



Castle Area Structure Plan Traffic Assessment Report

July 14, 2025

Submitted to: Castle and Land Development Inc.

Prepared by McElhanney

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1.1. BACKGROUND

McElhanney Ltd. (McElhanney) has been retained by Castle and Land Development Inc to prepare a transportation review to understand the future road network implications of developing the Town of Claresholm area west of 8 Street W. It is anticipated that the Phase 1 buildout will be completed by 2030. The timeline for full development buildout is unknown at the time of this assessment, and the report assumes full buildout at the 2050 horizon year. However, based on social and economic trends the full buildout of these lands could take over 100 years

The Area Structure Plan (ASP) is bounded by 59 Ave W to the north, 39 Ave W to the south, and 8 St W to the east – which also marks the edge of the Town of Claresholm.

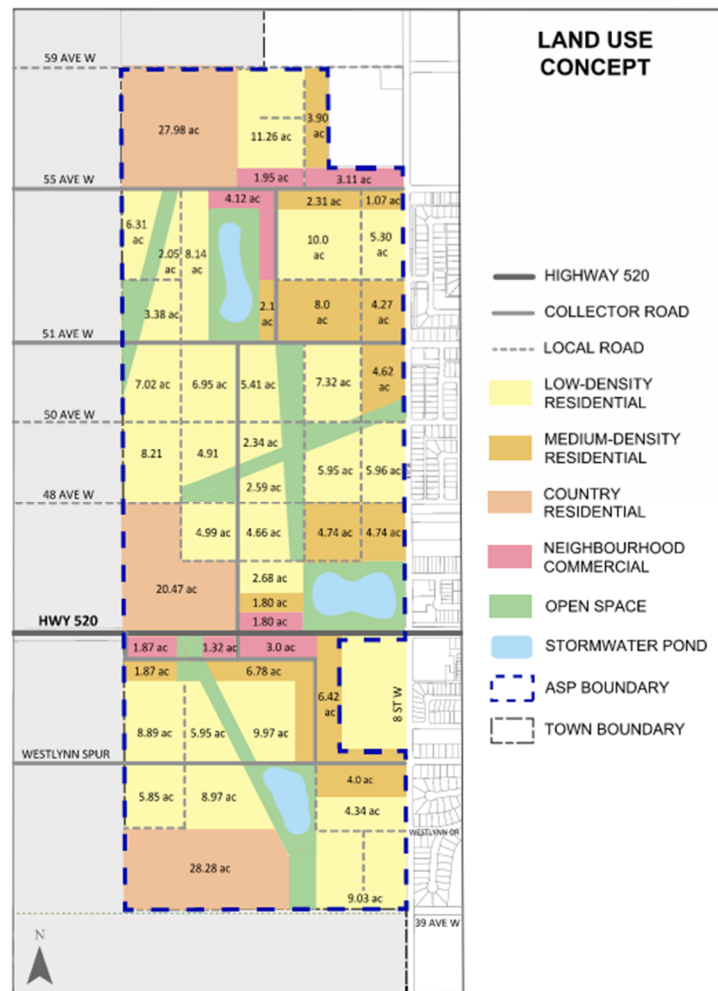


Figure 1. ASP Land Use Concept

1.2. EXISTING NETWORK

The following section explores the features of the major corridors connecting the ASP to the Town of Claresholm.

1.2.1. Highway 2

Highway 2 serves as a critical north-south corridor, with a posted speed limit of 50 km/h within the town. There are three intersections along the corridor: Highway 520, 55 Avenue, and 59 Avenue. All three intersections are unsignalized and two-way stop controlled:

- Highway 2 and Highway 520: The west approach (Highway 520) has a posted speed limit of 30 km/h. The north and south approaches have one left-turn lane, one through lane, and one shared through-right lanes
- Highway 2 and 55 Avenue W: The north and south approaches have one left-turn lane, one through lane, and one shared through-right lanes
- Highway 2 and 59 Avenue W: The north and south approaches have one left-turn lane, two through lanes, and one right-turn lane.
 - North Point ASP Bylaw 1780 – Identified traffic signal upgrades at Highway 2 at 59 Street

1.2.2. Highway 520

Highway 520 is a critical east-west corridor and known as 43 Avenue W within the Town of Claresholm. The posted speed limit within the proposed area structure plan transitions from 50 km/h to 60 km/h when going from the Town westbound into the proposed development area.

1.3. PRELIMINARY PROPOSED NETWORK

The following corridors are planned as connections between the Town of Claresholm and the ASP:

- 55 Avenue W, 59 Avenue W, and Westlynn Spur Avenue W,
- 59 Avenue W, and Westlynn Spur are classified as undivided east-west arterials within the ASP.

1.4. BACKGROUND ATR DATA

The average 10-year background growth for Highway 520 (Control Section 520:02:08) and Highway 2 (Control Section 2:08:12) were found to be -6.09% and 1.38%, respectively, using the Alberta Transportation database.

An average annual linear growth rate of 2.0% per year was used to forecast future background traffic on Highway 520 and Highway 2.



Additional traffic counts at 55 Avenue and 59 Avenue are needed to accurately model the performance at these locations. For purposes of this report, 55 Avenue and 59 Avenue at Highway 2 will not be included until data is available.

2. Methodology

This Traffic Impact Analysis (TIA) examines the network performance during peak PM demand at five key scenarios:

1. Existing Conditions: Network without development
2. Background 2030: Network without development aligning with Initial Build-Out – Phase 1
3. Background 25 Years (Applied growth at 2% for 25 years)
4. Post Development: Initial Build-Out - Phase 1
5. Post Development 25 Years: Assume full build out at 25-year horizon

The peak PM demand was used for the analysis with the understanding that the traffic generated from the new development is highest in the PM period. As such, any improvements needed to support the PM traffic will supersede improvements required for the AM period.

Traffic operations analysis for the study intersections was completed utilizing Synchro 11 for the existing (2025) and future (2050) PM peak hour. The model inputs were based on existing lane configurations, existing and forecast traffic volumes, and signal timings. The Level of Service (LOS) is a performance metric used to assess operating conditions of intersections and their respective approaches. LOS reported in the analysis scenarios are based on the methodology outlined in the 2000 Highway Capacity Manual. For unsignalized intersections, the LOS is based on the computed delays on each of the critical movements. LOS ‘A’ represents minimal delays for minor street traffic movements, and LOS ‘F’ represents a scenario with an insufficient number of gaps on the major street for minor street motorists to complete their movements without significant delays. The operating conditions can also be expressed in terms of volume-to-capacity (v/c) ratio. The unsignalized LOS criteria as summarized in HCM are also shown in Table 1.

For planning purposes, a LOS D or better and v/c ratio of less than 0.85 are considered acceptable operational standards in the context of the study area.

Table 1. 2000 Highway Capacity Manual Level of Service Criteria

Level of Service	TWSC Delay (s)	Signalized Intersection Delay (s)
A	<10.0	<10.0
B	> 10.1-15.0	10.1-20.0
C	>15.1-25.0	20.1-35.0
D	> 25.1-35.0	35.1-55.0
E	> 35.1-50.0	55.1-80.0
F	> 50	> 80



3. Background

Performance was evaluated for three existing intersections along Highway 2 under existing conditions, at the 5-year horizon following the Phase 1 initial buildout, and at the 25-year full buildout horizon, with an annual 2% background growth rate applied to highway volumes. Further performance details analysis volumes can be found in *Appendix A*.

3.1. EXISTING CONDITIONS

The existing conditions for the following intersections are summarized below:

- **Highway 520 & Highway 2:** The westbound and eastbound movements are expected to perform at LOS E or worse. All other movements are expected to perform at LOS D or better.

3.2. BACKGROUND CONDITION – 5-YEAR

The background condition for the 5-year horizon at the following intersections are summarized below:

- **Highway 520 & Highway 2:** The westbound and eastbound movements are expected to perform at LOS F. All other movements are expected to perform at LOS D or better.

3.3. BACKGROUND CONDITION – 25-YEAR

The background condition for the 25-year horizon at the following intersections are summarized below:

- **Highway 520 & Highway 2:** The westbound and eastbound movements are expected to perform at LOS F. All other movements are expected to perform at LOS D or better.

4. Site Generated Traffic and Distribution

4.1. MODEL FOR POST-DEVELOPMENT ANALYSIS

For this study, only arterials and their intersections with other arterials and collector roads were analyzed as part of this ASP. Local roads were not analyzed as the exact scope of the development has not been determined.

