Shepard Development Corporation

Prairie Gateway ASP TIA

Draft Report

March 2024

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1.0 Introduction and Scope

1.1 Introduction

ISL Engineering & Land Services (ISL) was retained by Shepard Development Corporation (SDC) to provide a traffic impact assessment (TIA) for the proposed Prairie Gateway Area Structure Plan (ASP) in Rocky View County (RVC). The study also includes Future ASP area to the north of Prairie Gateway ASP. The two ASP areas combined is known as the Prairie Gate Joint Planning Area. Situated east of Calgary and south of Chestermere, the Prairie Gateway ASP and Future ASP area is bounded by Highway 560 / Glenmore Trail to the north, Range Road 282 (RR 282) to the east, the Canadian Pacific Kansas City (CPKC) rail mainline to the south, and Range Road 284 (RR 284) to the west, as shown in Figure 1.1.

The Prairie Gateway ASP and Future ASP area is composed of predominantly light industrial and warehouse uses with some commercial use. The ASP area includes four (4) specific land uses:

- SDC Zone 1: Rail Served Industrial Park – Rail served warehousing (1,295 Acres)
- SDC Zone 2: Light Industrial / Warehousing (542 Acres)
- SDC Zone 2: Commercial (8 Acres)
- Future ASP Area Zone 3: Light Industrial / Warehousing (1,718 Acres)

Central corridors within the ASP area will include Township Road 232 (TR 232) / 114 Avenue, running east-west and connecting to Stoney Trail to the west and Hwy 791 to the east; Highway 560 (Hwy 560) / Glenmore Trail, running east-west and connecting to Stoney Trail to the west and Hwy 791 to the east; and Range Road 283 / Rainbow Road (RR 283), running north-south and connecting to Hwy 560 / Glenmore Trail. The purpose of this report is to evaluate the traffic impacts of the proposed development on the existing and future roadway network. The site location is shown in Figure 1.1.



Figure 1.1 Project Location

1.2 Scope of Work

The following scope of work was confirmed with the project Technical Team, composing of staff from The City of Calgary (The City) and Rocky View County (RVC), and was completed by ISL (**Appendix A**):

- AM (7 – 9 AM) and PM (4 – 6 PM) traffic counts (Jan 23 and Jan 24, 2024) at:
  - Highway 560: Range Road 284 and Range Road 282
  - 114 Avenue: 84 Street north intersection, 84 Street south intersection
- The counts of the remaining analyzed intersections are from Alberta Transportation and Economic Corridors' (ATEC) website or previous ISL counts from the previous Shepard ASP TIA.
- Short Term - 2026
  - Analysis of Stage 1 (2026) of the ASP on the existing network. The intersections to be analyzed are attached in **Appendix A**.
  - The rail crossing warrant on the RR 284 and 114 Avenue rail crossings will also be analyzed.
  - Upgrades will be identified from the analysis.
- Future - 2028 and 2048
  - Analysis of the same intersections in 2028 (interim) and 2048 (build-out). Analysis will be based on The City's 2028 and 2048 forecast. The rail crossing warrant on the RR 284 and 114 Avenue rail crossings will also be analyzed.
- Trip generation:
  - Land Use Scenario 1 – Lower Land Use Density at 2.1 Employees per Acre (rate based on employment estimates by PLG Consulting**)**:
    - SDC Zone 1: The SDC rail enabled lands will be based on the anticipated trips as estimated by PLG Consulting.
    - SDC Zone 2: The remaining ASP outside of the rail enabled lands (owned by SDC) will be warehouse and retail uses and trips will be generated from ITE.
    - Future ASP Zone 3: The annexation lands north of the ASP (not owned by SDC) will be warehouse use. Trip generations will be from ITE.
  - Land Use Scenario 2: Higher Density at 5 Employees per Acre (as recommended by City and RVC):
    - SDC Zone 1: The SDC rail enabled lands will be based on warehouse use and trips will be generated from ITE.
    - SDC Zone 2: The remaining ASP outside of the rail enabled lands (owned by SDC) will be mixed light industrial / warehouse and retail uses. Trips will be generated from ITE.
    - Future ASP Zone 3: The annexation lands north of the ASP (not owned by SDC) will be mixed light industrial / warehouse. Trip generations will be from ITE.
- Phasing / Trip distribution / Assignment:
  - SDC Phasing:
    - 2026 – 25% of SDC Zone 1 and 0% SDC of Zone 2
    - 2028 – 50% of SDC Zone 1 and 0% SDC Zone 2
    - 2048 – 100% SDC Zone 1 and 100% SDC Zone 2
  - SDC Assignment: In all horizons, traffic will be sent to 114 Avenue first as it is the shortest route to Stoney Trail; once 114 Avenue is at capacity, then traffic will be sent to Glenmore Trail.
  - SDC Distribution:

    - 2026 / 2028: Based on the Select Zone analysis of the 2028 horizon
    - 2048: Based on the Select Zone analysis of the 2048 horizon
  - Future ASP Area (Zone 3) Phasing:
    - Short term 2026 – 0% developed
    - 2028 – 15% developed
    - 2048 – 50% developed
  - Zone 3 Assignment: Trips will be sent to Glenmore Trail as it is the closest major road.
  - Zone 3 Distribution:
    - 2026 / 2028: Based on the Select Zone analysis of the 2028 forecast
    - 2048: Based on the Select Zone analysis of the 2048 forecast
- Findings:
  - 2026 (25% SDC Zone 1):
    - 114 Avenue: find out how much development traffic 114 Avenue can accommodate before widening is required.
    - Glenmore Trail: what upgrades, if any, are needed on the existing at-grade intersections (e.g. signal, turn bays, twinning, etc.).
  - 2028 (50% SDC Zone 1, 15% Future ASP Zone 3) / 2048 (100% SDC Zones 1 and 2, 50% Future ASP Zone 3):
    - 114 Avenue: Assumed twinned
    - Glenmore Trail: Assumed twinned (or six-laned, if required). Determine if any of the planned interchanges are required.
- Sensitivity Test A: The following two Options will be analyzed in the sensitivity test to determine how much of the ASP could be accommodated:
  - Option A1: With upgraded infrastructure on 114 Avenue (twinning, grade separated at CPKC tracks), and no interchange upgrades on Glenmore Trail (i.e. 4 or 6 lanes with at-grade traffic control, no interchanges).
  - Option A2: With upgraded infrastructure (interchange at RR 285, RR 284 and/or RR 283) and 4 or 6 lanes on Glenmore Trail, and no infrastructure upgrades on 114 Avenue (i.e. remain 2 lanes).
- Sensitivity Test B (sequence of Glenmore Trail interchanges):
  - In this analysis, the sequencing of the planned Glenmore Trail interchanges at RR 285, RR 284 and RR 283 will be determined. (i.e. is RR 285 interchange required first to accommodate the through highway traffic, then RR 283 interchange required next to accommodate the ASP traffic? Or other?)

1.3 Existing and Future Roadway Network

Currently, Hwy 560 (Glenmore Trail), TR 232 (114 Avenue), 100 Street, and RR 283 north of TR 232 are 2-lane paved roadways. At their Stoney Trail interchanges, Glenmore Trail and 114 Avenue are 4-lane paved roadways. RR 284, RR 283 south of TR 232, and RR 282 are gravel roadways. The Glenmore Trail / Stoney Trail interchange, 114 Avenue / Stoney Trail interchange, 114 Avenue / 84 Street north and south intersections, and Glenmore Trail / 100 Street SE are currently signalized. All remaining RVC intersections are currently unsignalized with stop sign control on the north and south approaches.

The posted speed limit of Hwy 560 is 100 km/h, with 40 km/h for 114 Avenue within City limits, and 80 km/h for TR 232, and RR 283 north of TR 232. No posted speed limit is posted for RR 284, RR 283 south of TR 232, and RR 282. As these are gravel roads or rural residential roads, the legislated provincial speed limit of 80 km/h is assumed for these roadways.

Glenmore Trail / Stoney Trail is a Parclo-B interchange with signalization on the west and east junctions; an ultimate systems interchange with 6-lanes on Glenmore Trail and westbound to southbound and eastbound to northbound directional ramps is planned by ATEC in the future.

114 Avenue / Stoney Trail is a Parclo-A interchange with signalization on the west and east junctions. The future realignment of 114 Ave and TR 232 includes the removal of the jog at 84 Street and a grade separated CPKC crossing. It is noted there is only a concept plan from the South Shepard ASP for these upgrades (see Figure 1.2), and a functional planning study will need to be undertaken for this proposed alignment of 114 Ave and grade separated CPKC crossing to determine the road right-of-way and property acquisition requirements.

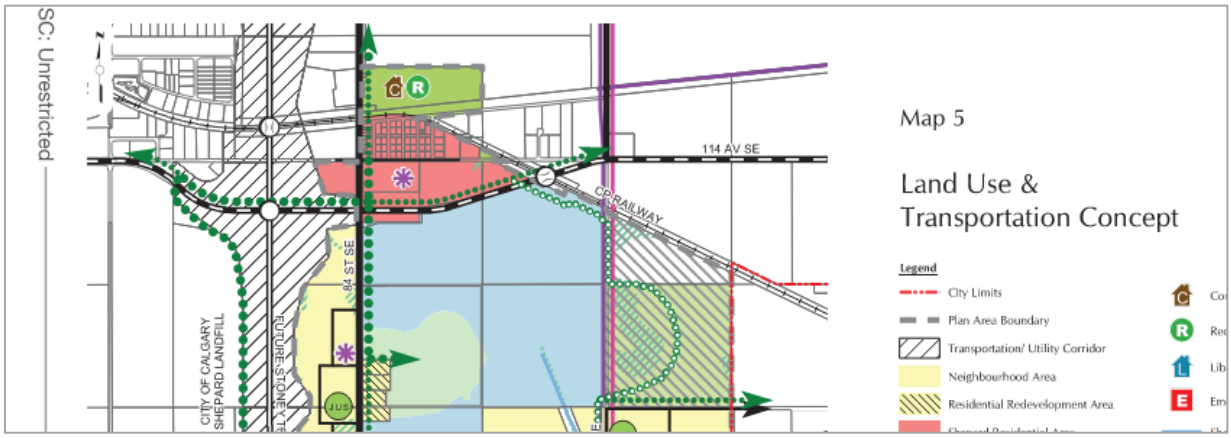
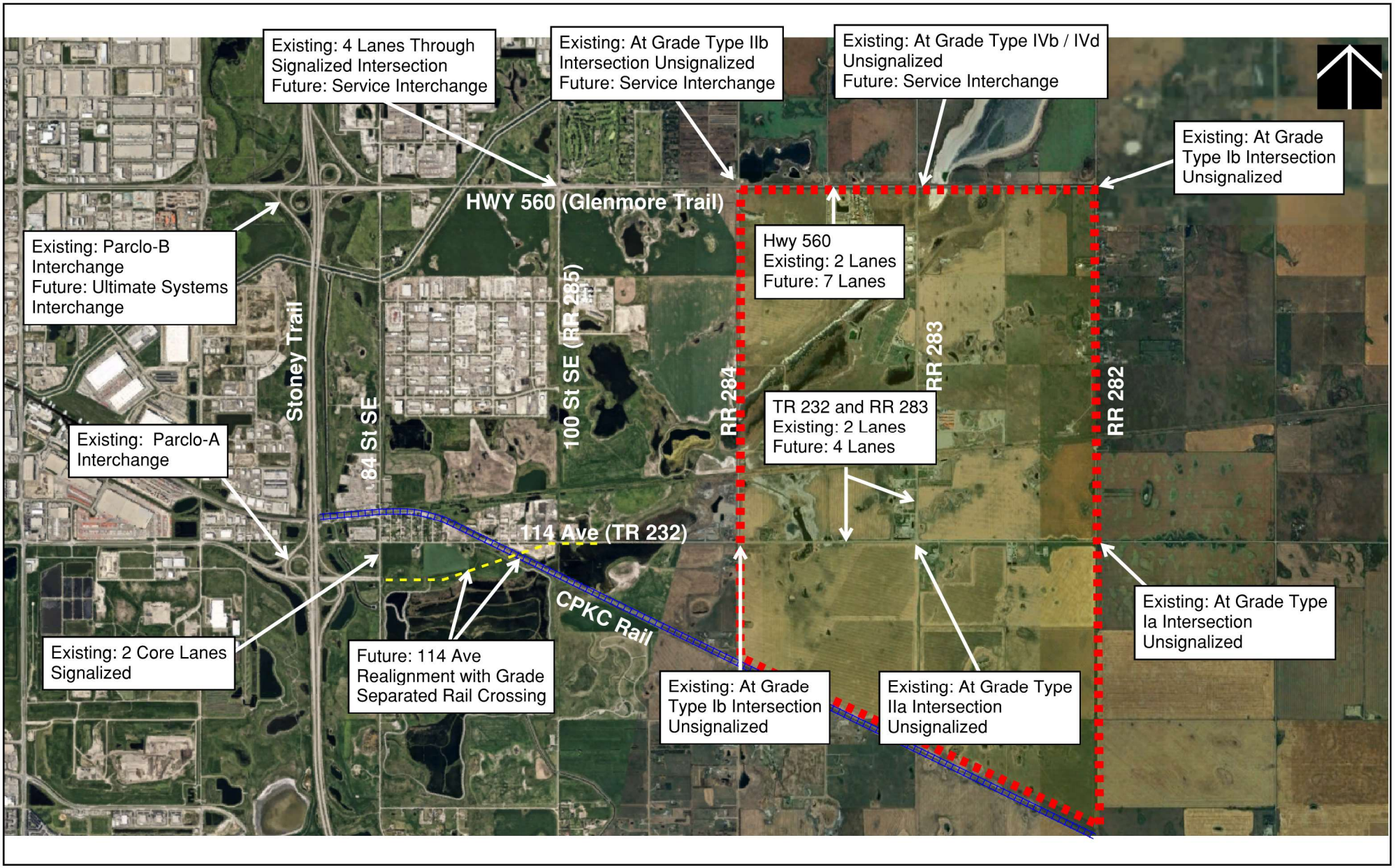


Figure 1.2 114 Avenue Concept from South Shepard ASP

Other intersections are as follows:

- Hwy 560 / RR 285 (100 St) - Signalized intersection with 4 core lanes, left turn bays and channelized right turns on all approaches.
- Hwy 560 / RR 284 -Type IIb intersection
- Hwy 560 / RR 283 - Type IVd intersection on the eastbound approach with a right turn bay and a Type IVb on the westbound approach with a left turn bay.
- In the future, diverging diamond interchanges along with 7 core lanes (3 eastbound, 4 westbound) is planned on Hwy 560 at RR 285, RR 284 and RR 285, per the Glenmore Trail East joint study by ATEC, The City and RVC.
- TR 232 / RR 283 - Type IIa intersection with a right turn taper
- Hwy 560 / RR 282 and TR 232 / RR 284 - Type Ib intersections
- TR 232 / RR 282 - Type Ia intersection

In RVC's 2020 Regional Transportation Off-Site Levy Bylaw, RR 283 and TR 232 are identified as 4-lane Arterial roads (23.8m surface with 40m right-of-way). The preceding is shown in Exhibit 1.1.



ISL SHEPARD

PRAIRIE GATEWAY ASP TIA

EXISTING AND FUTURE INTERSECTIONS / INTERCHANGES

EXHIBIT 1.1

Mar 2024

2.0 Background Traffic

2.1 Existing Background Traffic

ISL conducted traffic counts in the weekday AM (7 AM – 9 AM) and PM (4 PM – 6 PM) peak hours at the following intersections:

- Hwy 560 / RR 284 and Hwy 560 / RR 282: Wednesday January 24, 2024
- 114 Avenue / 84 Street SE north and south intersections: Tuesday January 23, 2024

As part of the previous Shepard ASP TIA, traffic counts were collected by ISL at TR 232 / RR 284 and TR 232 / RR 283 from September and October 2020; these counts were balanced to the recent counts at the 114 Avenue / 84 Street north intersection, which sufficiently addresses the necessary adjustments to account for their being collected during the COVID-19 pandemic.

The 2022 100th highest hour peak volumes were collected from the ATEC website for Glenmore Trail / Stoney Trail, Glenmore Trail / 100 St SE, and 114 Avenue / Stoney Trail. Traffic volumes along Hwy 560 were balanced to the ATEC 100th highest hours and recent counts by ISL.

Raw traffic data can be found in **Appendix B**.

2.2 Growth Rate

The background traffic for the 2026 horizon was calculated by applying an annual linear growth rate of 2.0% and 3.2% for Hwy 560 and TR 232, respectively. For Hwy 560, 10-year growth data was taken from the ATEC counts at Hwy 560 / Hwy 791 between 2012 and 2022. The growth rate was calculated to be 1.3% at the west leg of the intersection. To be conservative, a linear growth rate of 2.0% was applied to Hwy 560 through traffic. For TR 232, 2013 to 2019 growth data was taken from the nearby Hwy 22X ATR counts and the growth rate was calculated to be 3.2%. The higher linear growth rate of 3.2% was applied to the TR 232 through traffic.

2.3 2026 Background Traffic

To estimate the 2026 horizon background traffic volumes, the 2.0% and 3.2% per year rates were applied to the existing AM and PM peak hours background traffic volumes at Hwy 560 and TR 232, respectively. The 2026 horizon AM and PM peak hours background traffic volumes are shown in Exhibit 2.1.

2.4 2028 Background Traffic

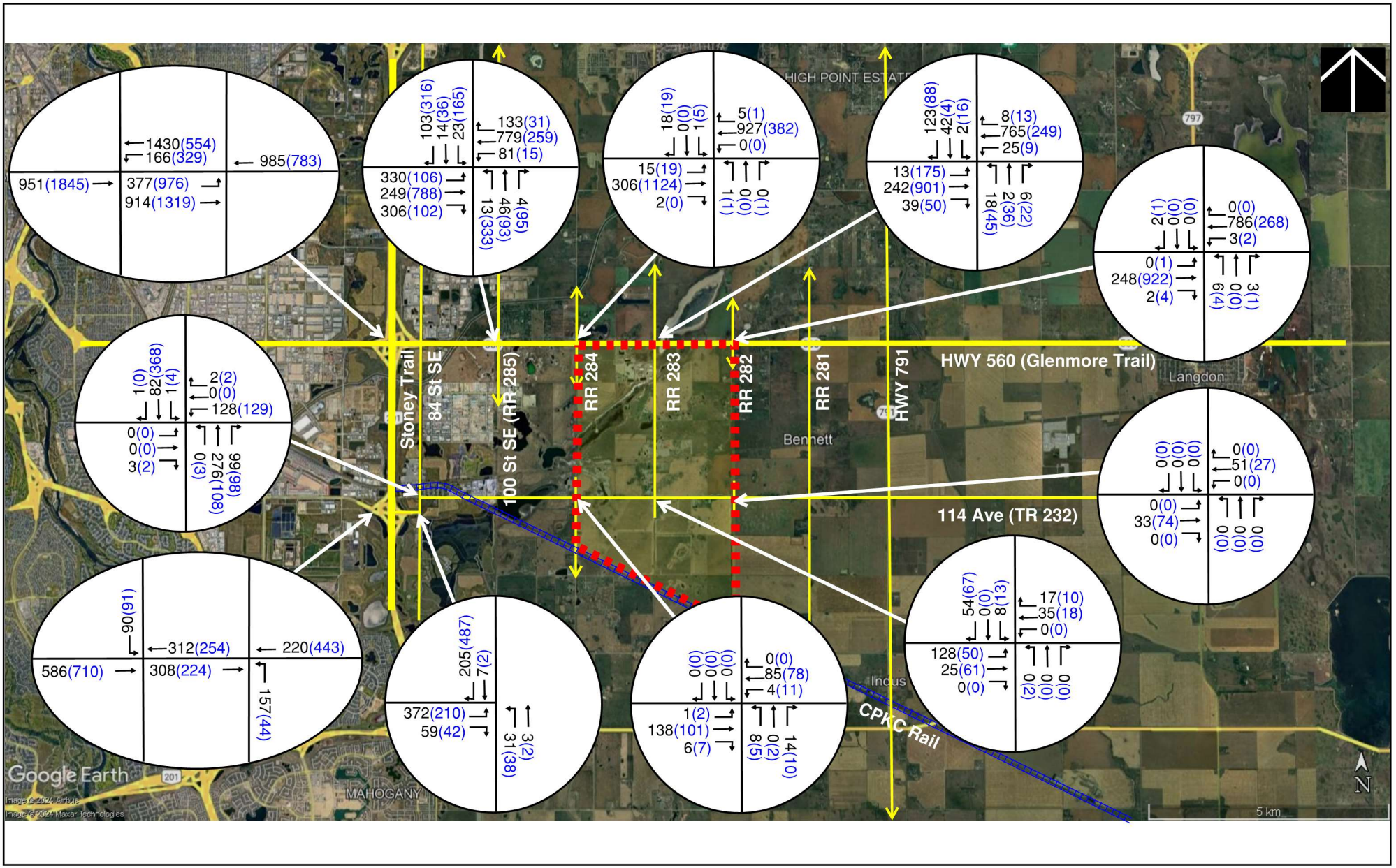
The 2028 traffic forecasts along Highway 560 and 114 Avenue were obtained from The City of Calgary's 2028 Standard Forecast Series model (see **Appendix B**). The City's forecast assumed that the existing at-grade Hwy 560 / RR 283 intersection will remain unchanged at the 2028 horizon. It is noted that the model assumed negligible employment and population levels in the Transportation Zone for the Shepard Industrial ASP, thus no traffic volumes were backed-out to calculate the 2028 background traffic volumes.

The 2028 horizon background traffic volumes are shown in Exhibit 2.2.

2.5 2048 Background Traffic

Similarly for the 2048 horizon background volumes, the 2048 traffic forecasts along Highway 560 and 114 Avenue were obtained from The City of Calgary's 2048 Standard Forecast Series model (see **Appendix B**). The City's forecast assumed that the existing at-grade Hwy 560 / RR 283 intersection will remain unchanged at the 2048 horizon. It is noted that the model assumed negligible employment and population levels in the Transportation Zone for the Shepard Industrial ASP, thus no traffic volumes were backed-out to calculate the 2048 background traffic volumes.

The 2048 horizon background traffic volumes are shown in Exhibit 2.3.

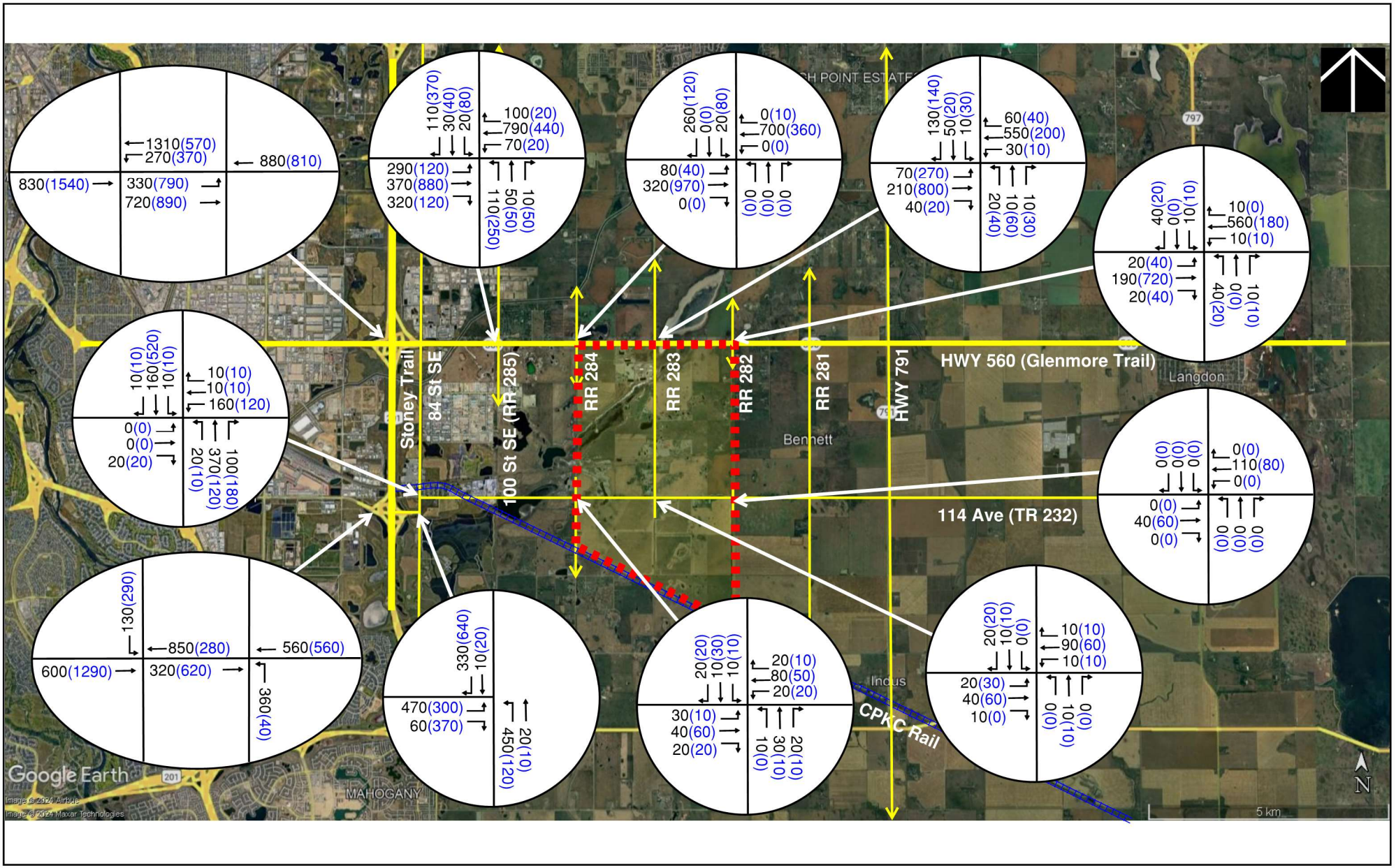


- - - Plan Area
AM Volumes (PM Volumes)

PRAIRIE GATEWAY ASP TIA

2026 BACKGROUND TRAFFIC VOLUMES

EXHIBIT 2.1
Mar 2024

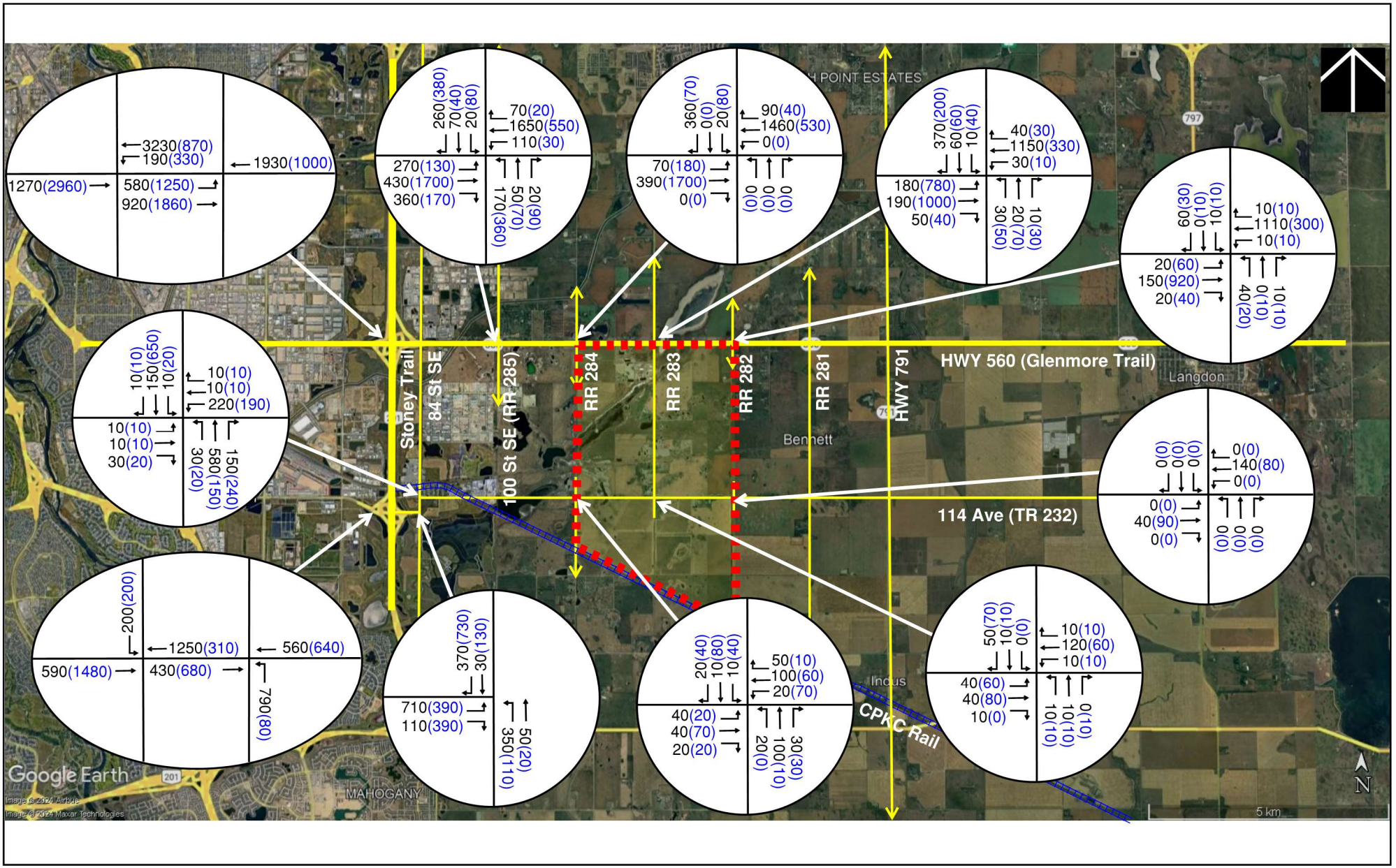


- - - Plan Area
AM Volumes (PM Volumes)

PRAIRIE GATEWAY ASP TIA

2028 BACKGROUND TRAFFIC VOLUMES

EXHIBIT 2.2
Mar 2024



- - - Plan Area
AM Volumes (PM Volumes)

PRAIRIE GATEWAY ASP TIA

2048 BACKGROUND TRAFFIC VOLUMES

EXHIBIT 2.3
Mar 2024

3.0 Trip Generation and Distribution

3.1 Trip Generation

Two land use scenarios were analyzed for the proposed development. The generated trips were based on staffing/employee estimates based on direct economic analysis and operations of similar rail enabled lands (in Scenario 1) and the ITE Trip Generation Manual, 11th Edition (both Scenarios, depending on the land uses). It is noted that the trip rates from the 10th Edition of the ITE Trip Generation Manual was referenced for the light industrial AM. This is due to the fitted curve equation in the 11th Edition estimating almost 5x the number of AM trips as compared to the PM, whereas the 10th Edition equation estimates the AM trips to be in line with the PM trips. This approach was agreed to per discussions with the project Technical Team.

3.1.1 Land Use Scenario 1

This scenario contains a lower land use density at 2.1 employees per acre (rate based on employment estimates by PLG Consulting). For trip generation calculations, the following employees, operations, land use categories, developable land percentages, Floor-Area-Ratios (FAR), and Gross Floor Area (GFA) were assumed:

- SDC Zone 1 (1,295 Acres): 2,700 staff spread over 3 shifts and 125 trucks per day
  - Shift 1 (typical peak hours) 50% staff = 1,350 staff / shift
  - Shift 2 and 3 (off peak) 25% staff = 675 staff / shift
  - Apply a 75% factor to the employees to account for the businesses starting/ending outside of the AM and PM peak hour, staff coming before/after the peak hour, staff working off site or from home, and absences due to vacation or sick leave.
  - AM Peak: 1,013 staff in, 506 out
  - PM Peak: 1,013 staff out, 506 in
  - 70% of the 125 trucks come during the daytime over 9 hours = 10 trucks per hour (5 in / 5 out)
- SDC Zone 2 (542 Acres): Warehousing (ITE 150), 75% developable land, 0.40 FAR, 7.1M sq ft
  - ITE Warehousing AM Fitted Curve Equation: 0.12 x (GFA/1000) + 23.62
  - ITE Warehousing PM Fitted Curve Equation: 0.12 x (GFA/1000) + 26.48
- SDC Zone 2 (8 Acres): Shopping Centre (ITE 820), 70% developable land, 0.23 FAR, 56,000 sq ft
  - ITE Shopping Centre AM Rate: 0.84 trips / 1,000 sq ft (62%/38% in/out)
  - ITE Shopping Centre PM Rate: 3.40 trips / 1,000 sq ft (48%/52% in/out)
- Future ASP Area Zone 3 (1718 Acres): Warehousing (ITE 150), 75% developable land, 0.40 FAR, 22.5M sq ft
  - ITE Warehousing AM Fitted Curve Equation: 0.12 x (GFA/1000) + 23.62
  - ITE Warehousing PM Fitted Curve Equation: 0.12 x (GFA/1000) + 26.48

3.1.2 Land Use Scenario 2

This scenario contains a higher land use density at 5 Employees per Acre (as recommended by The City and RVC). For trip generation calculations, the following land use categories, developable land percentages, Floor-Area-Ratios (FAR), and Gross Floor Area (GFA) were assumed:

- SDC Zone 1 (1295 Acres): Warehousing (ITE 150), 70% developable land, 0.40 FAR, 15.8M sq ft
  - ITE Warehousing AM Fitted Curve Equation: 0.12 x (GFA/1000) + 23.62
  - ITE Warehousing PM Fitted Curve Equation: 0.12 x (GFA/1000) + 26.48
- SDC Zone 2 (542 Acres): 70% Warehousing (ITE Code 150) and 30% Light Industrial (ITE Code 110), 75% developable land, 0.40 FAR, 7.1M sq ft
  - ITE Warehousing AM Fitted Curve Equation: 0.12 x (GFA/1000) + 23.62
  - ITE Warehousing PM Fitted Curve Equation: 0.12 x (GFA/1000) + 26.48
  - ITE Light Industrial AM Fitted Curve Equation: EXP(0.74 X Ln (GFA / 1000) + 0.39)
  - ITE Light Industrial PM Fitted Curve Equation: EXP(0.72 X Ln (GFA / 1000) + 0.38)
- SDC Zone 2 (8 Acres): Shopping Plaza (ITE 821), 80,000 sq ft
  - ITE Shopping Centre AM Rate: 1.73 trips / 1,000 sq ft (62%/38% in/out)
  - ITE Shopping Centre PM Rate: 5.19 trips / 1,000 sq ft (49%/51% in/out)
- Future ASP Area Zone 3 (1718 Acres): 70% Warehousing (ITE Code 150) and 30% Light Industrial (ITE Code 110), 75% developable land, 0.40 FAR, 22.5M sq ft
  - ITE Warehousing AM Fitted Curve Equation: 0.12 x (GFA/1000) + 23.62
  - ITE Warehousing PM Fitted Curve Equation: 0.12 x (GFA/1000) + 26.48
  - ITE Light Industrial AM Fitted Curve Equation: EXP(0.74 X Ln (GFA / 1000) + 0.39)
  - ITE Light Industrial PM Fitted Curve Equation: EXP(0.72 X Ln (GFA / 1000) + 0.38)

As the Shepard Industrial ASP area is in a relatively remote location within the Calgary region and has largely similar land use throughout, no internal trip reduction was applied to the development-generated volumes. The following is the build-out potential assumed for each horizon:

- 2026 Horizon:
  - Zone 1: 25%
  - Zone 2: 0%
  - Zone 3: 0%
- 2028 Horizon:
  - Zone 1: 50%
  - Zone 2: 0%
  - Zone 3: 15%
- 2048 Horizon:
  - Zone 1: 100%
  - Zone 2: 100%
  - Zone 3: 50%

3.2 2026 Development Trips

The above trip generation rates and build-out potential were applied to the land use scenarios. The generated trips for Land Use Scenarios 1 and 2 at the 2026 horizon are shown in Tables 3.1 and 3.2 below, respectively.

