		10.4				
Green Ext Time (p_c), s		0.0		1.0		0.0		1.0				
Intersection Summary												
HCM 6th Ctrl Delay			51.5									
HCM 6th LOS			D									
Notes												
Unsignalized Delay for [NWR, SER] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th TWSC
7: S 115th St & E Marginal Way S

03/06/2025

Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	62	269	137	250	495
Future Vol, veh/h	8	62	269	137	250	495
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	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	67	292	149	272	538
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1449	367	0	0	441	0
Stage 1	367	-	-	-	-	-
Stage 2	1082	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	144	678	-	-	1119	-
Stage 1	701	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	109	678	-	-	1119	-
Mov Cap-2 Maneuver	109	-	-	-	-	-
Stage 1	701	-	-	-	-	-
Stage 2	246	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.3	0		3.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	425	1119	-	
HCM Lane V/C Ratio	-	-	0.179	0.243	-	
HCM Control Delay (s)	-	-	15.3	9.2	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.6	1	-	

HCM 6th TWSC
14: Interurban Ave S & Gateway Dr N

03/06/2025

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations				 	 	
Traffic Vol, veh/h	63	38	34	471	263	20
Future Vol, veh/h	63	38	34	471	263	20
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	0	500	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	41	37	512	286	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	627	154	308	0	-	0
Stage 1	297	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	416	864	1249	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	404	864	1249	-	-	-
Mov Cap-2 Maneuver	404	-	-	-	-	-
Stage 1	706	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Approach	WB	SE		NW		
HCM Control Delay, s	13.3	0.5		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NWT	NWR	WBLn1	WBLn2	SEL	SET
Capacity (veh/h)	-	-	404	864	1249	-
HCM Lane V/C Ratio	-	-	0.17	0.048	0.03	-
HCM Control Delay (s)	-	-	15.7	9.4	8	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.1	0.1	-

HCM 6th TWSC
18: Interurban Ave S & I-5 On Ramp

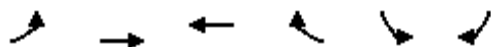
03/06/2025

Intersection															
Int Delay, s/veh	0.4														
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER		NWL	NWT	NWR		
Lane Configurations			↗				↗	↑↑↗				↑↑	↗		
Traffic Vol, veh/h	0	0	3	0	0	0	72	1057	17		0	409	475		
Future Vol, veh/h	0	0	3	0	0	0	72	1057	17		0	409	475		
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0		0	0	0		
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free		Free	Free	Free		
RT Channelized	-	-	None	-	-	None	-	-	None		-	-	Free		
Storage Length	-	-	0	-	-	-	200	-	-		-	-	200		
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-		-	0	-		
Grade, %	-	0	-	-	0	-	-	0	-		-	0	-		
Peak Hour Factor	92	92	92	92	92	92	92	92	92		92	92	92		
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2		2	2	2		
Mvmt Flow	0	0	3	0	0	0	78	1149	18		0	445	516		
Major/Minor	Minor1						Major1						Major2		
Conflicting Flow All	-	-	584				445	0	0				-	-	0
Stage 1	-	-	-				-	-	-				-	-	-
Stage 2	-	-	-				-	-	-				-	-	-
Critical Hdwy	-	-	6.94				4.14	-	-				-	-	-
Critical Hdwy Stg 1	-	-	-				-	-	-				-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-				-	-	-
Follow-up Hdwy	-	-	3.32				2.22	-	-				-	-	-
Pot Cap-1 Maneuver	0	0	455				1112	-	-				0	-	0
Stage 1	0	0	-				-	-	-				0	-	0
Stage 2	0	0	-				-	-	-				0	-	0
Platoon blocked, %								-	-						-
Mov Cap-1 Maneuver	-	0	455				1112	-	-				-	-	-
Mov Cap-2 Maneuver	-	0	-				-	-	-				-	-	-
Stage 1	-	0	-				-	-	-				-	-	-
Stage 2	-	0	-				-	-	-				-	-	-
Approach	NB						SE						NW		
HCM Control Delay, s	13						0.5						0		
HCM LOS	B														
Minor Lane/Major Mvmt	NBLn1	NWT		SEL	SET	SER									
Capacity (veh/h)	455	-		1112	-	-									
HCM Lane V/C Ratio	0.007	-		0.07	-	-									
HCM Control Delay (s)	13	-		8.5	-	-									
HCM Lane LOS	B	-		A	-	-									
HCM 95th %tile Q(veh)	0	-		0.2	-	-									

HCM 6th Signalized Intersection Summary

4: S Boeing Access Rd & I-5 Off Ramp

03/06/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1254	821	0	468	399
Future Volume (veh/h)	0	1254	821	0	468	399
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1363	892	0	509	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2042	1421	0	1382	
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.00
Sat Flow, veh/h	0	5443	3741	0	3456	1585
Grp Volume(v), veh/h	0	1363	892	0	509	0
Grp Sat Flow(s),veh/h/ln	0	1702	1777	0	1728	1585
Q Serve(g_s), s	0.0	8.7	8.0	0.0	4.1	0.0
Cycle Q Clear(g_c), s	0.0	8.7	8.0	0.0	4.1	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2042	1421	0	1382	
V/C Ratio(X)	0.00	0.67	0.63	0.00	0.37	
Avail Cap(c_a), veh/h	0	2042	1421	0	1382	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	9.8	9.6	0.0	8.4	0.0
Incr Delay (d2), s/veh	0.0	1.7	2.1	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	2.7	0.0	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	11.6	11.7	0.0	9.2	0.0
LnGrp LOS	A	B	B	A	A	
Approach Vol, veh/h		1363	892		509	A
Approach Delay, s/veh		11.6	11.7		9.2	
Approach LOS		B	B		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				20.0	20.0	20.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				16.0	16.0	16.0
Max Q Clear Time (g_c+I1), s				10.7	6.1	10.0
Green Ext Time (p_c), s				3.7	1.4	3.0
Intersection Summary						
HCM 6th Ctrl Delay			11.2			
HCM 6th LOS			B			

Notes

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

HCM 6th Signalized Intersection Summary

11: Interurban Ave S & Gateway Dr S

03/06/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑			↑↑	
Traffic Volume (veh/h)	0	382	152	216	267	59	14	17	242	84	93	20
Future Volume (veh/h)	0	382	152	216	267	59	14	17	242	84	93	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	415	165	235	290	64	15	18	263	91	101	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1421	634	879	1161	252	633	41	599	443	580	132
Arrive On Green	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	0	3647	1585	1618	2903	631	1268	103	1498	687	1450	330
Grp Volume(v), veh/h	0	415	165	235	176	178	15	0	281	105	0	109
Grp Sat Flow(s),veh/h/ln	0	1777	1585	809	1777	1757	1268	0	1601	825	0	1643
Q Serve(g_s), s	0.0	3.2	2.8	4.6	2.6	2.7	0.3	0.0	5.1	2.4	0.0	1.7
Cycle Q Clear(g_c), s	0.0	3.2	2.8	7.8	2.6	2.7	2.0	0.0	5.1	7.5	0.0	1.7
Prop In Lane	0.00		1.00	1.00		0.36	1.00		0.94	0.87		0.20
Lane Grp Cap(c), veh/h	0	1421	634	879	711	703	633	0	640	498	0	657
V/C Ratio(X)	0.00	0.29	0.26	0.27	0.25	0.25	0.02	0.00	0.44	0.21	0.00	0.17
Avail Cap(c_a), veh/h	0	1421	634	879	711	703	633	0	640	498	0	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.2	8.0	10.8	8.0	8.0	8.4	0.0	8.7	10.6	0.0	7.7
Incr Delay (d2), s/veh	0.0	0.5	1.0	0.7	0.8	0.9	0.1	0.0	2.2	1.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	0.9	0.7	0.9	0.9	0.1	0.0	1.7	0.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.7	9.0	11.5	8.8	8.9	8.4	0.0	10.9	11.6	0.0	8.3
LnGrp LOS	A	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h		580			589			296			214	
Approach Delay, s/veh		8.8			9.9			10.8			9.9	
Approach LOS		A			A			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		9.8		7.1		5.2		9.5				
Green Ext Time (p_c), s		2.0		1.2		2.5		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				9.7								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