The 11 intersections included in the analysis are organized according to their Synchro analysis ID numbers as follows:

- 3: Westlynn Spur & Unnamed Arterial Road
- 5: Highway 520 & Unnamed Arterial Road
- 19: 51 Avenue W & Unnamed Collector Road
- 20: 51 Avenue W & Unnamed Arterial Road
- 26: 55 Avenue W & 8 St W
- 28: 55 Avenue & 8 St W
- 30: 8 St W & 51 Avenue W
- 42: 8 St & Highway 520
- 45: Westlynn Spur & 8 St W
- 53: Unnamed Arterial Intersection
- 57: Highway 2 & 520



The following figure illustrates the locations of the analysis intersections by their Synchro analysis IDs.

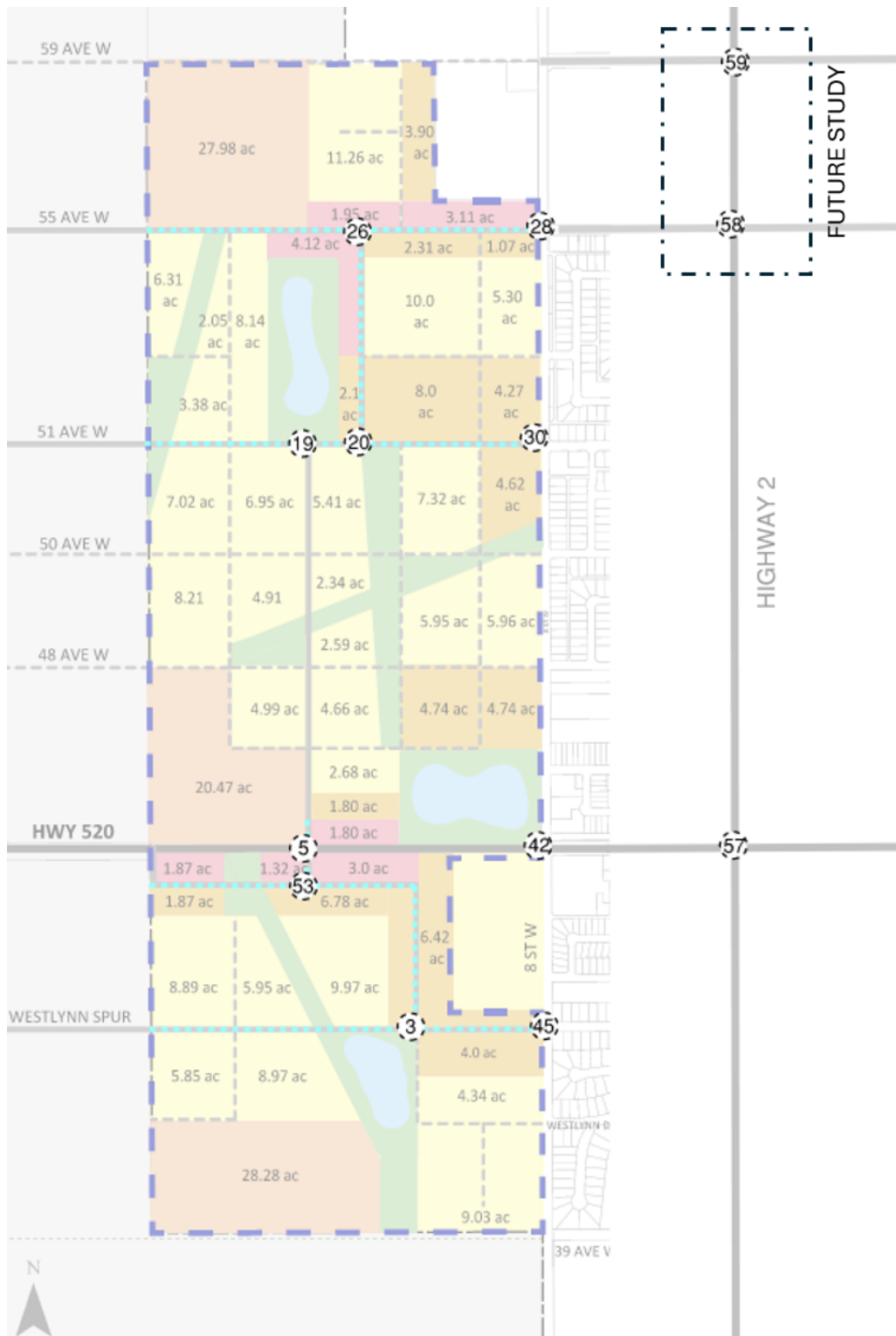


Figure 2. Analysis Intersection Locations



4.2. PROPOSED DEVELOPMENT

Post development access to the site will be available along 59 Avenue, 55 Avenue, 51 Avenue, Highway 520, and Westlynn Spur. The ASP includes low to medium density residential areas, neighbourhood commercial areas, and open green space.

A gross floor area factor was applied to the gross area for the proposed neighbourhood commercial and country residential land use areas within the ASP. This factor accounts for roads, hard surface, parking lots, and other non-developable areas. The proposed net-areas for this study for commercial use is 180.21 ksqft GFA. The proposed development includes 582 single-family attached units, around 1,108 single-family detached units, and 81 mid-rise multifamily housing units

Because the exact nature and scope of the development for these areas have not yet been determined, the study assumes the land that are similar in the ITE Trip Generation Manual. During the development permit stage of the application, the applicant should confirm whether the land uses in this study align with their particular uses.

4.3. TRIP GENERATION

Trip generation estimates for the proposed development were established based on operational information provided by Castle and Development Inc. and review of applicable rates from the *Institute of Transportation Engineers (ITE) Trip Generation 11th Edition Manual*.

The estimated trips generated by the proposed development and their assumed distributions are provided in Table 2 and Table 3.

Table 2 summarizes the study trip generation data. While the average trip rate is provided, the study utilized either the average rate or the fitted equation to generate trips, choosing the method that produced fewer trips. This approach aimed to realistically model peak hours and avoid unnecessary upgrades.

Table 2. Land Use Types

Land Use	ITE Code	Average AM Trip Rate	AM Entry	AM Exit	Average PM Trip Rate	PM Entry	PM Exit
Single-Family Attached Housing	215	0.48	25%	75%	0.57	59%	41%
Multi-family Housing: Mid-rise	221	0.37	23%	77%	0.39	61%	39%
Single-Family Detached Housing	210	0.7	25%	75%	0.94	63%	37%
Retail	820	0.84	62%	38%	3.40	48%	52%



Table 3. Trip Distribution

Zone	Road	In	Out
North	Highway 2	35%	35%
East	Highway 520	30%	30%
South	Highway 2	30%	30%
West	Highway 520	5%	5%

4.3.1. Initial Build-Out (Phase 1)

An initial development phase was modeled and was estimated to be completed over a 5-year period. However, this initial development phase is subject to change based on market conditions and other social-economic factors. As such, a more detail traffic study will be required during subdivision to accurately forecast the road and intersection needs at that time. For the purpose of this study, it has been assumed the initial buildout scenario are bounded by the areas indicated in blue in the figure below.

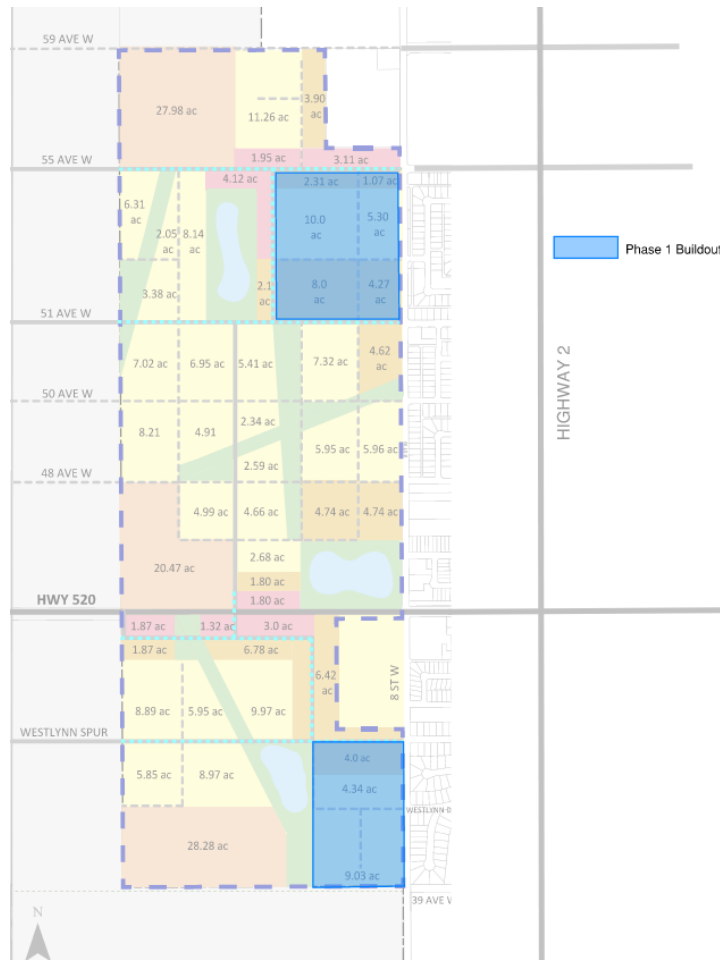


Figure 3. Phase 1 Initial Buildout Areas



4.3.2. Full Build-Out

While the timeline for full buildout of the development is unknown, the report has assumed full development to be completed by in 25 years from the initial start, and the included areas are indicated by the green highlight in the figure below.