Table 3.1: Land Use Scenario 1 - 2026 Development Generated Trips

2026 Development Trips		AM			PM		
Zone	Land Use Scenario 1	Total Trips	In	Out	Total Trips	In	Out
Zone 1	Trucks	4	2	2	4	2	2
	Staff	380	253	127	380	127	253
Total		**384**	**255**	**129**	**384**	**129**	**255**

Table 3.2: Land Use Scenario 2 - 2026 Development Generated Trips

2026 Development Trips		AM			PM		
Zone	Land Use Scenario 2	Total Trips	In	Out	Total Trips	In	Out
Zone 1	Warehouse	480	369	110	480	135	346
Total		**480**	**369**	**110**	**480**	**135**	**346**

3.3 2028 Development Trips

The above trip generation rates and build-out potential were applied to the land use scenarios. The generated trips for Land Use Scenarios 1 and 2 at the 2028 horizon are shown in Tables 3.3 and 3.4 below, respectively.

Table 3.3: Land Use Scenario 1 – 2028 Development Generated Trips

2028 Development Trips		AM			PM		
Zone	Land Use Scenario 1	Total Trips	In	Out	Total Trips	In	Out
Zone 1	Trucks	6	3	3	6	3	3
	Staff	759	506	253	759	253	506
Zone 3	Warehouse	408	314	94	408	114	294
Total		**1,173**	**823**	**350**	**1,174**	**370**	**803**

Table 3.4: Land Use Scenario 2 - 2028 Development Generated Trips

2028 Development Trips		AM			PM		
Zone	Land Use Scenario 2	Total Trips	In	Out	Total Trips	In	Out
Zone 1	Warehouse	959	739	221	961	269	692
Zone 3	Warehouse	286	221	66	287	80	207
	Light Industrial	151	133	18	125	18	108
Total		**1,397**	**1,092**	**305**	**1,373**	**367**	**1,006**

3.4 2048 Development Trips

The above trip generation rates and build-out potential were applied to the land uses scenarios. The generated trips for Land Use Scenarios 1 and 2 at the 2048 horizon are shown in Tables 3.5 and 3.6 below, respectively.

Table 3.5: Land Use Scenario 1 – 2048 Development Generated Trips

2048 Development Trips		AM			PM		
Zone	Land Use Scenario 1	Total Trips	In	Out	Total Trips	In	Out
Zone 1	Trucks	10	5	5	10	5	5
	Staff	1,519	1,013	506	1,519	506	1,013
Zone 2	Warehouse	873	672	201	876	245	631
	Retail	47	29	18	191	92	99
Zone 3	Warehouse	1,359	1,047	313	1,361	381	980
Total		**3,808**	**2,766**	**1,043**	**3,956**	**1,229**	**2,727**

Table 3.6: Land Use Scenario 2 - 2048 Development Generated Trips

2048 Development Trips		AM			PM		
Zone	Land Use Scenario 2	Total Trips	In	Out	Total Trips	In	Out
Zone 1	Warehouse	1,919	1,477	441	1,922	538	1,384
Zone 2	Warehouse	618	476	142	621	174	447
	Light Industrial	428	377	51	364	51	313
	Retail	138	86	53	415	203	212
Zone 3	Warehouse	955	735	220	956	268	689
	Light Industrial	503	442	60	417	58	359
Total		**4,561**	**3,594**	**967**	**4,695**	**1,293**	**3,403**

3.5 Trip Distribution / Final Traffic

For the 2026 and 2028 horizons, the generated trips were distributed and assigned to different roadways in the study area using the Select Zone Analysis obtained from The City of Calgary's 2028 Standard Forecast Series model. Similarly, the 2048 horizon uses The City of Calgary's 2048 Standard Forecast Series model. The traffic distributions for the 2026/2028 and 2048 horizons are shown in Tables 3.7 and 3.8, respectively.

It Is noted that tripes for SDC Zones 1 and 2 were primarily routed via 114 Avenue (TR 232) and Future ASP area Zone 3 was routed via Glenmore Trail (Hwy 560) before arriving from / leaving to their respective gates.

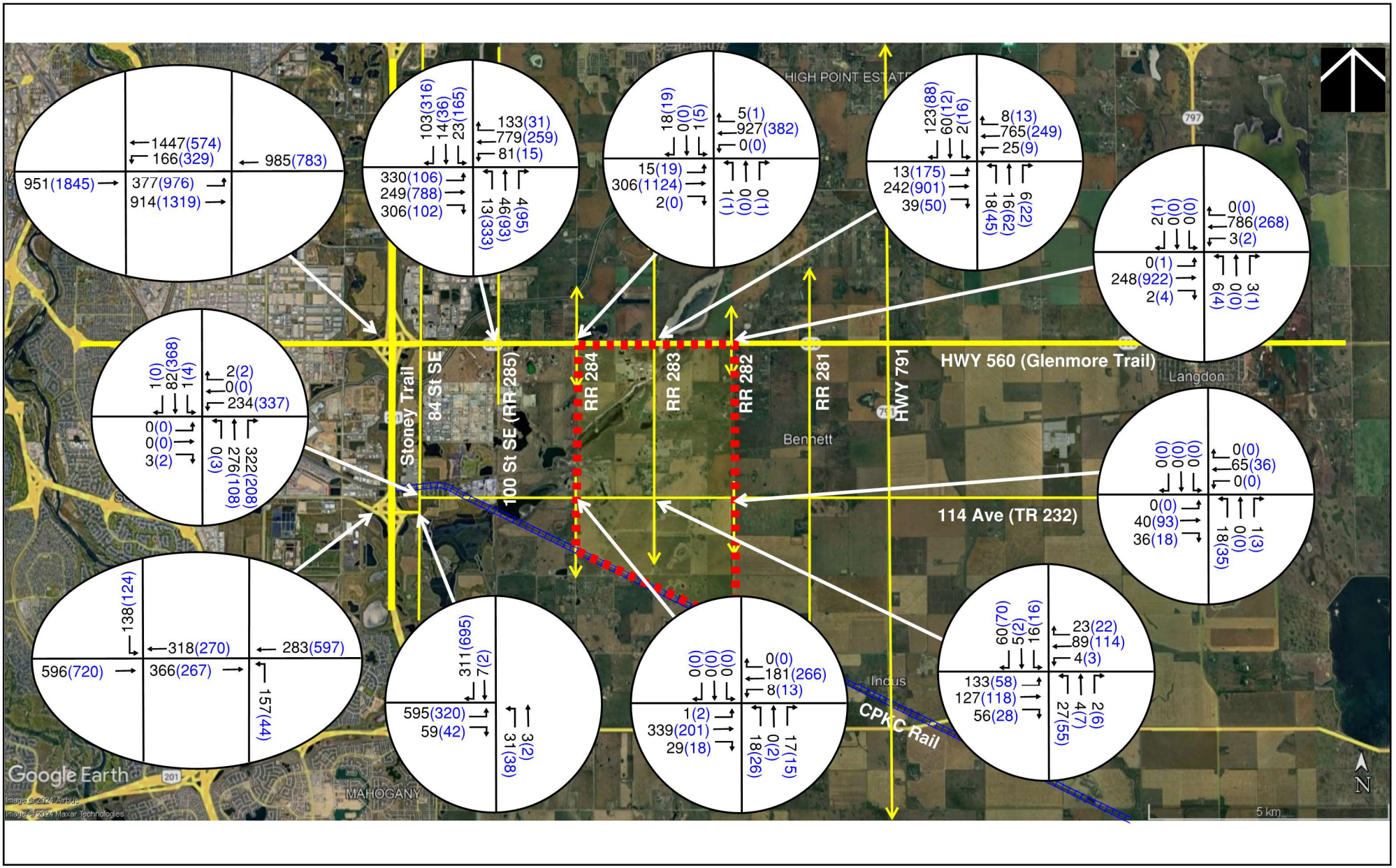
Table 3.7: 2026/2028 Traffic Distribution

Gate	2026/2028 Prairie Gateway ASP Distribution			
	AM Peak		PM Peak	
	Inbound %	Outbound %	Inbound %	Outbound %
114 Ave West	4%	5%	9%	6%
114 Ave East	3%	3%	3%	3%
Stoney Tr North	13%	20%	12%	13%
Stoney Tr South	65%	46%	52%	55%
Glenmore West	5%	13%	13%	8%
Glenmore East	3%	3%	5%	5%
RR 283 North to/from Chestermere	7%	10%	6%	10%
Total	**100%**	**100%**	**100%**	**100%**

Table 3.8: 2048 Traffic Distribution

Gate	2048 Prairie Gateway ASP Distribution			
	AM Peak		PM Peak	
	Inbound %	Outbound %	Inbound %	Outbound %
114 Ave West	5%	5%	5%	4%
114 Ave East	3%	5%	3%	4%
Stoney Tr North	18%	23%	25%	18%
Stoney Tr South	40%	33%	39%	44%
Glenmore Tr West	20%	22%	20%	15%
Glenmore Tr East	8%	5%	3%	5%
RR 283 North to/from Chestermere	6%	7%	5%	10%
Total	**100%**	**100%**	**100%**	**100%**

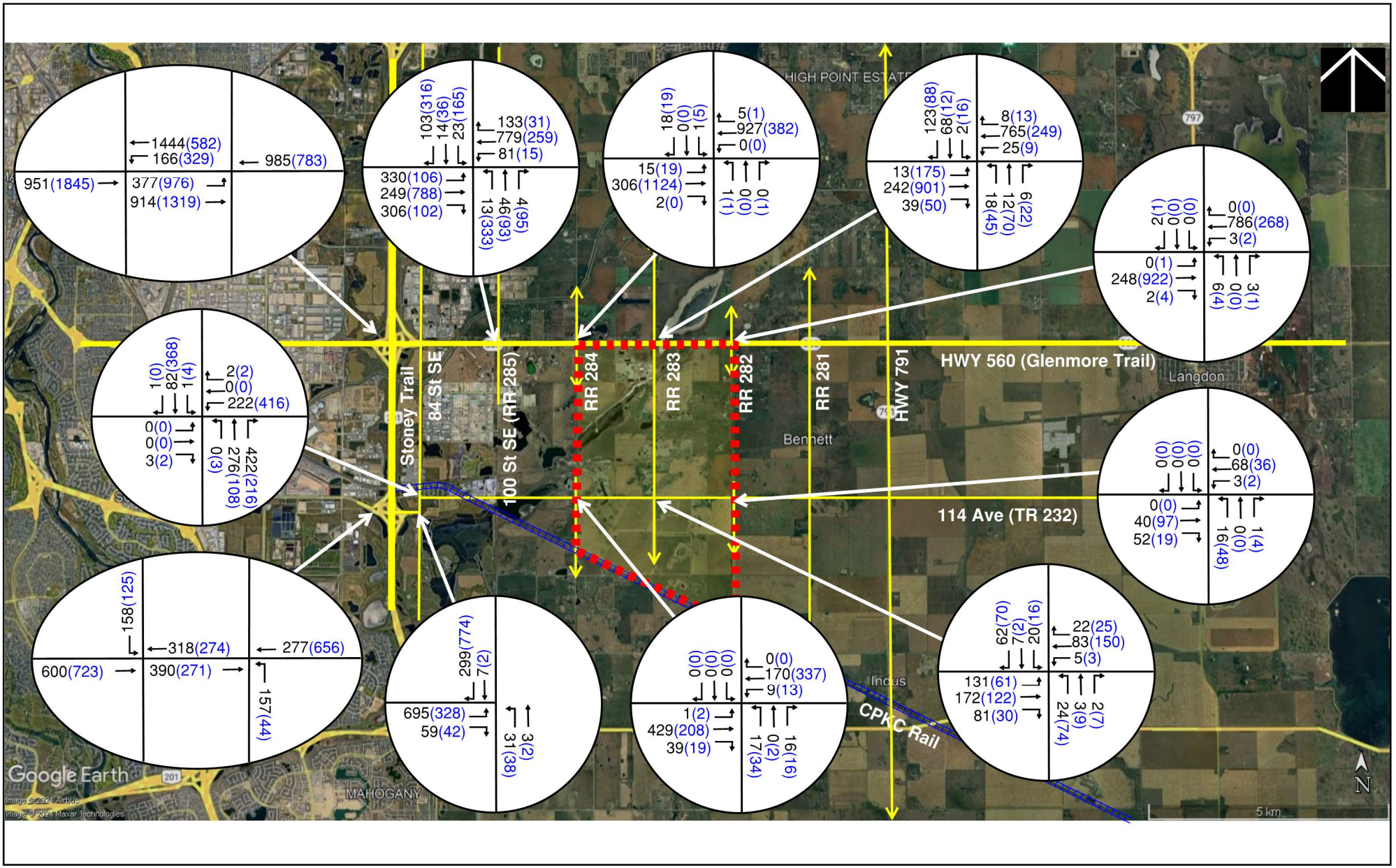
The generated trips of the development were added to each horizon's respective background traffic volumes to obtain the final design volumes for traffic operations analysis. The Background + Development traffic volumes for the Land Use Scenario 1 and 2 for the 2026, 2028, and 2048 horizons are shown in Exhibits 3.1 to 3.6.



- - - Plan Area
AM Volumes (PM Volumes)

PRAIRIE GATEWAY ASP TIA

2026 BACKGROUND + DEVELOPMENT TRAFFIC VOLUMES
Land Use Scenario 1
EXHIBIT 3.1
Mar 2024

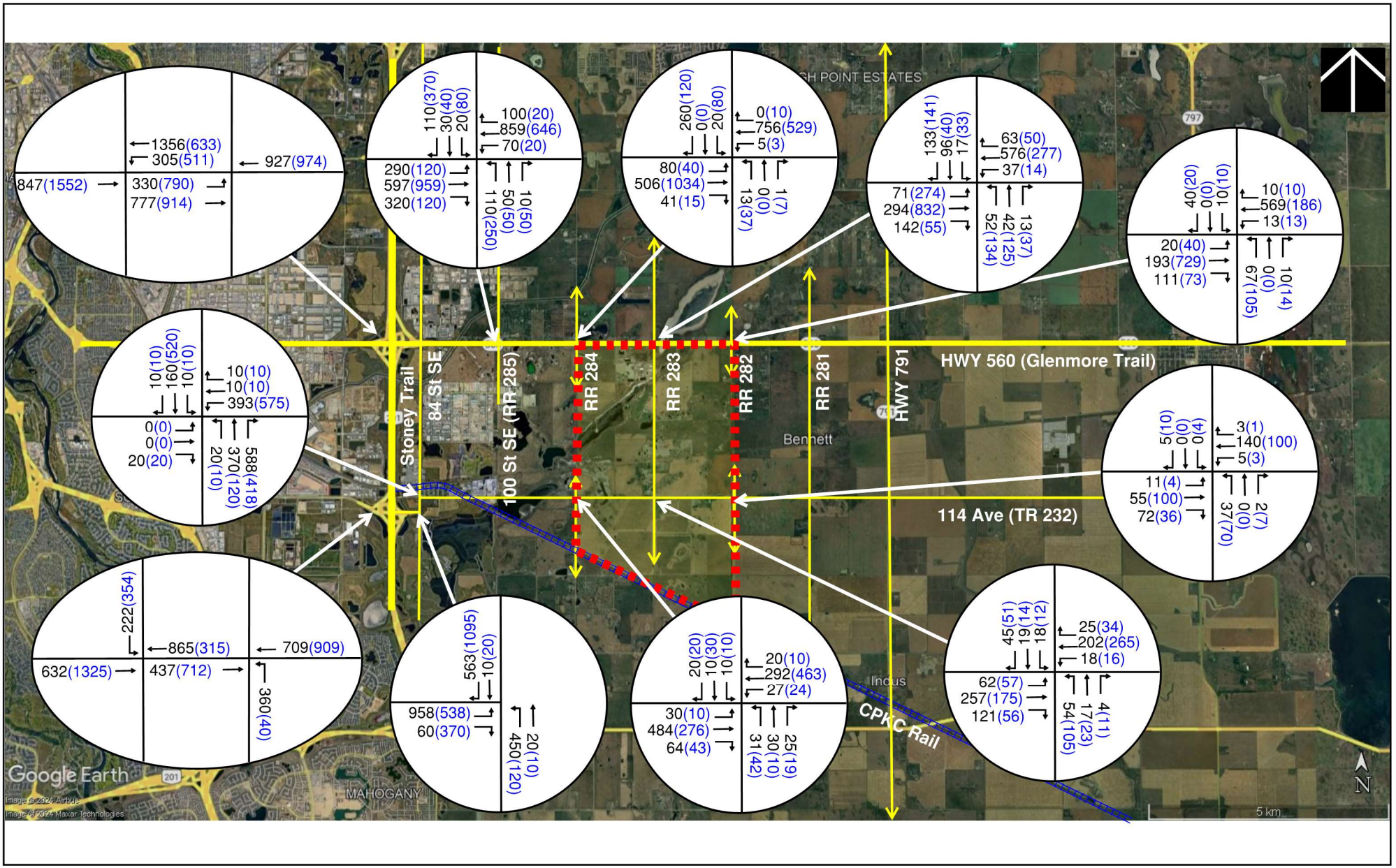


ISL SHEPARD

- - - Plan Area
AM Volumes (PM Volumes)

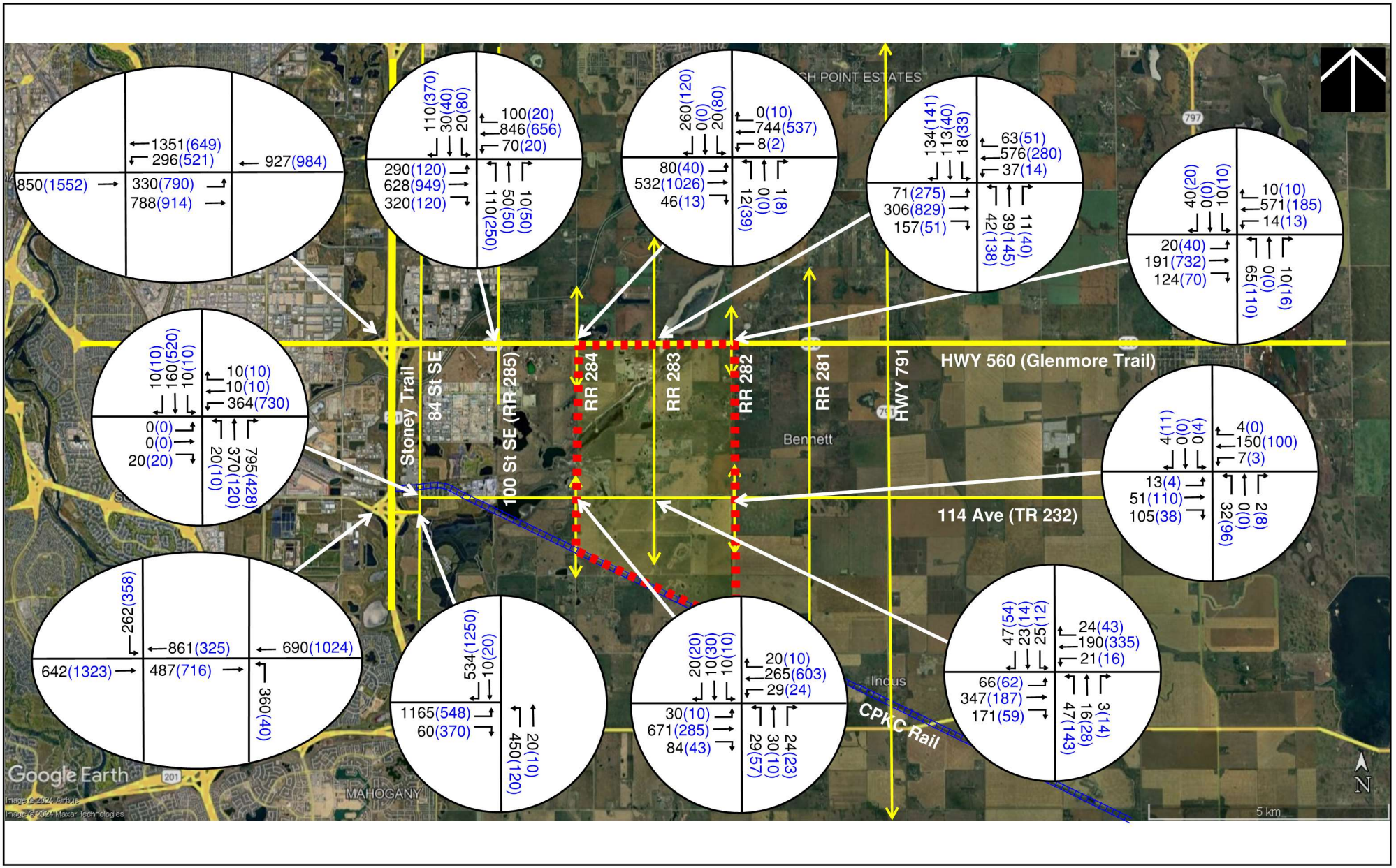
PRAIRIE GATEWAY ASP TIA

2026 BACKGROUND + DEVELOPMENT TRAFFIC VOLUMES
Land Use Scenario 2
EXHIBIT 3.2
Mar 2024



PRAIRIE GATEWAY ASP TIA

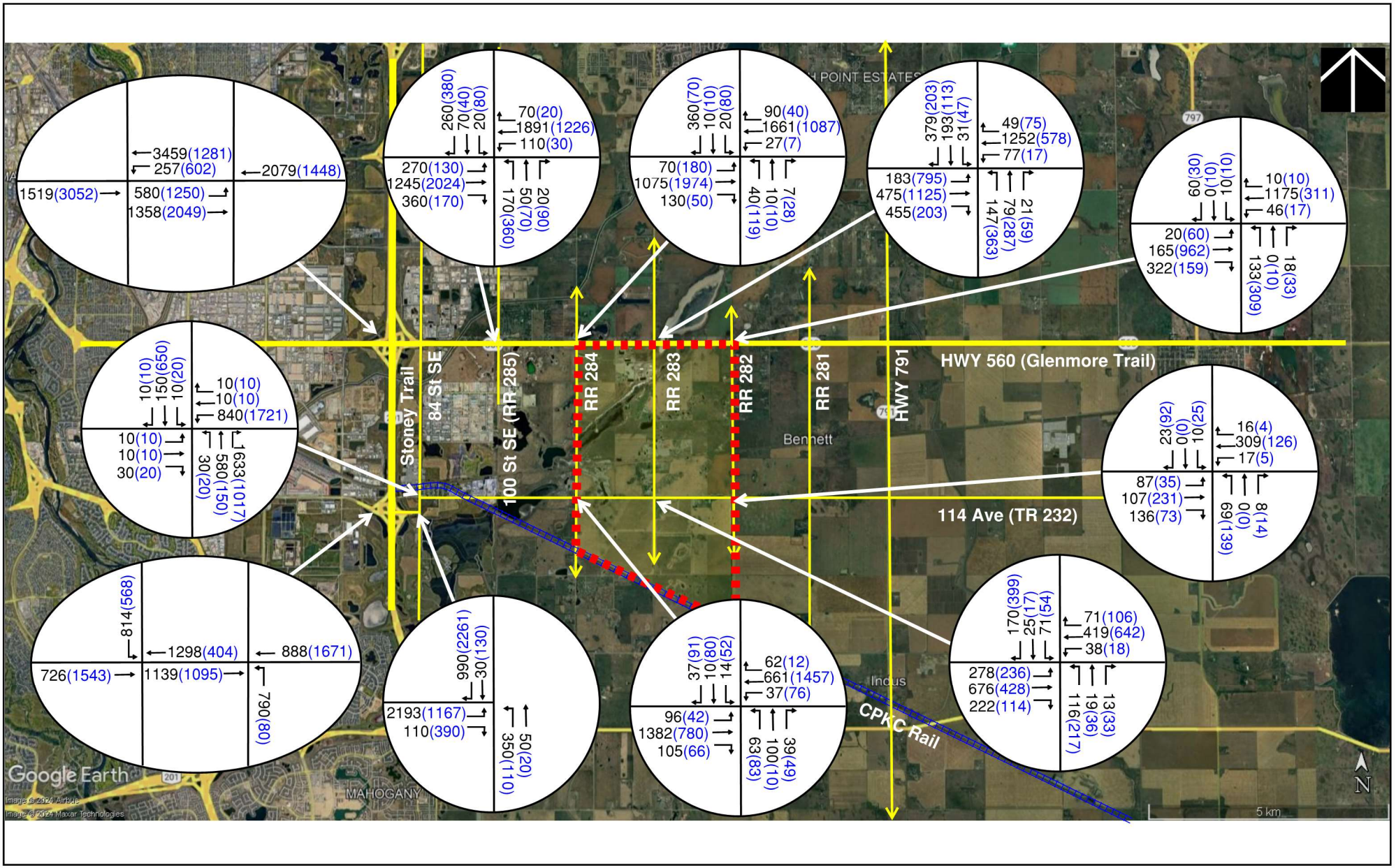
2028 BACKGROUND + DEVELOPMENT TRAFFIC VOLUMES
Land Use Scenario 1
EXHIBIT 3.3
Mar 2024



- - - Plan Area
AM Volumes (PM Volumes)

PRAIRIE GATEWAY ASP TIA

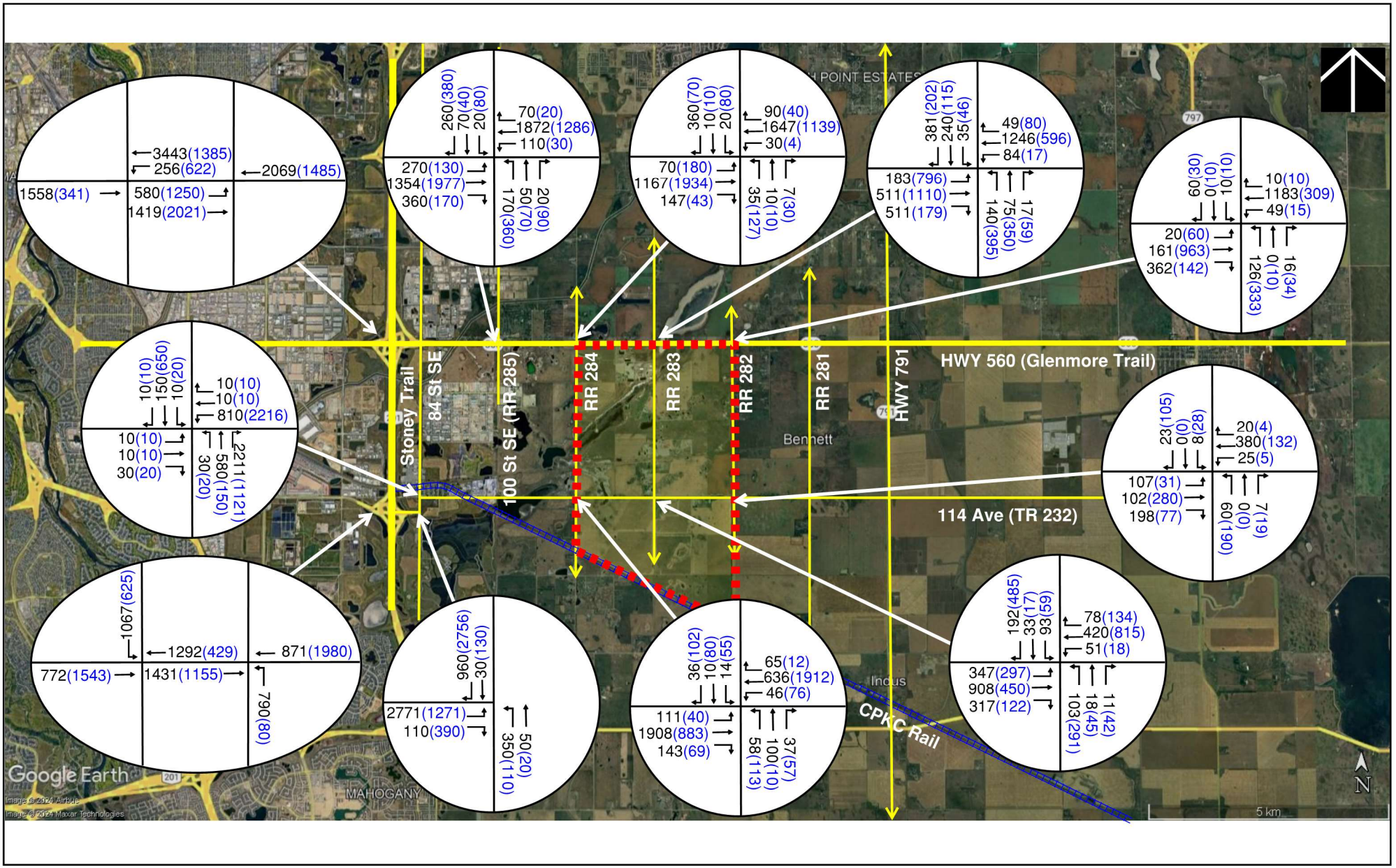
2028 BACKGROUND + DEVELOPMENT TRAFFIC VOLUMES
Land Use Scenario 2
EXHIBIT 3.4
Mar 2024



- - - Plan Area
AM Volumes (PM Volumes)

PRAIRIE GATEWAY ASP TIA

2048 BACKGROUND + DEVELOPMENT TRAFFIC VOLUMES
Land Use Scenario 1
EXHIBIT 3.5
Mar 2024



ISL SHEPARD

PRAIRIE GATEWAY ASP TIA

2048 BACKGROUND + DEVELOPMENT TRAFFIC VOLUMES
Land Use Scenario 2
EXHIBIT 3.6
Mar 2024

4.0 Traffic Analysis

Traffic analyses were undertaken in Synchro (signalized and unsignalized intersections) for the following scenarios:

- 2026 Background
- 2026 Background + Development – Land Use Scenario 1
- 2026 Background + Development – Land Use Scenario 2
- 2028 Background
- 2028 Background + Development – Land Use Scenario 1
- 2028 Background + Development – Land Use Scenario 2
- 2048 Background
- 2048 Background + Development – Land Use Scenario 1
- 2048 Background + Development – Land Use Scenario 2

4.1 Synchro

The Synchro 11 software traffic analysis package was used to analyze the operational characteristics of the intersections. A Level of Operating Service (LOS) A represents the highest level of service or generally “free flowing conditions” while a LOS F generally represents the lowest level of service with “breakdown” or “gridlock” condition in vehicular flow. There are varying degrees of delay and congestion introduced at the intersection LOS B, C, D, and E. LOS D is representative of “normal” peak hour congestion, while LOS E is representative of an intersection nearing its capacity. Typically, LOS D or better is considered the accepted standard for peak hour operations. LOS criteria for intersections are based on average delay per vehicle and are summarized in Table 4.1 below.

Table 4.1: Level of Service Criteria

LOS		A	B	C	D	E	F
Delay, sec/vehicle	Signalized	< 10	10 – 20	20 – 35	35 – 55	55 – 80	> 80
	Unsignalized	< 10	10 – 15	15 – 25	25 – 35	35 – 50	> 50

Synchro also calculates each movement’s volume to capacity (v/c) ratio. A v/c ratio of 1.0 represents an intersection or movement at full capacity with no ability to facilitate extra vehicles. Typically, v/c ratio of 0.90 or less for all intersection movements is the accepted standard for peak hour operations, with v/c of 1.0 accepted where limited to certain movements.

Synchro analysis also calculates the 95th percentile vehicle queue length for each intersection movement, which provides the criteria for left and right turn storage requirements. This queue length is exceeded 5% of the time, which is accepted practice for normal peak hour operation.

4.2 2026 Horizon Traffic Analysis

4.2.1 2026 Background

The 2026 Background scenario was analyzed in Synchro using the existing lane configurations shown in Exhibit 4.1. The Synchro results summary table and Synchro results are attached in **Appendix C**. Hwy 560 / RR 283 and the Glenmore Trail / Stoney Trail interchange junctions operate beyond the typical criteria threshold (LOS D or better, v/c of 0.90 or better):

- Hwy 560 / RR 283: The northbound movement on the existing unsignalized Hwy 560 / RR 283 intersection operates at LOS F and signalization with left and right turn bays is required in the background scenario, without any additional traffic from the subject ASP. Signalization was also warranted from the signal warrant in Section 5.1. For the remaining analysis of this study, a signalized intersection is assumed at this intersection.
- Glenmore Trail / Stoney Trail: Several movements at the Glenmore Trail / Stoney Trail east and west junctions operate above capacity in the background scenario, without the proposed development. There are plans for the interchange to be upgraded to a systems interchange (free-flow for all movements), however the timing of the upgrade is unknown. In the short-term Synchro analyses, the Glenmore Trail / Stoney Trail interchange will be analyzed with the existing interchange configuration.

4.2.2 2026 Background + Development – Land Use Scenario 1 and 2

The 2026 Background + Development – Land Use Scenarios 1 and 2 were analyzed in Synchro. The Synchro results summary table and Synchro results are shown in **Appendix C**. The Synchro analysis shows that with 25% build-out of SDC Zone 1, the study intersections can operate within criteria in both Land Use Scenarios 1 and 2 with the following improvements:

- Glenmore Trail / Stoney Trail Interchange East and West Junctions: Similar to the background scenario, the interchange operates above capacity; as stated in previous horizons, the ultimate interchange is required.
- Hwy 560 / RR 283: Signalization with left and right turn bays (from background scenario).
- TR 232 / RR 283: An eastbound left-turn bay is warranted (see Section 5.2).

From the analysis results, both Scenarios 1 and 2 operate well with the noted improvements, with the exception of Glenmore Trail / Stoney Trail interchange. Specifically, no twinning is warranted on either 114 Avenue or Hwy 560. Land Use Scenario 2 performs negligibly worse than Land Use Scenario 1 but is supported by the same improvements. The lane configurations and traffic controls for the 2026 horizon post-development scenario are shown in Exhibit 4.2.

4.3 2028 Horizon Traffic Analysis

4.3.1 2028 Background

The 2028 background scenario was analyzed in Synchro. Similar to the 2026 Background horizon, the Glenmore Trail / Stoney Trail interchange continues to operate above capacity. Due to traffic growth, several movements operate at LOS F with higher v/c ratios and long queues. This indicates that the systems interchange is likely required around this horizon, due to the continued background traffic growth. As noted in the 2026 horizon, the interchange will be upgraded to a systems interchange in the

future, however, the timing of the upgrade is unknown. Hence, for the 2028 Synchro analyses, the Glenmore Trail / Stoney Trail interchange will be analyzed using the existing interchange.

From the analysis, the following improvements are recommended in the 2028 background:

- Hwy 560 / RR 284: Signalization. From Section 5.1, signalization is also required from the signal warrant.
- Hwy 560 / RR 282: Eastbound and westbound left-turn bays are warranted (see Section 5.2).
- 114 Avenue / 84 Street: A northbound left turn bay is required.

From the analysis with the improvements, the intersections operate well with the exception of the Glenmore Tr / Stoney Tr interchange; as stated in previous horizons, the ultimate interchange is required by this horizon due to background traffic growth. The Synchro results summary table and Synchro results are shown in **Appendix C**.

The lane configurations and traffic controls for the 2028 background scenario are shown in Exhibit 4.3.