16: Interurban Ave S & I-5 Off Ramp

03/06/2025

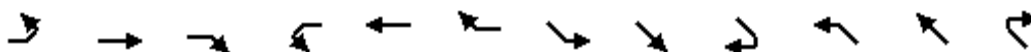


Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	708	408	0	438	136
Future Volume (veh/h)	0	708	408	0	438	136
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	770	443	0	476	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	1421	1421	0	1382	634
Arrive On Green	0.00	0.13	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	3741	3741	0	3456	1585
Grp Volume(v), veh/h	0	770	443	0	476	148
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1728	1585
Q Serve(g_s), s	0.0	8.1	3.4	0.0	3.8	2.5
Cycle Q Clear(g_c), s	0.0	8.1	3.4	0.0	3.8	2.5
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1421	1421	0	1382	634
V/C Ratio(X)	0.00	0.54	0.31	0.00	0.34	0.23
Avail Cap(c_a), veh/h	0	1421	1421	0	1382	634
HCM Platoon Ratio	1.00	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.9	8.2	0.0	8.4	7.9
Incr Delay (d2), s/veh	0.0	1.5	0.6	0.0	0.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.4	1.1	0.0	1.2	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	15.4	8.8	0.0	9.0	8.8
LnGrp LOS	A	B	A	A	A	A
Approach Vol, veh/h		770	443		624	
Approach Delay, s/veh		15.4	8.8		9.0	
Approach LOS		B	A		A	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.0			20.0	20.0
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s		5.4			10.1	5.8
Green Ext Time (p_c), s		2.1			2.6	1.8
Intersection Summary						
HCM 6th Ctrl Delay			11.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

22: S 129th St & Martin Luther King Jr Way S

03/06/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	39	69	128	160	134	103	116	1517	20	92	748	71
Future Volume (veh/h)	39	69	128	160	134	103	116	1517	20	92	748	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	75	139	174	146	112	126	1649	0	100	813	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	572	235	435	544	748	634	329	1421		180	1421	
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.00
Sat Flow, veh/h	1121	587	1088	1167	1870	1585	671	3647	0	303	3647	0
Grp Volume(v), veh/h	42	0	214	174	146	112	126	1649	0	100	813	0
Grp Sat Flow(s),veh/h/ln	1121	0	1675	1167	1870	1585	671	1777	0	303	1777	0
Q Serve(g_s), s	1.0	0.0	3.5	4.8	2.0	1.8	7.2	16.0	0.0	0.0	7.1	0.0
Cycle Q Clear(g_c), s	3.0	0.0	3.5	8.3	2.0	1.8	14.3	16.0	0.0	16.0	7.1	0.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	572	0	670	544	748	634	329	1421		180	1421	
V/C Ratio(X)	0.07	0.00	0.32	0.32	0.20	0.18	0.38	1.16		0.56	0.57	
Avail Cap(c_a), veh/h	572	0	670	544	748	634	329	1421		180	1421	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.8	0.0	8.3	11.1	7.8	7.7	14.9	12.0	0.0	20.0	9.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	1.3	1.5	0.6	0.6	3.4	80.3	0.0	11.8	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.2	1.2	0.7	0.6	1.2	20.3	0.0	1.4	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.0	0.0	9.5	12.7	8.4	8.4	18.3	92.3	0.0	31.8	11.0	0.0
LnGrp LOS	A	A	A	B	A	A	B	F		C	B	
Approach Vol, veh/h	256		432			1775			A	913		A
Approach Delay, s/veh	9.4		10.1			87.0				13.3		
Approach LOS	A		B			F				B		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	20.0		20.0		20.0		20.0					
Change Period (Y+Rc), s	4.0		4.0		4.0		4.0					
Max Green Setting (Gmax), s	16.0		16.0		16.0		16.0					
Max Q Clear Time (g_c+I1), s	18.0		5.5		18.0		10.3					
Green Ext Time (p_c), s	0.0		1.0		0.0		1.0					

Intersection Summary

HCM 6th Ctrl Delay 51.4

HCM 6th LOS D

Notes

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

HCM 6th TWSC
7: S 115th St & E Marginal Way S

03/06/2025

Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	62	269	137	250	495
Future Vol, veh/h	8	62	269	137	250	495
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	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	67	292	149	272	538
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1449	367	0	0	441	0
Stage 1	367	-	-	-	-	-
Stage 2	1082	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	144	678	-	-	1119	-
Stage 1	701	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	109	678	-	-	1119	-
Mov Cap-2 Maneuver	109	-	-	-	-	-
Stage 1	701	-	-	-	-	-
Stage 2	246	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.3	0		3.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	425	1119	-	
HCM Lane V/C Ratio	-	-	0.179	0.243	-	
HCM Control Delay (s)	-	-	15.3	9.2	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.6	1	-	

HCM 6th TWSC
14: Interurban Ave S & Gateway Dr N

03/06/2025

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations				 	 	
Traffic Vol, veh/h	63	38	34	471	281	20
Future Vol, veh/h	63	38	34	471	281	20
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	0	500	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	41	37	512	305	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	646	164	327	0	-	0
Stage 1	316	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	404	852	1229	-	-	-
Stage 1	712	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	392	852	1229	-	-	-
Mov Cap-2 Maneuver	392	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Approach	WB	SE		NW		
HCM Control Delay, s	13.6	0.5		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NWT	NWR	WBLn1	WBLn2	SEL	SET
Capacity (veh/h)	-	-	392	852	1229	-
HCM Lane V/C Ratio	-	-	0.175	0.048	0.03	-
HCM Control Delay (s)	-	-	16.1	9.4	8	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.2	0.1	-