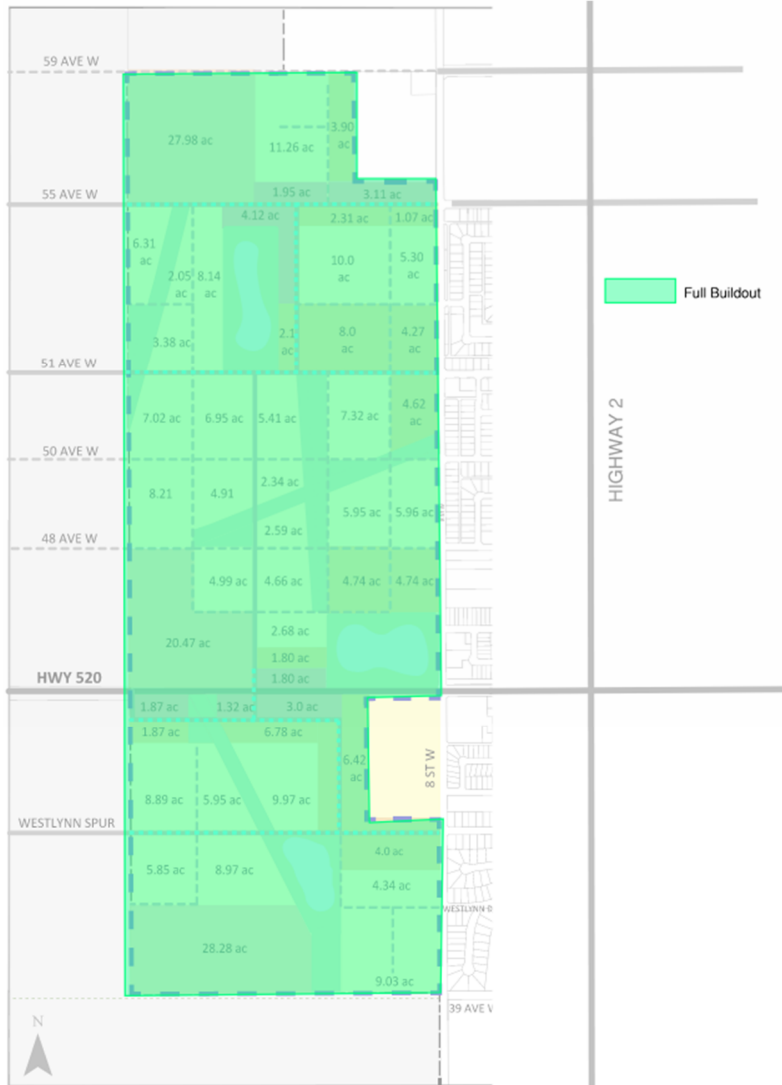


Figure 4. Full ASP Buildout



5. Initial Build-Out (Phase 1) Condition

The following unsignalized ASP intersections are used by the site-generated trips associated with the highlighted blue areas in Figure 3 and all movements are expected to perform at LOS D or better:

- INT 3 - Westlynn Spur & Unnamed Arterial Road
- INT 5 - Highway 520 & Unnamed Arterial Road
- INT 19 - 51 Avenue W & Unnamed Collector Road
- INT 20 - 51 Avenue W & Unnamed Arterial Road
- INT 26 - 55 Avenue W & 8 St W
- INT 28 - 55 Avenue & 8 St W
- INT 30 - 8 St W & 51 Avenue W
- INT 42 - 8 St & Highway 520
- INT 45 - Westlynn Spur & 8 St W

The post-development condition for the 5-year horizon at the Highway 2 unsignalized intersection are summarized below:

- **INT 57 - Highway 520 & Highway 2:** The westbound and eastbound movements are expected to perform at LOS F. All other movements are expected to perform at LOS D or better.

The results at Highway 2/Highway 520 is consistent with the predevelopment scenario.

Further performance details and analysis volumes for all study intersections can be found in *Appendix A*.



6. Post Development Condition – 25-Year

The following unsignalized ASP intersections are used by the site-generated trips associated with the highlighted green areas in Figure 4 and all movements are expected to perform at LOS D or better:

- INT 3 - Westlynn Spur & Unnamed Arterial Road
- INT 5 - Highway 520 & Unnamed Arterial Road
- INT 19 - 51 Avenue W & Unnamed Collector Road
- INT 20 - 51 Avenue W & Unnamed Arterial Road
- INT 26 - 55 Avenue W & 8 St W
- INT 28 - 55 Avenue & 8 St W
- INT 30 - 8 St W & 51 Avenue W
- INT 42 - 8 St & Highway 520
- INT 45 - Westlynn Spur & 8 St W
- INT 53 - Unnamed Arterial Intersection

The post-development condition for the 25-year horizon at the key Highway 2 unsignalized intersections are summarized below:

- **INT 57 - Highway 520 & Highway 2:** The westbound and eastbound movements are expected to perform at LOS F. All other movements are expected to perform at LOS D or better.

Further performance details and analysis volumes for all study intersections can be found in *Appendix A*.

7. Post Development Initial Buildout Condition – 5-Year Improved

As shown in the Phase 1 development scenario, the combined effect of site-generated trips and background growth is projected to cause movements in the Highway 520 & Highway 2 intersection to reach LOS E or worse. To mitigate these potential performance issues, **signalization is identified as a possible solution**. A preliminary analysis indicates that signalization could result in LOS B or better for all vehicle movements at the following intersection, with further details available in Appendix A

- INT 57 - Highway 520 & Highway 2



8. Post Development Full Buildout Condition – 25-Year Improved

As shown in the 2050 post-development scenario, the combined effect of site-generated trips and background growth may result in the Highway 520 & Highway 2 intersection reaching LOS F.

Signalization is identified as a potential measure to address capacity and performance issues under this full build-out scenario.

The resulting LOS and performance improvements are summarized below and further details are listed in *Appendix A*.

The post-development condition for the 25-year horizon at the Highway 2 & Highway 520 expects all movements to perform at LOS D or better.

9. Future Highway 2 Bypass

Highway 2 will bypass Claresholm as the town and region grow. This realignment will connect Canada, the United States, and Mexico as part of a trade corridor. When complete, regional north-south traffic will drop significantly. The identified proposed upgrades traffic signal upgrades and intersection design within the ASP will no longer be accurate.

The proposed solution outlined in the report assumes the worst case where new site-generated development traffic still mixes with existing Highway 2 regional traffic. When Highway 2 becomes Highway 2A, north-south traffic will consist of local trips to and from Claresholm rather than regional pass-through trips. Future trip patterns will need to be updated to match the new bypass.

After the bypass opens, the east part of Secondary Highway 520 (43rd Avenue) will become the main corridor into Claresholm.



10. Conclusion and Recommendations

It is expected that the full build out of these lands will take over 100 years and will be driven by social and economic trends.

This traffic assessment provides a high-level review of the transportation implications of the proposed Castle ASP. The analysis indicates that the proposed internal road network concept appears capable of managing the anticipated traffic from the development, with internal intersections projected to perform at acceptable levels.

The primary transportation consideration identified is the existing operational state of the Highway 2 & Highway 520 intersection. The analysis forecasts that this intersection will approach and ultimately exceed its capacity (LOS F) due to background traffic growth alone, independent of the proposed development.

The recommendations provided here are preliminary and intended to guide future, more detailed planning. As acknowledged in this report, further studies will be essential at the subdivision stage to refine these findings and define specific infrastructure requirements based on market conditions and detailed engineering design.