4.3.2 2028 Background + Development – Land Use Scenario 1 and 2

The 2028 Background + Development – Land Use Scenarios 1 and 2 were analyzed in Synchro. The Synchro results summary table and Synchro results are shown in **Appendix C**. The scenarios were analyzed with 50% build-out of SDC Zone 1 and 15% build-out of Future ASP Zone 3. The study intersections can operate within criteria in both Land Use Scenarios 1 and 2 with the following improvements in addition to the improvements noted in the 2028 Background scenario:

- 114 Avenue / 84 Street North Intersection:
  - Dual westbound left turn bays. This can be accommodated by adding a left turn bay and changing the outside lane to a shared left / through / right lane, with split phasing for the east / west phase of the signal.
- 114 Avenue / 84 Street South Intersection:
  - Dual eastbound left turn bays
  - Channelized eastbound right turn
  - Dual signalized southbound right turn
- 84 Street: 4 core lanes on 84 Street between the 114 Avenue / 84 Street north and south intersections.
- The realignment of 114 Avenue with the grade separated rail crossing (see Section 1.3 and Figure 1.2) should be considered instead of the preceding improvements on 114 Avenue and 84 Street as an appropriate long-term solution. Benefits include allowing traffic continuous flow of vehicular traffic at the 114 Avenue rail crossing, increased safety, and reduced traffic disturbance to the Hamlet of Shepard residence.
- An FPS will need to be done to determine right-of-way and property acquisition requirements for the 114 realignment.
- Hwy 560 / RR 282: An eastbound right-turn bay is warranted (see Section 5.2).
- TR 232 / RR 284: An eastbound left-turn bay, an eastbound right-turn bay, and a westbound left-turn bay are warranted (see Sections 5.2 and 5.3).

From the analysis results, both Land Scenarios 1 and 2 operate well with the noted improvements, with the exception of Glenmore Tr / Stoney Tr interchange; as stated in previous horizons, the ultimate

interchange is required. It is noted that Land Use Scenario 1 performs within capacity while Scenario 2 performs near capacity at the 114 Avenue / 84 Street south intersection. As an alternative to the 114 Avenue and 84 Street improvements, the realignment of 114 Avenue could be considered. Also, no twinning is warranted on either 114 Avenue or Hwy 560. The lane configurations and traffic controls of the 2028 horizon post-development scenario are shown in Exhibit 4.3.

4.4 2048 Horizon Traffic Analysis

4.4.1 2048 Background

The 2048 background scenario was analyzed in Synchro. The Synchro results summary table and Synchro results are shown in **Appendix C**. Due to a heavy volume of traffic to/from the City of Chestermere, twinning of RR 283 north of Hwy 560 is required at this horizon. This corresponds to RVC's 2020 Regional Transportation Off-Site Levy Bylaw, where RR 283 is identified as a 4-lane Arterial road. In addition, due to a high volume of background traffic, 6 core lanes on Highway 560 from the Glenmore Trail / Stoney Trail interchange to RR 284 and 4 core lanes from RR 283 to RR 282 are warranted. This corresponds to the joint City of Calgary / ATEC / RVC's Glenmore Trail East Study, where Hwy 560 (Glenmore Trail) is identified as an ultimate 7 lane roadway (3 eastbound, 4 westbound).

Upgrades to 114 Avenue / 84 Street would also be required due to the 2048 Background traffic and would involve similar improvements to the 2028 Background + Development scenarios. The upgrades as required for the 2048 Background scenario are summarized below:

- Hwy 560:
  - 6 core lanes between Stoney Trail interchange and RR 285
  - 4 core lanes between RR 284 to RR 282
- Hwy 560 / RR 283:
  - 4 Lanes on RR 283 north of Hwy 560
  - Dual eastbound left turn bay
  - Westbound right turn bay
  - Eastbound right turn bay
  - Southbound right turn bay
- 114 Avenue / 84 Street South Intersection:
  - Dual eastbound left turn bays
  - Channelized eastbound right turn bay
  - Dual signalized southbound right turn
- 84 Street: 4 core lanes on 84 Street between the 114 Avenue / 84 Street north and south intersections

From the analysis with the above improvements, all intersections operate well, with the exception of Glenmore Trail / Stoney Trail; as stated in previous horizons, the ultimate interchange is required. The lane configurations and traffic controls of the 2048 background are shown in Exhibit 4.4.

4.4.2 2048 Background + Development – Land Use Scenario 1 and 2

The 2048 Background + Development – Land Use Scenarios 1 and 2 were analyzed in Synchro. The Synchro summary table and Synchro results are shown in **Appendix C**. The scenarios were analyzed

with 100% build-out of SDC Zone 1, 100% build-out of SDC Zone 2, and 50% build-out of Zone 3. Due to the development traffic, 114 Avenue (TR 232) will require twinning at this horizon from 84 St SE to RR 283. This corresponds to RVC's 2020 Regional Transportation Off-Site Levy Bylaw, where TR 232 is identified as a 4-lane Arterial road. With the TR 232 twinning, the realignment of 114 Avenue and the grade separated CPKC crossing will be required (see Section 1.3 and Figure 1.2). The study intersections can operate within criteria in both Land Use Scenarios 1 and 2 with the following improvements in addition to the improvements noted in the 2048 Background scenario:

- Hwy 560 / RR 284: Add a northbound left turn bay, a southbound left bay, and a southbound right turn bay.
- Hwy 560 / RR 283: Add northbound dual left and single right turn bays for all approaches.
- Hwy 560 / RR 282: Add signalization, a northbound left turn bay, and a southbound left turn bay.
- 114 Avenue (TR 232): 4 lanes (between 84 Street and RR 282) and will require the realignment of 114 Avenue.
- TR 232 / RR 284: Add signalization, a northbound left turn bay, and a southbound left turn bay.
- TR 232 / RR 283: Add signalization, a northbound left turn bay, a southbound left turn bay, and a southbound right turn bay.
- TR 232 / RR 282: Add a eastbound left turn, a westbound left turn bay, and a eastbound right turn bay.

From the analysis results, both Land Use Scenarios 1 and 2 operate well with the noted improvements, with the exception of Glenmore Tr / Stoney Tr and 114 Ave / 84 St SE (before alignment). It is noted that Land Use Scenario 2 performs negligibly worse than Land Use Scenario 1, but is supported by the same improvements by the 2048 horizon. The lane configurations and traffic controls of the 2048 horizon post-development scenario are shown in Exhibit 4.4.

4.5 Sensitivity Tests

4.5.1 Sensitivity Test A

The following two options were analyzed in the sensitivity test to determine how much of ASP could be accommodated:

- Sensitivity Test A1: With upgraded infrastructure on 114 Avenue (twinning, grade separated over CPKC tracks), and no interchange upgrades on Glenmore Trail (i.e. 4 or 6 lanes with at-grade traffic control, no interchange).
  - This option matches the analysis of the 2048 Background + Development horizon (both Land Use Scenarios), where 100% of the intended 2048 build-out (100% of Zone 1, 100% of Zone 2, and 50% of Zone 3) could be accommodated if 114 Avenue is twinned and with no interchanges on Glenmore Trail. On Glenmore Trail, only the upgrades to the at-grade intersections as outlined in Section 4.4 are required.
- Sensitivity Test A2: With upgraded infrastructure (interchange at RR 285, RR 284 and/or RR 283) and 4 or 6 lanes on Glenmore Trail, and no infrastructure upgrades on 114 Avenue (i.e. remain 2 lanes).
  - With 114 Avenue remaining as 2 lanes, Glenmore Trail will require 6 lanes between Stoney Trail and Range Road 283.
    - Land Use Scenario 1: With 6 lanes and at grade intersections along Hwy 560, 75% of the intended 2048 build-out could be accommodated for Land Use Scenario 1. If the intended build-

out exceeds 75%, an interchange is required at Hwy 560 / RR 283 (required first) and at Hwy 560 / 100 Street (RR 285).

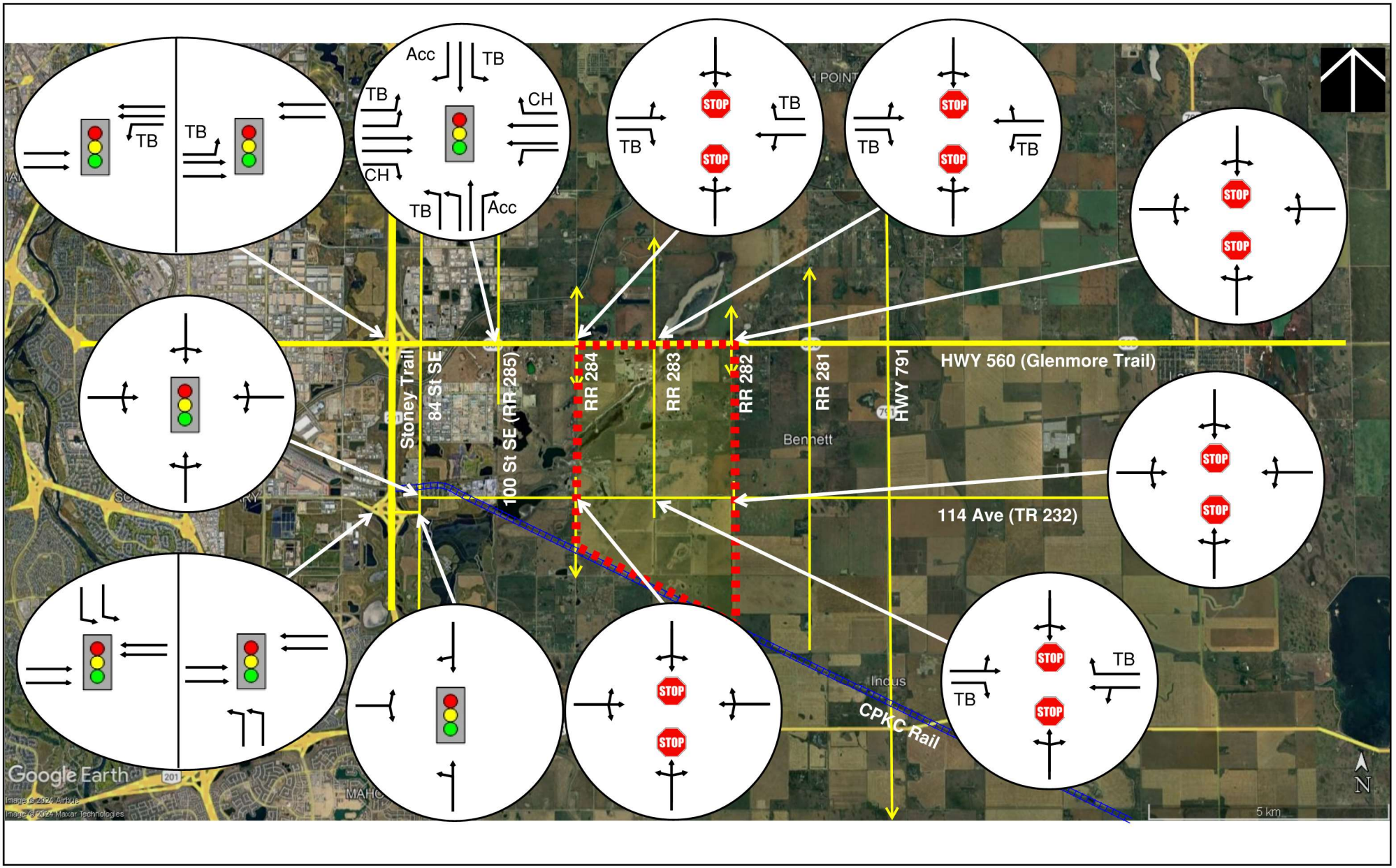
- Land Use Scenario 2: With 6 lanes and at grade intersections Hwy 560, 60% of the intended 2048 build-out could be accommodated for Land Use Scenario 2. If the intended build-out exceeds 60%, an interchange is required at Hwy 560 / RR 283 (required first) and at Hwy 560 / 100 Street (RR 285).
- In both scenarios, a key driver triggering the RR 283 interchange trigger is the heavy background traffic flow to/from Chestermere, rather than the ASP.

The Synchro summary table and Synchro results of Sensitivity Test A are attached in **Appendix C.**

4.5.2 Sensitivity Test B (Sequence of Glenmore interchanges):

From the analysis of the 2048 Background + Development horizon, no interchanges on Glenmore Trail are required, if the 114 Avenue (TR 232) and Glenmore Trail (Hwy 560) corridors have been upgraded per the improvements in Section 4.4. The implementation of the Highway 560 interchanges at 100 Street, RR 284, RR 283, and RR 282 would be beyond the horizons analyzed and intended build-out in this study.

Based on Sensitivity Test A2 where 114 Avenue is not upgraded, it was concluded that the interchange at Hwy 560 / RR 283 would need to be constructed first, due to the increased growth in traffic along RR 283 to/from Chestermere. Afterwards, Glenmore Trail / 100 Street would be the next interchange warranted.



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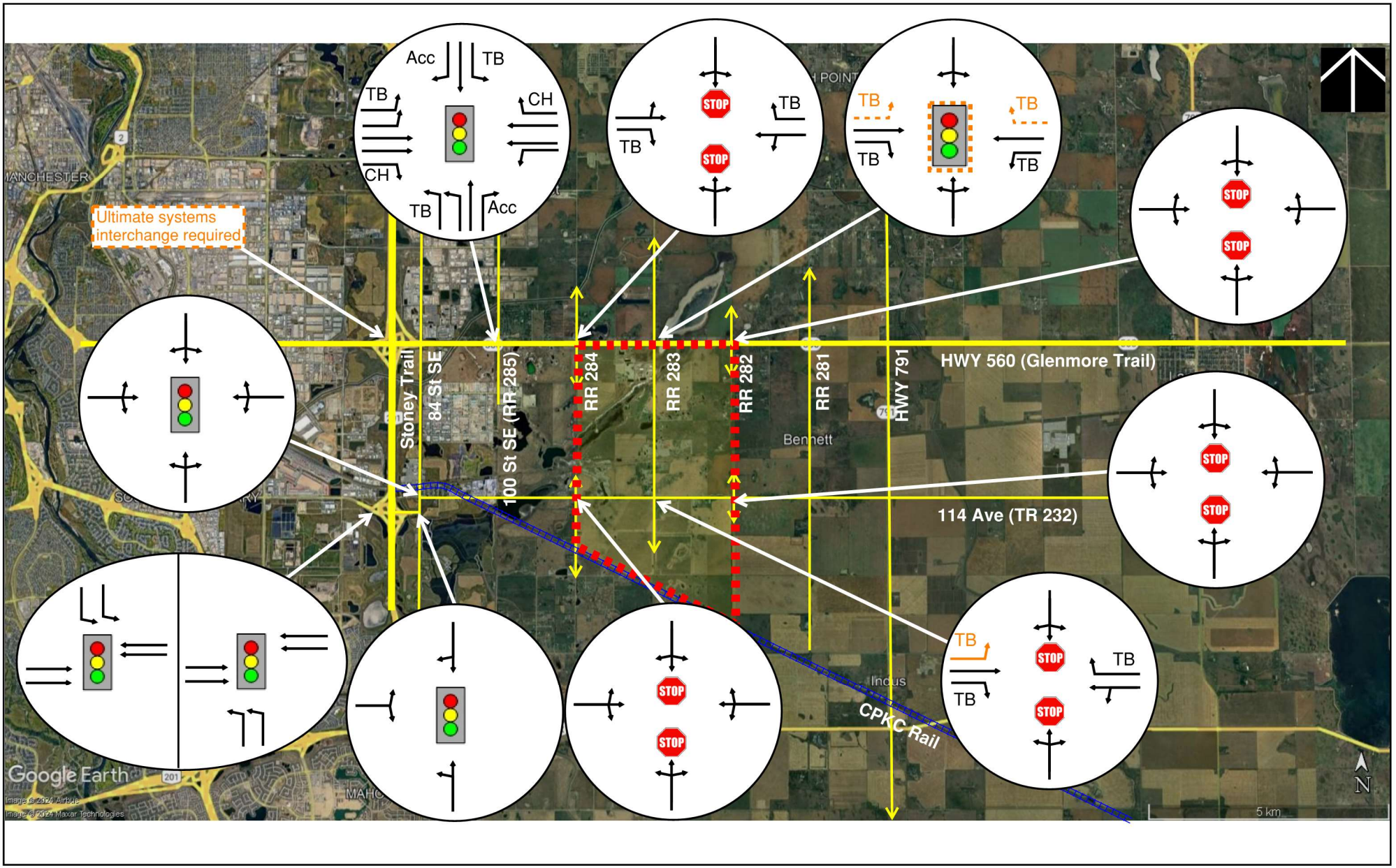
Existing Lanes

TB Turn Bay
CH Channelized
Acc Acceleration Lane

PRAIRIE GATEWAY ASP TIA

EXISTING LANE CONFIGURATIONS

EXHIBIT 4.1
Mar 2024



ISL SHEPARD

Lanes From Previous Horizons

TB Turn Bay
CH Channelized
Acc Acceleration Lane

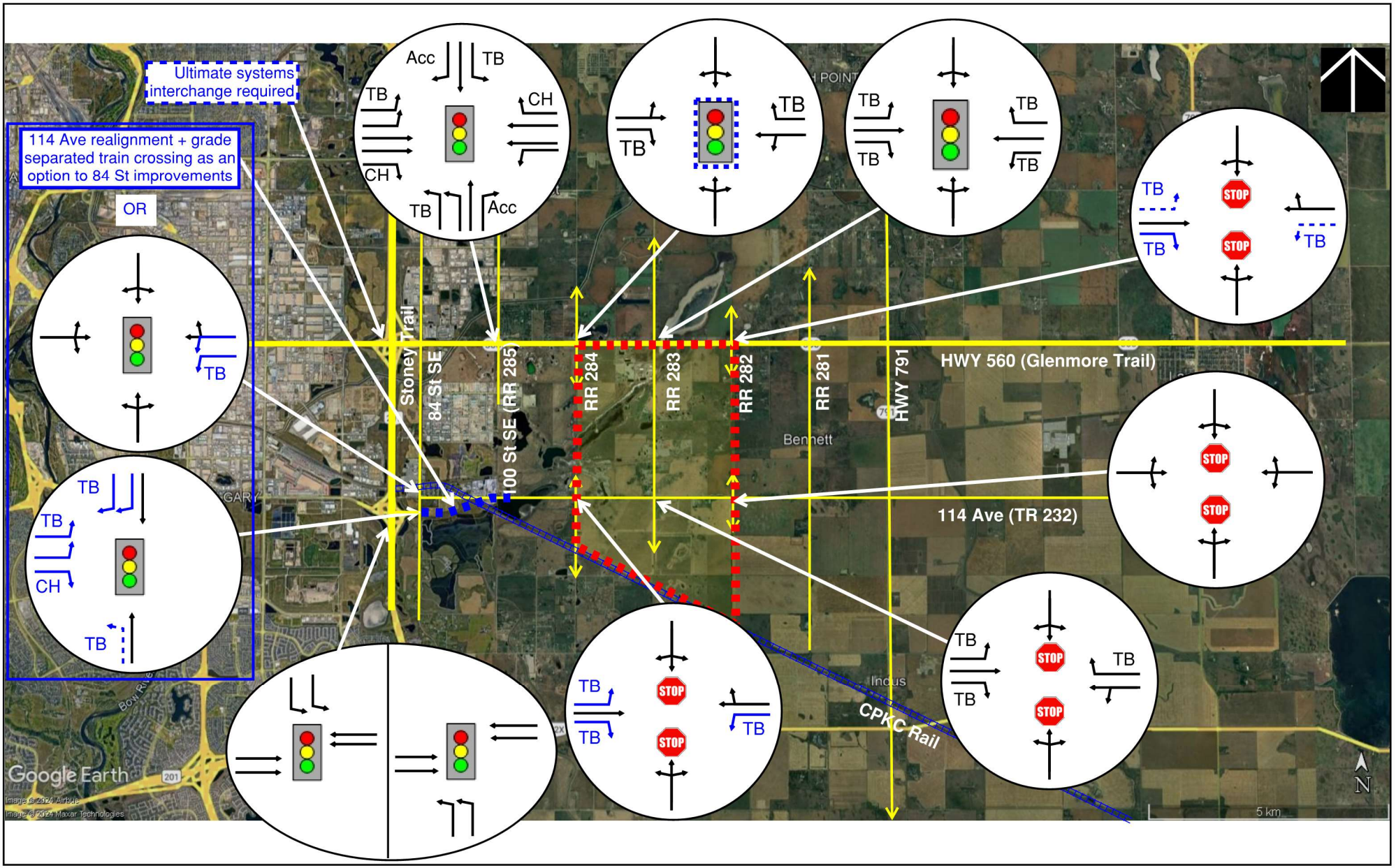
Required For 2026 Background Traffic

Required For 2026 Background + Full Dev Traffic

PRAIRIE GATEWAY ASP TIA

2026 HORIZON LANE CONFIGURATIONS

EXHIBIT 4.2
Mar 2024



ISL SHEPARD

Lanes From Previous Horizons

TB Turn Bay
CH Channelized
Acc Acceleration Lane

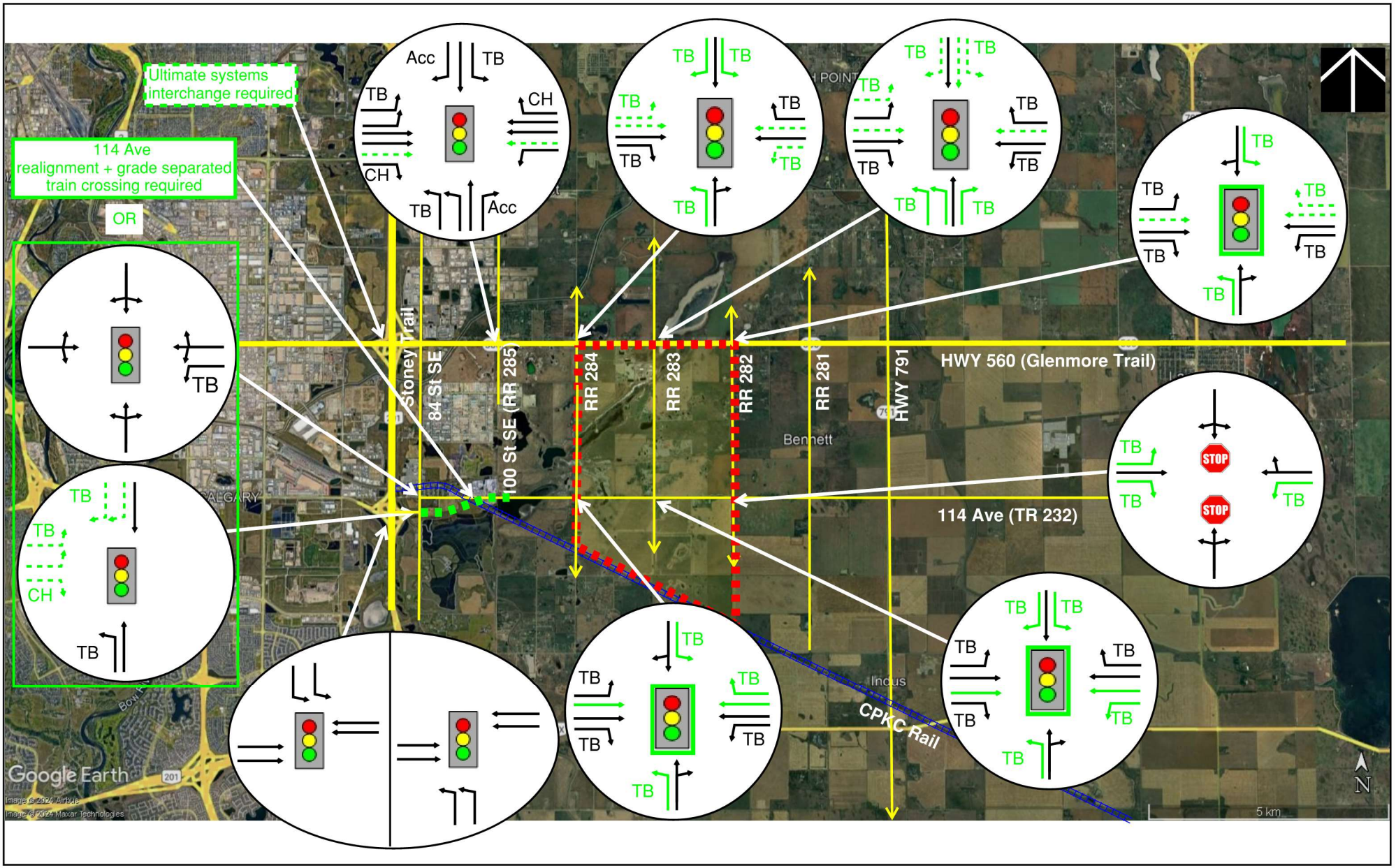
Required For 2028 Background Traffic

Required For 2028 Background + Full Dev Traffic

PRAIRIE GATEWAY ASP TIA

2028 HORIZON LANE CONFIGURATIONS

EXHIBIT 4.3
Mar 2024



ISL SHEPARD

Lanes From Previous Horizons

TB Turn Bay
CH Channelized
Acc Acceleration Lane

Required For 2048 Background Traffic

Required For 2048 Background + Full Dev Traffic

PRAIRIE GATEWAY ASP TIA

2048 HORIZON LANE CONFIGURATIONS

EXHIBIT 4.4
Mar 2024

5.0 Warrants

Traffic signal, left turn, right turn, and railway crossing warrants were undertaken for the following study intersections and horizons. All warrant results are included in **Appendix D**:

- Hwy 560 / RR 284 – 2026 and 2028
- Hwy 560 / RR 283 – 2026
- Hwy 560 / RR 282 – 2026, 2028, 2048
- TR 232 / RR 284 – 2026, 2028, 2048
- TR 232 / RR 283 – 2026, 2028, 2048
- TR 232 / RR 282 – 2026, 2028, and 2048

It is noted that, as the analyzed intersections become signalized in the analyzed horizons, no left and right turn warrants were completed for these intersections as the turn bays are based on the Synchro analysis.

5.1 Signal Warrants

Traffic signal warrant analysis was completed using the Transportation Association of Canada (TAC) Traffic Signal and Pedestrian Signal Head Warrant Matrix. This matrix considers the geometry, operating parameters, demographics, as well as pedestrian and vehicular volumes at an intersection. The signal warrant analysis results are shown in **Appendix D** and summarized below:

- Hwy 560 / RR 284: Warranted in the 2028 background scenario (without ASP development)
- Hwy 560 / RR 283: Warranted in 2026 background scenario (without ASP development)
- Hwy 560 / RR 282: Warranted in 2048 post-development scenario
- TR 232 / RR 284: Warranted in 2048 post-development scenario
- TR 232 / RR 283: Warranted in 2048 post-development scenario
- TR 232 / RR 282: Not warranted

5.2 Left Turn Warrants

The Alberta Transportation Highway Geometric Design Guide Chapter D “At-Grade Intersections” was used for the left-turn warrant analysis. The warrant considers several factors, including traffic volumes and design speed. Figure D-7.6 series were used for the intersections analyzed. The results of the left turn warrants are shown in **Appendix D** and summarized below:

- Hwy 560 / RR 282: Eastbound and westbound lefts warranted in 2028 background scenario (without ASP development)
- TR 232 / RR 284: Eastbound and westbound lefts warranted in 2028 post-development scenario
- TR 232 / RR 283: Eastbound left warranted in 2026 post-development scenario
- TR 232 / RR 282: Eastbound and westbound lefts warranted in 2048 post-development scenario

5.3 Right Turn Warrants

The Alberta Transportation Highway Geometric Design Guide Chapter D “At-Grade Intersections” was used for the right-turn warrant analysis. The warrant considers several factors, including through road AADT, intersecting road AADT, and right turn daily traffic volumes for the movement under evaluation. The results of the right turn warrants are shown in **Appendix D** and summarized below:

- Hwy 560 / RR 282: Eastbound right warranted in 2028 post-development scenario.
- TR 232 / RR 284: Eastbound right warranted in 2028 post-development scenario.
- TR 232 / RR 282: Eastbound right warranted in 2048 post-development scenario.

5.4 Railway Crossing Warrants

Section 9, Part C of Transport Canada Grade Crossings Standard (January 2019) has several criteria to determine the warrants for a flashing light warning system with or without gates, which includes the forecast cross-product of the average annual daily railway movements and the average annual daily traffic of vehicles on the road that cross through the grade crossing, railway operating speed, number of tracks, etc.

Within the study area, there is an at-grade CPKC railway crossing located on Range Road 284, 1 km south of TR 232 and an at-grade CPKC railway crossing located on 114 Avenue, 1 km west of 84 Street. According to PLG Consulting, SDC’s rail consultant, there are 24 trains crossing on a daily basis on the single railway track with a maximum railway speed of 55 mph (89 kph). The crossings are currently protected with Active – Flashing Light Units, Bells & Gates (FLBG), and are of the highest at-grade standard. According to the standard, regardless of existing and future traffic and train volumes, a warning system with gates is warranted at the location due to the railway design speed exceeding 81 kph (50 mph). This concludes that the existing warning system meets the current warrant requirements, and no further at-grade upgrade is warranted.

The Transport Canada *Grade Separation Assessment Guidelines (February 2020)* has several criteria to determine at-grade crossings for grade separation which include thresholds of average annual daily traffic exceeding 100,000, average of 150 or more trains per day, among other criteria highlighted in this section. Based on the guidelines set by Transport Canada, the crossing at 114 Avenue, 1 km west of 84 Street does not warrant grade separation. It is noted that a realignment of 114 Avenue is planned for the future, which will remove the jog at 84 Street and include a grade separation of this crossing.

6.0 Road Classifications

The proposed road classifications within the Prairie Gateway ASP area are shown in Figure 6.1 below and consists of Arterials and Industrial Collectors.

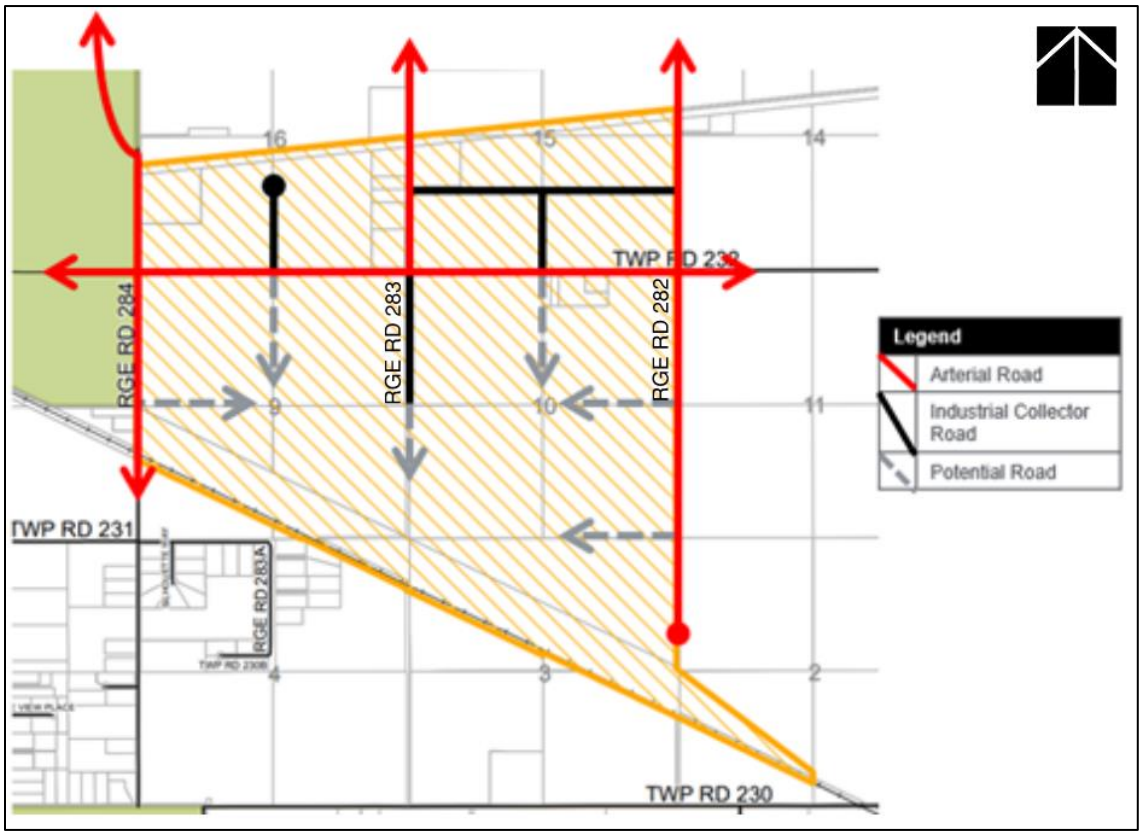


Figure 6.1: Proposed Road Classification

Referencing Rocky View County's Servicing Standards and the City of Calgary's Design Guideline for Subdivision Servicing (DGSS), the daily traffic capacity of each road classification is shown in Table 6.1 below.

Table 6.1: Street Capacity Guidelines

Street Classification	Capacity Guideline (vpd)	Lanes
Arterial	> 2,500 in Servicing Standard 35,000 in City of Calgary	4
Industrial Collector (Industrial / Commercial Collector (I/CC))	N/A in Servicing Standard 30,000 in City of Calgary	2 or 4

The higher land use density scenario, Land Use Scenario 2, 2048 post-development volumes were used to confirm if the daily traffic volumes are within the street capacities. The 2048 post-development daily traffic volumes of the Prairie Gateway ASP area are shown in Table 6.1 below and it was confirmed that

the projected daily traffic volumes of all roadways are within the daily traffic thresholds in accordance with Rocky View County's Servicing Standards and The City's DGSS.