HCM 6th TWSC
18: Interurban Ave S & I-5 On Ramp

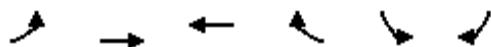
03/06/2025

Intersection														
Int Delay, s/veh	0.4													
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER		NWL	NWT	NWR	
Lane Configurations			↗				↗	↕↗				↕↕	↗	
Traffic Vol, veh/h	0	0	3	0	0	0	72	1057	17		0	409	475	
Future Vol, veh/h	0	0	3	0	0	0	72	1057	17		0	409	475	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0		0	0	0	
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free		Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None		-	-	Free	
Storage Length	-	-	0	-	-	-	200	-	-		-	-	200	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-		-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-		-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92		92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2		2	2	2	
Mvmt Flow	0	0	3	0	0	0	78	1149	18		0	445	516	
Major/Minor	Minor1						Major1			Major2				
Conflicting Flow All	-	-	584				445	0	0	-			-	0
Stage 1	-	-	-				-	-	-	-			-	-
Stage 2	-	-	-				-	-	-	-			-	-
Critical Hdwy	-	-	6.94				4.14	-	-	-			-	-
Critical Hdwy Stg 1	-	-	-				-	-	-	-			-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	-			-	-
Follow-up Hdwy	-	-	3.32				2.22	-	-	-			-	-
Pot Cap-1 Maneuver	0	0	455				1112	-	-	0			-	0
Stage 1	0	0	-				-	-	-	0			-	0
Stage 2	0	0	-				-	-	-	0			-	0
Platoon blocked, %								-	-	-				
Mov Cap-1 Maneuver	-	0	455				1112	-	-	-			-	-
Mov Cap-2 Maneuver	-	0	-				-	-	-	-			-	-
Stage 1	-	0	-				-	-	-	-			-	-
Stage 2	-	0	-				-	-	-	-			-	-
Approach	NB						SE			NW				
HCM Control Delay, s	13						0.5			0				
HCM LOS	B													
Minor Lane/Major Mvmt	NBLn1	NWT		SEL	SET	SER								
Capacity (veh/h)	455	-		1112	-	-								
HCM Lane V/C Ratio	0.007	-		0.07	-	-								
HCM Control Delay (s)	13	-		8.5	-	-								
HCM Lane LOS	B	-		A	-	-								
HCM 95th %tile Q(veh)	0	-		0.2	-	-								

HCM 6th Signalized Intersection Summary

4: S Boeing Access Rd & I-5 Off Ramp

03/06/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1530	1002	0	571	487
Future Volume (veh/h)	0	1530	1002	0	571	487
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1663	1089	0	621	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2042	1421	0	1382	
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.00
Sat Flow, veh/h	0	5443	3741	0	3456	1585
Grp Volume(v), veh/h	0	1663	1089	0	621	0
Grp Sat Flow(s),veh/h/ln	0	1702	1777	0	1728	1585
Q Serve(g_s), s	0.0	11.6	10.6	0.0	5.3	0.0
Cycle Q Clear(g_c), s	0.0	11.6	10.6	0.0	5.3	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2042	1421	0	1382	
V/C Ratio(X)	0.00	0.81	0.77	0.00	0.45	
Avail Cap(c_a), veh/h	0	2042	1421	0	1382	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.7	10.4	0.0	8.8	0.0
Incr Delay (d2), s/veh	0.0	3.7	4.0	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	3.8	0.0	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	14.4	14.4	0.0	9.8	0.0
LnGrp LOS	A	B	B	A	A	
Approach Vol, veh/h		1663	1089		621	A
Approach Delay, s/veh		14.4	14.4		9.8	
Approach LOS		B	B		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				20.0	20.0	20.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				16.0	16.0	16.0
Max Q Clear Time (g_c+I1), s				13.6	7.3	12.6
Green Ext Time (p_c), s				2.0	1.7	2.2
Intersection Summary						
HCM 6th Ctrl Delay			13.5			
HCM 6th LOS			B			

Notes

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

HCM 6th Signalized Intersection Summary

11: Interurban Ave S & Gateway Dr S

03/06/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑			↑↑	
Traffic Volume (veh/h)	0	466	185	264	326	72	17	21	295	102	113	24
Future Volume (veh/h)	0	466	185	264	326	72	17	21	295	102	113	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	507	201	287	354	78	18	23	321	111	123	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1421	634	791	1161	253	608	43	598	403	568	125
Arrive On Green	0.00	0.40	0.40	0.13	0.13	0.13	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	0	3647	1585	1437	2901	632	1239	107	1494	578	1419	311
Grp Volume(v), veh/h	0	507	201	287	215	217	18	0	344	123	0	137
Grp Sat Flow(s),veh/h/ln	0	1777	1585	718	1777	1757	1239	0	1601	662	0	1646
Q Serve(g_s), s	0.0	4.0	3.5	7.7	4.4	4.5	0.4	0.0	6.6	3.5	0.0	2.2
Cycle Q Clear(g_c), s	0.0	4.0	3.5	11.7	4.4	4.5	2.6	0.0	6.6	10.1	0.0	2.2
Prop In Lane	0.00		1.00	1.00		0.36	1.00		0.93	0.91		0.19
Lane Grp Cap(c), veh/h	0	1421	634	791	711	703	608	0	641	436	0	658
V/C Ratio(X)	0.00	0.36	0.32	0.36	0.30	0.31	0.03	0.00	0.54	0.28	0.00	0.21
Avail Cap(c_a), veh/h	0	1421	634	791	711	703	608	0	641	436	0	658
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.4	8.2	17.4	12.3	12.4	8.7	0.0	9.2	12.4	0.0	7.9
Incr Delay (d2), s/veh	0.0	0.7	1.3	1.3	1.1	1.1	0.1	0.0	3.2	1.6	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.3	1.1	1.5	1.6	1.7	0.1	0.0	2.2	0.9	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.1	9.6	18.7	13.4	13.5	8.8	0.0	12.4	14.0	0.0	8.6
LnGrp LOS	A	A	A	B	B	B	A	A	B	B	A	A
Approach Vol, veh/h		708			719			362			260	
Approach Delay, s/veh		9.2			15.6			12.2			11.1	
Approach LOS		A			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		13.7		8.6		6.0		12.1				
Green Ext Time (p_c), s		1.1		1.3		2.9		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				12.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary 16: Interurban Ave S & I-5 Off Ramp

03/06/2025



Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	864	498	0	534	166
Future Volume (veh/h)	0	864	498	0	534	166
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	939	541	0	580	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	1421	1421	0	1382	634
Arrive On Green	0.00	0.13	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	3741	3741	0	3456	1585
Grp Volume(v), veh/h	0	939	541	0	580	180
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1728	1585
Q Serve(g_s), s	0.0	10.1	4.3	0.0	4.8	3.1
Cycle Q Clear(g_c), s	0.0	10.1	4.3	0.0	4.8	3.1
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1421	1421	0	1382	634
V/C Ratio(X)	0.00	0.66	0.38	0.00	0.42	0.28
Avail Cap(c_a), veh/h	0	1421	1421	0	1382	634
HCM Platoon Ratio	1.00	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	14.8	8.5	0.0	8.7	8.1
Incr Delay (d2), s/veh	0.0	2.4	0.8	0.0	0.9	1.1
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	4.6	1.4	0.0	1.5	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	17.2	9.3	0.0	9.6	9.2
LnGrp LOS	A	B	A	A	A	A
Approach Vol, veh/h		939	541		760	
Approach Delay, s/veh		17.2	9.3		9.5	
Approach LOS		B	A		A	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.0			20.0	20.0
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s		6.3			12.1	6.8
Green Ext Time (p_c), s		2.5			2.2	2.1
Intersection Summary						
HCM 6th Ctrl Delay			12.7			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary 22: S 129th St & Martin Luther King Jr Way S