Based on this assessment, we recommend the following for future consideration:

- A traffic signal should be implemented at the Highway 2 & Highway 520 intersection. This upgrade is necessary to address existing and future background traffic failures and is the key mitigation required to accommodate the ASP.
- Traffic counts should be conducted at the intersections of Highway 2 & 55 Avenue W. This data is needed to complete the analysis for these locations and determine if pre-development improvements are required.
- Highway 2 & 59 Avenue W improvements have been identified in the North Point ASP Bylaw 1780. Further analysis with the forecasted volumes will be needed to understand performance as the initial and build out phases are added to the intersection.

All other study intersections within the ASP are expected to perform adequately with unsignalized controls, and stop control configuration details can be found in *Appendix A*.



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














APPENDIX A

Analysis Volumes

HCM Unsignalized Intersection Capacity Analysis

3: Westlynn Spur

















07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service									A
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

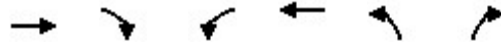
5: Hwy 520

07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service									A
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis
 19: 51 Ave

07-04-2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0

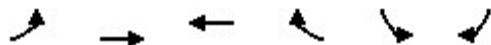
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	0	0	0
Volume Left (vph)	0	0	0
Volume Right (vph)	0	0	0
Hadj (s)	0.00	0.00	0.00
Departure Headway (s)	3.9	3.9	3.9
Degree Utilization, x	0.00	0.00	0.00
Capacity (veh/h)	917	917	917
Control Delay (s)	6.9	6.9	6.9
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A	A	A

Intersection Summary			
Delay		0.0	
Level of Service		A	
Intersection Capacity Utilization	0.0%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

20: 51 Ave

07-04-2025



















Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	0	0	0			
Volume Left (vph)	0	0	0			
Volume Right (vph)	0	0	0			
Hadj (s)	0.00	0.00	0.00			
Departure Headway (s)	3.9	3.9	3.9			
Degree Utilization, x	0.00	0.00	0.00			
Capacity (veh/h)	917	917	917			
Control Delay (s)	6.9	6.9	6.9			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A	A	A			
Intersection Summary						
Delay			0.0			
Level of Service			A			
Intersection Capacity Utilization			0.0%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

26: 55 Avenue

















07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service									A
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

28: 55 Avenue & 8 St W

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage (veh)												
Upstream signal (ft)												
								847				
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1085	1023	896	1091	1623			1623		
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	0	0	0								
Volume Left	0	0	0	0								
Volume Right	0	0	0	0								
cSH	1700	1700	1700	1700								
Volume to Capacity	0.03	0.12	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.0	0.0	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilization			0.0%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

30: 8 St

















07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service				A					
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

















42: 8 St & Hwy 520

07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1085	1023	896	1085	1623			1623		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	0	0	0								
Volume Left	0	0	0	0								
Volume Right	0	0	0	0								
cSH	1700	1700	1700	1700								
Volume to Capacity	0.00	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.0	0.0	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilization			0.0%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 45: Westlynn Spur & 8 St

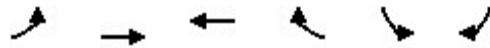
07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	0	0	0	0								
Volume Left (vph)	0	0	0	0								
Volume Right (vph)	0	0	0	0								
Hadj (s)	0.00	0.00	0.00	0.00								
Departure Headway (s)	3.9	3.9	3.9	3.9								
Degree Utilization, x	0.00	0.00	0.00	0.00								
Capacity (veh/h)	917	917	917	917								
Control Delay (s)	6.9	6.9	6.9	6.9								
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			0.0									
Level of Service			A									
Intersection Capacity Utilization			0.0%	ICU Level of Service								A
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

53:

07-04-2025






















Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	0	0	0			
Volume Left (vph)	0	0	0			
Volume Right (vph)	0	0	0			
Hadj (s)	0.00	0.00	0.00			
Departure Headway (s)	3.9	3.9	3.9			
Degree Utilization, x	0.00	0.00	0.00			
Capacity (veh/h)	917	917	917			
Control Delay (s)	6.9	6.9	6.9			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A	A	A			
Intersection Summary						
Delay			0.0			
Level of Service			A			
Intersection Capacity Utilization			13.3%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

57: Hwy 520 & Hwy 2

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	25	44	21	20	140	32	492	63	136	503	66
Future Volume (Veh/h)	44	25	44	21	20	140	32	492	63	136	503	66
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	49	28	49	23	22	156	36	547	70	151	559	73
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1254	1516	316	1250	1515	308	559			547		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1254	1516	316	1250	1515	308	559			547		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	31	71	93	72	77	77	96			85		
cM capacity (veh/h)	71	97	680	81	97	687	1008			1018		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	126	201	36	365	252	151	373	259				
Volume Left	49	23	36	0	0	151	0	0				
Volume Right	49	156	0	0	70	0	0	73				
cSH	120	273	1008	1700	1700	1018	1700	1700				
Volume to Capacity	1.05	0.74	0.04	0.21	0.15	0.15	0.22	0.15				
Queue Length 95th (ft)	181	132	3	0	0	13	0	0				
Control Delay (s)	165.6	47.7	8.7	0.0	0.0	9.1	0.0	0.0				
Lane LOS	F	E	A			A						
Approach Delay (s)	165.6	47.7	0.5			1.8						
Approach LOS	F	E										
Intersection Summary												
Average Delay			18.2									
Intersection Capacity Utilization			48.9%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

3: Westlynn Spur

















07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service									A
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

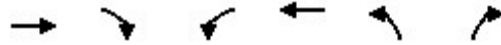
5: Hwy 520

07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service									A
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis
 19: 51 Ave

07-04-2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↶	↷
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0

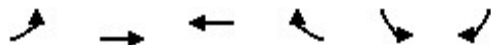
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	0	0	0
Volume Left (vph)	0	0	0
Volume Right (vph)	0	0	0
Hadj (s)	0.00	0.00	0.00
Departure Headway (s)	3.9	3.9	3.9
Degree Utilization, x	0.00	0.00	0.00
Capacity (veh/h)	917	917	917
Control Delay (s)	6.9	6.9	6.9
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A	A	A

Intersection Summary			
Delay		0.0	
Level of Service		A	
Intersection Capacity Utilization	0.0%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

20: 51 Ave

07-04-2025



















Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	0	0	0			
Volume Left (vph)	0	0	0			
Volume Right (vph)	0	0	0			
Hadj (s)	0.00	0.00	0.00			
Departure Headway (s)	3.9	3.9	3.9			
Degree Utilization, x	0.00	0.00	0.00			
Capacity (veh/h)	917	917	917			
Control Delay (s)	6.9	6.9	6.9			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A	A	A			
Intersection Summary						
Delay			0.0			
Level of Service			A			
Intersection Capacity Utilization			0.0%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

26: 55 Avenue

















07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service									A
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

28: 55 Avenue & 8 St W

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage (veh)												
Upstream signal (ft)												
								847				
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1085	1023	896	1091	1623			1623		
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	0	0	0								
Volume Left	0	0	0	0								
Volume Right	0	0	0	0								
cSH	1700	1700	1700	1700								
Volume to Capacity	0.03	0.12	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.0	0.0	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilization			0.0%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

30: 8 St

















07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service									A
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

















42: 8 St & Hwy 520

07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1085	1023	896	1085	1623			1623		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	0	0	0								
Volume Left	0	0	0	0								
Volume Right	0	0	0	0								
cSH	1700	1700	1700	1700								
Volume to Capacity	0.00	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.0	0.0	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilization			0.0%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 45: Westlynn Spur & 8 St

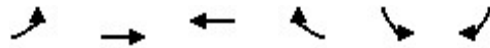
07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service									A
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

53:

07-04-2025






















Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	0	0	0			
Volume Left (vph)	0	0	0			
Volume Right (vph)	0	0	0			
Hadj (s)	0.00	0.00	0.00			
Departure Headway (s)	3.9	3.9	3.9			
Degree Utilization, x	0.00	0.00	0.00			
Capacity (veh/h)	917	917	917			
Control Delay (s)	6.9	6.9	6.9			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A	A	A			
Intersection Summary						
Delay			0.0			
Level of Service			A			
Intersection Capacity Utilization			13.3%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