Table 6.1: 2048 Post-Development Internal Roadway Capacities

Road	Segment	Daily Traffic (vpd)	Class	Within AADT?
TR 232	West of RR 284	31,000	Arterial	Yes
	RR 284 - RR 283	30,000		Yes
	RR 283 - RR 282	15,000		Yes
	RR 282 - east	5,000		Yes
RR 284	TR 232 - north	3,000	Arterial	Yes
	TR 232 - south	4,000	Arterial	Yes
RR 283	TR 232 - north	10,500	Arterial	Yes
	TR 232 - south	5,500	Ind Collector	Yes
RR 282	TR 232 - north	2,000	Arterial	Yes
	TR 232 - south	3,000	Arterial	Yes

7.0 Conclusions

The Prairie Gateway ASP and adjacent Future ASP area generated the following trips:

- 2026 Land Use Scenario 1 (2.1 employees per acre): 384 trips in AM and 380 trips in PM peak
- 2026 Land Use Scenario 2 (5 employees per acre): 480 trips in AM and 480 trips in PM peak
- 2028 Land Use Scenario 1: 1,173 trips in AM and 1,174 trips in PM peak
- 2028 Land Use Scenario 2: 1,397 trips in AM and 1,373 trips in PM peak
- 2048 Land Use Scenario 1: 3,808 trips in AM and 3,956 trips in PM peak
- 2048 Land Use Scenario 2: 4,561 trips in AM and 4,695 trips in PM peak

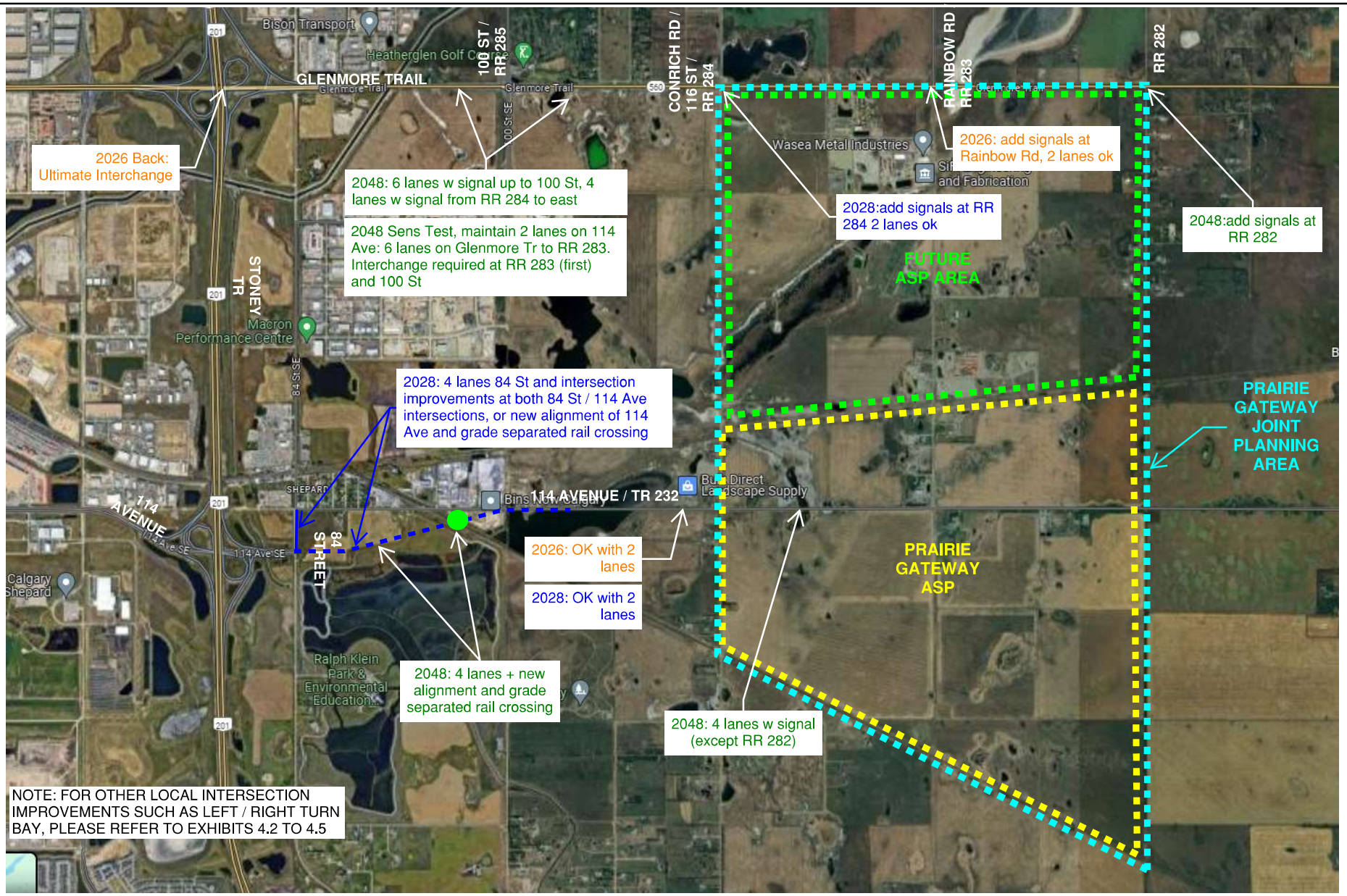
The generated trips were added onto the respective background traffic and analyzed in Synchro. The following (and also shown in Exhibit 7.1) is an overview of the required upgrades of each horizon; the detailed upgrades are shown in Section 4 above. The localized improvements such as signalization and added turn bays are not listed below.

- **2026 Background Scenario:**
  - Glenmore Trail / Stoney Trail Interchange operates above capacity; a systems interchange is planned, however the timing of the upgrade is unknown.
- **2026 Post-Development Scenario (in addition to 2026 Background)**:
  - Land Use 1: Trip generation of 384 and 380 trips in the AM and PM peaks, respectively
  - Land Use 2: Trip generation of 480 and 480 trips in the AM and PM peaks, respectively
  - No twinning of 114 Avenue or Highway 560 is warranted.
- **2028 Background Scenario:**
  - Glenmore Trail / Stoney Trail Interchange operates above capacity; a systems interchange is planned, however the timing of the upgrade is unknown.
  - Highway 560: All intersections are signalized, except at RR 282
- **2028 Post-Development Scenario (in addition to 2028 Background)**:
  - Land Use 1: Trip generation of 1,173 and 1,174 trips in the AM and PM peaks, respectively
  - Land Use 2: Trip generation of 1,397 and 1,373 trips in the AM and PM peaks, respectively
  - No twinning / widening of 114 Avenue or Highway 560 is warranted.
  - 4 lanes on 84 Street (between the north and south 114 Avenue intersections). Alternatively, the realignment of 114 Avenue with the grade separated rail crossing (see Section 1.3 and Figure 1.2) should be considered instead of twinning 84 Street. Benefits include allowing traffic continuous flow of vehicular traffic at the 114 Avenue rail crossing, increased safety, and reduced traffic disturbance to the Hamlet of Shepard residence.
- **2048 Background Scenario:**
  - Highway 560 / Stoney Trail Interchange: Interchange operates above capacity. A systems interchange is planned, however the timing of the upgrade is unknown.
  - Hwy 560: 6 core lanes between Stoney Trail interchange and RR 285, 4 core lanes between RR 284 to RR 282
  - 4 lanes on 84 Street (between the north and south 114 Avenue intersections). Alternatively, the realignment of 114 Avenue could be considered instead of twinning 84 Street.
- **2048 Post-Development Scenario (in addition to 2048 Background)**:

- Land Use 1: Trip generation of 3,808 and 3,956 trips in the AM and PM peaks, respectively
- Land Use 2: Trip generation of 4,561 and 4,695 trips in the AM and PM peaks, respectively
- 114 Avenue (TR 232): 4 lanes (between 84 Street and RR 282) and will require the realignment of 114 Avenue. All intersections are signalized, except RR 282
- Highway 560: All intersections are signalized.

- **Sensitivity Test A1:** With upgraded infrastructure on 114 Avenue (twinning, grade separated over CPKC tracks), and no interchange upgrades on Glenmore Trail (i.e. 4 or 6 lanes with at-grade traffic control, no interchange): This scenario can be accommodated.
- **Sensitivity Test A2:** With upgraded infrastructure (interchange at RR 285, RR 284 and/or RR 283) and 4 or 6 lanes on Glenmore Trail, and no infrastructure upgrades on 114 Avenue (i.e. remain 2 lanes).
  - Land Use Scenario 1: With 6 lanes and at grade intersections along Hwy 560, 75% of the intended 2048 build-out could be accommodated for Land Use Scenario 1. If the intended build-out exceeds 75%, an interchange is required at Hwy 560 / RR 283 (required first) and at Hwy 560 / 100 Street (RR 285).
  - Land Use Scenario 2: With 6 lanes on Glenmore Trail and at grade intersections Hwy 560, 60% of the intended 2048 build-out could be accommodated for Land Use Scenario 2. If the intended build-out exceeds 60%, an interchange is required at Hwy 560 / RR 283 (required first) and at Hwy 560 / 100 Street (RR 285).
  - A key driver for triggering the RR 283 interchange is high traffic flows to/from Chestermere
- **Sensitivity Test B2** (Sequence of Glenmore interchanges):
  - No interchanges on Glenmore Trail are required with intended uses, if the 114 Avenue (TR 232) and Glenmore Trail (Hwy 560) at-grade improvements are implemented.
  - Based on Sensitivity Test A2 where 114 Avenue is not upgraded, the interchange at Hwy 560 / RR 283 would need to be constructed first, followed by Glenmore Trail / 100 Street.

From the review of the proposed roadway classification within the Prairie Gateway ASP, it was confirmed that the projected daily traffic volumes of all roadways are within the daily traffic thresholds in accordance with Rocky View County's Servicing Standards.



ISL SHEPARD

PRAIRIE GATEWAY ASP TIA

ANALYSIS SUMMARY

EXHIBIT 7.1

Mar 2024

8.0 Closure

ISL Engineering and Land Services Ltd. has prepared this report entitled “Prairie Gateway ASP TIA” for Shepard Development Corporation to support the proposed Prairie Gateway ASP. The material contained herein reflects ISL’s best judgment in light of the information available at the time of the study and the level of detail normally expected at the preliminary planning stage.

Any use which a third party makes of this report or reliance on this report or decision made based on this report are the sole responsibility of such third parties. ISL accepts no responsibility for damages, if any suffered by a third party as a result of decisions made, or actions taken, based on this report.

APPENDIX A
Scope of Work

Sent: February 28, 2024 9:55 AM

Cc:
Subject: RE: Prairie Gateway ASP - TIA Scope of Work

Hi

The scenario 2 land-use assumptions address the comments sufficiently.

Thanks,

Sent: Wednesday, February 28, 2024 9:47 AM

Subject: [External] RE: Prairie Gateway ASP - TIA Scope of Work

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Please let me know as soon as you can whether the proposed trip gens below is good to go.
We will need an additional 2 weeks to run the Scenario 2, so we will likely need until mid March (Mar 15) to finish up the TIA.

Thanks,

Sent: Tuesday, February 27, 2024 4:15 PM

Subject: RE: Prairie Gateway ASP - TIA Scope of Work

Hi

We can do a land use scenario 2 analysis based on your comments and comments.
For Zones 2 and 3, we propose to use the blended ITE 150 and 110 (70% warehouse (ITE 150), 30% light industrial (ITE 110)). This was also used in the last Shepard TIA submitted to RVC previously.
For all trip gens, we are using the fitted curve equations (when provided) from ITE Trip Gen v11 as the fitted curve equations are better suited for these large development areas.
However we noticed an unusual amount of trips for the light industrial in the AM.
From v11, the light industrial will generate 3700 trips in the AM and 780 trips in the PM. Note the AM trips are almost 5x higher than the PM.
If v10 is used, the light industrial will generate 920 trips in the AM and 641 trips in the PM. I'm not sure what made the AM trips fitted curve equation change to such a high number of trips in v11.
I suggest using ITE v10 for AM and v11 for PM for light industrial.

In summary, the land use scenario 2 is:

- Zone 1: 0.7 developable area, 0.4 FAR = 15.8M sq ft building using ITE Warehouse (ITE 150)
- Zone 2 / 3: 0.75 developable area, 0.4 FAR = 29M sq ft, 70% warehouse (ITE 150), 30% light industrial (ITE 110).
- Zone 3 retail: 80,000 sq ft using ITE 821 (shopping plaza)
- All trip rates will be from ITE Trip Generation Manual, 11th Edition, with the exception of the light industrial AM, where the 10th Edition will be referenced.

Please let me know if the above is ok.

Thanks,

Sent: Monday, February 26, 2024 1:38 PM

Subject: RE: Prairie Gateway ASP - TIA Scope of Work

I thought I had sent my comments, sorry. See below.

I read through the MPE/ISL comments about the Zone 1 trip generation and while I agree that the rail consultant likely has the best knowledge of the characteristics around rail-served development, it's difficult to support the assumptions without any validating evidence or data. It's also possible the lands develop differently over time based on the diversity allowed in the land-use district(s). Based on these considerations my opinion remains that applying rates from ITE is a more appropriate approach.

1. Assumptions regarding 2028 and 2048 horizon build-out for all Zones are reasonable.

2. Assumptions regarding developable area and FAR for Zones 2 and 3 are reasonable.

3. "First Principles" approach for Zone 1 appears to not adequately reflect the amount of activity, and magnitude of workforce for this area. In comparing with serviced/developed industrial areas locally, typical number of jobs ranges from ~800 (on the low end) to ~1,500 per 160-acre ¼ section. It may be reasonable to have a below average number of jobs with this type of development, but the number assumed by ISL seems unrealistically low based on the overall development area.

   For Zone 1, applying ITE 150 using GFA as the independent variable and assuming similar site coverage characteristics (70% developable, FAR 0.40) may be a reasonable approach to estimating trips for the rail-served area.

4. For Zones 2 and 3, ITE 150 warehouse rate does not reflect the diversity of uses that are possible within these two zones based on the land-use and potential build-out scenarios.

   For Zones 2 and 3, consider using a blended rate between ITE 110 and ITE 150, or applying ITE 130 over for both areas as a more reasonable approximation for the diversity of industrial development that may occur.

5. (I may remove) The size of retail development on the 8-acre site potentially underestimates the yield on this site. Cursory review of contemporary retail developments in this type of environment suggests an 8-acre site (including netting out public ROW, amenity space, etc.) may yield closer to ~80,000 sq. ft. of retail use area.

Sent: Friday, February 23, 2024 10:26 AM

Subject: [External] RE: Prairie Gateway ASP - TIA Scope of Work

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We have not received comments from .
We are actually done the analysis yesterday as we haven't heard back.

Based on your comments, I think we can add another analysis with Annex Area Zone 3 as Industrial Park.
I believe the trips within Prairie Gateway do not need to be changed as the info is all provided by Shepard's rail consultant PLG Consulting. Please see below my response in red below for more info.
PLG plans and knows the operations of these rail enabled lands, thus the info from PLG would be more accurate than ITE for Zone 1.

Thanks,

Sent: Thursday, February 22, 2024 2:09 PM

Subject: RE: Prairie Gateway ASP - TIA Scope of Work

> Some people who received this message don't often get email from [redacted] Learn why this is important

I believe you may have already received some comments from [redacted] regarding the Land Uses and Trip Generation rates.

Further to this and on behalf of Rocky View County, MPE has the following comments, queries, and/or suggestions regarding the trip generation and assignment proposed by ISL for the upcoming TIA.

1. ITE Land Use (LU) 150 - Warehousing trip generation rates could underestimate the number of trips generated by the proposed development. Would it be more appropriate to use the ITE LU 130 rather than LU 150 to better fit anticipated operations in the site for SDC Zone 2 and SDC Zone 3?

   SDC's Zone 2 will be warehouse, as the targeted FAR and warehouse (with no walk in customer) is what Shepard envisions for their lands. For Zone 3 in the annex area, it was assumed that the warehousing in Zone 2 will carry through to this zone. This would also be similar to East Balzac as the majority of the use is warehouse. **We could add an additional analysis with Zone 3 using ITE 130 (Industrial Park) rates.** Also, if the landowners in the Annexed area envisions something different when they do their ASPs in the future, they could address the change through a TIA update.

2. Retail does not correspond to a specific ITE land use within the ITE TGM (version 11), but to a Land Use group. MPE suggests ITE LU 821 – Shopping Plaza for the proposed retail land within SDC Zone 2. Land Use 820, Land Use 822, and Land Use 823 are related uses and can be considered instead of Land Use 821 blending data as appropriate depending on the particular development details. It would be reasonable for ISL to factor/reduce the total trips from different classifications due to multi-use overcount. Yes, we should've used to ITE LU 821 for retail. The difference between LU 820 and 821 is 45 in AM and 90 trips in the PM. In the PM, the overall Prairie Gateway trips (Zones 1+2) is 2600 trips, so the extra 100 trips is not going to make a difference. As indicated above, we have finished the analysis and are proposing to keep the Shepard trips the same and add another analysis with Annex Zone 3 using the Industrial Park rates.

3. MPE suggests using only trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (TGM), version 11. Trip generation rates from previous versions of the TGM are outdated. Yes, we are using v11 for all lands except for Zone 1, the rail enabled lands.

4. An even truck distribution through the daytime (10 trucks per hour) should be supported, otherwise MPE suggests allocating 40% of the truck to the AM and PM peak hours, combined. Based on this the site will generate 35 new truck trips during the AM peak hour (18 in and 17 out) and 35 new truck trips during the PM peak hour (17 in and 18 out). The 10 truck per hour in the peaks came from Shepard's rail consultant, PLG Consulting. PLG also noted that it is common to evenly distribute the trucks throughout the daytime.

5. Reducing trips based on 25% of the staff being away on an average day requires support; staff that are away due to vacation, illness etc. are not removed from the analysis as they are generally replaced by relief workers in equal number. We suggest basing the analysis using the full (2,700) anticipated staff. This info was provided by Shepard's rail consultant PLG Consulting. It is noted the 25% is not just vacation and illness, they include staff that may come in before / leave after the peak hour, staff that may work off site or from home, and staff shortages. Also the hours of the 18 warehouses (likely owned by different businesses) will likely not all begin / end at the same as some may start / end outside the typical peak.

6. Can ISL confirm the 100% buildout for Zone 1 is 18 warehouses? It seems there is sufficient room for a larger number of individual operations in the area. Based on the customized trip generation, and truck site traffic correction, SDC Zone 1 will generate approximately 15% fewer trips than comparison with estimates using ITE LU 150 rates based on number of employees. We suggest that the assumptions for the customized trip generation be reviewed as indicated in items 4 and 5, provide justification for the reduced volumes compared to ITE estimates, or use the trip generation rates for the ITE LU 150 for the SDC Zone 1. Zone 1 are the rail enabled lands and would operate differently than a warehouse that is serviced by trucks. The 18 warehouses operations, employees, and truck info in Zone 1 were all provided by Shepard's rail consultant PLG Consulting.

Please review and let me know if you have any questions or wish to discuss further.

Regards,

Sent: Tuesday, February 6, 2024 1:38 PM

Subject: RE: Prairie Gateway ASP - TIA Scope of Work

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

As requested, please find attached the assumed land uses in the annexation lands, phasing, trip gen rates. Please review as soon as you can as we are ready to get into the traffic analysis.

Thanks,

Sent: Tuesday, December 19, 2023 12:08 PM

Subject: RE: Prairie Gateway ASP - TIA Scope of Work

The City of Calgary agrees with the proposed scope for the TIA.

Sent: Tuesday, December 19, 2023 10:38 AM

Subject: [External] RE: Prairie Gateway ASP - TIA Scope of Work

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Thanks for your comments.

1) Yes, all those intersections as indicated by ATEC are included
2) Yes, we will go through the trip rates with you before the analysis
3) I will double back with the team on the % of Zone 3 once we receive the forecast to see if there's more info available.

Thanks,

Sent: Thursday, December 14, 2023 2:01 PM

Subject: RE: Prairie Gateway ASP - TIA Scope of Work

The City is generally supportive of the TIA scope. The updates you've made do an excellent job providing increased clarity with respect to the three distinct areas.

My only additional comments are as follows:

1. When we met with Alberta Transportation on November 23, they had indicated there is some ongoing planning/design related to improvements for the at-grade intersection of Highway 560/Range Road 283; please ensure the updated intersection configuration is reflected in the TIA. Alberta Transportation also suggested the following should be considered in the TIA:

    - *Explore/recommend at-grade improvements at the following three intersections that could be implemented ahead of the planned interchange(s) to increase capacity and improve level of service on an interim basis:*
        - *Range Road 285*
        - *Range Road 284*
        - *Range Road 283*

2. Prior to undertaking the analysis, I would appreciate if you can share the trip generation assumptions for SDC Zone 1 (since the intent is to base these on a "custom" rate rather than a consensus/published rate).

3. With respect to the assumption for build-out of Zone 3, I think there is potential for more than 10-15% by 2048, especially if investments in Highway 560 are made. The initial assumption you have made may be appropriate for now, however if additional information or new proposals for these lands is initiated in the near term, it could necessitate changes to this assumption and an associated update to the 2048 analysis.

I'm also curious whether Rocky View has any comments on the proposed scope.

Regards,

Sent: Thursday, December 7, 2023 6:34 PM

Subject: [External] RE: Prairie Gateway ASP - TIA Scope of Work

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All,

Please find attached the updated scope of work to the Prairie Gateway TIA for your review.

Thanks,

Sent: Wednesday, December 6, 2023 10:01 AM

Subject: Prairie Gateway ASP - TIA Scope of Work

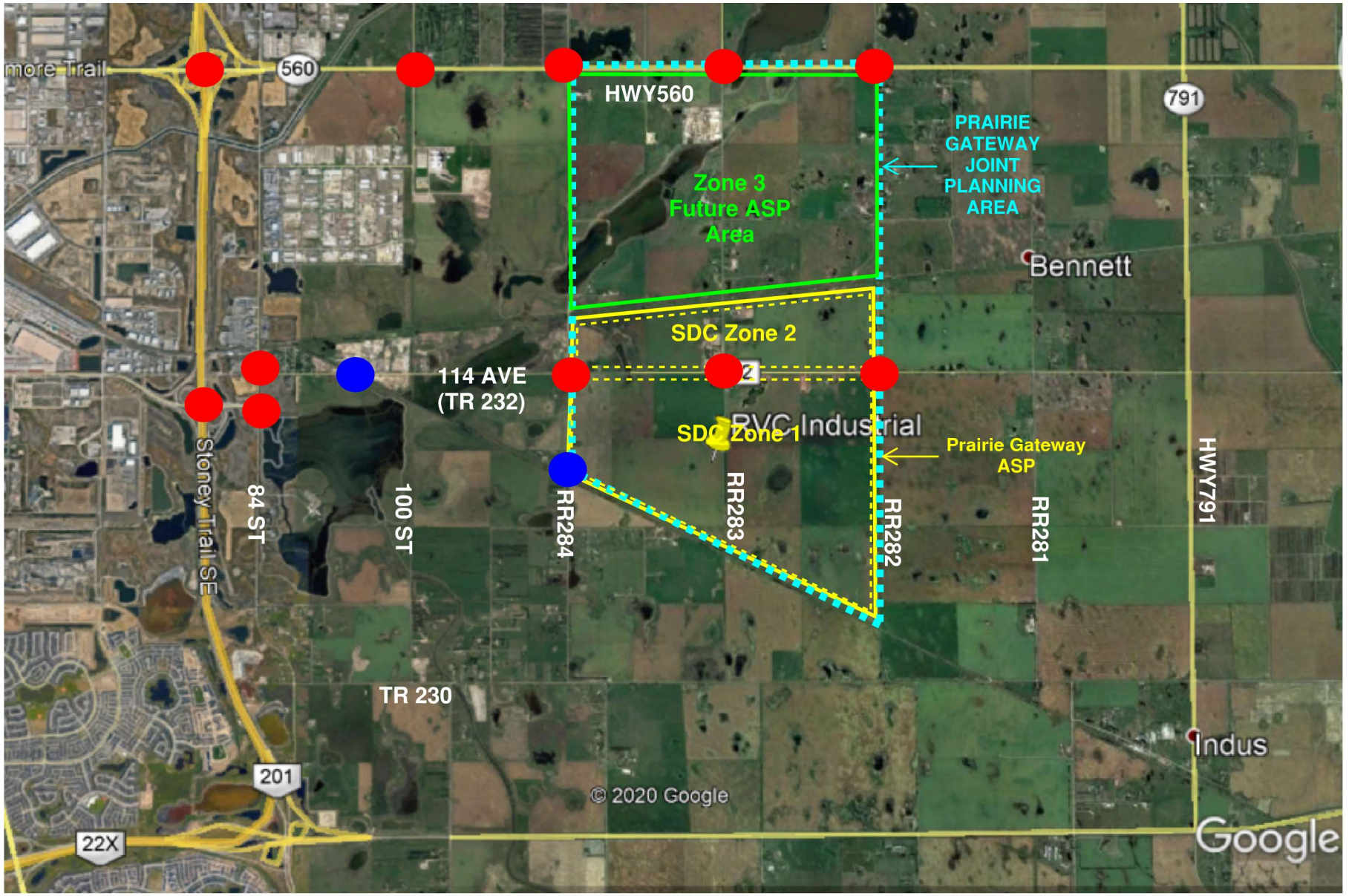
Hello all

Please find attached the scope of work to the Prairie Gateway TIA for your review.

Thanks,

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Analyzed intersections

Analyzed rail crossing

APPENDIX B
Raw Traffic Count Data and Forecast Data

Reference Number:
20100050

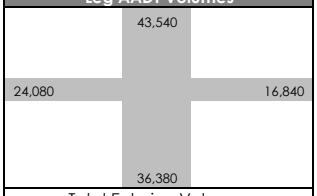
Intersection of:
201 & GLENMORE TR SE HWY 560, CALGARY 24-23-29-405750000

North On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	37,293	85.7%
B: Recreational Vehicle	163	0.4%
C: Bus	24	0.1%
D: Single Unit Truck	2,623	6.0%
E: Tractor Trailer Unit	3,437	7.9%
AADT	**43,540**	
ASDT	46,750	

2022 AADT / ASDT Estimates

Leg AADT Volumes



Total Entering Volume: **60,420**

From North			
21,760			
	Right	Thru	Left
	5,310	**14,670**	**1,780**
A	4,299	13,104	1,344
B	6	67	4
C	4	7	0
D	386	649	234
E	615	843	198

To North	
21,780	
A	18,546
B	86
C	13
D	1,354
E	1,781

To West	
12,040	
A	9,768
B	28
C	6
D	1,041
E	1,197

From East			
8,420			
Left	Thru	Right	
1,710	**4,930**	**1,780**	
1,455	4,023	1,373	A
10	15	7	B
0	1	1	C
107	517	205	D
138	374	194	E

West On: 560

	Volume	%
A	19,343	80.3%
B	55	0.2%
C	15	0.1%
D	2,167	9.0%
E	2,500	10.4%
AADT	**24,080**	
ASDT	25,840	

East On: 560

Vehicle Type		
A	13,669	81.2%
B	54	0.3%
C	3	0.0%
D	1,715	10.2%
E	1,399	8.3%
AADT	**16,840**	
ASDT	18,070	

From West			
12,040			
Left	Thru	Right	
5,310	**4,930**	**1,800**	
A	4,175	4,031	1,369
B	6	13	8
C	5	1	3
D	432	523	171
E	692	362	249

To East	
8,420	
6,818	A
22	B
1	C
886	D
693	E

To South	
18,180	
A	15,928
B	85
C	10
D	927
E	1,230

From South			
18,200			
Left	Thru	Right	
1,800	**14,690**	**1,710**	
A	1,446	12,998	1,443
B	7	73	5
C	1	7	0
D	138	717	129
E	208	895	133

South On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	31,815	87.5%
B: Recreational Vehicle	170	0.5%
C: Bus	18	0.0%
D: Single Unit Truck	1,911	5.3%
E: Tractor Trailer Unit	2,466	6.8%
AADT	**36,380**	
ASDT	39,060	

ABBREVIATIONS:

AADT: Annual Average Daily Traffic. Average daily traffic expressed as vehicles per day for the period from January 1 to December 31 (inclusive), 365 days.

ASDT: Average Summer Daily Traffic. Average daily traffic expressed as vehicles per day for the period from May 1 to September 30 (inclusive), 153 days.

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
20100050

Intersection of:
201 & GLENMORE TR SE HWY 560, CALGARY 24-23-29-405750000

North On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	5,011	87.9%
B: Recreational Vehicle	7	0.1%
C: Bus	2	0.0%
D: Single Unit Truck	329	5.8%
E: Tractor Trailer Unit	352	6.2%
AM	**5,701**	

2022 AM 100th Highest Hour Estimates

Leg AM Volumes

5,701 / 3,474 / 2,190 / 4,829

Total Entering Volume: **8,097**

From North

	Total	Right	Thru	Left
	3,097	**1,145**	**1,638**	**314**
A	1,023	1,433	283	
B	0	7	0	
C	0	2	0	
D	50	94	18	
E	72	102	13	

To North

	2,604
A	2,272
B	0
C	0
D	167
E	165

To West

	2,469
A	2,157
B	0
C	0
D	168
E	144

From East

	Total	Left	Thru	Right
	1,082	**154**	**758**	**170**
A	129	619	102	
B	0	0	0	
C	0	0	0	
D	15	94	39	
E	10	45	29	

West On: 560

	Volume	%
A	2,872	82.7%
B	2	0.1%
C	0	0.0%
D	308	8.9%
E	292	8.4%
AM	**3,474**	

East On: 560

Vehicle Type	Volume	%
A	1,789	81.7%
B	2	0.1%
C	0	0.0%
D	218	10.0%
E	181	8.3%
AM	**2,190**	

From West

	Total	Left	Thru	Right
	1,005	**349**	**532**	**124**
A	227	416	72	
B	0	2	0	
C	0	0	0	
D	68	47	25	
E	54	67	27	

To East

	1,108
A	939
B	2
C	0
D	70
E	97

To South

	1,916
A	1,634
B	7
C	2
D	134
E	139

From South

	Total	Left	Thru	Right
	2,913	**566**	**2,085**	**262**
A	515	1,943	240	
B	0	0	0	
C	0	0	0	
D	24	60	5	
E	27	82	17	

South On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	4,332	89.7%
B: Recreational Vehicle	7	0.1%
C: Bus	2	0.0%
D: Single Unit Truck	223	4.6%
E: Tractor Trailer Unit	265	5.5%
AM	**4,829**	

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
20100050

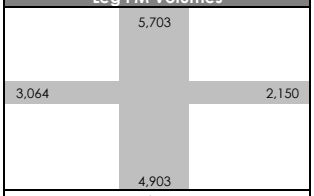
Intersection of:
201 & GLENMORE TR SE HWY 560, CALGARY 24-23-29-405750000

North On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	5,170	90.7%
B: Recreational Vehicle	24	0.4%
C: Bus	2	0.0%
D: Single Unit Truck	237	4.2%
E: Tractor Trailer Unit	270	4.7%
PM	**5,703**	

2022 PM 100th Highest Hour Estimates

Leg PM Volumes



Total Entering Volume: **7,910**

From North

	Right	Thru	Left
	2,793		
	417	**2,198**	**178**
A	322	2,080	131
B	1	10	0
C	0	1	0
D	36	42	28
E	58	65	19

To North

	2,910
A	2,637
B	13
C	1
D	131
E	128

To West

	930
A	736
B	3
C	0
D	87
E	104

From East

Left	Thru	Right	
1,009			
305	**420**	**284**	
288	352	256	A
0	1	1	B
0	0	0	C
4	36	5	D
13	31	22	E

West On: 560

	Volume	%
A	2,636	86.0%
B	11	0.4%
C	0	0.0%
D	220	7.2%
E	197	6.4%
PM	**3,064**	

East On: 560

Vehicle Type		
A	1,866	86.8%
B	6	0.3%
C	0	0.0%
D	146	6.8%
E	132	6.1%
PM	**2,150**	

From West

	Left	Thru	Right
	2,134		
	904	**804**	**426**
A	819	703	378
B	3	4	1
C	0	0	0
D	50	60	23
E	32	37	24

To East

	1,141
	970
A	4
B	0
C	101
D	66
E	

To South

	2,929
A	2,746
B	11
C	1
D	69
E	102

From South

	Left	Thru	Right
	1,974		
	93	**1,722**	**159**
A	62	1,562	136
B	1	9	0
C	0	1	0
D	15	76	13
E	15	74	10

South On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	4,506	91.9%
B: Recreational Vehicle	21	0.4%
C: Bus	2	0.0%
D: Single Unit Truck	173	3.5%
E: Tractor Trailer Unit	201	4.1%
PM	**4,903**	

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
20100055

Intersection of:
201 & 114 AVE SE, CALGARY 12-23-29-405900320

North On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	32,404	88.8%
B: Recreational Vehicle	90	0.2%
C: Bus	15	0.0%
D: Single Unit Truck	1,723	4.7%
E: Tractor Trailer Unit	2,268	6.2%
AADT	**36,500**	
ASDT	38,950	

2022 AADT / ASDT Estimates

Leg AADT Volumes

36,500
11,880 5,880
31,340

Total Entering Volume: **42,800**

From North

	18,240		
	Right	Thru	Left
	3,750	**13,850**	**640**
A	3,234	12,436	520
B	6	42	4
C	0	3	3
D	287	459	80
E	223	910	33

To North

	18,260
A	16,214
B	38
C	9
D	897
E	1,102

To West

	5,940
A	5,034
B	15
C	0
D	444
E	447

From East

	2,940		
	Left	Thru	Right
	960	**1,340**	**640**
A	792	1,148	508
B	9	8	3
C	0	0	3
D	91	107	79
E	68	77	47

West On: 114 Ave SE

	Volume	%
A	10,085	84.9%
B	28	0.2%
C	0	0.0%
D	923	7.8%
E	844	7.1%
AADT	**11,880**	
ASDT	12,740	

East On: 114 Ave SE

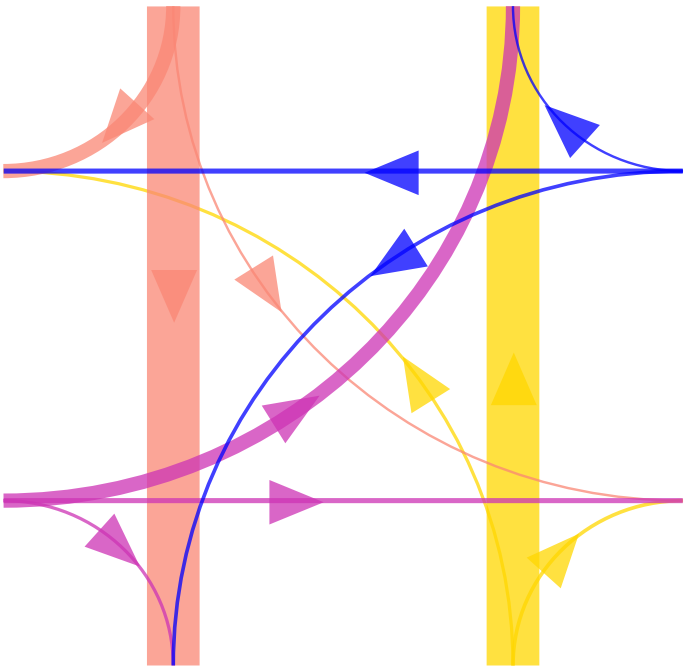
Vehicle Type		
A	4,949	84.2%
B	32	0.5%
C	6	0.1%
D	557	9.5%
E	336	5.7%
AADT	**5,880**	
ASDT	6,310	

From West

	5,940		
	Left	Thru	Right
	3,750	**1,340**	**850**
A	3,264	1,157	630
B	4	6	3
C	0	0	0
D	297	127	55
E	185	50	162

To East

	2,940
A	2,501
B	12
C	3
D	280
E	144



To South

	15,660
A	13,858
B	54
C	3
D	605
E	1,140

From South

	15,680		
	Left	Thru	Right
	850	**13,870**	**960**
A	652	12,442	824
B	1	31	2
C	0	6	0
D	50	521	73
E	147	870	61

South On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	27,776	88.6%
B: Recreational Vehicle	88	0.3%
C: Bus	9	0.0%
D: Single Unit Truck	1,249	4.0%
E: Tractor Trailer Unit	2,218	7.1%
AADT	**31,340**	
ASDT	33,640	

ABBREVIATIONS:

AADT: Annual Average Daily Traffic. Average daily traffic expressed as vehicles per day for the period from January 1 to December 31 (inclusive), 365 days.

ASDT: Average Summer Daily Traffic. Average daily traffic expressed as vehicles per day for the period from May 1 to September 30 (inclusive), 153 days.