03/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	48	84	156	195	164	126	142	1851	24	112	913	87
Future Volume (veh/h)	48	84	156	195	164	126	142	1851	24	112	913	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	91	170	212	178	137	154	2012	0	122	992	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	539	233	436	503	748	634	275	1421		180	1421	
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.00
Sat Flow, veh/h	1065	584	1090	1118	1870	1585	568	3647	0	213	3647	0
Grp Volume(v), veh/h	52	0	261	212	178	137	154	2012	0	122	992	0
Grp Sat Flow(s),veh/h/ln	1065	0	1674	1118	1870	1585	568	1777	0	213	1777	0
Q Serve(g_s), s	1.4	0.0	4.4	6.7	2.5	2.3	6.7	16.0	0.0	0.0	9.3	0.0
Cycle Q Clear(g_c), s	3.9	0.0	4.4	11.1	2.5	2.3	16.0	16.0	0.0	16.0	9.3	0.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	539	0	670	503	748	634	275	1421		180	1421	
V/C Ratio(X)	0.10	0.00	0.39	0.42	0.24	0.22	0.56	1.42		0.68	0.70	
Avail Cap(c_a), veh/h	539	0	670	503	748	634	275	1421		180	1421	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.2	0.0	8.5	12.5	8.0	7.9	17.9	12.0	0.0	20.0	10.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.7	2.6	0.7	0.8	8.0	191.2	0.0	18.6	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.5	1.7	0.9	0.7	1.9	42.2	0.0	1.9	3.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	0.0	10.2	15.0	8.7	8.7	25.9	203.2	0.0	38.6	12.9	0.0
LnGrp LOS	A	A	B	B	A	A	C	F		D	B	
Approach Vol, veh/h		313			527			2166	A		1114	A
Approach Delay, s/veh		10.1			11.2			190.6			15.7	
Approach LOS		B			B			F			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		18.0		6.4		18.0		13.1				
Green Ext Time (p_c), s		0.0		1.2		0.0		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			106.6									
HCM 6th LOS			F									
Notes												
Unsignalized Delay for [NWR, SER] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th TWSC
7: S 115th St & E Marginal Way S

03/06/2025

Intersection

Int Delay, s/veh 3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	76	328	167	305	604
Future Vol, veh/h	10	76	328	167	305	604
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	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	83	357	182	332	657

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1769	448	0
Stage 1	448	-	-
Stage 2	1321	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	92	611	-
Stage 1	644	-	-
Stage 2	249	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	62	611	-
Mov Cap-2 Maneuver	62	-	-
Stage 1	644	-	-
Stage 2	169	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.3	0	3.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	301	1029
HCM Lane V/C Ratio	-	-	0.311	0.322
HCM Control Delay (s)	-	-	22.3	10.2
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	1.3	1.4

HCM 6th TWSC
14: Interurban Ave S & Gateway Dr N

03/06/2025

Intersection

Int Delay, s/veh 2.1

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	77	46	41	575	343	24
Future Vol, veh/h	77	46	41	575	343	24
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	0	500	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	50	45	625	373	26

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	789	200	399
Stage 1	386	-	-
Stage 2	403	-	-
Critical Hdwy	6.84	6.94	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	2.22
Pot Cap-1 Maneuver	328	808	1156
Stage 1	656	-	-
Stage 2	644	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	315	808	1156
Mov Cap-2 Maneuver	315	-	-
Stage 1	630	-	-
Stage 2	644	-	-

Approach	WB	SE	NW
HCM Control Delay, s	16.5	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	WBLn2	SEL	SET
Capacity (veh/h)	-	-	315	808	1156	-
HCM Lane V/C Ratio	-	-	0.266	0.062	0.039	-
HCM Control Delay (s)	-	-	20.5	9.7	8.2	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	1	0.2	0.1	-

HCM 6th TWSC
18: Interurban Ave S & I-5 On Ramp

03/06/2025

Intersection												
Int Delay, s/veh	0.5											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations			↗				↗	↕			↕	↗
Traffic Vol, veh/h	0	0	4	0	0	0	88	1290	21	0	499	580
Future Vol, veh/h	0	0	4	0	0	0	88	1290	21	0	499	580
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	0	-	-	-	200	-	-	-	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	0	0	0	96	1402	23	0	542	630

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	-	-	713	542	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	374	1023	-	-	0	-	0
Stage 1	0	0	-	-	-	-	0	-	0
Stage 2	0	0	-	-	-	-	0	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	-	0	374	1023	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

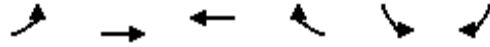
Approach	NB	SE	NW
HCM Control Delay, s	14.7	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBLn1	NWT	SEL	SET	SER
Capacity (veh/h)	374	-	1023	-	-
HCM Lane V/C Ratio	0.012	-	0.094	-	-
HCM Control Delay (s)	14.7	-	8.9	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

HCM 6th Signalized Intersection Summary

4: S Boeing Access Rd & I-5 Off Ramp

03/06/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1550	1022	0	571	507
Future Volume (veh/h)	0	1550	1022	0	571	507
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1685	1111	0	621	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2042	1421	0	1382	
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.00
Sat Flow, veh/h	0	5443	3741	0	3456	1585
Grp Volume(v), veh/h	0	1685	1111	0	621	0
Grp Sat Flow(s),veh/h/ln	0	1702	1777	0	1728	1585
Q Serve(g_s), s	0.0	11.8	10.9	0.0	5.3	0.0
Cycle Q Clear(g_c), s	0.0	11.8	10.9	0.0	5.3	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2042	1421	0	1382	
V/C Ratio(X)	0.00	0.82	0.78	0.00	0.45	
Avail Cap(c_a), veh/h	0	2042	1421	0	1382	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.7	10.5	0.0	8.8	0.0
Incr Delay (d2), s/veh	0.0	4.0	4.3	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.9	3.9	0.0	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	14.7	14.8	0.0	9.8	0.0
LnGrp LOS	A	B	B	A	A	
Approach Vol, veh/h		1685	1111		621	A
Approach Delay, s/veh		14.7	14.8		9.8	
Approach LOS		B	B		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				20.0	20.0	20.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				16.0	16.0	16.0
Max Q Clear Time (g_c+I1), s				13.8	7.3	12.9
Green Ext Time (p_c), s				1.9	1.7	2.1
Intersection Summary						
HCM 6th Ctrl Delay			13.9			
HCM 6th LOS			B			

Notes

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

HCM 6th Signalized Intersection Summary

11: Interurban Ave S & Gateway Dr S

03/06/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑			↑↑	
Traffic Volume (veh/h)	0	446	185	264	306	72	17	21	295	102	113	24
Future Volume (veh/h)	0	446	185	264	306	72	17	21	295	102	113	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	485	201	287	333	78	18	23	321	111	123	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1421	634	808	1146	265	608	43	598	403	568	125
Arrive On Green	0.00	0.40	0.40	0.13	0.13	0.13	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	0	3647	1585	1466	2866	662	1239	107	1494	578	1419	311
Grp Volume(v), veh/h	0	485	201	287	205	206	18	0	344	123	0	137
Grp Sat Flow(s),veh/h/ln	0	1777	1585	733	1777	1751	1239	0	1601	662	0	1646
Q Serve(g_s), s	0.0	3.8	3.5	7.5	4.2	4.3	0.4	0.0	6.6	3.5	0.0	2.2
Cycle Q Clear(g_c), s	0.0	3.8	3.5	11.3	4.2	4.3	2.6	0.0	6.6	10.1	0.0	2.2
Prop In Lane	0.00		1.00	1.00		0.38	1.00		0.93	0.91		0.19
Lane Grp Cap(c), veh/h	0	1421	634	808	711	700	608	0	641	436	0	658
V/C Ratio(X)	0.00	0.34	0.32	0.36	0.29	0.29	0.03	0.00	0.54	0.28	0.00	0.21
Avail Cap(c_a), veh/h	0	1421	634	808	711	700	608	0	641	436	0	658
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.3	8.2	17.2	12.2	12.3	8.7	0.0	9.2	12.4	0.0	7.9
Incr Delay (d2), s/veh	0.0	0.7	1.3	1.2	1.0	1.1	0.1	0.0	3.2	1.6	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.2	1.1	1.5	1.5	1.6	0.1	0.0	2.2	0.9	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.0	9.6	18.4	13.2	13.3	8.8	0.0	12.4	14.0	0.0	8.6
LnGrp LOS	A	A	A	B	B	B	A	A	B	B	A	A
Approach Vol, veh/h		686			698			362			260	
Approach Delay, s/veh		9.2			15.4			12.2			11.1	
Approach LOS		A			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		13.3		8.6		5.8		12.1				
Green Ext Time (p_c), s		1.2		1.3		2.9		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				12.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