57: Hwy 520 & Hwy 2

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	28	48	23	22	154	35	541	69	150	553	73
Future Volume (Veh/h)	48	28	48	23	22	154	35	541	69	150	553	73
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	53	31	53	26	24	171	39	601	77	167	614	81
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1379	1668	348	1374	1666	339	614			601		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1379	1668	348	1374	1666	339	614			601		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	59	92	53	68	74	96			83		
cM capacity (veh/h)	49	76	649	56	76	657	961			972		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	137	221	39	401	277	167	409	286				
Volume Left	53	26	39	0	0	167	0	0				
Volume Right	53	171	0	0	77	0	0	81				
cSH	88	212	961	1700	1700	972	1700	1700				
Volume to Capacity	1.57	1.04	0.04	0.24	0.16	0.17	0.24	0.17				
Queue Length 95th (ft)	273	242	3	0	0	15	0	0				
Control Delay (s)	386.0	121.0	8.9	0.0	0.0	9.5	0.0	0.0				
Lane LOS	F	F	A			A						
Approach Delay (s)	386.0	121.0	0.5			1.8						
Approach LOS	F	F										
Intersection Summary												
Average Delay			42.1									
Intersection Capacity Utilization			52.7%			ICU Level of Service				A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

3: Westlynn Spur

















07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service									A
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

5: Hwy 520

07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					246							
pX, platoon unblocked												
vC, conflicting volume	0			0			0	0	0	0	0	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			0			0	0	0	0	0	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1623			1623			1023	896	1085	1023	896	1085
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	0	0	0								
Volume Left	0	0	0	0								
Volume Right	0	0	0	0								
cSH	1700	1700	1700	1700								
Volume to Capacity	0.00	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.0	0.0	0.0	0.0								
Lane LOS				A	A							
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS				A	A							
Intersection Summary												
Average Delay				0.0								
Intersection Capacity Utilization				0.0%	ICU Level of Service					A		
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis

19: 51 Ave

07-04-2025

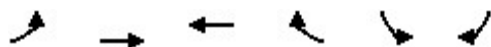


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↘	↙
Traffic Volume (veh/h)	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	638					
pX, platoon unblocked						
vC, conflicting volume	0			0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0			0	0	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	100			100	100	
cM capacity (veh/h)	1623			1023	1085	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	0	0	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.00	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS				A		
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS				A		
Intersection Summary						
Average Delay	0.0					
Intersection Capacity Utilization	0.0%			ICU Level of Service	A	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

20: 51 Ave

07-04-2025



















Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Volume (veh/h)	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)	269					
pX, platoon unblocked						
vC, conflicting volume	0				0	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				0	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1623				1023	1085
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	0	0	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1700			
Volume to Capacity	0.00	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS				A		
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS				A		
Intersection Summary						
Average Delay				0.0		
Intersection Capacity Utilization				0.0%	ICU Level of Service	A
Analysis Period (min)				15		

HCM Unsignalized Intersection Capacity Analysis

26: 55 Avenue

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)	174											
pX, platoon unblocked												
vC, conflicting volume	0			0			0	0	0	0	0	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			0			0	0	0	0	0	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1623			1623			1023	896	1085	1023	896	1085
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	0	0	0								
Volume Left	0	0	0	0								
Volume Right	0	0	0	0								
cSH	1700	1700	1700	1700								
Volume to Capacity	0.00	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.0	0.0	0.0	0.0								
Lane LOS				A	A							
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS				A	A							
Intersection Summary												
Average Delay				0.0								
Intersection Capacity Utilization				0.0%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis

28: 55 Avenue & 8 St W

















07-04-2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control	Stop			Stop			Stop			Stop			
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total (vph)	0	0	0	0									
Volume Left (vph)	0	0	0	0									
Volume Right (vph)	0	0	0	0									
Hadj (s)	0.00	0.00	0.00	0.00									
Departure Headway (s)	3.9	3.9	3.9	3.9									
Degree Utilization, x	0.00	0.00	0.00	0.00									
Capacity (veh/h)	917	917	917	917									
Control Delay (s)	6.9	6.9	6.9	6.9									
Approach Delay (s)	0.0	0.0	0.0	0.0									
Approach LOS	A	A	A	A									
Intersection Summary													
Delay			0.0										
Level of Service			A										
Intersection Capacity Utilization			0.0%	ICU Level of Service									A
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

















30: 8 St

07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			0			0	0	0	0	0	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			0			0	0	0	0	0	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1623			1623			1023	896	1085	1023	896	1085
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	0	0	0								
Volume Left	0	0	0	0								
Volume Right	0	0	0	0								
cSH	1700	1700	1700	1700								
Volume to Capacity	0.00	0.00	0.05	0.08								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.0	0.0	0.0	0.0								
Lane LOS			A	A								
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS			A	A								
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilization			0.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 42: 8 St & Hwy 520

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											1218	
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1085	1023	896	1085	1623			1623		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	0	0	0								
Volume Left	0	0	0	0								
Volume Right	0	0	0	0								
cSH	1700	1700	1700	1700								
Volume to Capacity	0.00	0.06	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.0	0.0	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilization			0.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

45: Westlynn Spur & 8 St

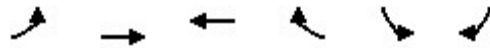
07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage (veh)												
Upstream signal (ft)												
								181				
pX, platoon unblocked												
vC, conflicting volume	0	0	0	0	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	0	0	0	0	0	0			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	1023	896	1085	1023	896	1085	1623			1623		
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	0	0	0								
Volume Left	0	0	0	0								
Volume Right	0	0	0	0								
cSH	1700	1700	1700	1700								
Volume to Capacity	0.00	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.0	0.0	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	0.0	0.0	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			0.0									
Intersection Capacity Utilization			0.0%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

53:



















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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	0
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	0	0	0			
Volume Left (vph)	0	0	0			
Volume Right (vph)	0	0	0			
Hadj (s)	0.00	0.00	0.00			
Departure Headway (s)	3.9	3.9	3.9			
Degree Utilization, x	0.00	0.00	0.00			
Capacity (veh/h)	917	917	917			
Control Delay (s)	6.9	6.9	6.9			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A	A	A			
Intersection Summary						
Delay			0.0			
Level of Service			A			
Intersection Capacity Utilization			0.0%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
57: Hwy 520 & Hwy 2

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	41	72	34	33	230	52	807	103	223	825	108
Future Volume (Veh/h)	72	41	72	34	33	230	52	807	103	223	825	108
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	80	46	80	38	37	256	58	897	114	248	917	120
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2056	2486	518	2048	2483	506	917			897		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2056	2486	518	2048	2483	506	917			897		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	0	84	0	0	50	92			67		
cM capacity (veh/h)	0	18	502	0	18	512	740			753		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	206	331	58	598	413	248	611	426				
Volume Left	80	38	58	0	0	248	0	0				
Volume Right	80	256	0	0	114	0	0	120				
cSH	0	0	740	1700	1700	753	1700	1700				
Volume to Capacity	Err	Err	0.08	0.35	0.24	0.33	0.36	0.25				
Queue Length 95th (ft)	Err	Err	6	0	0	36	0	0				
Control Delay (s)	Err	Err	10.3	0.0	0.0	12.1	0.0	0.0				
Lane LOS	F	F	B			B						
Approach Delay (s)	Err	Err	0.6			2.3						
Approach LOS	F	F										
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			73.9%		ICU Level of Service					D		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

3: Westlynn Spur

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	0	3	0	0	0	4	0	0
Future Volume (vph)	0	0	0	0	0	3	0	0	0	4	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	0	0	3	0	0	0	4	0	0
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	0	3	0	4								
Volume Left (vph)	0	0	0	4								
Volume Right (vph)	0	3	0	0								
Hadj (s)	0.00	-0.57	0.00	0.23								
Departure Headway (s)	3.9	3.3	3.9	4.1								
Degree Utilization, x	0.00	0.00	0.00	0.00								
Capacity (veh/h)	914	1069	915	864								
Control Delay (s)	6.9	6.4	6.9	7.2								
Approach Delay (s)	0.0	6.4	0.0	7.2								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			6.8									
Level of Service			A									
Intersection Capacity Utilization			13.3%	ICU Level of Service								A
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

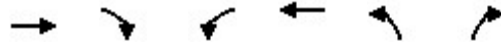
5: Hwy 520

07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	3	0	4	0	0	0	3	0	0	0	0	0
Future Volume (vph)	3	0	4	0	0	0	3	0	0	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	3	0	4	0	0	0	3	0	0	0	0	0
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	7	0	3	0								
Volume Left (vph)	3	0	3	0								
Volume Right (vph)	4	0	0	0								
Hadj (s)	-0.22	0.00	0.23	0.00								
Departure Headway (s)	3.7	3.9	4.1	3.9								
Degree Utilization, x	0.01	0.00	0.00	0.00								
Capacity (veh/h)	969	914	853	913								
Control Delay (s)	6.7	6.9	7.2	6.9								
Approach Delay (s)	6.7	0.0	7.2	0.0								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			6.8									
Level of Service			A									
Intersection Capacity Utilization			13.3%	ICU Level of Service								A
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 19: 51 Ave