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
20100055

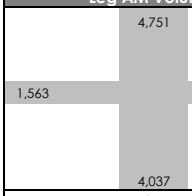
Intersection of:
201 & 114 AVE SE, CALGARY 12-23-29-405900320

North On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	4,301	90.5%
B: Recreational Vehicle	10	0.2%
C: Bus	2	0.0%
D: Single Unit Truck	218	4.6%
E: Tractor Trailer Unit	220	4.6%
AM	**4,751**	

2022 AM 100th Highest Hour Estimates

Leg AM Volumes



Total Entering Volume: **5,608**

From North

	Right	Thru	Left
	1,864		
	692	**1,089**	**83**
A	625	896	81
B	0	5	0
C	0	0	0
D	40	87	2
E	27	101	0

To North

	2,887
A	2,699
B	5
C	2
D	89
E	92

To West

	981
A	869
B	0
C	0
D	67
E	45

From East

	Left	Thru	Right
	313		
	60	**144**	**109**
A	35	112	61
B	0	0	0
C	0	0	2
D	15	22	28
E	10	10	18

West On: 114 Ave SE

	Volume	%
A	1,381	88.4%
B	2	0.1%
C	0	0.0%
D	104	6.7%
E	76	4.9%
AM	**1,563**	

East On: 114 Ave SE

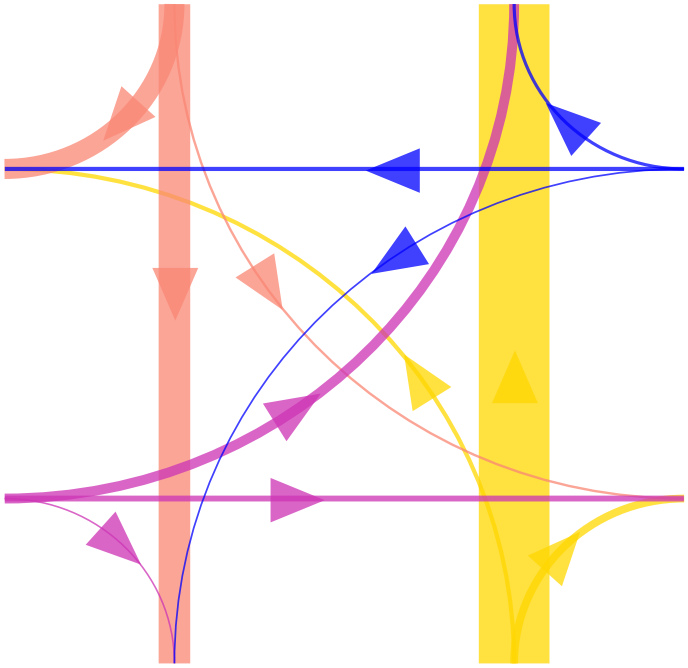
Vehicle Type		
A	742	85.8%
B	0	0.0%
C	2	0.2%
D	75	8.7%
E	46	5.3%
AM	**865**	

From West

	Left	Thru	Right
	582		
	341	**202**	**39**
A	309	190	13
B	2	0	0
C	0	0	0
D	25	6	6
E	5	6	20

To East

	552
A	534
B	0
C	0
D	10
E	8



To South

	1,188
A	944
B	5
C	0
D	108
E	131

From South

	Left	Thru	Right
	2,849		
	145	**2,437**	**267**
A	132	2,329	263
B	0	3	0
C	0	0	0
D	5	36	2
E	8	69	2

South On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	3,668	90.9%
B: Recreational Vehicle	8	0.2%
C: Bus	0	0.0%
D: Single Unit Truck	151	3.7%
E: Tractor Trailer Unit	210	5.2%
AM	**4,037**	

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
20100055

Intersection of:
201 & 114 AVE SE, CALGARY 12-23-29-405900320

North On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	4,401	92.7%
B: Recreational Vehicle	13	0.3%
C: Bus	2	0.0%
D: Single Unit Truck	156	3.3%
E: Tractor Trailer Unit	177	3.7%
PM	**4,749**	

2022 PM 100th Highest Hour Estimates

Leg PM Volumes

4,749 / 1,496 / 761 / 4,092

Total Entering Volume: **5,549**

From North — **2,853**

	Right	Thru	Left
	416	**2,353**	**84**
A	377	2,244	53
B	0	7	2
C	0	0	0
D	23	33	19
E	16	69	10

To North — **1,896**

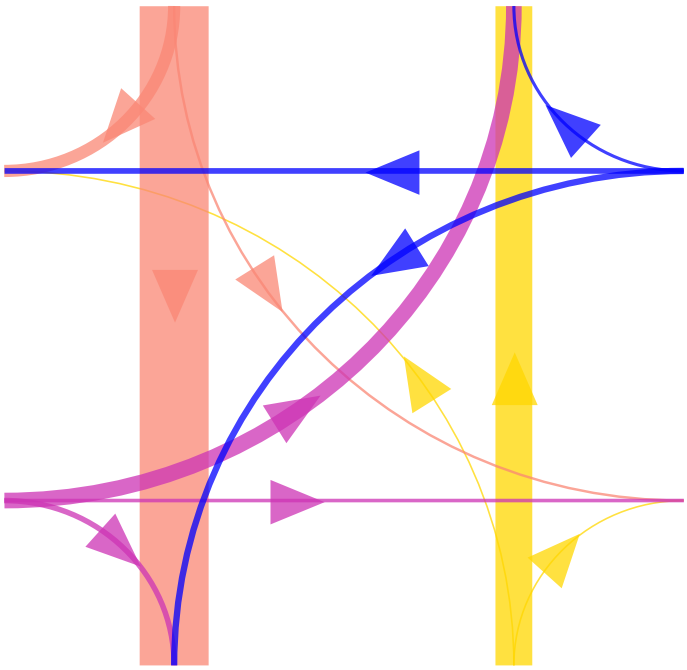
A	1,727
B	4
C	2
D	81
E	82

To West — **651**

A	577
B	0
C	0
D	36
E	38

From East — **516**

Left	Thru	Right	
216	**194**	**106**	
206	175	97	A
1	0	0	B
0	0	1	C
5	7	7	D
4	12	1	E



West On: 114 Ave SE

	Volume	%
A	1,366	91.3%
B	1	0.1%
C	0	0.0%
D	64	4.3%
E	65	4.3%
PM	**1,496**	

East On: 114 Ave SE

Vehicle Type	Volume	%
A	660	86.7%
B	5	0.7%
C	1	0.1%
D	60	7.9%
E	35	4.6%
PM	**761**	

From West — **845**

	Left	Thru	Right
	534	**123**	**188**
A	506	100	183
B	0	1	0
C	0	0	0
D	12	15	1
E	16	7	4

To East — **245**

A	182
B	4
C	0
D	41
E	18

To South — **2,757**

A	2,633
B	8
C	0
D	39
E	77

From South — **1,335**

	Left	Thru	Right
	41	**1,256**	**38**
A	25	1,124	29
B	0	4	1
C	0	1	0
D	6	62	7
E	10	65	1

South On: 201

Vehicle Type	Volume	%
A: Passenger Vehicle	3,811	93.1%
B: Recreational Vehicle	13	0.3%
C: Bus	1	0.0%
D: Single Unit Truck	114	2.8%
E: Tractor Trailer Unit	153	3.7%
PM	**4,092**	

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
70000870

Intersection of:
560 & RGE RD 283 & (RAINBOW RD)
E OF CALGARY

North On: Rge Rd 283

Vehicle Type	Volume	%
A: Passenger Vehicle	2,126	98.4%
B: Recreational Vehicle	3	0.1%
C: Bus	4	0.2%
D: Single Unit Truck	24	1.1%
E: Tractor Trailer Unit	3	0.1%

AADT 2,160
ASDT 2,320

2022 AADT / ASDT Estimates

Leg AADT Volumes

2,160
9,300 7,420
1,220

Total Entering Volume: **10,060**

From North

	1,080		
	Right	Thru	Left
	780	**140**	**160**
A	771	139	151
B	2	0	1
C	3	0	0
D	4	1	6
E	0	0	2

To North

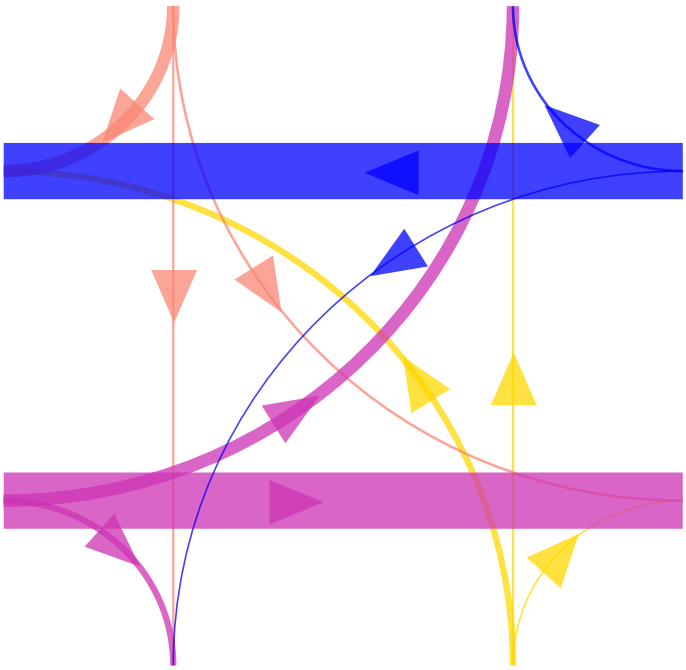
	1,080
A	1,065
B	0
C	1
D	13
E	1

To West

	4,650
A	3,965
B	17
C	5
D	249
E	414

From East

	3,720		
	Left	Thru	Right
	80	**3,480**	**160**
A	74	2,974	157
B	0	14	0
C	0	2	1
D	3	143	2
E	3	347	0



West On: 560

	Volume	%
A	7,863	84.5%
B	30	0.3%
C	7	0.1%
D	497	5.3%
E	903	9.7%

AADT 9,300
ASDT 10,020

Vehicle Type

	Volume	%
A	6,344	85.3%
B	28	0.4%
C	5	0.1%
D	300	4.0%
E	763	10.3%

East On: 560

AADT 7,420
ASDT 8,000

From West

	4,650		
	Left	Thru	Right
	780	**3,480**	**390**
A	771	2,918	209
B	0	12	1
C	0	2	0
D	8	143	97
E	1	405	83

To East

	3,710
A	3,139
B	14
C	2
D	152
E	413

To South

	610
A	422
B	1
C	0
D	101
E	86

From South

	610		
	Left	Thru	Right
	390	**140**	**80**
A	220	137	70
B	1	0	1
C	0	0	0
D	102	3	3
E	67	0	6

South On: Rge Rd 283

Vehicle Type	Volume	%
A: Passenger Vehicle	849	69.6%
B: Recreational Vehicle	3	0.2%
C: Bus	0	0.0%
D: Single Unit Truck	209	17.1%
E: Tractor Trailer Unit	159	13.0%

AADT 1,220
ASDT 1,310

ABBREVIATIONS:

AADT: Annual Average Daily Traffic. Average daily traffic expressed as vehicles per day for the period from January 1 to December 31 (inclusive), 365 days.

ASDT: Average Summer Daily Traffic. Average daily traffic expressed as vehicles per day for the period from May 1 to September 30 (inclusive), 153 days.

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
70000870

Intersection of:
560 & RGE RD 283 & (RAINBOW RD)
E OF CALGARY

North On: Rge Rd 283	Vehicle Type	Volume	%
	A: Passenger Vehicle	176	100.0%
	B: Recreational Vehicle	0	0.0%
	C: Bus	0	0.0%
	D: Single Unit Truck	0	0.0%
	E: Tractor Trailer Unit	0	0.0%
	AM	**176**	

2022 AM 100th Highest Hour Estimates

Leg AM Volumes

176 / 945 / 804 / 123

Total Entering Volume: **1,024**

From North — **155**

	Right	Thru	Left
	114	**39**	**2**
A	114	39	2
B	0	0	0
C	0	0	0
D	0	0	0
E	0	0	0

To North — **21**

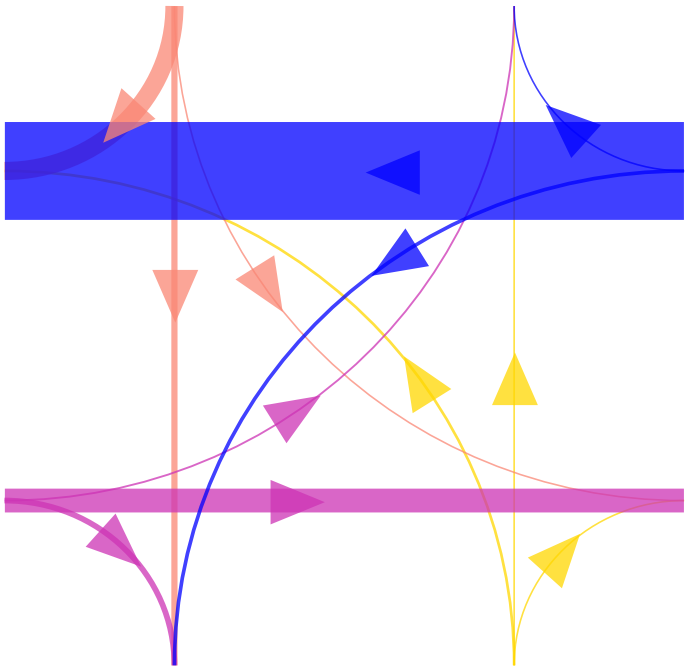
A	21
B	0
C	0
D	0
E	0

To West — **747**

A	713
B	0
C	0
D	14
E	20

From East — **646**

Left	Thru	Right	
23	**616**	**7**	
22	593	7	A
0	0	0	B
0	0	0	C
1	8	0	D
0	15	0	E



West On: 560	Volume	%
A	843	89.2%
B	0	0.0%
C	0	0.0%
D	39	4.1%
E	63	6.7%
AM	**945**	

East On: 560	Vehicle Type		
A	722	89.8%	
B	0	0.0%	
C	0	0.0%	
D	25	3.1%	
E	57	7.1%	
AM	**804**		

From West — **198**

	Left	Thru	Right
	12	**150**	**36**
A	12	93	25
B	0	0	0
C	0	0	0
D	0	16	9
E	0	41	2

To East — **158**

A	100
B	0
C	0
D	16
E	42

To South — **98**

A	86
B	0
C	0
D	10
E	2

From South — **25**

	Left	Thru	Right
	17	**2**	**6**
A	6	2	5
B	0	0	0
C	0	0	0
D	6	0	0
E	5	0	1

South On: Rge Rd 283	Vehicle Type	Volume	%
	A: Passenger Vehicle	99	80.5%
	B: Recreational Vehicle	0	0.0%
	C: Bus	0	0.0%
	D: Single Unit Truck	16	13.0%
	E: Tractor Trailer Unit	8	6.5%
	AM	**123**	

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
70000870

Intersection of:
560 & RGE RD 283 & (RAINBOW RD)
E OF CALGARY

North On: Rge Rd 283

Vehicle Type	Volume	%
A: Passenger Vehicle	223	99.6%
B: Recreational Vehicle	1	0.4%
C: Bus	0	0.0%
D: Single Unit Truck	0	0.0%
E: Tractor Trailer Unit	0	0.0%
PM	**224**	

2022 PM 100th Highest Hour Estimates

Leg PM Volumes

224 / 945 / 768 / 137

Total Entering Volume:
1,037

From North

	Total	Right	Thru	Left
	54	**35**	**4**	**15**
A	35	35	4	14
B	0	0	0	1
C	0	0	0	0
D	0	0	0	0
E	0	0	0	0

To North

	170
A	170
B	0
C	0
D	0
E	0

To West

	261
A	218
B	0
C	0
D	19
E	24

From East

	Total	Left	Thru	Right
	204	**8**	**184**	**12**
A	7	7	152	12
B	0	0	0	0
C	0	0	0	0
D	1	1	13	0
E	0	0	19	0

West On: 560

	Volume	%
A	848	89.7%
B	1	0.1%
C	0	0.0%
D	38	4.0%
E	58	6.1%
PM	**945**	

East On: 560

Vehicle Type	Volume	%
A	699	91.0%
B	2	0.3%
C	0	0.0%
D	25	3.3%
E	42	5.5%
PM	**768**	

From West

	Total	Left	Thru	Right
	684	**125**	**529**	**30**
A	125	125	496	9
B	0	0	1	0
C	0	0	0	0
D	0	0	10	9
E	0	0	22	12

To East

	564
A	528
B	2
C	0
D	11
E	23

To South

	42
A	20
B	0
C	0
D	10
E	12

From South

	Total	Left	Thru	Right
	95	**42**	**33**	**20**
A	31	31	33	18
B	0	0	0	0
C	0	0	0	0
D	6	6	0	1
E	5	5	0	1

South On: Rge Rd 283

Vehicle Type	Volume	%
A: Passenger Vehicle	102	74.5%
B: Recreational Vehicle	0	0.0%
C: Bus	0	0.0%
D: Single Unit Truck	17	12.4%
E: Tractor Trailer Unit	18	13.1%
PM	**137**	

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
70000798

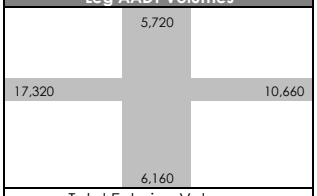
Intersection of:
560 & 100 ST SE E OF CALGARY

North On: 100 ST SE

Vehicle Type	Volume	%
A: Passenger Vehicle	3,950	69.1%
B: Recreational Vehicle	8	0.1%
C: Bus	1	0.0%
D: Single Unit Truck	920	16.1%
E: Tractor Trailer Unit	841	14.7%
AADT	**5,720**	
ASDT	6,180	

2022 AADT / ASDT Estimates

Leg AADT Volumes



Total Entering Volume: **19,930**

From North

	2,860		
	Right	Thru	Left
	1,840	**520**	**500**
A	1,327	325	380
B	2	1	0
C	0	0	0
D	213	118	49
E	298	76	71

To North

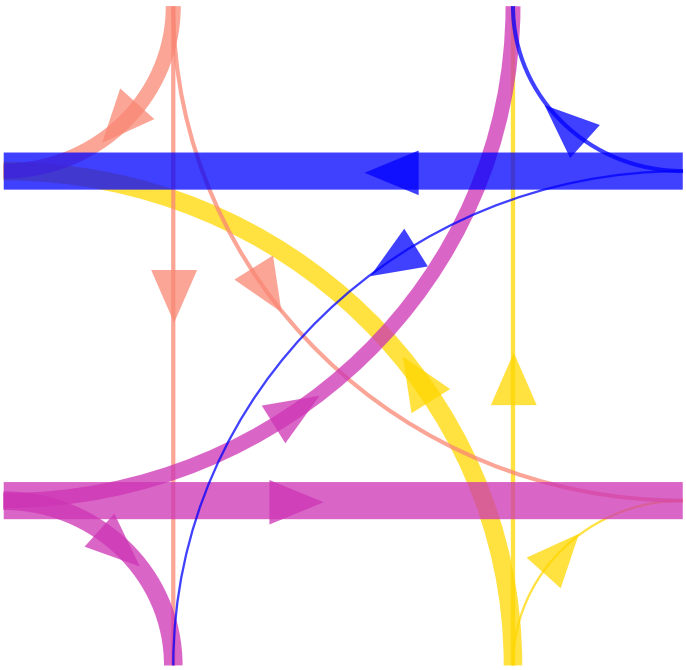
	2,860
A	1,918
B	5
C	1
D	540
E	396

To West

	8,660
A	7,035
B	29
C	1
D	770
E	825

From East

	5,330		
	Left	Thru	Right
	280	**4,550**	**500**
A	230	4,010	325
B	11	16	1
C	0	0	0
D	16	267	86
E	23	257	88



West On: 560

	Volume	%
A	13,886	80.2%
B	67	0.4%
C	4	0.0%
D	1,754	10.1%
E	1,609	9.3%
AADT	**17,320**	
ASDT	18,690	

East On: 560

Vehicle Type		
A	9,249	86.8%
B	54	0.5%
C	3	0.0%
D	696	6.5%
E	658	6.2%
AADT	**10,660**	
ASDT	11,490	

From West

	8,660		
	Left	Thru	Right
	1,830	**4,550**	**2,280**
A	1,232	4,062	1,557
B	4	25	9
C	0	3	0
D	343	257	384
E	251	203	330

To East

	5,330
A	4,684
B	26
C	3
D	327
E	290

To South

	3,080
A	2,112
B	21
C	0
D	518
E	429

From South

	3,080		
	Left	Thru	Right
	2,270	**530**	**280**
A	1,698	361	242
B	11	0	1
C	1	1	0
D	290	111	21
E	270	57	16

South On: 100 ST SE

Vehicle Type	Volume	%
A: Passenger Vehicle	4,413	71.6%
B: Recreational Vehicle	33	0.5%
C: Bus	2	0.0%
D: Single Unit Truck	940	15.3%
E: Tractor Trailer Unit	772	12.5%
AADT	**6,160**	
ASDT	6,650	

ABBREVIATIONS:

AADT: Annual Average Daily Traffic. Average daily traffic expressed as vehicles per day for the period from January 1 to December 31 (inclusive), 365 days.

ASDT: Average Summer Daily Traffic. Average daily traffic expressed as vehicles per day for the period from May 1 to September 30 (inclusive), 153 days.

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
70000798

Intersection of:
560 & 100 ST SE E OF CALGARY

North On: 100 St SE

Vehicle Type	Volume	%
A: Passenger Vehicle	478	79.5%
B: Recreational Vehicle	3	0.5%
C: Bus	1	0.2%
D: Single Unit Truck	69	11.5%
E: Tractor Trailer Unit	50	8.3%
AM	**601**	

2022 AM 100th Highest Hour Estimates

Leg AM Volumes

601
1,758 1,175
540

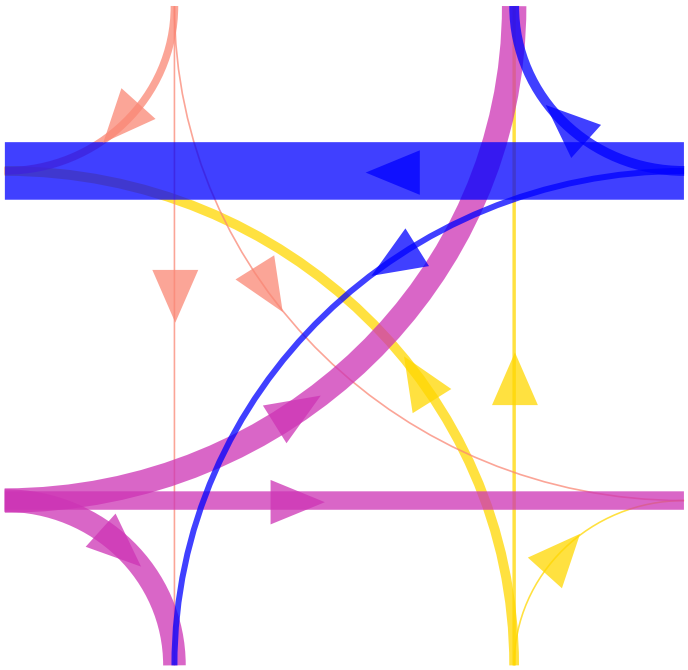
Total Entering Volume:
2,037

From North		
129		
Right	Thru	Left
95	**13**	**21**
A 45	9	8
B 1	0	0
C 0	0	0
D 22	2	5
E 27	2	8

To North	
472	
A	416
B	2
C	1
D	40
E	13

To West	
938	
A	791
B	3
C	0
D	76
E	68

From East		
919		
Left	Thru	Right
75	**721**	**123**
66	679	107 A
6	2	1 B
0	0	0 C
2	24	10 D
1	16	5 E



West On: 560

	Volume	%
A	1,517	86.3%
B	5	0.3%
C	1	0.1%
D	132	7.5%
E	103	5.9%
AM	**1,758**	

East On: 560

Vehicle Type		
A	1,042	88.7%
B	10	0.9%
C	1	0.1%
D	72	6.1%
E	50	4.3%
AM	**1,175**	

From West		
820		
Left	Thru	Right
306	**231**	**283**
A 279	179	268
B 1	1	0
C 0	1	0
D 20	31	5
E 6	19	10

To East	
256	
190	A
1	B
1	C
36	D
28	E

To South	
371	
A	343
B	6
C	0
D	9
E	13

From South		
169		
Left	Thru	Right
122	**43**	**4**
A 67	30	3
B 0	0	0
C 0	1	0
D 30	10	0
E 25	2	1

South On: 100 St SE

Vehicle Type	Volume	%
A: Passenger Vehicle	443	82.0%
B: Recreational Vehicle	6	1.1%
C: Bus	1	0.2%
D: Single Unit Truck	49	9.1%
E: Tractor Trailer Unit	41	7.6%
AM	**540**	

NOTE:
Coloured line thickness corresponds to turning movement volume.

Reference Number:
70000798

Intersection of:
560 & 100 ST SE E OF CALGARY

North On: 100 ST SE

Vehicle Type	Volume	%
A: Passenger Vehicle	575	83.1%
B: Recreational Vehicle	0	0.0%
C: Bus	0	0.0%
D: Single Unit Truck	47	6.8%
E: Tractor Trailer Unit	70	10.1%
PM	**692**	

2022 PM 100th Highest Hour Estimates

Leg PM Volumes

692 / 1,763 / 1,254 / 623

Total Entering Volume: **2,166**

From North

	Total	Right	Thru	Left
	479	**293**	**33**	**153**
A		258	15	148
B		0	0	0
C		0	0	0
D		13	6	4
E		22	12	1

To North

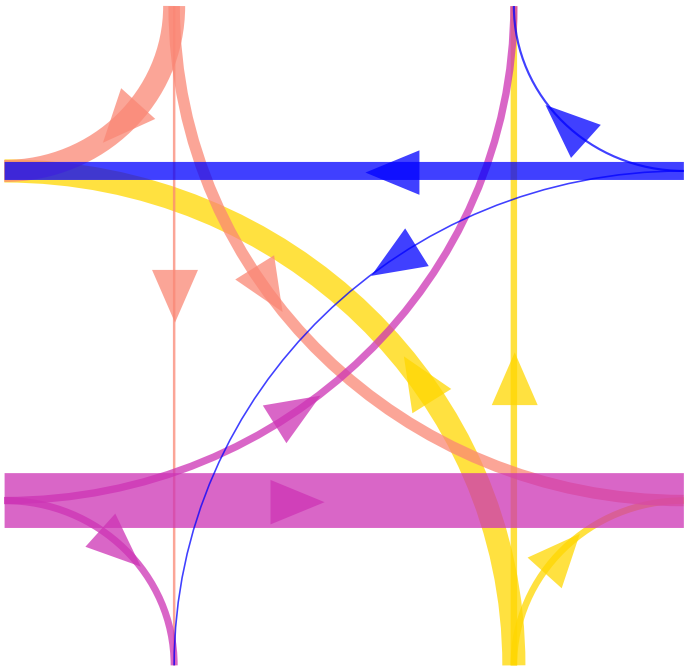
	213
A	154
B	0
C	0
D	24
E	35

To West

	841
A	753
B	4
C	0
D	40
E	44

From East

	Total	Left	Thru	Right
	283	**14**	**240**	**29**
A		9	220	15
B		1	0	0
C		0	0	0
D		0	13	5
E		4	7	9



West On: 560

	Volume	%
A	1,588	90.1%
B	5	0.3%
C	0	0.0%
D	81	4.6%
E	89	5.0%
PM	**1,763**	

East On: 560

Vehicle Type	Volume	%
A	1,191	95.0%
B	2	0.2%
C	0	0.0%
D	36	2.9%
E	25	2.0%
PM	**1,254**	

From West

	Total	Left	Thru	Right
	922	**98**	**730**	**94**
A		67	711	57
B		0	1	0
C		0	0	0
D		11	14	16
E		20	4	21

To East

	971
A	947
B	1
C	0
D	18
E	5

To South

	141
A	81
B	1
C	0
D	22
E	37

From South

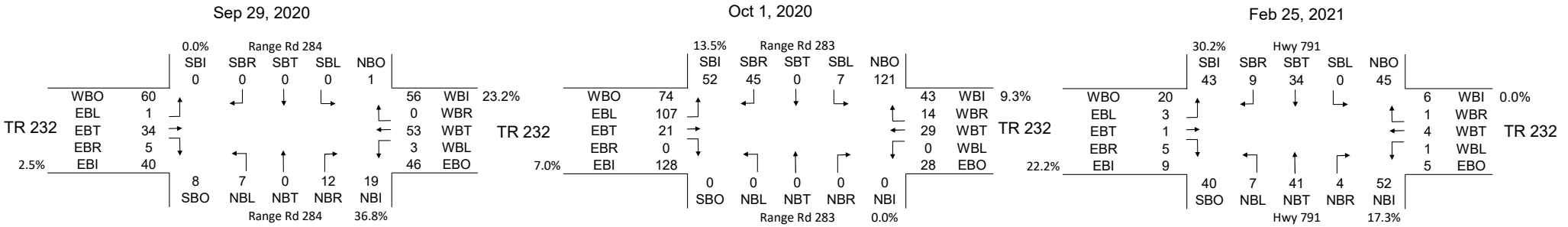
	Total	Left	Thru	Right
	482	**308**	**86**	**88**
A		275	72	88
B		4	0	0
C		0	0	0
D		14	8	0
E		15	6	0

South On: 100 St SE

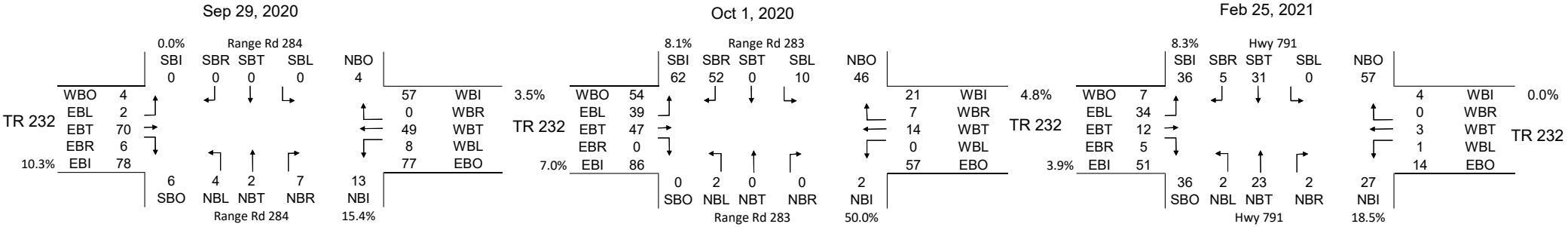
Vehicle Type	Volume	%
A: Passenger Vehicle	516	82.8%
B: Recreational Vehicle	5	0.8%
C: Bus	0	0.0%
D: Single Unit Truck	44	7.1%
E: Tractor Trailer Unit	58	9.3%
PM	**623**	

NOTE:
Coloured line thickness corresponds to turning movement volume.

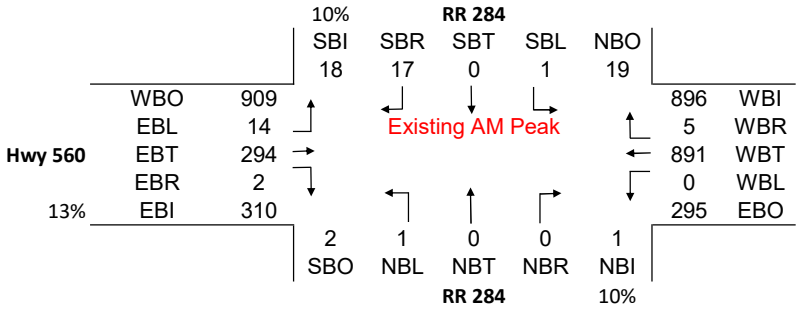
ISL Counts - AM Peak

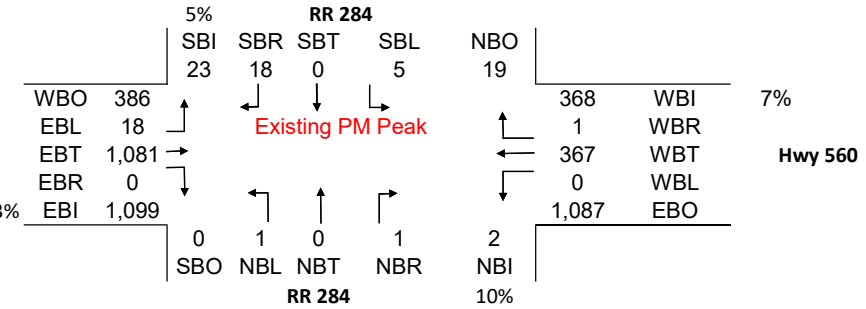


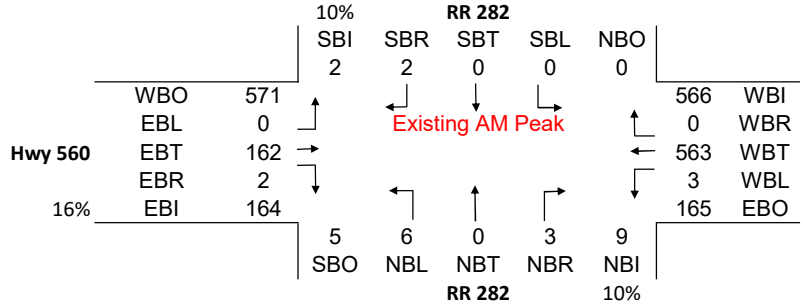
ISL Counts - PM Peak

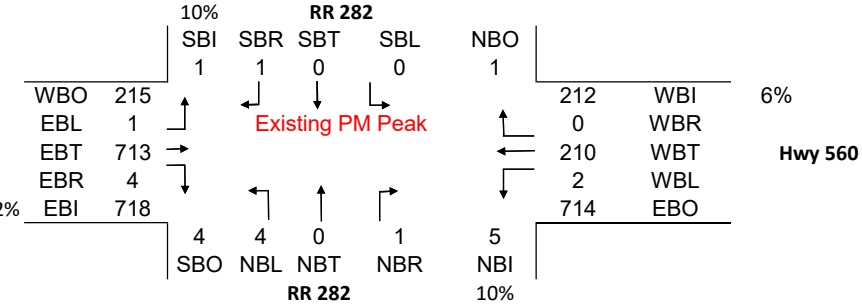


ISL Counts - Jan 24, 2024

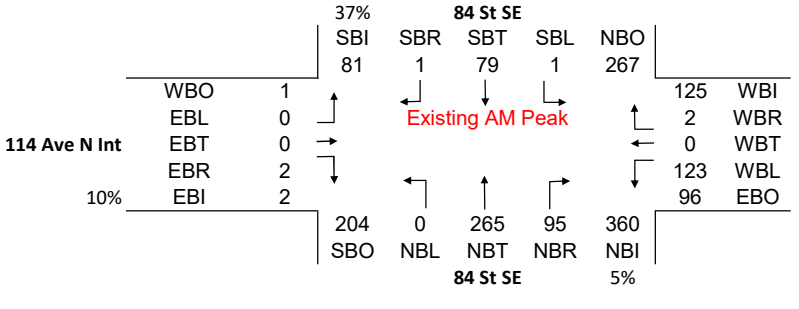


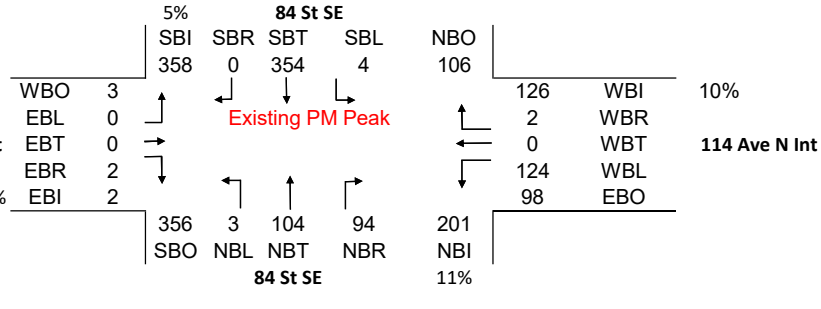


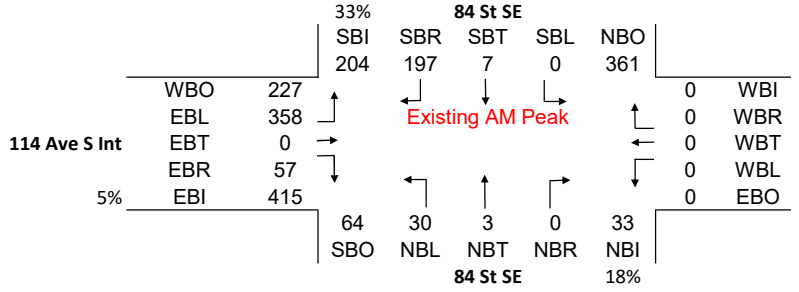


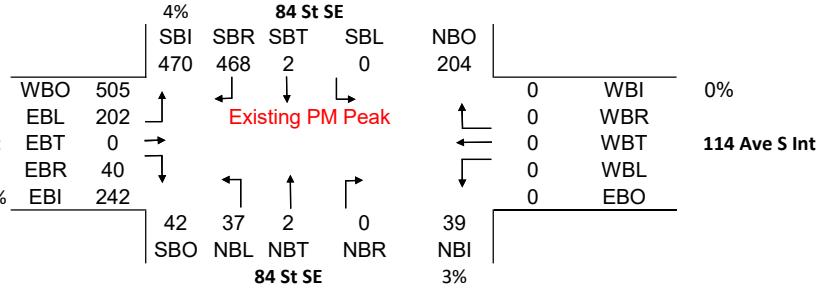


ISL Counts - Jan 23, 2024









2028 & 2048 Select Zone Plots - TZ3540, 3547

Shepard ASP - TIA - R2430c1

Client: ISL Engineering and Land Services Ltd.