16: Interurban Ave S & I-5 Off Ramp

03/06/2025

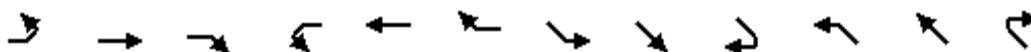


Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	844	478	0	534	166
Future Volume (veh/h)	0	844	478	0	534	166
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	917	520	0	580	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	1421	1421	0	1382	634
Arrive On Green	0.00	0.13	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	3741	3741	0	3456	1585
Grp Volume(v), veh/h	0	917	520	0	580	180
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1728	1585
Q Serve(g_s), s	0.0	9.8	4.1	0.0	4.8	3.1
Cycle Q Clear(g_c), s	0.0	9.8	4.1	0.0	4.8	3.1
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1421	1421	0	1382	634
V/C Ratio(X)	0.00	0.65	0.37	0.00	0.42	0.28
Avail Cap(c_a), veh/h	0	1421	1421	0	1382	634
HCM Platoon Ratio	1.00	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	14.7	8.4	0.0	8.7	8.1
Incr Delay (d2), s/veh	0.0	2.3	0.7	0.0	0.9	1.1
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	4.4	1.3	0.0	1.5	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	16.9	9.2	0.0	9.6	9.2
LnGrp LOS	A	B	A	A	A	A
Approach Vol, veh/h		917	520		760	
Approach Delay, s/veh		16.9	9.2		9.5	
Approach LOS		B	A		A	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.0			20.0	20.0
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s		6.1			11.8	6.8
Green Ext Time (p_c), s		2.4			2.3	2.1
Intersection Summary						
HCM 6th Ctrl Delay			12.5			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

22: S 129th St & Martin Luther King Jr Way S

03/06/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	48	84	156	195	164	126	142	1851	24	112	913	87
Future Volume (veh/h)	48	84	156	195	164	126	142	1851	24	112	913	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	91	170	212	178	137	154	2012	0	122	992	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	539	233	436	503	748	634	275	1421		180	1421	
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.00
Sat Flow, veh/h	1065	584	1090	1118	1870	1585	568	3647	0	213	3647	0
Grp Volume(v), veh/h	52	0	261	212	178	137	154	2012	0	122	992	0
Grp Sat Flow(s),veh/h/ln	1065	0	1674	1118	1870	1585	568	1777	0	213	1777	0
Q Serve(g_s), s	1.4	0.0	4.4	6.7	2.5	2.3	6.7	16.0	0.0	0.0	9.3	0.0
Cycle Q Clear(g_c), s	3.9	0.0	4.4	11.1	2.5	2.3	16.0	16.0	0.0	16.0	9.3	0.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	539	0	670	503	748	634	275	1421		180	1421	
V/C Ratio(X)	0.10	0.00	0.39	0.42	0.24	0.22	0.56	1.42		0.68	0.70	
Avail Cap(c_a), veh/h	539	0	670	503	748	634	275	1421		180	1421	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.2	0.0	8.5	12.5	8.0	7.9	17.9	12.0	0.0	20.0	10.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.7	2.6	0.7	0.8	8.0	191.2	0.0	18.6	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.5	1.7	0.9	0.7	1.9	42.2	0.0	1.9	3.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	0.0	10.2	15.0	8.7	8.7	25.9	203.2	0.0	38.6	12.9	0.0
LnGrp LOS	A	A	B	B	A	A	C	F		D	B	
Approach Vol, veh/h		313			527			2166	A		1114	A
Approach Delay, s/veh		10.1			11.2			190.6			15.7	
Approach LOS		B			B			F			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		18.0		6.4		18.0		13.1				
Green Ext Time (p_c), s		0.0		1.2		0.0		0.7				

Intersection Summary

HCM 6th Ctrl Delay	106.6
HCM 6th LOS	F

Notes

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

HCM 6th TWSC
7: S 115th St & E Marginal Way S

03/06/2025

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	76	328	167	305	604
Future Vol, veh/h	10	76	328	167	305	604
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	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	83	357	182	332	657
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1769	448	0	0	539	0
Stage 1	448	-	-	-	-	-
Stage 2	1321	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	92	611	-	-	1029	-
Stage 1	644	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	62	611	-	-	1029	-
Mov Cap-2 Maneuver	62	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	22.3	0		3.4		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	301	1029	-	
HCM Lane V/C Ratio	-	-	0.311	0.322	-	
HCM Control Delay (s)	-	-	22.3	10.2	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	1.3	1.4	-	

HCM 6th TWSC
14: Interurban Ave S & Gateway Dr N

03/06/2025

Intersection

Int Delay, s/veh 2.2

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations				 	 	
Traffic Vol, veh/h	77	46	41	555	323	24
Future Vol, veh/h	77	46	41	555	323	24
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	0	500	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	50	45	603	351	26

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	756	189	377
Stage 1	364	-	-
Stage 2	392	-	-
Critical Hdwy	6.84	6.94	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	2.22
Pot Cap-1 Maneuver	344	821	1178
Stage 1	673	-	-
Stage 2	652	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	331	821	1178
Mov Cap-2 Maneuver	331	-	-
Stage 1	647	-	-
Stage 2	652	-	-

Approach	WB	SE	NW
HCM Control Delay, s	15.8	0.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	WBLn2	SEL	SET
Capacity (veh/h)	-	-	331	821	1178	-
HCM Lane V/C Ratio	-	-	0.253	0.061	0.038	-
HCM Control Delay (s)	-	-	19.5	9.7	8.2	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	1	0.2	0.1	-

HCM 6th TWSC
18: Interurban Ave S & I-5 On Ramp

03/06/2025

Intersection												
Int Delay, s/veh	0.5											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations			↗				↗	↕			↕	↗
Traffic Vol, veh/h	0	0	4	0	0	0	88	1270	21	0	479	580
Future Vol, veh/h	0	0	4	0	0	0	88	1270	21	0	479	580
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	0	-	-	-	200	-	-	-	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	0	0	0	96	1380	23	0	521	630

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	-	-	702	521	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	381	1041	-	-	0	-	0
Stage 1	0	0	-	-	-	-	0	-	0
Stage 2	0	0	-	-	-	-	0	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	-	0	381	1041	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