07-04-2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	0	0	1	0	0	2
Future Volume (vph)	0	0	1	0	0	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	1	0	0	2

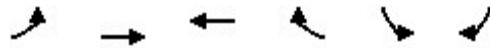
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	0	1	2
Volume Left (vph)	0	1	0
Volume Right (vph)	0	0	2
Hadj (s)	0.00	0.23	-0.57
Departure Headway (s)	3.9	4.1	3.3
Degree Utilization, x	0.00	0.00	0.00
Capacity (veh/h)	916	865	1075
Control Delay (s)	6.9	7.1	6.3
Approach Delay (s)	0.0	7.1	6.3
Approach LOS	A	A	A

Intersection Summary			
Delay		6.6	
Level of Service		A	
Intersection Capacity Utilization	13.3%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

20: 51 Ave

07-04-2025



















Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	2	0	0	0	0	1
Future Volume (vph)	2	0	0	0	0	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	2	0	0	0	0	1
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	2	0	1			
Volume Left (vph)	2	0	0			
Volume Right (vph)	0	0	1			
Hadj (s)	0.23	0.00	-0.57			
Departure Headway (s)	4.1	3.9	3.3			
Degree Utilization, x	0.00	0.00	0.00			
Capacity (veh/h)	864	916	1074			
Control Delay (s)	7.1	6.9	6.3			
Approach Delay (s)	7.1	0.0	6.3			
Approach LOS	A	A	A			
Intersection Summary						
Delay			6.9			
Level of Service			A			
Intersection Capacity Utilization			13.3%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

26: 55 Avenue

07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	1	0	5	0	0	0	0	0	0	0	0
Future Volume (vph)	0	1	0	5	0	0	0	0	0	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	1	0	6	0	0	0	0	0	0	0	0
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	1	6	0	0								
Volume Left (vph)	0	6	0	0								
Volume Right (vph)	0	0	0	0								
Hadj (s)	0.03	0.23	0.00	0.00								
Departure Headway (s)	3.9	4.1	3.9	3.9								
Degree Utilization, x	0.00	0.01	0.00	0.00								
Capacity (veh/h)	906	866	913	913								
Control Delay (s)	6.9	7.2	6.9	6.9								
Approach Delay (s)	6.9	7.2	0.0	0.0								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.1									
Level of Service			A									
Intersection Capacity Utilization			7.5%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

28: 55 Avenue & 8 St W

07-04-2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	21	1	72	34	0	1	0	49	0	0	0
Future Volume (vph)	0	21	1	72	34	0	1	0	49	0	0	0
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	23	1	72	34	0	1	0	54	0	0	0

















Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	24	106	55	0
Volume Left (vph)	0	72	1	0
Volume Right (vph)	1	0	54	0
Hadj (s)	0.01	0.17	-0.55	0.00
Departure Headway (s)	4.1	4.2	3.6	4.2
Degree Utilization, x	0.03	0.12	0.06	0.00
Capacity (veh/h)	852	842	948	826
Control Delay (s)	7.2	7.8	6.8	7.2
Approach Delay (s)	7.2	7.8	6.8	0.0
Approach LOS	A	A	A	A

Intersection Summary			
Delay		7.4	
Level of Service		A	
Intersection Capacity Utilization	22.4%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

30: 8 St

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	10	0	5	0	0	0	7	34	0	0	53	16
Future Volume (vph)	10	0	5	0	0	0	7	34	0	0	53	16
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	0	6	0	0	0	8	38	0	0	59	18
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	17	0	46	77								
Volume Left (vph)	11	0	8	0								
Volume Right (vph)	6	0	0	18								
Hadj (s)	-0.05	0.00	0.07	-0.11								
Departure Headway (s)	4.1	4.2	4.1	3.9								
Degree Utilization, x	0.02	0.00	0.05	0.08								
Capacity (veh/h)	847	840	865	918								
Control Delay (s)	7.2	7.2	7.3	7.2								
Approach Delay (s)	7.2	0.0	7.3	7.2								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.2									
Level of Service			A									
Intersection Capacity Utilization			17.8%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

42: 8 St & Hwy 520

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	24	0	29	0	33	15	20	52	0
Future Volume (Veh/h)	0	0	0	24	0	29	0	33	15	20	52	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	24	0	29	0	37	17	22	58	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage (veh)												
Upstream signal (ft)												
											1218	
pX, platoon unblocked												
vC, conflicting volume	176	156	58	148	148	46	58			54		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	176	156	58	148	148	46	58			54		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	97	100	97	100			99		
cM capacity (veh/h)	755	726	1008	812	733	1024	1546			1551		
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	0	53	54	80								
Volume Left	0	24	0	22								
Volume Right	0	29	17	0								
cSH	1700	916	1546	1551								
Volume to Capacity	0.00	0.06	0.00	0.01								
Queue Length 95th (ft)	0	5	0	1								
Control Delay (s)	0.0	9.2	0.0	2.1								
Lane LOS	A	A		A								
Approach Delay (s)	0.0	9.2	0.0	2.1								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.5									
Intersection Capacity Utilization			20.5%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

45: Westlynn Spur & 8 St

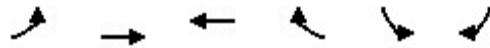
07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	4	0	0	0	3	48	0	0	76	0
Future Volume (Veh/h)	0	0	4	0	0	0	3	48	0	0	76	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	4	0	0	0	3	53	0	0	84	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
								None			None	
Median storage (veh)												
Upstream signal (ft)												
								181				
pX, platoon unblocked												
vC, conflicting volume	143	143	84	147	143	53	84				53	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	143	143	84	147	143	53	84				53	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %												
	100	100	100	100	100	100	100				100	
cM capacity (veh/h)												
	825	747	975	817	747	1014	1513				1553	
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	4	0	56	84								
Volume Left	0	0	3	0								
Volume Right	4	0	0	0								
cSH	975	1700	1513	1553								
Volume to Capacity	0.00	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	8.7	0.0	0.4	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.7	0.0	0.4	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			0.4									
Intersection Capacity Utilization			15.0%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

53:

07-04-2025






















Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	0	0	0	3	4	0
Future Volume (vph)	0	0	0	3	4	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	3	4	0
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	0	3	4			
Volume Left (vph)	0	0	4			
Volume Right (vph)	0	3	0			
Hadj (s)	0.00	-0.57	0.23			
Departure Headway (s)	3.9	3.3	4.1			
Degree Utilization, x	0.00	0.00	0.00			
Capacity (veh/h)	914	1069	866			
Control Delay (s)	6.9	6.4	7.2			
Approach Delay (s)	0.0	6.4	7.2			
Approach LOS	A	A	A			
Intersection Summary						
Delay			6.8			
Level of Service			A			
Intersection Capacity Utilization			13.3%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

57: Hwy 520 & Hwy 2

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	28	83	23	22	154	88	541	69	150	553	73
Future Volume (Veh/h)	48	28	83	23	22	154	88	541	69	150	553	73
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	53	31	92	26	24	171	98	601	77	167	614	81
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1497	1786	348	1492	1784	339	614			601		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1497	1786	348	1492	1784	339	614			601		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	48	86	27	60	74	90			83		
cM capacity (veh/h)	35	60	649	36	60	657	961			972		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	176	221	98	401	277	167	409	286				
Volume Left	53	26	98	0	0	167	0	0				
Volume Right	92	171	0	0	77	0	0	81				
cSH	81	159	961	1700	1700	972	1700	1700				
Volume to Capacity	2.16	1.39	0.10	0.24	0.16	0.17	0.24	0.17				
Queue Length 95th (ft)	399	344	8	0	0	15	0	0				
Control Delay (s)	645.3	262.6	9.2	0.0	0.0	9.5	0.0	0.0				
Lane LOS	F	F	A			A						
Approach Delay (s)	645.3	262.6	1.2			1.8						
Approach LOS	F	F										
Intersection Summary												
Average Delay			85.5									
Intersection Capacity Utilization			54.4%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