Prepared By:

January 25, 2024

Notes:

2028 & 2048 CTP MDP Scenarios have been customized by adding additional centroid connectors for the transportation zones 3540, 3547, 3541.

Please visit www.calgary.ca/forecasting for a copy of the complete scenario assumptions used to prepare this forecast.

If you have questions or would like additional details please contact TranPlanForecast@calgary.ca.

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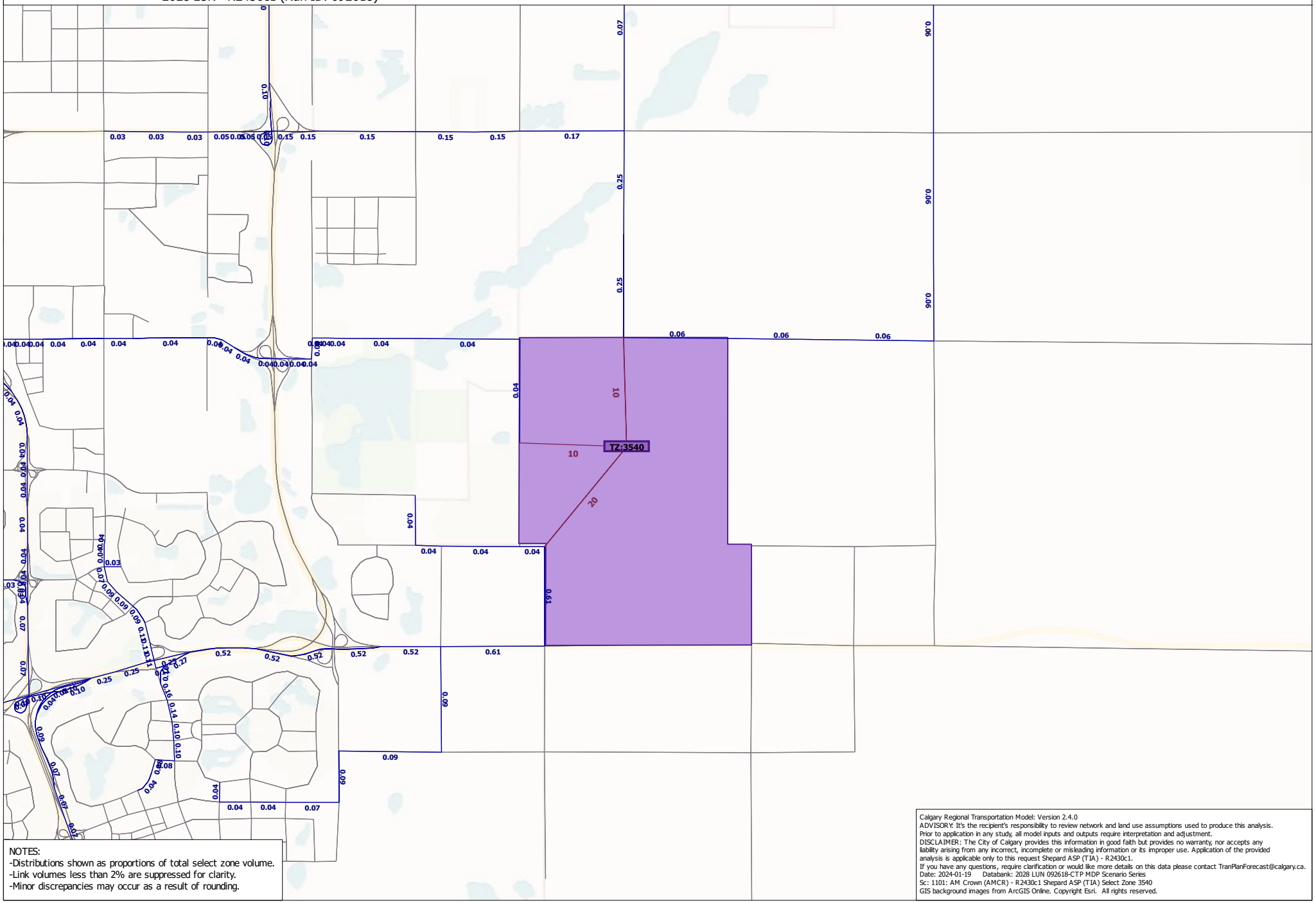
ISC: Unrestricted

Inbound Distribution for Zone(s): 3540
2028 LUN - AM Crown

Shepard ASP (TIA) - R2430c1

Total Inbound Select Zone Volume = 20 veh/hr

2028 LUN - R2430c1 (Run ID: 092618)



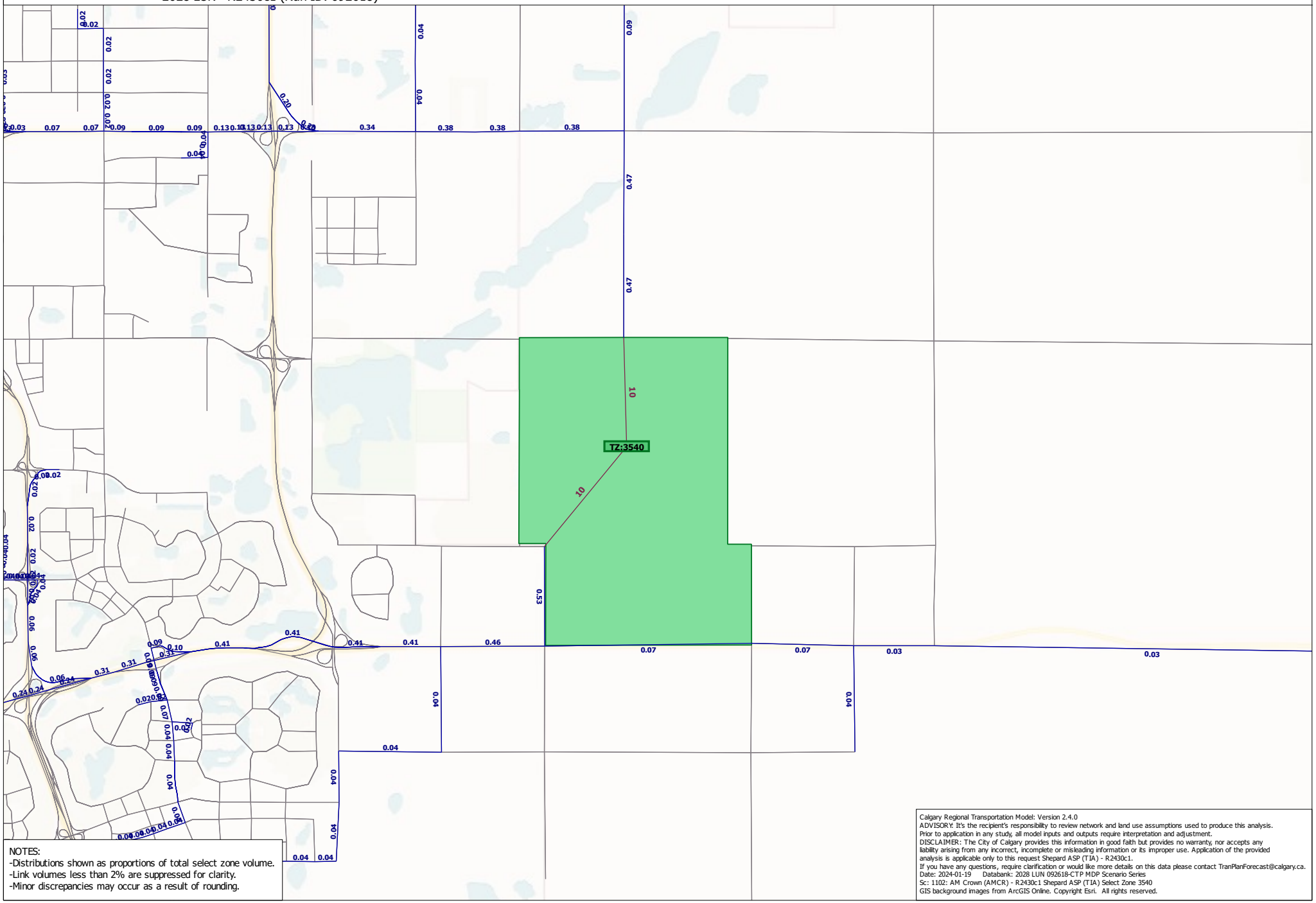
NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
-Minor discrepancies may occur as a result of rounding.

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If you have any questions, require clarification or would like more details on this data please contact TranPlanForecast@calgary.ca.
Date: 2024-01-19 Databank: 2028 LUN 092618-CTP MDP Scenario Series
Sc: 1101: AM Crown (AMCR) - R2430c1 Shepard ASP (TIA) Select Zone 3540
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Outbound Distribution for Zone(s): 3540
2028 LUN - AM Crown

Shepard ASP (TIA) - R2430c1
Total Outbound Select Zone Volume = 10 veh/hr

2028 LUN - R2430c1 (Run ID: 092618)



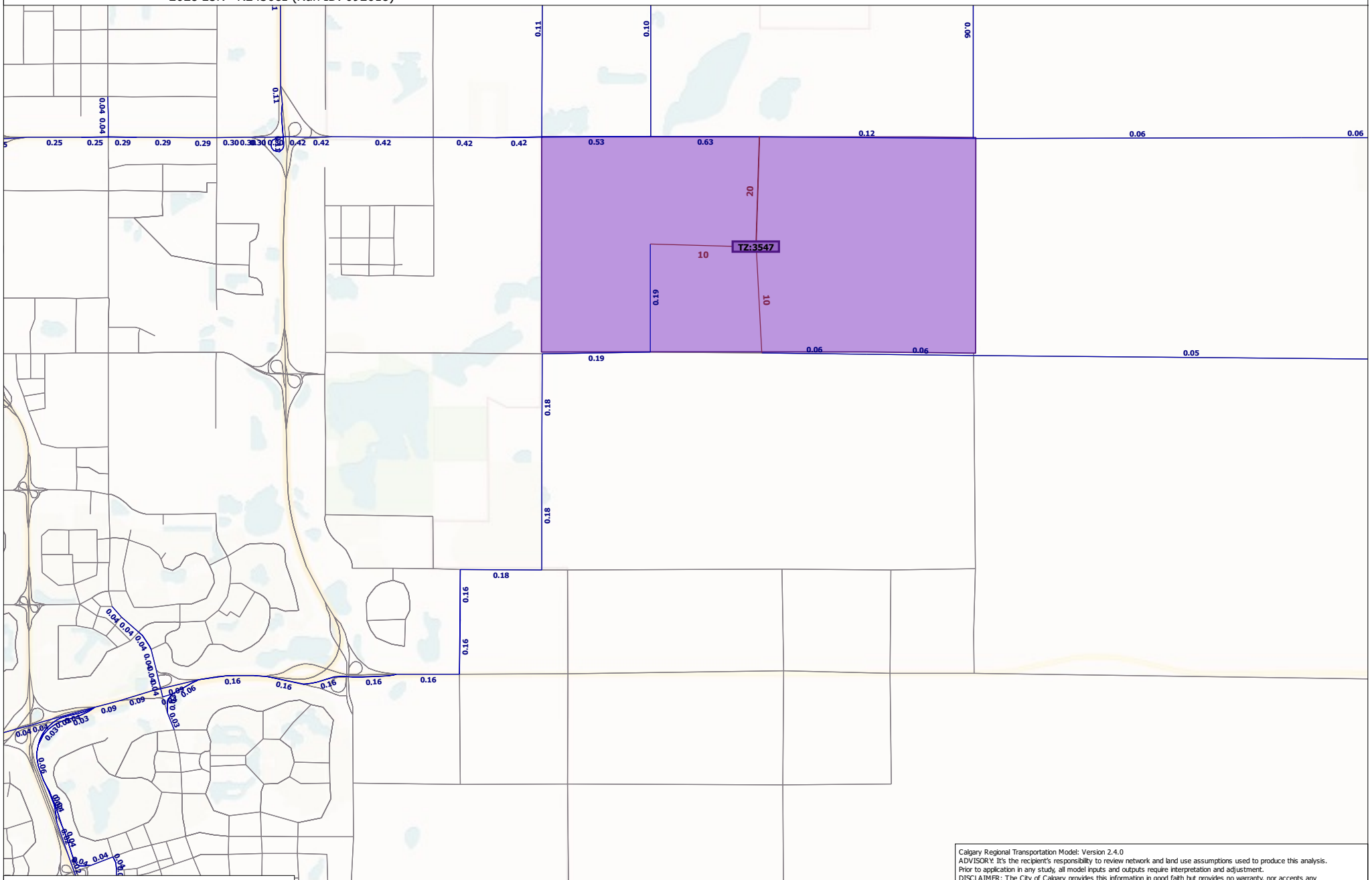
NOTES:
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Date: 2024-01-19 Databank: 2028 LUN 092618-CTP MDP Scenario Series
Sc: 1102: AM Crown (AMCR) - R2430c1 Shepard ASP (TIA) Select Zone 3540
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Inbound Distribution for Zone(s): 3547
2028 LUN - AM Crown

Shepard ASP (TIA) - R2430c1
Total Inbound Select Zone Volume = 20 veh/hr

2028 LUN - R2430c1 (Run ID: 092618)



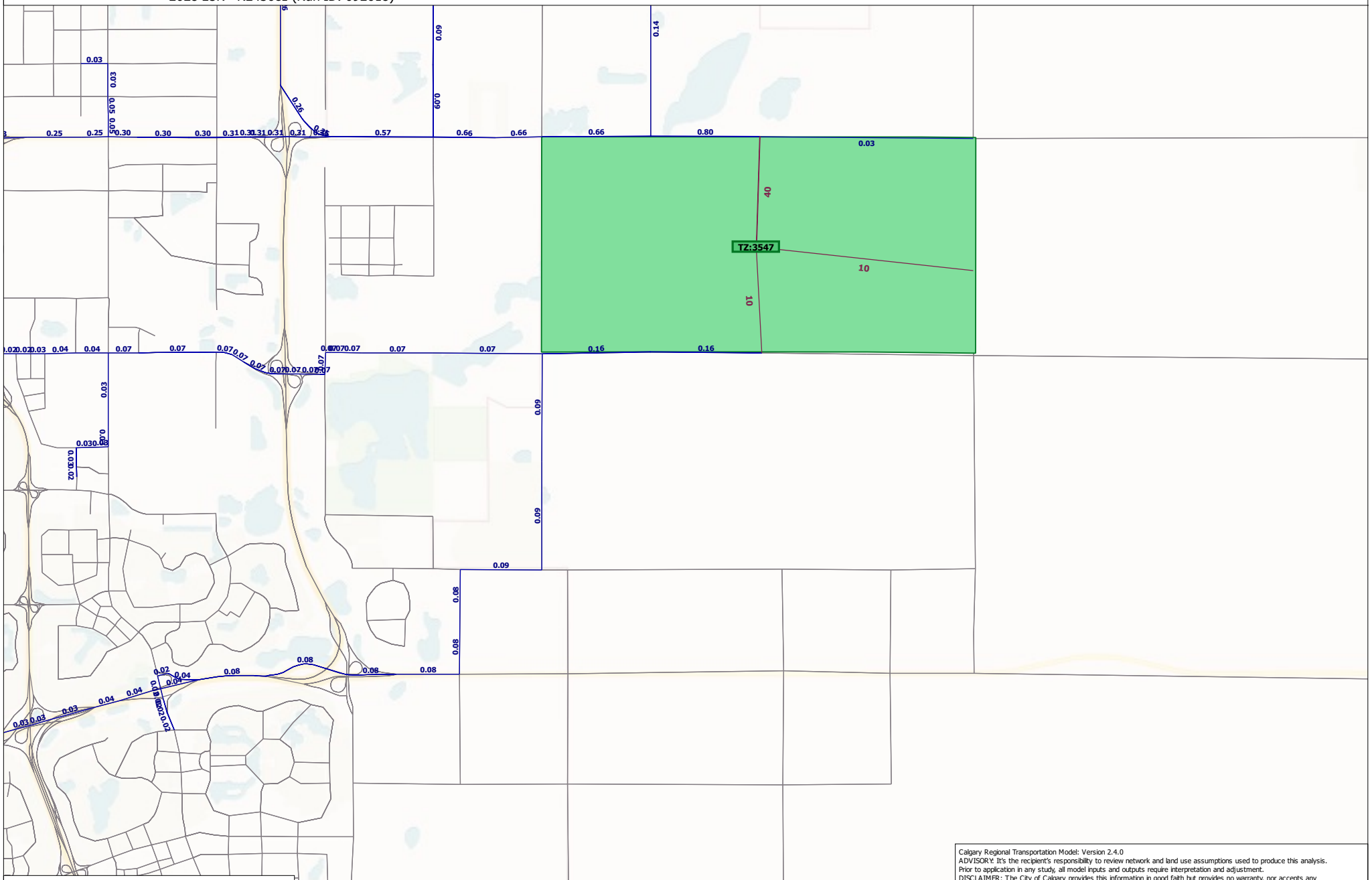
NOTES:
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Date: 2024-01-19 Databank: 2028 LUN 092618-CTP MDP Scenario Series
Sc: 1105: AM Crown (AMCR) - R2430c1 Shepard ASP (TIA) Select Zone 3547
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Outbound Distribution for Zone(s): 3547
2028 LUN - AM Crown

Shepard ASP (TIA) - R2430c1
Total Outbound Select Zone Volume = 50 veh/hr

2028 LUN - R2430c1 (Run ID: 092618)



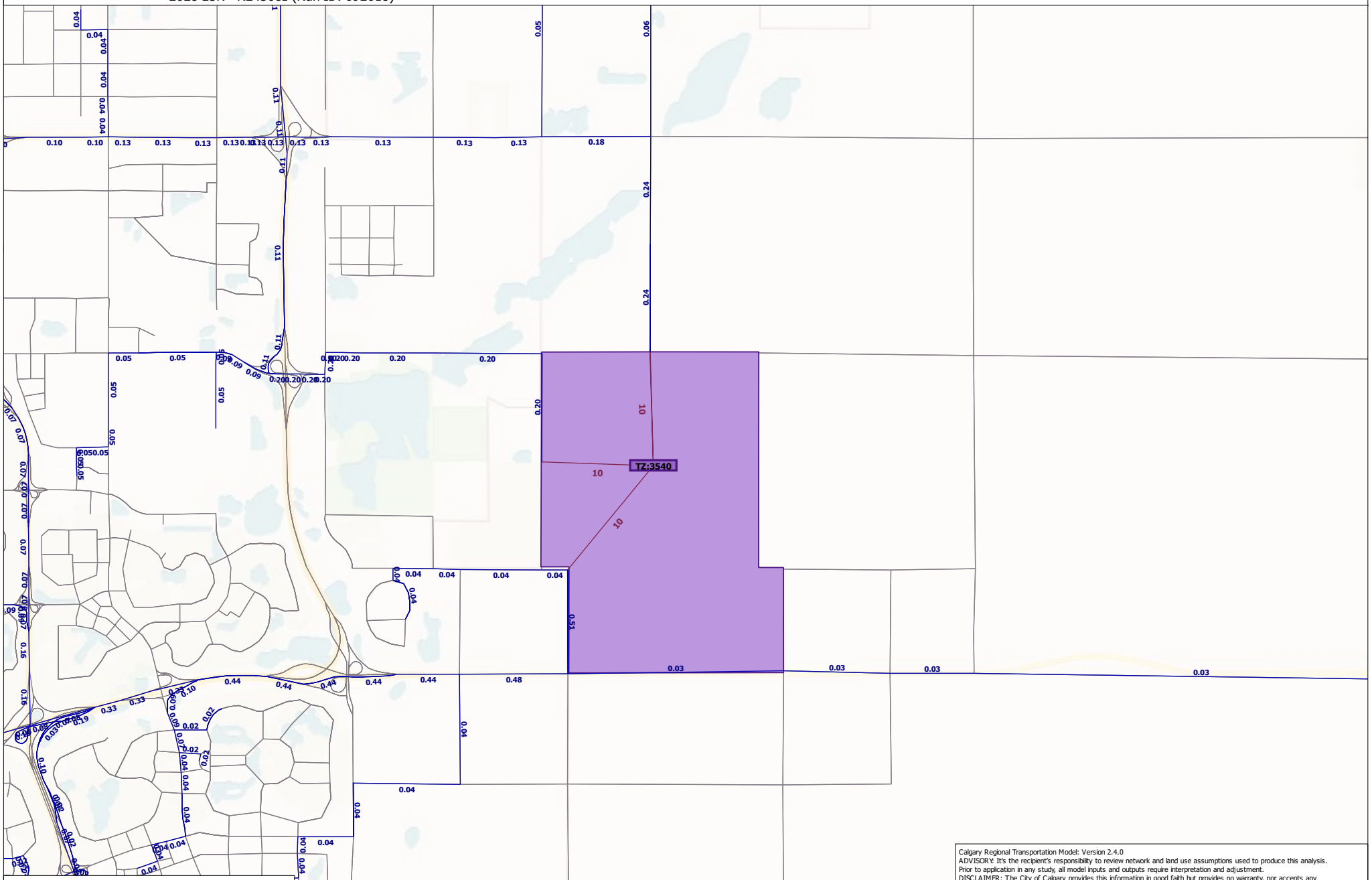
NOTES:
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Date: 2024-01-19 Databank: 2028 LUN 092618-CTP MDP Scenario Series
Sc: 1106: AM Crown (AMCR) - R2430c1 Shepard ASP (TIA) Select Zone 3547
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Inbound Distribution for Zone(s): 3540
2028 LUN - PM Crown

Shepard ASP (TIA) - R2430c1
Total Inbound Select Zone Volume = 10 veh/hr

2028 LUN - R2430c1 (Run ID: 092618)



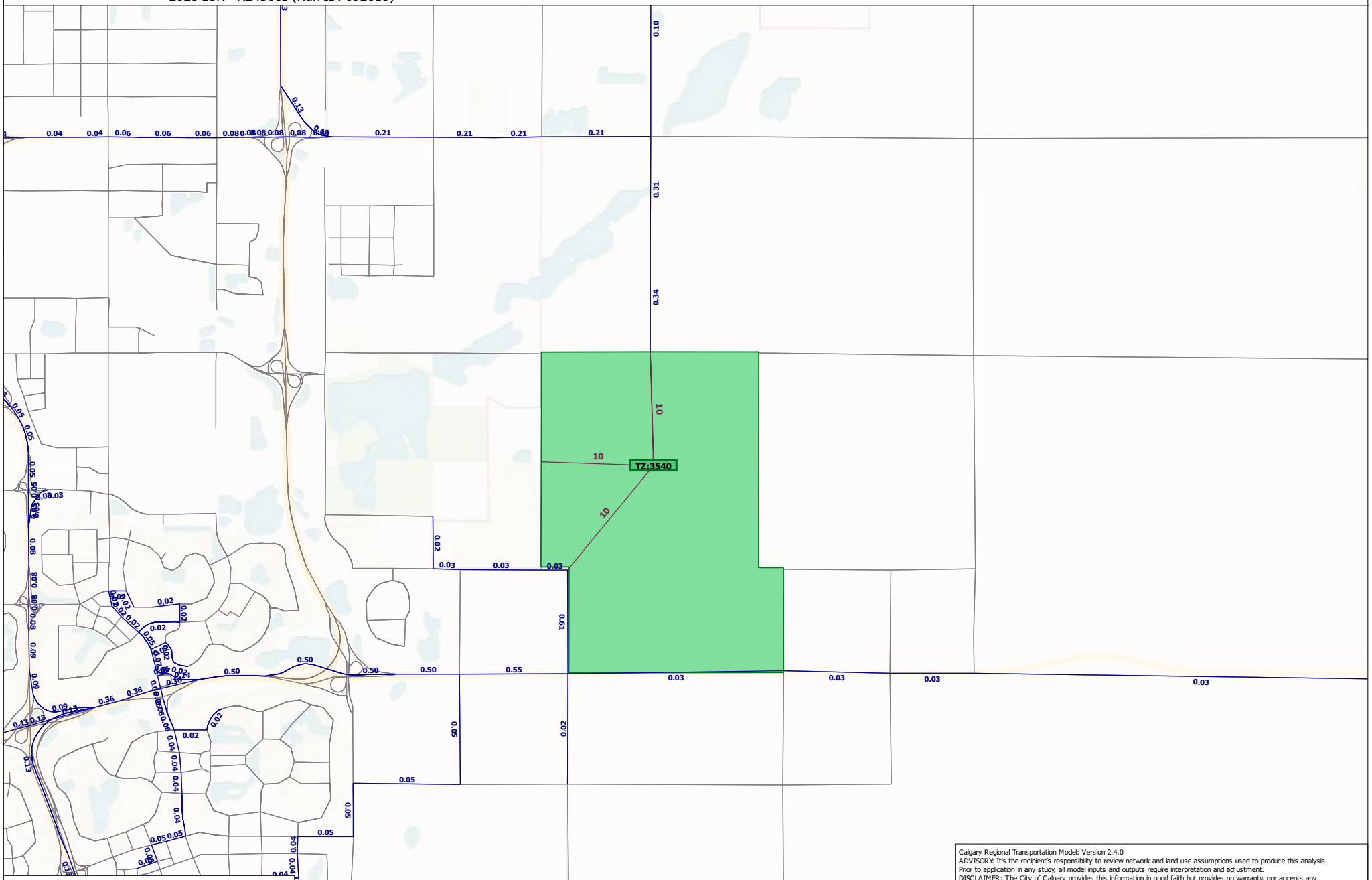
NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
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Date: 2024-01-19 Databank: 2028 LUN 092618-CTP MDP Scenario Series
Sc: 1107: PM Crown (PMCR) - R2430c1 Shepard ASP (TIA) Select Zone 3540
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Outbound Distribution for Zone(s): 3540
2028 LUN - PM Crown

Shepard ASP (TIA) - R2430c1
Total Outbound Select Zone Volume = 20 veh/hr

2028 LUN - R2430c1 (Run ID: 092618)



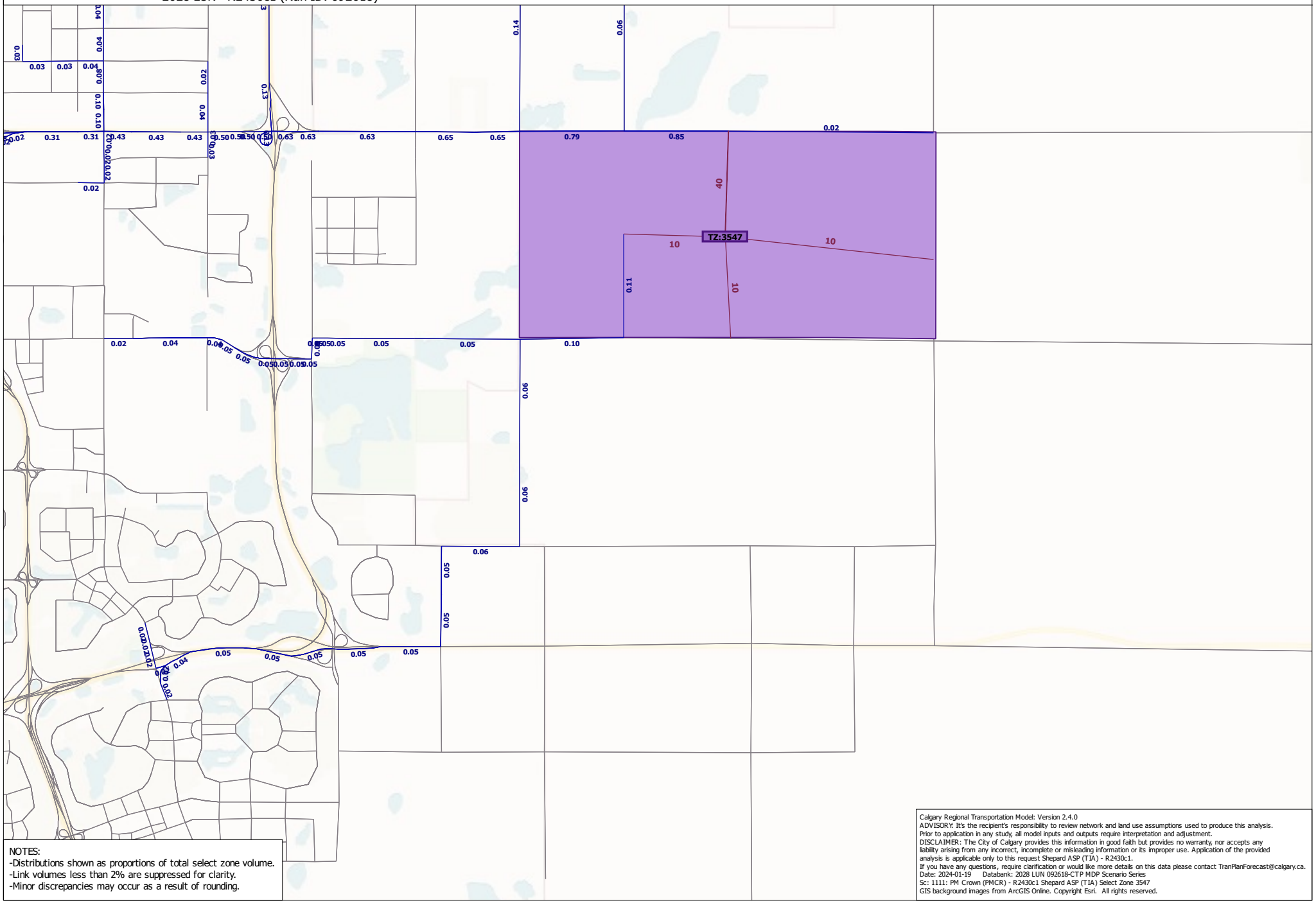
NOTES:
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Date: 2024-01-19 Databank: 2028 LUN 092618-CTP MDP Scenario Series
Sc: 1108: PM Crown (PMCR) - R2430c1 Shepard ASP (TIA) Select Zone 3540
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Inbound Distribution for Zone(s): 3547
2028 LUN - PM Crown

Shepard ASP (TIA) - R2430c1
Total Inbound Select Zone Volume = 50 veh/hr

2028 LUN - R2430c1 (Run ID: 092618)



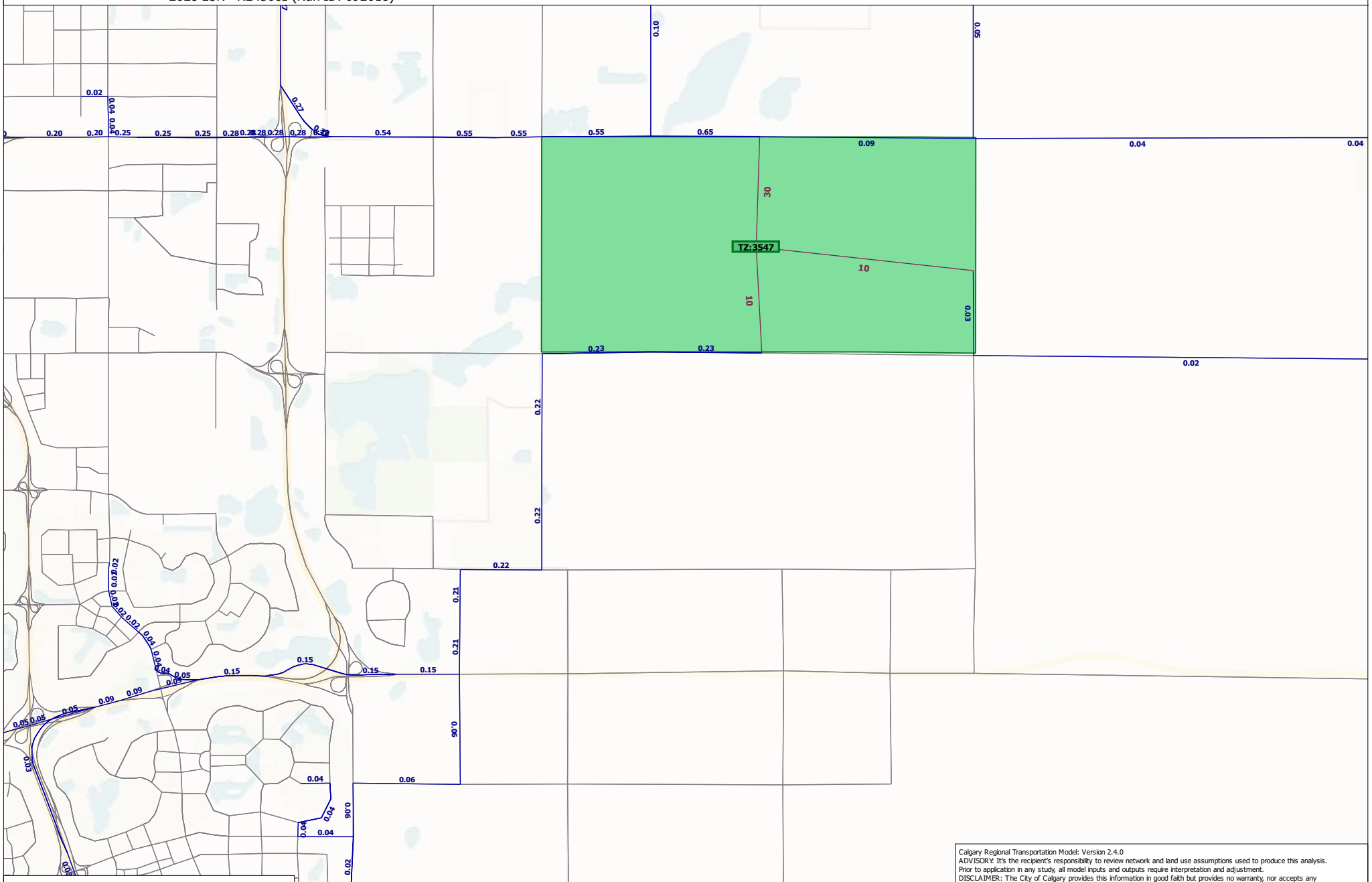
NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
-Minor discrepancies may occur as a result of rounding.