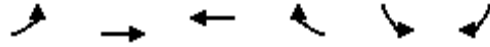
Approach	NB	SE	NW
HCM Control Delay, s	14.6	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBLn1	NWT	SEL	SET	SER
Capacity (veh/h)	381	-	1041	-	-
HCM Lane V/C Ratio	0.011	-	0.092	-	-
HCM Control Delay (s)	14.6	-	8.8	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

HCM 6th Signalized Intersection Summary

4: S Boeing Access Rd & I-5 Off Ramp

03/06/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1530	1002	0	571	487
Future Volume (veh/h)	0	1530	1002	0	571	487
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1663	1089	0	621	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2042	1421	0	1382	
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.00
Sat Flow, veh/h	0	5443	3741	0	3456	1585
Grp Volume(v), veh/h	0	1663	1089	0	621	0
Grp Sat Flow(s),veh/h/ln	0	1702	1777	0	1728	1585
Q Serve(g_s), s	0.0	11.6	10.6	0.0	5.3	0.0
Cycle Q Clear(g_c), s	0.0	11.6	10.6	0.0	5.3	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2042	1421	0	1382	
V/C Ratio(X)	0.00	0.81	0.77	0.00	0.45	
Avail Cap(c_a), veh/h	0	2042	1421	0	1382	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.7	10.4	0.0	8.8	0.0
Incr Delay (d2), s/veh	0.0	3.7	4.0	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	3.8	0.0	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	14.4	14.4	0.0	9.8	0.0
LnGrp LOS	A	B	B	A	A	
Approach Vol, veh/h		1663	1089		621	A
Approach Delay, s/veh		14.4	14.4		9.8	
Approach LOS		B	B		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				20.0	20.0	20.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				16.0	16.0	16.0
Max Q Clear Time (g_c+I1), s				13.6	7.3	12.6
Green Ext Time (p_c), s				2.0	1.7	2.2
Intersection Summary						
HCM 6th Ctrl Delay			13.5			
HCM 6th LOS			B			

Notes

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

HCM 6th Signalized Intersection Summary

11: Interurban Ave S & Gateway Dr S

03/06/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑			↑↑	
Traffic Volume (veh/h)	0	446	185	264	306	72	17	41	295	102	133	24
Future Volume (veh/h)	0	446	185	264	306	72	17	41	295	102	133	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	485	201	287	333	78	18	45	321	111	145	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1421	634	808	1146	265	592	79	567	374	601	114
Arrive On Green	0.00	0.40	0.40	0.13	0.13	0.13	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	0	3647	1585	1466	2866	662	1214	199	1417	519	1502	284
Grp Volume(v), veh/h	0	485	201	287	205	206	18	0	366	131	0	151
Grp Sat Flow(s),veh/h/ln	0	1777	1585	733	1777	1751	1214	0	1615	654	0	1651
Q Serve(g_s), s	0.0	3.8	3.5	7.5	4.2	4.3	0.4	0.0	7.0	3.5	0.0	2.4
Cycle Q Clear(g_c), s	0.0	3.8	3.5	11.3	4.2	4.3	2.8	0.0	7.0	10.6	0.0	2.4
Prop In Lane	0.00		1.00	1.00		0.38	1.00		0.88	0.85		0.17
Lane Grp Cap(c), veh/h	0	1421	634	808	711	700	592	0	646	428	0	660
V/C Ratio(X)	0.00	0.34	0.32	0.36	0.29	0.29	0.03	0.00	0.57	0.31	0.00	0.23
Avail Cap(c_a), veh/h	0	1421	634	808	711	700	592	0	646	428	0	660
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.3	8.2	17.2	12.2	12.3	8.9	0.0	9.3	12.3	0.0	7.9
Incr Delay (d2), s/veh	0.0	0.7	1.3	1.2	1.0	1.1	0.1	0.0	3.6	1.8	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.2	1.1	1.5	1.5	1.6	0.1	0.0	2.4	1.0	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.0	9.6	18.4	13.2	13.3	8.9	0.0	12.9	14.1	0.0	8.7
LnGrp LOS	A	A	A	B	B	B	A	A	B	B	A	A
Approach Vol, veh/h		686			698			384			282	
Approach Delay, s/veh		9.2			15.4			12.7			11.2	
Approach LOS		A			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		13.3		9.0		5.8		12.6				
Green Ext Time (p_c), s		1.2		1.4		2.9		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				12.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary 16: Interurban Ave S & I-5 Off Ramp

03/06/2025



Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		↔	↔
Traffic Volume (veh/h)	0	864	498	0	534	166
Future Volume (veh/h)	0	864	498	0	534	166
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	939	541	0	580	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	1421	1421	0	1382	634
Arrive On Green	0.00	0.13	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	3741	3741	0	3456	1585
Grp Volume(v), veh/h	0	939	541	0	580	180
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1728	1585
Q Serve(g_s), s	0.0	10.1	4.3	0.0	4.8	3.1
Cycle Q Clear(g_c), s	0.0	10.1	4.3	0.0	4.8	3.1
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1421	1421	0	1382	634
V/C Ratio(X)	0.00	0.66	0.38	0.00	0.42	0.28
Avail Cap(c_a), veh/h	0	1421	1421	0	1382	634
HCM Platoon Ratio	1.00	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	14.8	8.5	0.0	8.7	8.1
Incr Delay (d2), s/veh	0.0	2.4	0.8	0.0	0.9	1.1
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	4.6	1.4	0.0	1.5	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	17.2	9.3	0.0	9.6	9.2
LnGrp LOS	A	B	A	A	A	A
Approach Vol, veh/h		939	541		760	
Approach Delay, s/veh		17.2	9.3		9.5	
Approach LOS		B	A		A	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.0			20.0	20.0
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s		6.3			12.1	6.8
Green Ext Time (p_c), s		2.5			2.2	2.1
Intersection Summary						
HCM 6th Ctrl Delay			12.7			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary 22: S 129th St & Martin Luther King Jr Way S

03/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	48	84	156	195	164	126	142	1851	24	112	913	87
Future Volume (veh/h)	48	84	156	195	164	126	142	1851	24	112	913	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	91	170	212	178	137	154	2012	0	122	992	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	539	233	436	503	748	634	275	1421		180	1421	
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.00
Sat Flow, veh/h	1065	584	1090	1118	1870	1585	568	3647	0	213	3647	0
Grp Volume(v), veh/h	52	0	261	212	178	137	154	2012	0	122	992	0
Grp Sat Flow(s),veh/h/ln	1065	0	1674	1118	1870	1585	568	1777	0	213	1777	0
Q Serve(g_s), s	1.4	0.0	4.4	6.7	2.5	2.3	6.7	16.0	0.0	0.0	9.3	0.0
Cycle Q Clear(g_c), s	3.9	0.0	4.4	11.1	2.5	2.3	16.0	16.0	0.0	16.0	9.3	0.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	539	0	670	503	748	634	275	1421		180	1421	
V/C Ratio(X)	0.10	0.00	0.39	0.42	0.24	0.22	0.56	1.42		0.68	0.70	
Avail Cap(c_a), veh/h	539	0	670	503	748	634	275	1421		180	1421	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.2	0.0	8.5	12.5	8.0	7.9	17.9	12.0	0.0	20.0	10.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.7	2.6	0.7	0.8	8.0	191.2	0.0	18.6	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.5	1.7	0.9	0.7	1.9	42.2	0.0	1.9	3.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	0.0	10.2	15.0	8.7	8.7	25.9	203.2	0.0	38.6	12.9	0.0
LnGrp LOS	A	A	B	B	A	A	C	F		D	B	
Approach Vol, veh/h		313			527			2166	A		1114	A
Approach Delay, s/veh		10.1			11.2			190.6			15.7	
Approach LOS		B			B			F			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		18.0		6.4		18.0		13.1				
Green Ext Time (p_c), s		0.0		1.2		0.0		0.7				