3: Westlynn Spur

07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	92	0	0	161	29	0	0	0	23	0	8
Future Volume (Veh/h)	6	92	0	0	161	29	0	0	0	23	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	7	102	0	0	179	32	0	0	0	26	0	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	211			102			320	327	102	311	311	195
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	211			102			320	327	102	311	311	195
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	96	100	99
cM capacity (veh/h)	1360			1490			624	588	953	639	601	846
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	109	211	0	35								
Volume Left	7	0	0	26								
Volume Right	0	32	0	9								
cSH	1360	1490	1700	682								
Volume to Capacity	0.01	0.00	0.00	0.05								
Queue Length 95th (ft)	0	0	0	4								
Control Delay (s)	0.5	0.0	0.0	10.6								
Lane LOS	A		A	B								
Approach Delay (s)	0.5	0.0	0.0	10.6								
Approach LOS			A	B								
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			20.2%	ICU Level of Service		A						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

5: Hwy 520

07-04-2025

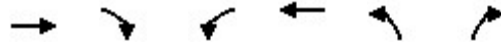


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	13	4	19	36	2	29	16	73	33	26	78	7
Future Volume (Veh/h)	13	4	19	36	2	29	16	73	33	26	78	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	14	4	21	40	2	32	18	81	37	29	87	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					246							
pX, platoon unblocked												
vC, conflicting volume	34			25			192	156	14	218	151	18
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	34			25			192	156	14	218	151	18
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			97			97	89	97	95	88	99
cM capacity (veh/h)	1578			1589			673	711	1065	634	716	1061
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	39	74	136	124								
Volume Left	14	40	18	29								
Volume Right	21	32	37	8								
cSH	1578	1589	775	709								
Volume to Capacity	0.01	0.03	0.18	0.17								
Queue Length 95th (ft)	1	2	16	16								
Control Delay (s)	2.7	4.0	10.6	11.1								
Lane LOS	A	A	B	B								
Approach Delay (s)	2.7	4.0	10.6	11.1								
Approach LOS			B	B								
Intersection Summary												
Average Delay			8.7									
Intersection Capacity Utilization			22.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

19: 51 Ave

07-04-2025

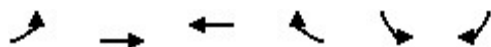


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↔	↔
Traffic Volume (veh/h)	6	13	130	9	22	101
Future Volume (Veh/h)	6	13	130	9	22	101
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	7	14	144	10	24	112
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	638					
pX, platoon unblocked						
vC, conflicting volume			21		312	14
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			21		312	14
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		96	89
cM capacity (veh/h)			1595		619	1066
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	21	154	136			
Volume Left	0	144	24			
Volume Right	14	0	112			
cSH	1700	1595	946			
Volume to Capacity	0.01	0.09	0.14			
Queue Length 95th (ft)	0	7	13			
Control Delay (s)	0.0	7.0	9.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	7.0	9.4			
Approach LOS			A			
Intersection Summary						
Average Delay			7.6			
Intersection Capacity Utilization			28.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

20: 51 Ave

07-04-2025



















Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Volume (veh/h)	107	0	0	26	26	139
Future Volume (Veh/h)	107	0	0	26	26	139
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	119	0	0	29	29	154
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			269			
pX, platoon unblocked						
vC, conflicting volume	29				252	14
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	29				252	14
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				96	86
cM capacity (veh/h)	1584				681	1065
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	119	29	183			
Volume Left	119	0	29			
Volume Right	0	29	154			
cSH	1584	1700	978			
Volume to Capacity	0.08	0.02	0.19			
Queue Length 95th (ft)	6	0	17			
Control Delay (s)	7.5	0.0	9.5			
Lane LOS	A		A			
Approach Delay (s)	7.5	0.0	9.5			
Approach LOS			A			
Intersection Summary						
Average Delay			7.9			
Intersection Capacity Utilization		29.3%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

26: 55 Avenue

07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	95	25	97	122	0	25	0	75	0	0	0
Future Volume (Veh/h)	0	95	25	97	122	0	25	0	75	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	106	28	108	136	0	28	0	83	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		174										
pX, platoon unblocked												
vC, conflicting volume	136			134			472	472	120	555	486	136
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	136			134			472	472	120	555	486	136
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			93			94	100	91	100	100	100
cM capacity (veh/h)	1448			1451			474	454	931	380	446	913
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	134	244	111	0								
Volume Left	0	108	28	0								
Volume Right	28	0	83	0								
cSH	1700	1451	749	1700								
Volume to Capacity	0.08	0.07	0.15	0.00								
Queue Length 95th (ft)	0	6	13	0								
Control Delay (s)	0.0	3.7	10.6	0.0								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	3.7	10.6	0.0								
Approach LOS			B	A								
Intersection Summary												
Average Delay			4.3									
Intersection Capacity Utilization			31.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

28: 55 Avenue & 8 St W

07-04-2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	107	1	392	131	0	24	0	260	0	0	0
Future Volume (vph)	0	107	1	392	131	0	24	0	260	0	0	0
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	119	1	392	131	0	27	0	289	0	0	0
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	120	523	316	0								
Volume Left (vph)	0	392	27	0								
Volume Right (vph)	1	0	289	0								
Hadj (s)	0.03	0.18	-0.50	0.00								
Departure Headway (s)	5.6	5.1	5.1	6.2								
Degree Utilization, x	0.19	0.75	0.45	0.00								
Capacity (veh/h)	590	682	651	511								
Control Delay (s)	9.8	21.8	12.2	9.2								
Approach Delay (s)	9.8	21.8	12.2	0.0								
Approach LOS	A	C	B	A								

Intersection Summary

Delay	17.1		
Level of Service	C		
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

30: 8 St

07-04-2025



















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	20	0	10	0	0	0	14	147	0	0	196	31
Future Volume (Veh/h)	20	0	10	0	0	0	14	147	0	0	196	31
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	0	11	0	0	0	16	163	0	0	218	34
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			11			192	50	6	131	55	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			11			192	50	6	131	55	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			97	80	100	100	74	97
cM capacity (veh/h)	1623			1608			586	831	1077	707	825	1085
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	33	0	179	252								
Volume Left	22	0	16	0								
Volume Right	11	0	0	34								
cSH	1623	1700	801	852								
Volume to Capacity	0.01	0.00	0.22	0.30								
Queue Length 95th (ft)	1	0	21	31								
Control Delay (s)	4.9	0.0	10.8	11.0								
Lane LOS	A		B	B								
Approach Delay (s)	4.9	0.0	10.8	11.0								
Approach LOS			B	B								
Intersection Summary												
Average Delay			10.5									
Intersection Capacity Utilization			29.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

42: 8 St & Hwy 520

















07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	58	0	83	66	182	0	108	51	133	180	15
Future Volume (Veh/h)	15	58	0	83	66	182	0	108	51	133	180	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	17	64	0	83	66	182	0	120	57	148	200	17
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	868	682	208	685	662	148	217			177		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	868	682	208	685	662	148	217			177		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	81	100	71	81	80	100			89		
cM capacity (veh/h)	171	333	832	284	342	898	1353			1399		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	81	331	177	365								
Volume Left	17	83	0	148								
Volume Right	0	182	57	17								
cSH	278	481	1353	1399								
Volume to Capacity	0.29	0.69	0.00	0.11								
Queue Length 95th (ft)	29	129	0	9								
Control Delay (s)	23.2	27.3	0.0	3.8								
Lane LOS	C	D		A								
Approach Delay (s)	23.2	27.3	0.0	3.8								
Approach LOS	C	D										
Intersection Summary												
Average Delay			12.9									
Intersection Capacity Utilization			62.4%		ICU Level of Service				B			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

45: Westlynn Spur & 8 St

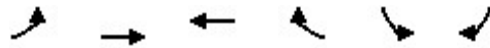
07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	0	4	0	0	0	3	48	0	0	76	187
Future Volume (Veh/h)	111	0	4	0	0	0	3	48	0	0	76	187
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	123	0	4	0	0	0	3	53	0	0	84	208
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	247	247	188	251	351	53	292				53	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	247	247	188	251	351	53	292				53	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	83	100	100	100	100	100	100				100	
cM capacity (veh/h)	705	654	854	698	572	1014	1270				1553	
Direction, Lane #												
	EB 1	WB 1	NB 1	SB 1								
Volume Total	127	0	56	292								
Volume Left	123	0	3	0								
Volume Right	4	0	0	208								
cSH	709	1700	1270	1553								
Volume to Capacity	0.18	0.00	0.00	0.00								
Queue Length 95th (ft)	16	0	0	0								
Control Delay (s)	11.2	0.0	0.4	0.0								
Lane LOS	B	A	A									
Approach Delay (s)	11.2	0.0	0.4	0.0								
Approach LOS	B	A										
Intersection Summary												
Average Delay			3.0									
Intersection Capacity Utilization			28.6%	ICU Level of Service		A						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