Calgary Regional Transportation Model: Version 2.4.0
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Date: 2024-01-19 Databank: 2028 LUN 092618-CTP MDP Scenario Series
Sc: 1111: PM Crown (PMCR) - R2430c1 Shepard ASP (TIA) Select Zone 3547
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Outbound Distribution for Zone(s): 3547
2028 LUN - PM Crown

Shepard ASP (TIA) - R2430c1
Total Outbound Select Zone Volume = 30 veh/hr

2028 LUN - R2430c1 (Run ID: 092618)



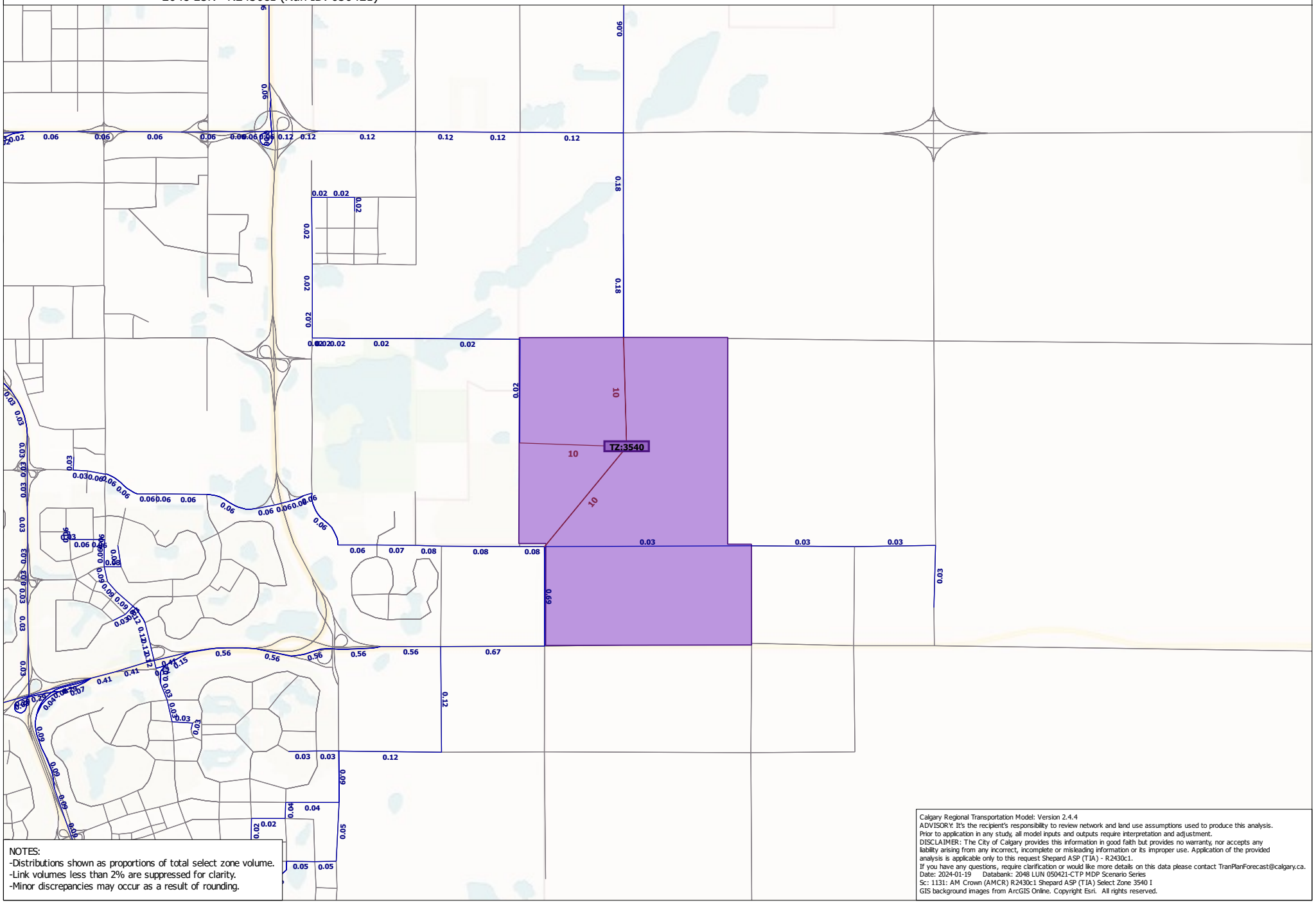
NOTES:
-Distributions shown as proportions of total select zone volume.
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Calgary Regional Transportation Model: Version 2.4.0
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Date: 2024-01-19 Databank: 2028 LUN 092618-CTP MDP Scenario Series
Sc: 1112: PM Crown (PMCR) - R2430c1 Shepard ASP (TIA) Select Zone 3547
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Inbound Distribution for Zone(s): 3540
2048 LUN - AM Crown

Shepard ASP (TIA) - R2430c1
Total Inbound Select Zone Volume = 20 veh/hr

2048 LUN - R2430c1 (Run ID: 050421)



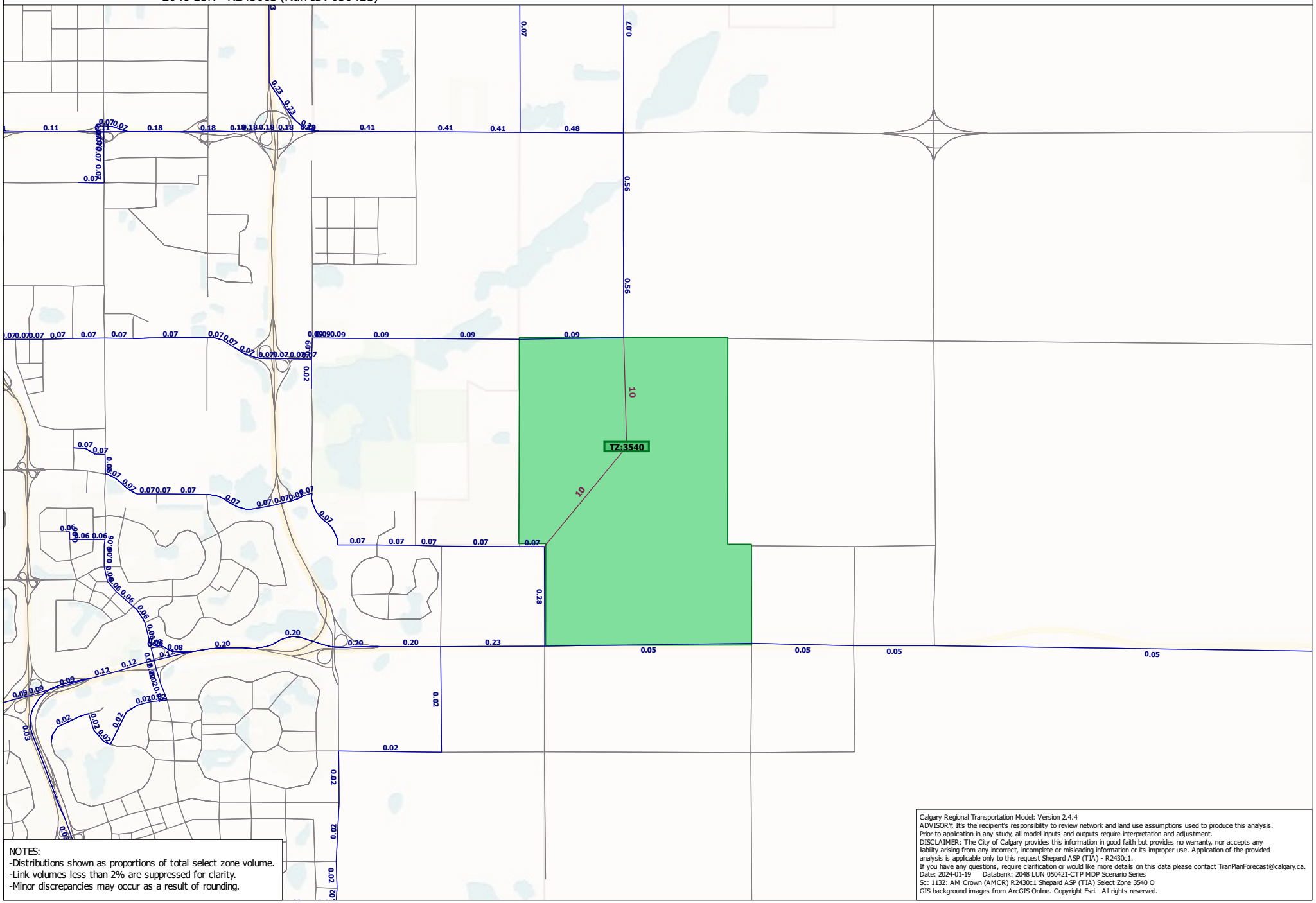
NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
-Minor discrepancies may occur as a result of rounding.

Calgary Regional Transportation Model: Version 2.4.4
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If you have any questions, require clarification or would like more details on this data please contact TranPlanForecast@calgary.ca.
Date: 2024-01-19 Databank: 2048 LUN 050421-CTP MDP Scenario Series
Sc: 1131: AM Crown (AMCR) R2430c1 Shepard ASP (TIA) Select Zone 3540 I
GIS background images from ArcGIS Online. Copyright Esri. All rights reserved.

Outbound Distribution for Zone(s): 3540
2048 LUN - AM Crown

Shepard ASP (TIA) - R2430c1
Total Outbound Select Zone Volume = 10 veh/hr

2048 LUN - R2430c1 (Run ID: 050421)



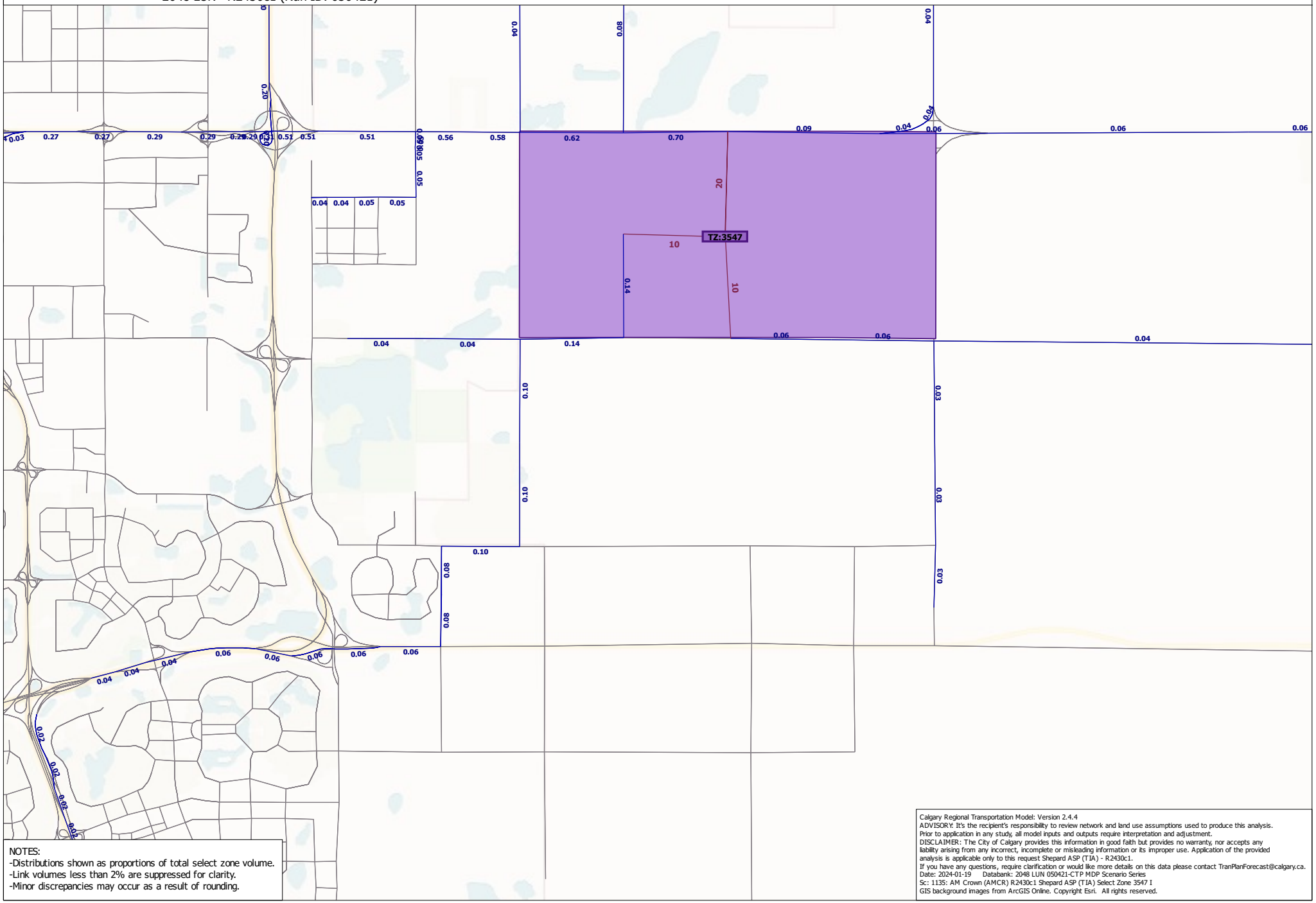
NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
-Minor discrepancies may occur as a result of rounding.

Calgary Regional Transportation Model: Version 2.4.4
ADVISORY: It's the recipient's responsibility to review network and land use assumptions used to produce this analysis. Prior to application in any study, all model inputs and outputs require interpretation and adjustment.
DISCLAIMER: The City of Calgary provides this information in good faith but provides no warranty, nor accepts any liability arising from any incorrect, incomplete or misleading information or its improper use. Application of the provided analysis is applicable only to this request Shepard ASP (TIA) - R2430c1.
If you have any questions, require clarification or would like more details on this data please contact TranPlanForecast@calgary.ca.
Date: 2024-01-19 Databank: 2048 LUN 050421-CTP MDP Scenario Series
Sc: 1132: AM Crown (AMCR) R2430c1 Shepard ASP (TIA) Select Zone 3540 O
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Inbound Distribution for Zone(s): 3547
2048 LUN - AM Crown

Shepard ASP (TIA) - R2430c1
Total Inbound Select Zone Volume = 20 veh/hr

2048 LUN - R2430c1 (Run ID: 050421)



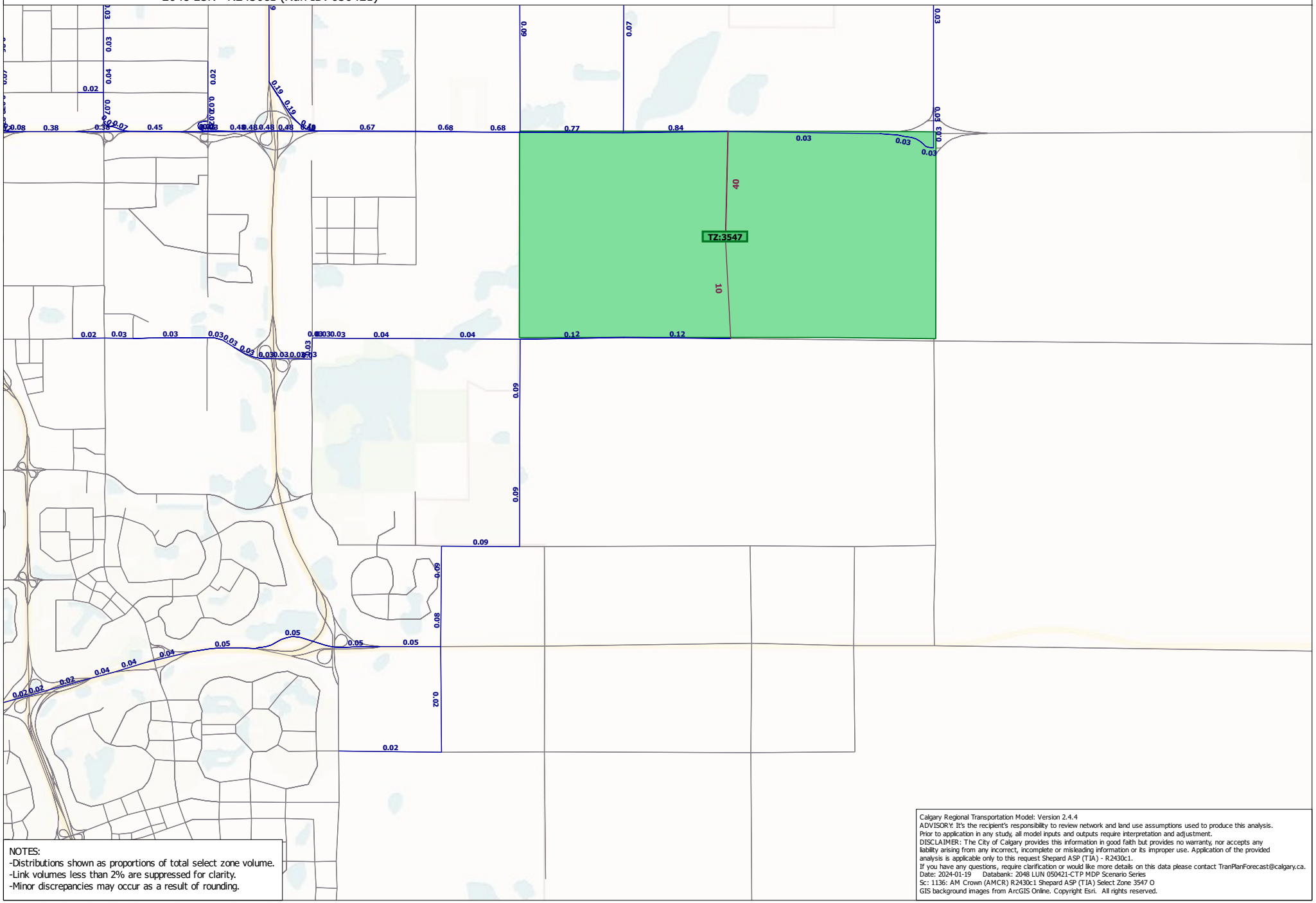
NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
-Minor discrepancies may occur as a result of rounding.

Calgary Regional Transportation Model: Version 2.4.4
ADVISORY: It's the recipient's responsibility to review network and land use assumptions used to produce this analysis.
Prior to application in any study, all model inputs and outputs require interpretation and adjustment.
DISCLAIMER: The City of Calgary provides this information in good faith but provides no warranty, nor accepts any liability arising from any incorrect, incomplete or misleading information or its improper use. Application of the provided analysis is applicable only to this request Shepard ASP (TIA) - R2430c1.
If you have any questions, require clarification or would like more details on this data please contact TranPlanForecast@calgary.ca.
Date: 2024-01-19 Databank: 2048 LUN 050421-CTP MDP Scenario Series
Sc: 1135: AM Crown (AMCR) R2430c1 Shepard ASP (TIA) Select Zone 3547 I
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Outbound Distribution for Zone(s): 3547
2048 LUN - AM Crown

Shepard ASP (TIA) - R2430c1
Total Outbound Select Zone Volume = 50 veh/hr

2048 LUN - R2430c1 (Run ID: 050421)



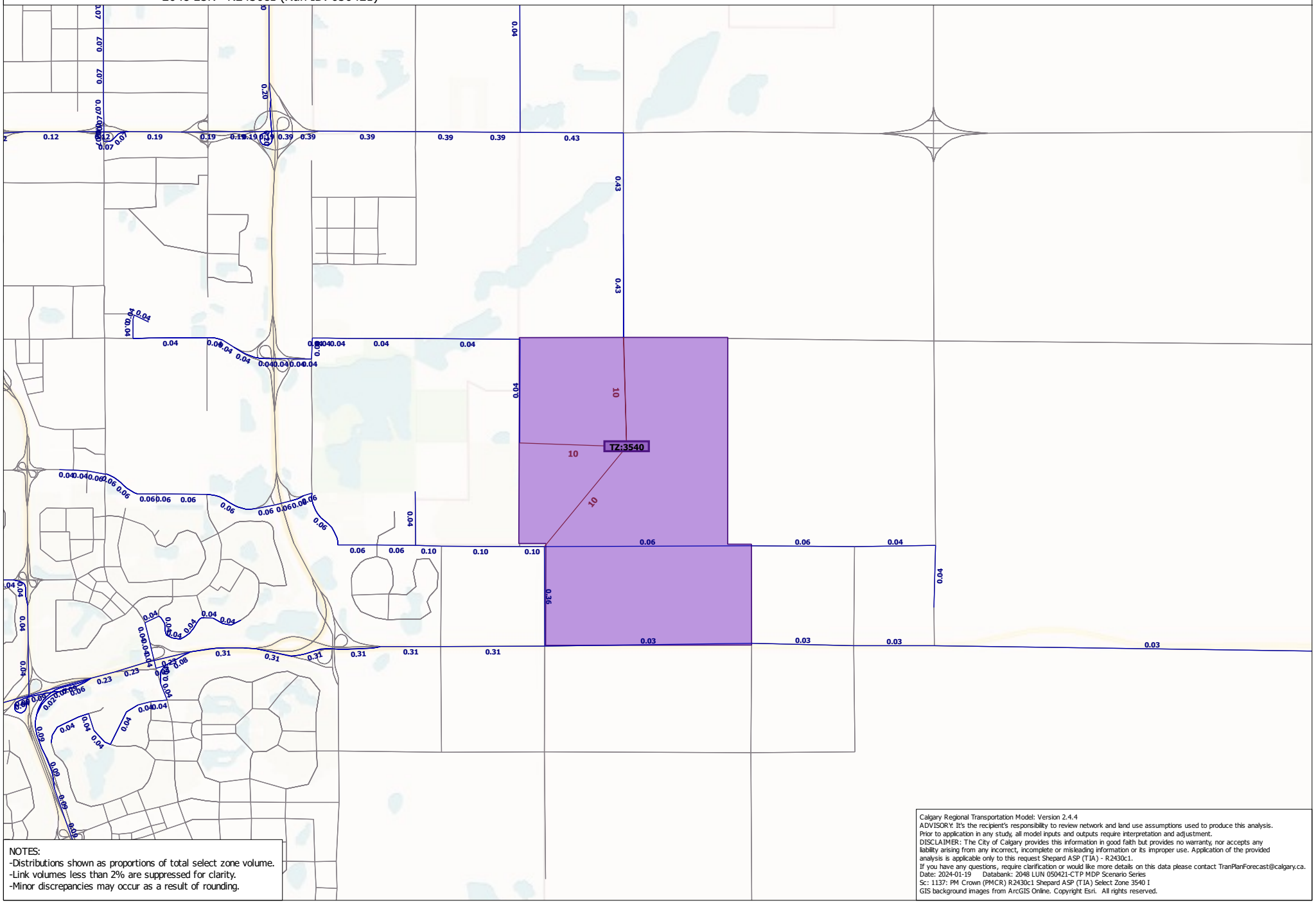
NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
-Minor discrepancies may occur as a result of rounding.

Calgary Regional Transportation Model: Version 2.4.4
ADVISORY: It's the recipient's responsibility to review network and land use assumptions used to produce this analysis. Prior to application in any study, all model inputs and outputs require interpretation and adjustment.
DISCLAIMER: The City of Calgary provides this information in good faith but provides no warranty, nor accepts any liability arising from any incorrect, incomplete or misleading information or its improper use. Application of the provided analysis is applicable only to this request Shepard ASP (TIA) - R2430c1.
If you have any questions, require clarification or would like more details on this data please contact TranPlanForecast@calgary.ca.
Date: 2024-01-19 Databank: 2048 LUN 050421-CTP MDP Scenario Series
Sc: 1136: AM Crown (AMCR) R2430c1 Shepard ASP (TIA) Select Zone 3547 O
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Inbound Distribution for Zone(s): 3540
2048 LUN - PM Crown

Shepard ASP (TIA) - R2430c1
Total Inbound Select Zone Volume = 10 veh/hr

2048 LUN - R2430c1 (Run ID: 050421)



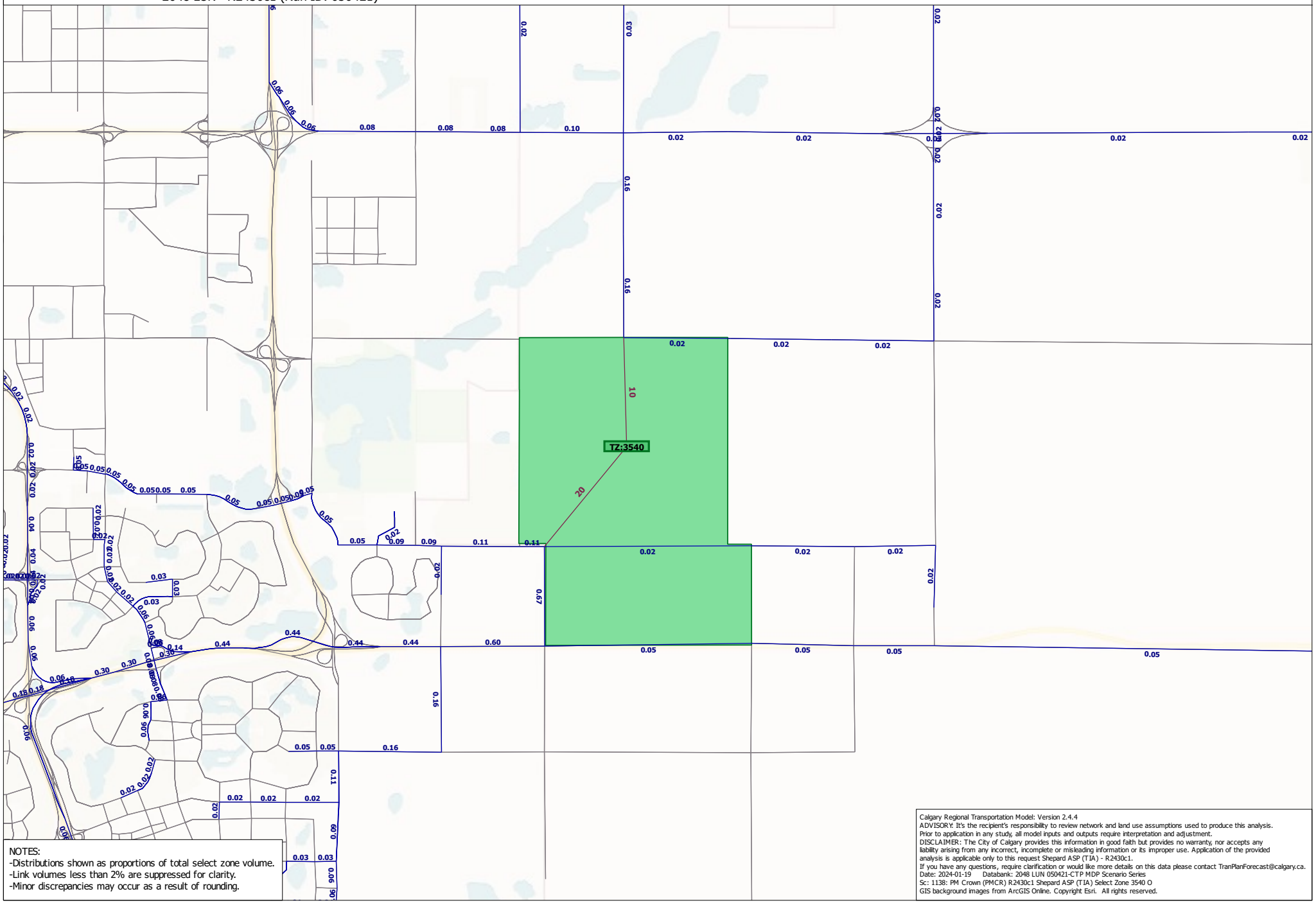
NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
-Minor discrepancies may occur as a result of rounding.

Calgary Regional Transportation Model: Version 2.4.4
ADVISORY: It's the recipient's responsibility to review network and land use assumptions used to produce this analysis.
Prior to application in any study, all model inputs and outputs require interpretation and adjustment.
DISCLAIMER: The City of Calgary provides this information in good faith but provides no warranty, nor accepts any liability arising from any incorrect, incomplete or misleading information or its improper use. Application of the provided analysis is applicable only to this request Shepard ASP (TIA) - R2430c1.
If you have any questions, require clarification or would like more details on this data please contact TranPlanForecast@calgary.ca.
Date: 2024-01-19 Databank: 2048 LUN 050421-CTP MDP Scenario Series
Sc: 1137: PM Crown (PMCR) R2430c1 Shepard ASP (TIA) Select Zone 3540 I
GIS background images from ArcGIS Online. Copyright Esri. All rights reserved.

Outbound Distribution for Zone(s): 3540
2048 LUN - PM Crown

Shepard ASP (TIA) - R2430c1
Total Outbound Select Zone Volume = 20 veh/hr

2048 LUN - R2430c1 (Run ID: 050421)



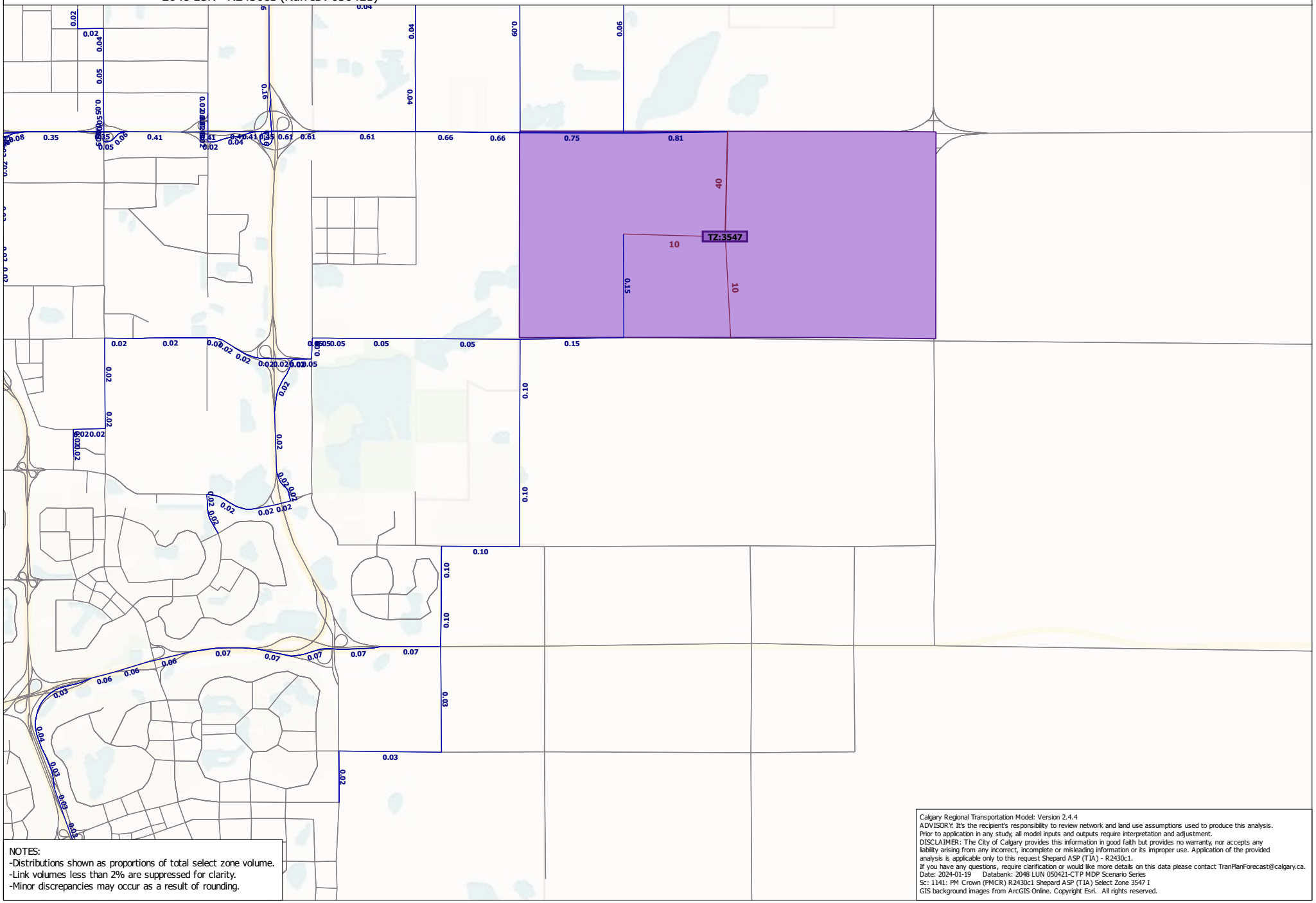
NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
-Minor discrepancies may occur as a result of rounding.

Calgary Regional Transportation Model: Version 2.4.4
ADVISORY: It's the recipient's responsibility to review network and land use assumptions used to produce this analysis. Prior to application in any study, all model inputs and outputs require interpretation and adjustment.
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If you have any questions, require clarification or would like more details on this data please contact TranPlanForecast@calgary.ca.
Date: 2024-01-19 Databank: 2048 LUN 050421-CTP MDP Scenario Series
Sc: 1138: PM Crown (PMCR) R2430c1 Shepard ASP (TIA) Select Zone 3540 O
GIS background images from ArcGIS Online. Copyright Esri. All rights reserved.

Inbound Distribution for Zone(s): 3547
2048 LUN - PM Crown

Shepard ASP (TIA) - R2430c1
Total Inbound Select Zone Volume = 50 veh/hr

2048 LUN - R2430c1 (Run ID: 050421)

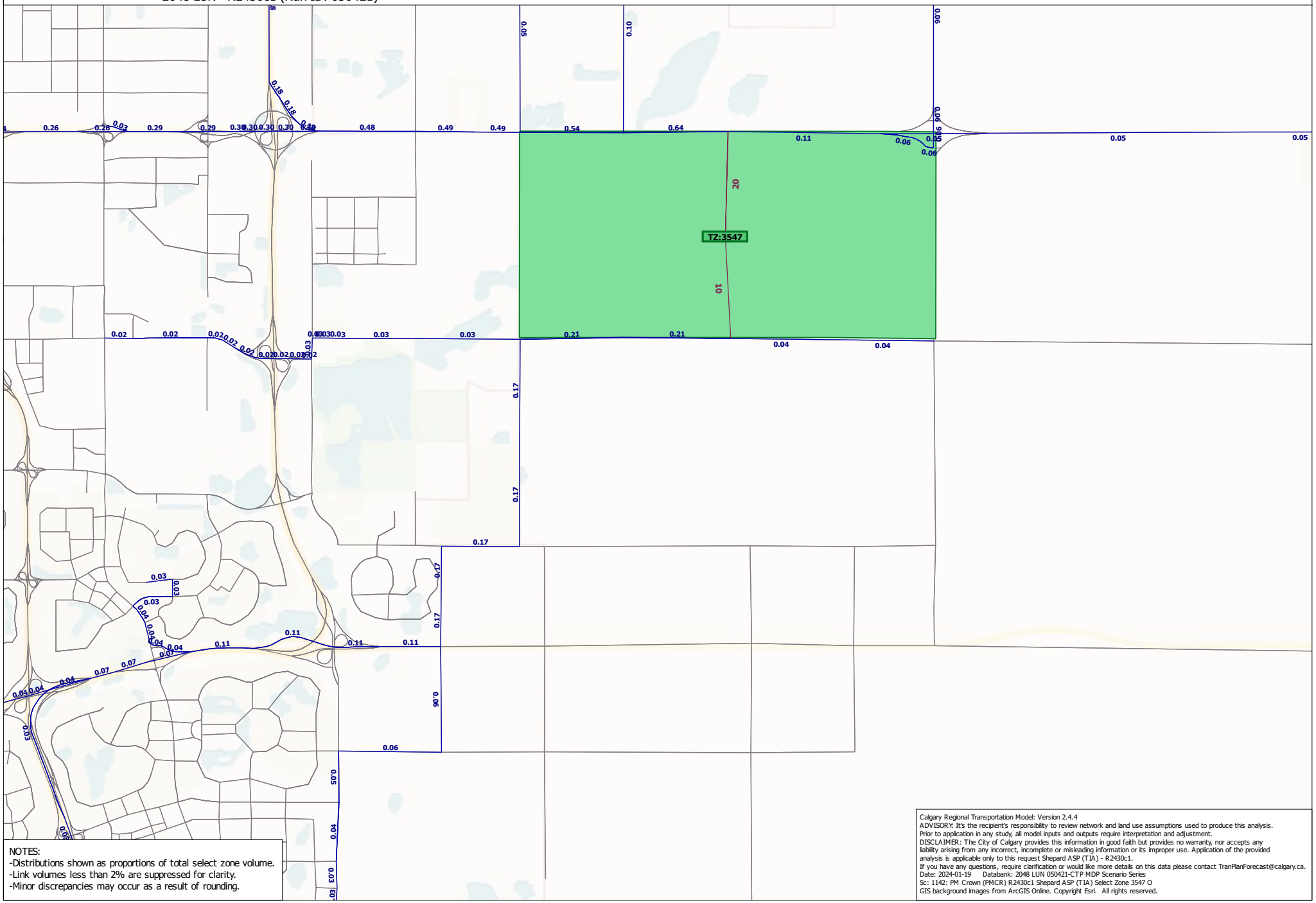


NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
-Minor discrepancies may occur as a result of rounding.