Intersection Summary

HCM 6th Ctrl Delay	106.6
HCM 6th LOS	F

Notes

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

HCM 6th TWSC
7: S 115th St & E Marginal Way S

03/06/2025

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	76	328	167	305	604
Future Vol, veh/h	10	76	328	167	305	604
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	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	83	357	182	332	657
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1769	448	0	0	539	0
Stage 1	448	-	-	-	-	-
Stage 2	1321	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	92	611	-	-	1029	-
Stage 1	644	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	62	611	-	-	1029	-
Mov Cap-2 Maneuver	62	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	22.3	0		3.4		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	301	1029	-	
HCM Lane V/C Ratio	-	-	0.311	0.322	-	
HCM Control Delay (s)	-	-	22.3	10.2	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	1.3	1.4	-	

HCM 6th TWSC
14: Interurban Ave S & Gateway Dr N

03/06/2025

Intersection								
Int Delay, s/veh	2.2							
Movement	WBL	WBR	SEL	SET	NWT	NWR		
Lane Configurations								
Traffic Vol, veh/h	77	46	41	555	323	24		
Future Vol, veh/h	77	46	41	555	323	24		
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	0	500	-	-	-		
Veh in Median Storage, #	0	-	-	0	0	-		
Grade, %	0	-	-	0	0	-		
Peak Hour Factor	92	92	92	92	92	92		
Heavy Vehicles, %	2	2	2	2	2	2		
Mvmt Flow	84	50	45	603	351	26		
Major/Minor	Minor2		Major1		Major2			
Conflicting Flow All	756	189	377	0	-	0		
Stage 1	364	-	-	-	-	-		
Stage 2	392	-	-	-	-	-		
Critical Hdwy	6.84	6.94	4.14	-	-	-		
Critical Hdwy Stg 1	5.84	-	-	-	-	-		
Critical Hdwy Stg 2	5.84	-	-	-	-	-		
Follow-up Hdwy	3.52	3.32	2.22	-	-	-		
Pot Cap-1 Maneuver	344	821	1178	-	-	-		
Stage 1	673	-	-	-	-	-		
Stage 2	652	-	-	-	-	-		
Platoon blocked, %				-	-	-		
Mov Cap-1 Maneuver	331	821	1178	-	-	-		
Mov Cap-2 Maneuver	331	-	-	-	-	-		
Stage 1	647	-	-	-	-	-		
Stage 2	652	-	-	-	-	-		
Approach	WB		SE		NW			
HCM Control Delay, s	15.8		0.6		0			
HCM LOS	C							
Minor Lane/Major Mvmt	NWT		NWRWBLn1WBLn2		SEL	SET		
Capacity (veh/h)	-		-		331	821	1178	-
HCM Lane V/C Ratio	-		-		0.253	0.061	0.038	-
HCM Control Delay (s)	-		-		19.5	9.7	8.2	-
HCM Lane LOS	-		-		C	A	A	-
HCM 95th %tile Q(veh)	-		-		1	0.2	0.1	-

HCM 6th TWSC
18: Interurban Ave S & I-5 On Ramp

03/06/2025

Intersection												
Int Delay, s/veh	0.5											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations			↗				↗	↕			↕	↗
Traffic Vol, veh/h	0	0	4	0	0	0	88	1290	21	0	499	580
Future Vol, veh/h	0	0	4	0	0	0	88	1290	21	0	499	580
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	0	-	-	-	200	-	-	-	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	0	0	0	96	1402	23	0	542	630

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	-	-	713	542	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	374	1023	-	-	0	-	0
Stage 1	0	0	-	-	-	-	0	-	0
Stage 2	0	0	-	-	-	-	0	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	-	0	374	1023	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

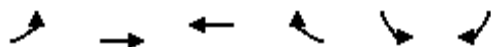
Approach	NB	SE	NW
HCM Control Delay, s	14.7	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBLn1	NWT	SEL	SET	SER
Capacity (veh/h)	374	-	1023	-	-
HCM Lane V/C Ratio	0.012	-	0.094	-	-
HCM Control Delay (s)	14.7	-	8.9	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

HCM 6th Signalized Intersection Summary

4: S Boeing Access Rd & I-5 Off Ramp

03/06/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	1530	1002	0	571	487
Future Volume (veh/h)	0	1530	1002	0	571	487
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1663	1089	0	621	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2042	1421	0	1382	
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.00
Sat Flow, veh/h	0	5443	3741	0	3456	1585
Grp Volume(v), veh/h	0	1663	1089	0	621	0
Grp Sat Flow(s),veh/h/ln	0	1702	1777	0	1728	1585
Q Serve(g_s), s	0.0	11.6	10.6	0.0	5.3	0.0
Cycle Q Clear(g_c), s	0.0	11.6	10.6	0.0	5.3	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2042	1421	0	1382	
V/C Ratio(X)	0.00	0.81	0.77	0.00	0.45	
Avail Cap(c_a), veh/h	0	2042	1421	0	1382	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.7	10.4	0.0	8.8	0.0
Incr Delay (d2), s/veh	0.0	3.7	4.0	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	3.8	0.0	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	14.4	14.4	0.0	9.8	0.0
LnGrp LOS	A	B	B	A	A	
Approach Vol, veh/h		1663	1089		621	A
Approach Delay, s/veh		14.4	14.4		9.8	
Approach LOS		B	B		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				20.0	20.0	20.0
Change Period (Y+Rc), s				4.0	4.0	4.0
Max Green Setting (Gmax), s				16.0	16.0	16.0
Max Q Clear Time (g_c+I1), s				13.6	7.3	12.6
Green Ext Time (p_c), s				2.0	1.7	2.2
Intersection Summary						
HCM 6th Ctrl Delay			13.5			
HCM 6th LOS			B			

Notes

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

HCM 6th Signalized Intersection Summary

11: Interurban Ave S & Gateway Dr S

03/06/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑			↑↑	
Traffic Volume (veh/h)	0	446	185	264	306	72	17	21	295	102	113	24
Future Volume (veh/h)	0	446	185	264	306	72	17	21	295	102	113	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	485	201	287	333	78	18	23	321	111	123	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1421	634	808	1146	265	608	43	598	403	568	125
Arrive On Green	0.00	0.40	0.40	0.13	0.13	0.13	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	0	3647	1585	1466	2866	662	1239	107	1494	578	1419	311
Grp Volume(v), veh/h	0	485	201	287	205	206	18	0	344	123	0	137
Grp Sat Flow(s),veh/h/ln	0	1777	1585	733	1777	1751	1239	0	1601	662	0	1646
Q Serve(g_s), s	0.0	3.8	3.5	7.5	4.2	4.3	0.4	0.0	6.6	3.5	0.0	2.2
Cycle Q Clear(g_c), s	0.0	3.8	3.5	11.3	4.2	4.3	2.6	0.0	6.6	10.1	0.0	2.2
Prop In Lane	0.00		1.00	1.00		0.38	1.00		0.93	0.91		0.19
Lane Grp Cap(c), veh/h	0	1421	634	808	711	700	608	0	641	436	0	658
V/C Ratio(X)	0.00	0.34	0.32	0.36	0.29	0.29	0.03	0.00	0.54	0.28	0.00	0.21
Avail Cap(c_a), veh/h	0	1421	634	808	711	700	608	0	641	436	0	658
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.3	8.2	17.2	12.2	12.3	8.7	0.0	9.2	12.4	0.0	7.9
Incr Delay (d2), s/veh	0.0	0.7	1.3	1.2	1.0	1.1	0.1	0.0	3.2	1.6	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.2	1.1	1.5	1.5	1.6	0.1	0.0	2.2	0.9	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.0	9.6	18.4	13.2	13.3	8.8	0.0	12.4	14.0	0.0	8.6
LnGrp LOS	A	A	A	B	B	B	A	A	B	B	A	A
Approach Vol, veh/h		686			698			362			260	
Approach Delay, s/veh		9.2			15.4			12.2			11.1	
Approach LOS		A			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		13.3		8.6		5.8		12.1				
Green Ext Time (p_c), s		1.2		1.3		2.9		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				12.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