53:

07-04-2025





















Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	64	0	0	58	60	73
Future Volume (vph)	64	0	0	58	60	73
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	71	0	0	64	67	81
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	71	64	148			
Volume Left (vph)	71	0	67			
Volume Right (vph)	0	64	81			
Hadj (s)	0.23	-0.57	-0.20			
Departure Headway (s)	4.5	3.7	4.0			
Degree Utilization, x	0.09	0.07	0.16			
Capacity (veh/h)	768	921	869			
Control Delay (s)	7.9	7.0	7.8			
Approach Delay (s)	7.9	7.0	7.8			
Approach LOS	A	A	A			
Intersection Summary						
Delay			7.6			
Level of Service			A			
Intersection Capacity Utilization			24.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis























57: Hwy 520 & Hwy 2

07-04-2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	41	314	34	33	230	383	830	103	223	839	108
Future Volume (Veh/h)	72	41	314	34	33	230	383	830	103	223	839	108
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	80	46	349	38	37	256	426	922	114	248	932	120
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2820	3262	526	2816	3259	518	932			922		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2820	3262	526	2816	3259	518	932			922		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	0	30	0	0	49	42			66		
cM capacity (veh/h)	0	2	496	0	2	502	730			736		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	475	331	426	615	421	248	621	431				
Volume Left	80	38	426	0	0	248	0	0				
Volume Right	349	256	0	0	114	0	0	120				
cSH	0	0	730	1700	1700	736	1700	1700				
Volume to Capacity	Err	Err	0.58	0.36	0.25	0.34	0.37	0.25				
Queue Length 95th (ft)	Err	Err	96	0	0	37	0	0				
Control Delay (s)	Err	Err	16.6	0.0	0.0	12.4	0.0	0.0				
Lane LOS	F	F	C			B						
Approach Delay (s)	Err	Err	4.8			2.4						
Approach LOS	F	F										
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			96.6%		ICU Level of Service				F			
Analysis Period (min)			15									

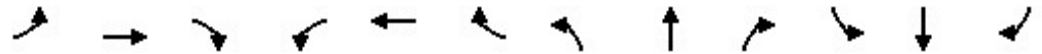
Lanes, Volumes, Timings
57: Hwy 520 & Hwy 2

07-04-2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	28	83	23	22	154	88	541	69	150	553	73
Future Volume (vph)	48	28	83	23	22	154	88	541	69	150	553	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			75			75			75		
Satd. Flow (prot)	1770	1654	0	1770	1617	0	1770	3479	0	1770	3479	0
Flt Permitted	0.690			0.690			0.387			0.394		
Satd. Flow (perm)	1285	1654	0	1285	1617	0	721	3479	0	734	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92			151			41			43	
Link Speed (mph)		31			31			31			31	
Link Distance (ft)		806			315			384			1401	
Travel Time (s)		17.7			6.9			8.4			30.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	123	0	26	195	0	98	678	0	167	695	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)	7.1	7.1		7.1	7.1		17.0	17.0		17.0	17.0	
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.58	0.58		0.58	0.58	
v/c Ratio	0.17	0.26		0.08	0.39		0.23	0.33		0.39	0.34	
Control Delay	10.5	5.6		9.6	5.9		6.8	4.9		9.0	5.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.5	5.6		9.6	5.9		6.8	4.9		9.0	5.0	

Lanes, Volumes, Timings
57: Hwy 520 & Hwy 2

07-04-2025

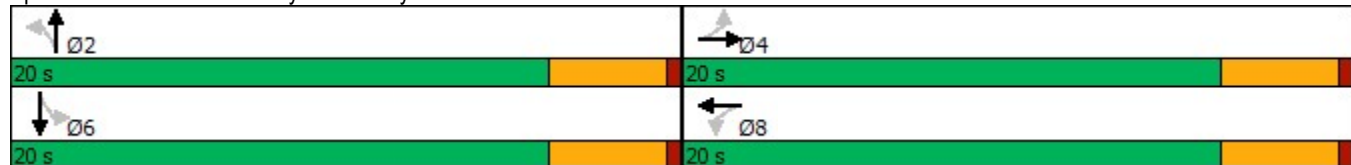


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	B	A		A	A		A	A		A	A	
Approach Delay		7.1			6.4			5.2			5.8	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	6	4		3	5		7	24		13	25	
Queue Length 95th (ft)	21	24		13	32		28	56		51	57	
Internal Link Dist (ft)		726			235			304			1321	
Turn Bay Length (ft)												
Base Capacity (vph)	715	961		715	967		455	2213		463	2214	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.07	0.13		0.04	0.20		0.22	0.31		0.36	0.31	

Intersection Summary

Area Type:	Other
Cycle Length:	40
Actuated Cycle Length:	29.1
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.39
Intersection Signal Delay:	5.7
Intersection LOS:	A
Intersection Capacity Utilization:	53.6%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 57: Hwy 520 & Hwy 2



Lanes, Volumes, Timings
57: Hwy 520 & Hwy 2

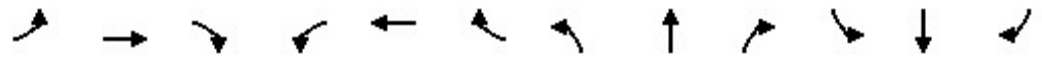
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	41	314	34	33	230	383	830	103	223	839	108
Future Volume (vph)	72	41	314	34	33	230	383	830	103	223	839	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			75			75			75		
Satd. Flow (prot)	1770	1615	0	1770	1619	0	1770	3479	0	1770	3479	0
Flt Permitted	0.303			0.435			0.140			0.209		
Satd. Flow (perm)	564	1615	0	810	1619	0	261	3479	0	389	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		349			256			20			18	
Link Speed (mph)		31			31			31			31	
Link Distance (ft)		806			315			384			1401	
Travel Time (s)		17.7			6.9			8.4			30.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	395	0	38	293	0	426	1036	0	248	1052	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.0	20.0		20.0	20.0		9.0	20.0		9.0	20.0	
Total Split (s)	9.0	29.0		20.0	20.0		21.0	36.0		15.0	30.0	
Total Split (%)	11.3%	36.3%		25.0%	25.0%		26.3%	45.0%		18.8%	37.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	16.0	16.0		9.2	9.2		45.2	31.3		34.3	24.5	
Actuated g/C Ratio	0.23	0.23		0.13	0.13		0.65	0.45		0.49	0.35	
v/c Ratio	0.37	0.62		0.36	0.67		0.80	0.65		0.64	0.85	
Control Delay	26.1	8.9		38.2	14.6		29.5	18.3		19.2	29.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.1	8.9		38.2	14.6		29.5	18.3		19.2	29.8	

Lanes, Volumes, Timings
57: Hwy 520 & Hwy 2

07-04-2025

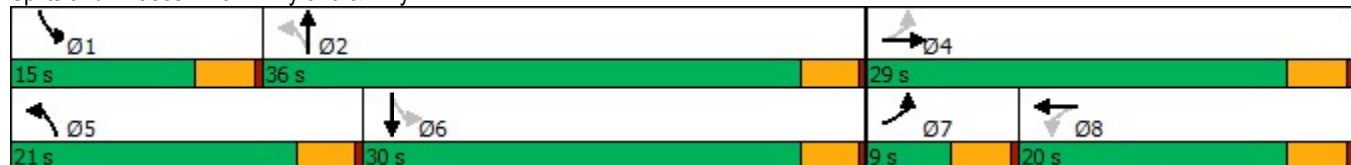


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	A		D	B		C	B		B	C	
Approach Delay		11.8			17.3			21.6			27.8	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	29	16		16	15		122	182		39	219	
Queue Length 95th (ft)	60	84		43	84		#319	294		#122	#384	
Internal Link Dist (ft)		726			235			304			1321	
Turn Bay Length (ft)												
Base Capacity (vph)	219	818		192	579		550	1681		426	1352	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.37	0.48		0.20	0.51		0.77	0.62		0.58	0.78	

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 69.4
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 22.2
 Intersection LOS: C
 Intersection Capacity Utilization 86.9%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 57: Hwy 520 & Hwy 2



APPENDIX B

Statement of Limitations

Statement of Limitations

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