16: Interurban Ave S & I-5 Off Ramp

03/06/2025



Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		↑↑	↑
Traffic Volume (veh/h)	0	844	478	0	534	166
Future Volume (veh/h)	0	844	478	0	534	166
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	917	520	0	580	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	1421	1421	0	1382	634
Arrive On Green	0.00	0.13	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	3741	3741	0	3456	1585
Grp Volume(v), veh/h	0	917	520	0	580	180
Grp Sat Flow(s),veh/h/ln	0	1777	1777	0	1728	1585
Q Serve(g_s), s	0.0	9.8	4.1	0.0	4.8	3.1
Cycle Q Clear(g_c), s	0.0	9.8	4.1	0.0	4.8	3.1
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1421	1421	0	1382	634
V/C Ratio(X)	0.00	0.65	0.37	0.00	0.42	0.28
Avail Cap(c_a), veh/h	0	1421	1421	0	1382	634
HCM Platoon Ratio	1.00	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	14.7	8.4	0.0	8.7	8.1
Incr Delay (d2), s/veh	0.0	2.3	0.7	0.0	0.9	1.1
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	4.4	1.3	0.0	1.5	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	16.9	9.2	0.0	9.6	9.2
LnGrp LOS	A	B	A	A	A	A
Approach Vol, veh/h		917	520		760	
Approach Delay, s/veh		16.9	9.2		9.5	
Approach LOS		B	A		A	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.0			20.0	20.0
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		16.0			16.0	16.0
Max Q Clear Time (g_c+I1), s		6.1			11.8	6.8
Green Ext Time (p_c), s		2.4			2.3	2.1
Intersection Summary						
HCM 6th Ctrl Delay			12.5			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary

22: S 129th St & Martin Luther King Jr Way S

03/06/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	68	84	156	195	164	126	142	1851	44	112	913	87
Future Volume (veh/h)	68	84	156	195	164	126	142	1851	44	112	913	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	91	170	212	178	137	154	2012	0	122	992	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	539	233	436	503	748	634	275	1421		180	1421	
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.00
Sat Flow, veh/h	1065	584	1090	1118	1870	1585	568	3647	0	213	3647	0
Grp Volume(v), veh/h	74	0	261	212	178	137	154	2012	0	122	992	0
Grp Sat Flow(s),veh/h/ln	1065	0	1674	1118	1870	1585	568	1777	0	213	1777	0
Q Serve(g_s), s	2.0	0.0	4.4	6.7	2.5	2.3	6.7	16.0	0.0	0.0	9.3	0.0
Cycle Q Clear(g_c), s	4.5	0.0	4.4	11.1	2.5	2.3	16.0	16.0	0.0	16.0	9.3	0.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	539	0	670	503	748	634	275	1421		180	1421	
V/C Ratio(X)	0.14	0.00	0.39	0.42	0.24	0.22	0.56	1.42		0.68	0.70	
Avail Cap(c_a), veh/h	539	0	670	503	748	634	275	1421		180	1421	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.5	0.0	8.5	12.5	8.0	7.9	17.9	12.0	0.0	20.0	10.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	1.7	2.6	0.7	0.8	8.0	191.2	0.0	18.6	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.5	1.7	0.9	0.7	1.9	42.2	0.0	1.9	3.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	0.0	10.2	15.0	8.7	8.7	25.9	203.2	0.0	38.6	12.9	0.0
LnGrp LOS	A	A	B	B	A	A	C	F		D	B	
Approach Vol, veh/h		335			527			2166	A		1114	A
Approach Delay, s/veh		10.2			11.2			190.6			15.7	
Approach LOS		B			B			F			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		18.0		6.5		18.0		13.1				
Green Ext Time (p_c), s		0.0		1.3		0.0		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			106.1									
HCM 6th LOS			F									
Notes												
Unsignalized Delay for [NWR, SER] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th TWSC
7: S 115th St & E Marginal Way S

03/06/2025

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	76	328	167	305	604
Future Vol, veh/h	10	76	328	167	305	604
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	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	83	357	182	332	657
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1769	448	0	0	539	0
Stage 1	448	-	-	-	-	-
Stage 2	1321	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	92	611	-	-	1029	-
Stage 1	644	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	62	611	-	-	1029	-
Mov Cap-2 Maneuver	62	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	22.3	0	3.4			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	301	1029	-	
HCM Lane V/C Ratio	-	-	0.311	0.322	-	
HCM Control Delay (s)	-	-	22.3	10.2	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	1.3	1.4	-	

HCM 6th TWSC
14: Interurban Ave S & Gateway Dr N

03/06/2025

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	77	46	41	555	323	24
Future Vol, veh/h	77	46	41	555	323	24
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	0	500	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	50	45	603	351	26
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	756	189	377	0	-	0
Stage 1	364	-	-	-	-	-
Stage 2	392	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	344	821	1178	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	331	821	1178	-	-	-
Mov Cap-2 Maneuver	331	-	-	-	-	-
Stage 1	647	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Approach	WB	SE		NW		
HCM Control Delay, s	15.8	0.6		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NWT	NWR	WBLn1	WBLn2	SEL	SET
Capacity (veh/h)	-	-	331	821	1178	-
HCM Lane V/C Ratio	-	-	0.253	0.061	0.038	-
HCM Control Delay (s)	-	-	19.5	9.7	8.2	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	1	0.2	0.1	-

HCM 6th TWSC
18: Interurban Ave S & I-5 On Ramp

03/06/2025

Intersection												
Int Delay, s/veh	0.5											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations			↗				↗	↕			↕	↗
Traffic Vol, veh/h	0	0	4	0	0	0	88	1270	21	0	479	580
Future Vol, veh/h	0	0	4	0	0	0	88	1270	21	0	479	580
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	0	-	-	-	200	-	-	-	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	0	0	0	96	1380	23	0	521	630

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	-	-	702	521	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	381	1041	-	-	0	-	0
Stage 1	0	0	-	-	-	-	0	-	0
Stage 2	0	0	-	-	-	-	0	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	-	0	381	1041	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

Approach	NB	SE	NW
HCM Control Delay, s	14.6	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBLn1	NWT	SEL	SET	SER
Capacity (veh/h)	381	-	1041	-	-
HCM Lane V/C Ratio	0.011	-	0.092	-	-
HCM Control Delay (s)	14.6	-	8.8	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-