Calgary Regional Transportation Model: Version 2.4.4
ADVISORY: It's the recipient's responsibility to review network and land use assumptions used to produce this analysis. Prior to application in any study, all model inputs and outputs require interpretation and adjustment.
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If you have any questions, require clarification or would like more details on this data please contact TranPlanForecast@calgary.ca.
Date: 2024-01-19 Databank: 2048 LUN 050421-CTP MDP Scenario Series
Sc: 1141: PM Crown (PMCR) R2430c1 Shepard ASP (TIA) Select Zone 3547 I
GIS background images from ArcGIS Online. Copyright Esri. All rights reserved.

Outbound Distribution for Zone(s): 3547
2048 LUN - PM Crown
Shepard ASP (TIA) - R2430c1
Total Outbound Select Zone Volume = 30 veh/hr

2048 LUN - R2430c1 (Run ID: 050421)



NOTES:
-Distributions shown as proportions of total select zone volume.
-Link volumes less than 2% are suppressed for clarity.
-Minor discrepancies may occur as a result of rounding.

Calgary Regional Transportation Model: Version 2.4.4
ADVISORY: It's the recipient's responsibility to review network and land use assumptions used to produce this analysis. Prior to application in any study, all model inputs and outputs require interpretation and adjustment.
DISCLAIMER: The City of Calgary provides this information in good faith but provides no warranty, nor accepts any liability arising from any incorrect, incomplete or misleading information or its improper use. Application of the provided analysis is applicable only to this request Shepard ASP (TIA) - R2430c1.
If you have any questions, require clarification or would like more details on this data please contact TranPlanForecast@calgary.ca.
Date: 2024-01-19 Databank: 2048 LUN 050421-CTP MDP Scenario Series
Sc: 1142: PM Crown (PMCR) R2430c1 Shepard ASP (TIA) Select Zone 3547 O
GIS background images from ArcGIS Online. Copyright Esri. All rights reserved.

2028 & 2048 Turn Volume Forecast

Shepard ASP (TIA) - R2430c1

Client: ISL Engineering and Land Services Ltd.

Prepared by:

29-Jan-24

Notes:

Turn Volume Forecast presented here comes from customized
- 2028 LUN 092618 scenario and
- 2048 LUN 050421 Scenario.

Customization
- added centroid connectors for zones 3540, 3541 & 3547.

ADVISORY: It is the recipient's responsibility to review network and land use assumptions used to produce this analysis. Prior to application in any study, all model inputs and outputs require interpretation and adjustment.

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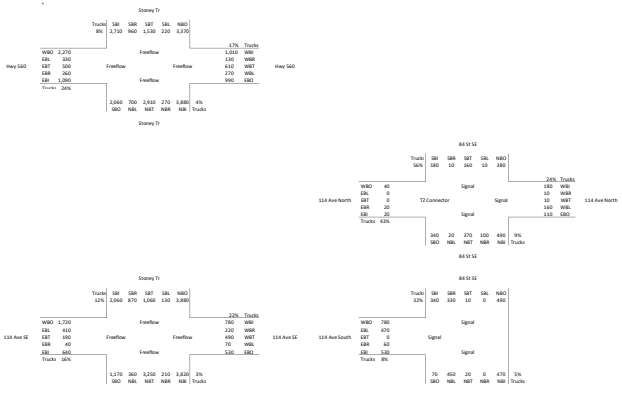
ISC: Unrestricted

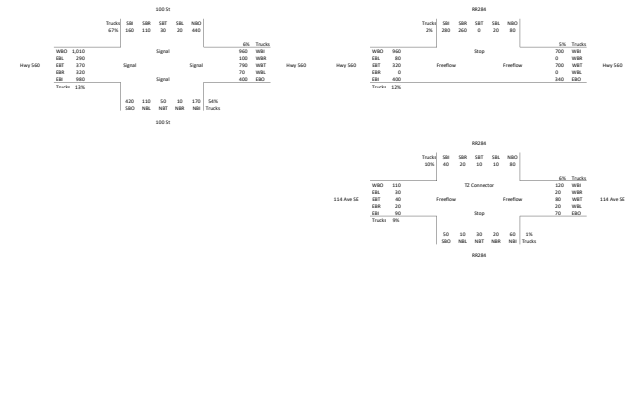
Shepard ASP (TIA) - R2430c1
Transportation Forecast
ISC: Unrestricted
25-Jan-24
Databank:
2028 LUN 092618 CTP MDP Scenario Series

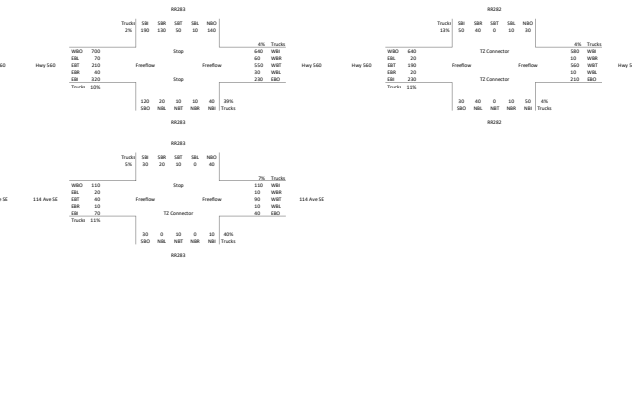
Understanding turning movement diagrams:

NB	Northbound	I	In (entering intersection)
SB	Southbound	O	Out (leaving intersection)
EB	Eastbound	R	Right turn
WB	Westbound	T	Through
Trucks	Inbound Truck %	L	Left Turn

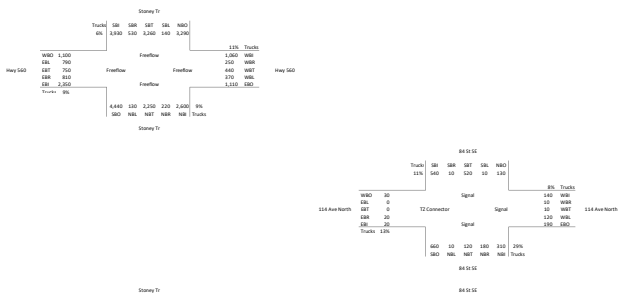
2028 AM Peak Hour Forecast

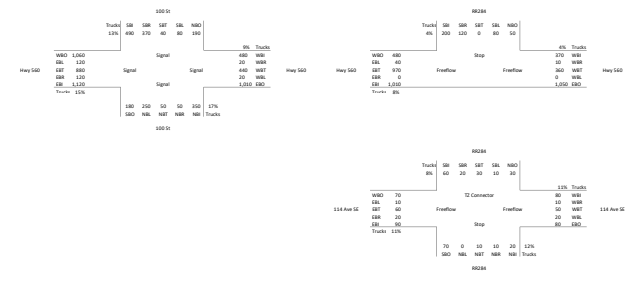


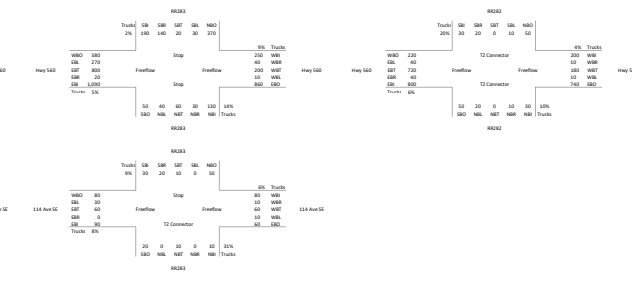




2028 PM Peak Hour Forecast







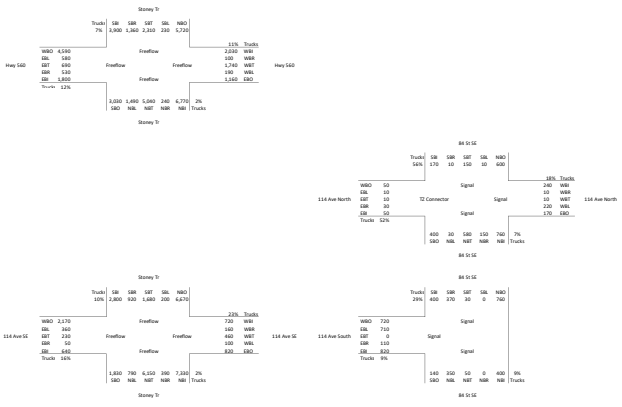


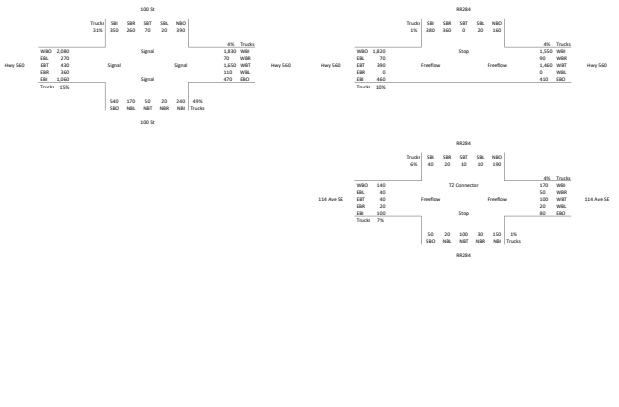
Shepard ASP (TIA) - R2430c1
Transportation forecast
ISC: Unrestricted
25-Jan-24
Databank:
2048 LUN DSD621 CTP MDP Scenario Series

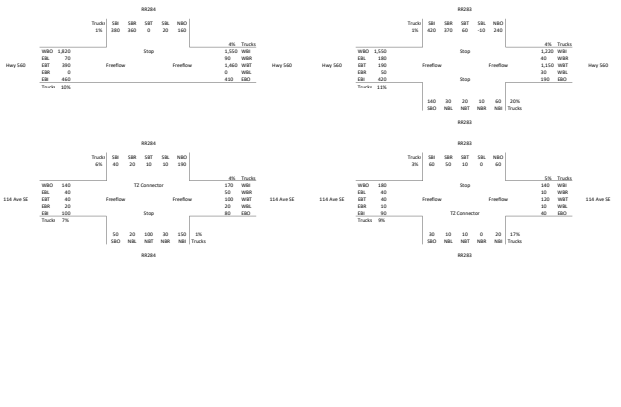
Understanding turning movement diagrams:

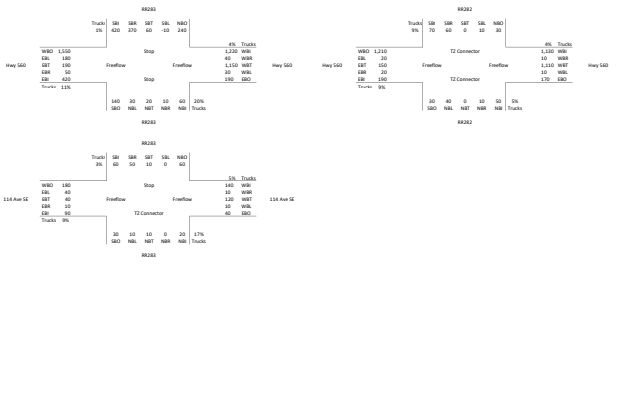
NB	Northbound	I	In (entering intersection)
SB	Southbound	O	Out (leaving intersection)
EB	Eastbound	R	Right turn
WB	Westbound	T	Through
Trucks	Inbound Truck %	L	Left Turn

2048 AM Peak Hour Forecast

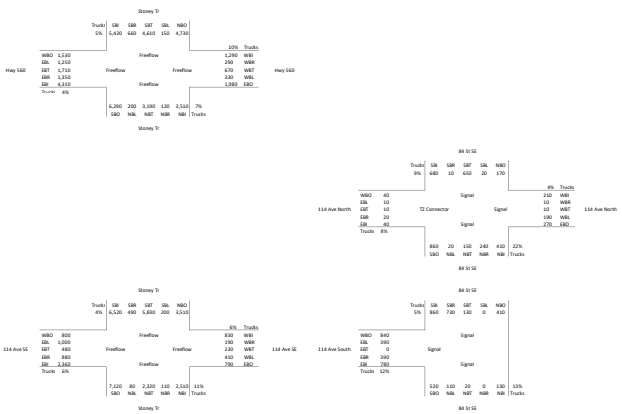


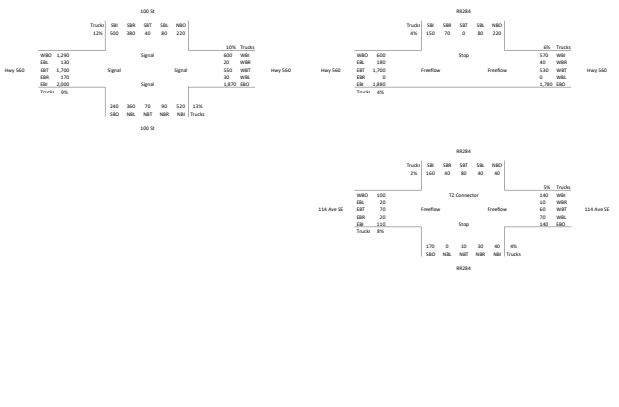


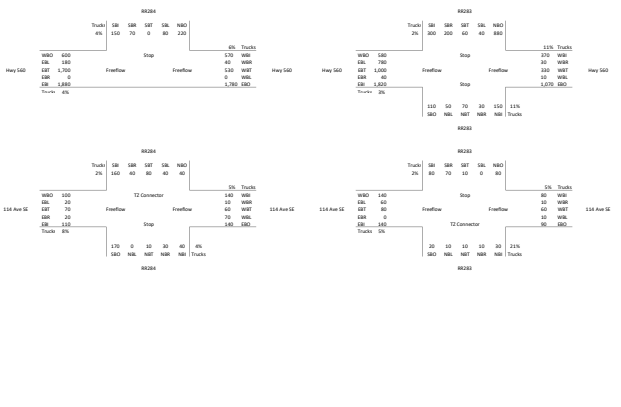


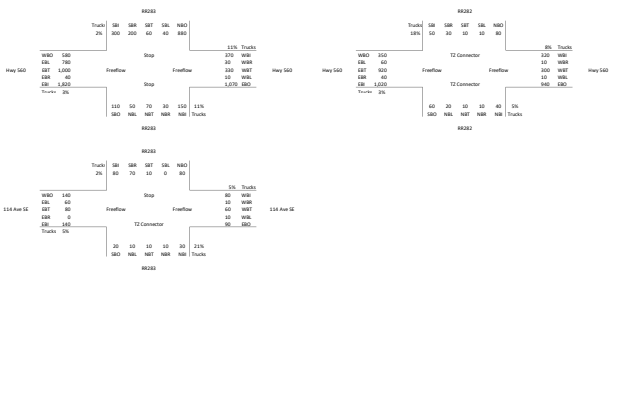


2048 PM Peak Hour Forecast









APPENDIX C
Synchro Tables and Results

2026 Background Synchro Results - Table Summary

Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.57	-	0.49	0.50	-	-	-	-	-	-	-
		LOS	-	A	-	C	A	-	-	-	-	-	-	-
		Queue (m)	-	48	-	22	4	-	-	-	-	-	-	-
	PM	v/c	-	0.97	-	0.99	0.19	-	-	-	-	-	-	-
		LOS	-	C	-	E	A	-	-	-	-	-	-	-
		Queue (m)	-	221	-	69	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM	v/c	0.74	0.32	-	-	0.71	-	-	-	-	-	-	-
		LOS	C	A	-	-	B	-	-	-	-	-	-	-
		Queue (m)	43	0	-	-	50	-	-	-	-	-	-	-
	PM	v/c	1.03	0.45	-	-	0.95	-	-	-	-	-	-	-
		LOS	D	A	-	-	D	-	-	-	-	-	-	-
		Queue (m)	212	0	-	-	110	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM	v/c	0.66	0.18	0.39	0.37	0.73	0.23	0.04	0.17	0.01	0.13	0.04	0.26
		LOS	C	B	A	C	C	A	C	C	A	C	C	A
		Queue (m)	44	23	17	23	88	7	3	15	0	9	6	4
	PM	v/c	0.32	0.63	0.16	0.09	0.28	0.06	0.71	0.38	0.28	0.51	0.15	0.67
		LOS	C	C	A	D	C	A	D	C	A	D	C	B
		Queue (m)	17	90	4	8	28	0	51	28	3	61	13	23
Hwy 560 / RR 284 (N-S Stop Control)	AM	v/c	0.02	0.02	0	0	0	0	0.01	0.01	0.01	0.08	0.08	0.08
		LOS	A	A	A	A	A	A	E	E	E	C	C	C
		Queue (m)	1	1	0	0	0	0	0	0	0	2	2	2
	PM	v/c	0.02	0.02	0	0	0	0	0.02	0.02	0.02	0.09	0.09	0.09
		LOS	A	A	A	A	A	A	E	E	E	C	C	C
		Queue (m)	0	0	0	0	0	0	0	0	0	2	0	2
Hwy 560 / RR 283 (N-S Stop Control)	AM	v/c	0.02	0.02	0.02	0.02	0.48	0.48	0.27	0.27	0.27	0.61	0.61	0.61
		LOS	A	A	A	A	A	A	F	F	F	E	E	E
		Queue (m)	0	0	0	1	0	0	8	8	8	29	29	29
	PM	v/c	0.15	0.15	0.03	0.01	0.16	0.16	1.50	1.50	1.50	0.59	0.59	0.59
		LOS	A	A	A	B	A	A	F	F	F	E	E	E
		Queue (m)	4	4	0	0	0	0	69	69	69	25	25	25
Hwy 560 / RR 282 (N-S Stop Control)	AM	v/c	0	0	0	0	0	0	0.04	0.04	0.04	0.01	0.01	0.01
		LOS	A	A	A	A	A	A	C	C	C	C	C	C
		Queue (m)	0	0	0	0	0	0	1	1	1	0	0	0
	PM	v/c	0	0	0	0	0	0	0.03	0.03	0.03	0	0	0
		LOS	A	A	A	A	A	A	D	D	D	A	A	A
		Queue (m)	0	0	0	0	0	0	1	1	1	0	0	0
114 Ave / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.26	-	-	0.14	-	-	-	-	0.17	-	-
		LOS	-	A	-	-	A	-	-	-	-	B	-	-
		Queue (m)	-	21	-	-	6	-	-	-	-	9.00	-	-
	PM	v/c	-	0.30	-	-	0.11	-	-	-	-	0.16	-	-
		LOS	-	A	-	-	A	-	-	-	-	B	-	-
		Queue (m)	-	26	-	-	8	-	-	-	-	9.00	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM	v/c	-	0.15	-	-	0.11	-	0.29	-	-	-	-	-
		LOS	-	A	-	-	A	-	C	-	-	-	-	-
		Queue (m)	-	11	-	-	8	-	14	-	-	-	-	-
	PM	v/c	-	0.09	-	-	0.18	-	0.08	-	-	-	-	-
		LOS	-	A	-	-	A	-	B	-	-	-	-	-
		Queue (m)	-	3	-	-	3	-	19	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM	v/c	0	0	0	0.39	0.39	0.39	0.42	0.42	0.42	0.12	0.12	0.12
		LOS	A	A	A	B	B	B	A	A	A	A	A	A
		Queue (m)	0	0	0	16	16	16	37	37	37	10	10	10
	PM	v/c	0	0	0	0.36	0.36	0.36	0.24	0.24	0.24	0.40	0.40	0.40
		LOS	A	A	A	B	B	B	A	A	A	A	A	A
		Queue (m)	0	0	0	15	15	15	14	14	14	36	36	36
114 Ave / 84 St South Intersection (Signalized)	AM	v/c	0.47	-	0.08	-	-	-	0.15	0.15	-	-	0.48	0.48
		LOS	A	-	A	-	-	-	B	B	-	-	A	A
		Queue (m)	37	-	4	-	-	-	7	7	-	-	12	12
	PM	v/c	0.29	-	0.06	-	-	-	0.25	0.25	-	-	0.66	0.66
		LOS	A	-	A	-	-	-	B	B	-	-	A	A
		Queue (m)	23	-	4.00	-	-	-	8.00	8.00	-	-	16	16
TR 232 / RR 284 (N-S Stop Control)	AM	v/c	0	0	0	0	0	0	0.03	0.03	0.03	0	0	0
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	0	0	0	0	0	0	1	1	1	0	0	0
	PM	v/c	0	0	0	0.01	0.01	0.01	0.02	0.02	0.02	0	0	0
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	0	0	0	0	0	0	1	1	1	0	0	0
TR 232 / RR 283 (N-S Stop Control)	AM	v/c	0.09	0.09	0	0	0	0.01	0	0	0	0.07	0.07	0.07
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	2	2	0	0	0	0	0	0	0	2	2	2
	PM	v/c	0.03	0.03	0	0	0	0.01	0	0	0	0.09	0.09	0.09
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	1	1	0	0	0	0	0	0	0	2	2	2
TR 232 / RR 282 (N-S Stop Control)	AM	v/c	0	0	0	0	0	0	0	0	0	0	0	0
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	0	0	0	0	0	0	0	0	0	0	0	0
	PM	v/c	0	0	0	0	0	0	0	0	0	0	0	0
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	0	0	0	0	0	0	0	0	0	0	0	0

2026 Background + Development Land Use 1 Synchro Results - Table Summary

Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.57	-	0.49	0.51	-	-	-	-	-	-	-
		LOS	-	A	-	C	A	-	-	-	-	-	-	-
		Queue (m)	-	48.0	-	22	4	-	-	-	-	-	-	-
	PM	v/c	-	0.97	-	0.99	0.19	-	-	-	-	-	-	-
		LOS	-	C	-	E	A	-	-	-	-	-	-	-
		Queue (m)	-	221	-	69	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM	v/c	0.74	0.32	-	-	0.71	-	-	-	-	-	-	-
		LOS	C	A	-	-	B	-	-	-	-	-	-	-
		Queue (m)	43	0.0	-	-	50.3	-	-	-	-	-	-	-
	PM	v/c	1.03	0.45	-	-	0.95	-	-	-	-	-	-	-
		LOS	D	A	-	-	D	-	-	-	-	-	-	-
		Queue (m)	209	0	-	-	110	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM	v/c	0.66	0.18	0.39	0.37	0.73	0.23	0.04	0.17	0.01	0.13	0.04	0.26
		LOS	C	B	A	C	C	A	C	C	A	C	C	A
		Queue (m)	44	23	17	23	88	7	3	15	0	9	6	4
	PM	v/c	0.32	0.63	0.16	0.09	0.28	0.06	0.71	0.38	0.28	0.51	0.15	0.67
		LOS	C	C	A	D	C	A	D	C	A	D	C	B
		Queue (m)	17	90	4	8	28	0	51	28	3	61	13	23
Hwy 560 / RR 284 (N-S Stop Control)	AM	v/c	0.02	0.02	0	0	0	0	0.07	0.07	0.07	0.08	0.08	0.08
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	1	1	0	0	0	0	0	0	0	2	2	2
	PM	v/c	0.02	0.02	0	0	0	0	0.02	0.02	0.02	0.09	0.09	0.09
		LOS	A	A	A	A	A	A	E	E	E	C	C	C
		Queue (m)	0	0	0	0	0	0	0	0	0	2	2	2
Hwy 560 / RR 283 (Signalized)	AM	v/c	0.06	0.26	0.05	0.05	0.82	0.01	0.12	0.12	0.02	0.47	0.47	0.47
		LOS	A	A	A	A	B	A	C	C	A	B	B	B
		Queue (m)	3	24	3	4	117	1	13	13	0	34	34	34
	PM	v/c	0.25	0.76	0.05	0.04	0.21	0.01	0.46	0.46	0.08	0.32	0.32	0.32
		LOS	A	B	A	A	A	A	D	D	B	B	B	B
		Queue (m)	22	183	3	2	27	1	42	42	7	23	23	23
Hwy 560 / RR 282 (N-S Stop Control)	AM	v/c	0	0	0	0	0	0	0.04	0.04	0.04	0.01	0.01	0.01
		LOS	A	A	A	A	A	A	C	C	C	C	C	C
		Queue (m)	0	0	0	0	0	0	1	1	1	0	0	0
	PM	v/c	0	0	0	0	0	0	0.03	0.03	0.03	0	0	0
		LOS	A	A	A	A	A	A	D	D	D	A	A	A
		Queue (m)	0	0	0	0	0	0	1	1	1	0	0	0
114 Ave / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.29	-	-	0.16	-	-	-	-	0.26	-	-
		LOS	-	A	-	-	A	-	-	-	-	C	-	-
		Queue (m)	-	21	-	-	7	-	-	-	-	13	-	-
	PM	v/c	-	0.34	-	-	0.13	-	-	-	-	0.22	-	-
		LOS	-	A	-	-	A	-	-	-	-	C	-	-
		Queue (m)	-	26	-	-	9	-	-	-	-	12	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM	v/c	-	0.18	-	-	0.14	-	0.29	-	-	-	-	-
		LOS	-	A	-	-	A	-	C	-	-	-	-	-
		Queue (m)	-	12	-	-	10	-	14	-	-	-	-	-
	PM	v/c	-	0.10	-	-	0.24	-	0.08	-	-	-	-	-
		LOS	-	A	-	-	A	-	B	-	-	-	-	-
		Queue (m)	-	12	-	-	21	-	5	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM	v/c	0	0	0	0.69	0.69	0.69	0.75	0.75	0.75	0.13	0.13	0.13
		LOS	A	A	A	C	C	C	B	B	B	B	B	B
		Queue (m)	0	0.0	0	57	57	57	140	140	140	17	17	17
	PM	v/c	0	0	0	0.60	0.60	0.60	0.54	0.54	0.54	0.61	0.61	0.61
		LOS	A	A	A	B	B	B	B	B	B	B	B	B
		Queue (m)	0	0.0	0	55	55	55	46	46	46	70	70	70
114 Ave / 84 St South Intersection (Signalized)	AM	v/c	0.82	-	0.09	-	-	-	0.10	0.10	-	-	0.82	0.82
		LOS	C	-	A	-	-	-	B	B	-	-	D	D
		Queue (m)	112	-	5	-	-	-	8	8	-	-	70	70
	PM	v/c	0.63	-	0.09	-	-	-	0.10	0.10	-	-	0.97	0.97
		LOS	C	-	A	-	-	-	A	A	-	-	D	D
		Queue (m)	55	-	5	-	-	-	8	8	-	-	159	159
TR 232 / RR 284 (N-S Stop Control)	AM	v/c	0	0	0	0	0	0	0.07	0.07	0.07	0	0	0
		LOS	A	A	A	A	A	A	B	B	B	A	A	A
		Queue (m)	0	0	0	0	0	0	2	2	2	0	0	0
	PM	v/c	0	0	0	0.01	0.01	0.01	0.08	0.08	0.08	0	0	0
		LOS	A	A	A	A	A	A	B	B	B	A	A	A
		Queue (m)	0	0	0	0	0	0	2	2	2	0	0	0
TR 232 / RR 283 (N-S Stop Control)	AM	v/c	0.10	0.08	0.04	0	0	0.01	0.09	0.09	0.09	0.12	0.12	0.12
		LOS	A	A	A	A	A	A	C	C	C	B	B	B
		Queue (m)	3	0	0	0	0	0	2	2	2	3	3	3
	PM	v/c	0.04	0.07	0	0	0	0.01	0	0	0	0.12	0.12	0.12
		LOS	A	A	A	A	A	A	B	B	B	B	B	B
		Queue (m)	1	0	0	0	0	0	4	4	4	3	3	3
TR 232 / RR 282 (N-S Stop Control)	AM	v/c	0	0	0	0	0	0	0.02	0.02	0.02	0	0	0
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	0	0	0	0	0	0	1	1	1	0	0	0
	PM	v/c	0	0	0	0	0	0	0	0	0	0	0	0
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	0	0	0	0	0	0	1	1	1	0	0	0

2026 Background + Development Land Use 2 Synchro Results - Table Summary

Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.57	-	0.49	0.51	-	-	-	-	-	-	-
		LOS	-	A	-	C	A	-	-	-	-	-	-	-
		Queue (m)	-	48	-	22	4	-	-	-	-	-	-	-
	PM	v/c	-	0.97	-	0.99	0.19	-	-	-	-	-	-	-
		LOS	-	C	-	E	A	-	-	-	-	-	-	-
		Queue (m)	-	221	-	69	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM	v/c	0.74	0.32	-	-	0.71	-	-	-	-	-	-	-
		LOS	C	A	-	-	B	-	-	-	-	-	-	-
		Queue (m)	43	0.0	-	-	50.3	-	-	-	-	-	-	-
	PM	v/c	1.03	0.45	-	-	0.95	-	-	-	-	-	-	-
		LOS	-	C	-	-	D	-	-	-	-	-	-	-
		Queue (m)	209	0	-	-	110	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM	v/c	0.66	0.18	0.39	0.37	0.73	0.23	0.04	0.17	0.01	0.13	0.04	0.26
		LOS	C	B	A	C	C	A	C	C	A	C	C	A
		Queue (m)	44	23	17	23	88	7	3	15	0	9	6	4
	PM	v/c	0.32	0.63	0.16	0.09	0.28	0.06	0.71	0.38	0.28	0.51	0.15	0.67
		LOS	C	C	A	D	C	A	D	C	A	D	C	B
		Queue (m)	17	90	4	8	28	0	51	28	3	61	13	23
Hwy 560 / RR 284 (N-S Stop Control)	AM	v/c	0	0.02	0	0	0	0	0.01	0.01	0.01	0.08	0.08	0.08
		LOS	A	A	A	A	A	A	E	E	E	C	C	C
		Queue (m)	1	1	0	0	0	0	0	0	0	2	2	2
	PM	v/c	0.02	0.02	0	0	0	0	0.02	0.02	0.02	0.09	0.09	0.09
		LOS	A	A	A	A	A	A	E	E	E	C	C	C
		Queue (m)	0	0	0	0	0	0	0	0	0	2	2	2
Hwy 560 / RR 283 (Signalized)	AM	v/c	0.06	0.26	0.05	0.05	0.83	0.01	0.10	0.10	0.02	0.49	0.49	0.49
		LOS	A	A	A	A	B	A	C	C	A	B	B	B
		Queue (m)	3	25	3	4	121	1	12	12	0	38	38	38
	PM	v/c	0.25	0.76	0.05	0.04	0.21	0.01	0.48	0.48	0.08	0.32	0.32	0.32
		LOS	A	B	A	A	A	A	D	D	B	B	B	B
		Queue (m)	22	183	3	2	27	1	46	46	7	23	23	23
Hwy 560 / RR 282 (N-S Stop Control)	AM	v/c	-	0	0	0	0	-	0.04	-	0.04	-	-	0.01
		LOS	-	A	A	A	A	-	C	-	C	-	-	C
		Queue (m)	-	0	0	0	0	-	1	-	1	-	-	0
	PM	v/c	0	0	0	0	0	-	0.03	-	0.03	-	-	0
		LOS	A	A	A	A	A	-	D	-	D	-	-	A
		Queue (m)	0	0	0	0	0	-	1	-	1	-	-	0
114 Ave / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.30	-	-	0.16	-	-	-	-	0.29	-	-
		LOS	-	A	-	-	A	-	-	-	-	C	-	-
		Queue (m)	-	22	-	-	7	-	-	-	-	14	-	-
	PM	v/c	-	0.34	-	-	0.13	-	-	-	-	0.23	-	-
		LOS	-	A	-	-	A	-	-	-	-	C	-	-
		Queue (m)	-	26	-	-	10	-	-	-	-	12	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM	v/c	-	0.19	-	-	0.14	-	0.29	-	-	-	-	-
		LOS	-	A	-	-	A	-	C	-	-	-	-	-
		Queue (m)	-	13	-	-	10	-	14	-	-	-	-	-
	PM	v/c	-	0.10	-	-	0.26	-	0.08	-	-	-	-	-
		LOS	-	A	-	-	A	-	B	-	-	-	-	-
		Queue (m)	-	12	-	-	24	-	5	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM	v/c	0	0	0	0.74	0.74	0.74	0.77	0.77	0.77	0.12	0.12	0.12
		LOS	A	A	A	C	C	C	B	B	B	A	A	A
		Queue (m)	0	0	0	52	52	52	174	174	174	17	17	17
	PM	v/c	0	0	0	0.66	0.66	0.66	0.57	0.57	0.57	0.65	0.65	0.65
		LOS	A	A	A	B	B	B	B	B	B	C	C	C
		Queue (m)	0	0	0	85	85	85	48	48	48	71	71	71
114 Ave / 84 St South Intersection (Signalized)	AM	v/c	0.87	-	0.08	-	-	-	0.11	0.11	-	-	0.83	0.83
		LOS	C	-	A	-	-	-	B	B	-	-	D	D
		Queue (m)	150	-	5	-	-	-	10	10	-	-	83	83
	PM	v/c	0.76	-	0.10	-	-	-	0.08	0.08	-	-	0.90	0.90
		LOS	D	-	A	-	-	-	A	A	-	-	C	C
		Queue (m)	117	-	8	-	-	-	7	7	-	-	186	186
TR 232 / RR 284 (N-S Stop Control)	AM	v/c	0	0	0	0.01	0.01	0.01	0.08	0.08	0.08	0	0	0
		LOS	A	A	A	A	A	A	B	B	B	A	A	A
		Queue (m)	0	0	0	0	0	0	2	2	2	0	0	0
	PM	v/c	0	0	0	0.01	0.01	0.01	0.12	0.12	0.12	0	0	0
		LOS	A	A	A	A	A	A	B	B	B	A	A	A
		Queue (m)	0	0	0	0	0	0	3	3	3	0	0	0
TR 232 / RR 283 (N-S Stop Control)	AM	v/c	0.10	0.11	0.05	0	0	0.01	0.09	0.09	0.09	0.14	0.14	0.14
		LOS	A	A	A	A	A	A	C	C	C	B	B	B
		Queue (m)	2	0	0	0	0	0	2	2	2	4	4	4
	PM	v/c	0.05	0.08	0.02	0	0	0.02	0.21	0.21	0.21	0.12	0.12	0.12
		LOS	A	A	A	A	A	A	C	C	C	B	B	B
		Queue (m)	1	0	0	0	0	0	6	6	6	3	3	3
TR 232 / RR 282 (N-S Stop Control)	AM	v/c	0	0	0	0	0	0	0.02	0.02	0.02	0	0	0
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	0	0	0	0	0	0	1	1	1	0	0	0
	PM	v/c	0	0	0	0	0	0	0.07	0.07	0.07	0	0	0
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	0	0	0	0	0	0	2	2	2	0	0	0

2028 Background Synchro Results - Table Summary

Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.62	-	0.73	0.46	-	-	-	-	-	-	-
		LOS	-	B	-	C	A	-	-	-	-	-	-	-
		Queue (m)	-	39	-	46	1	-	-	-	-	-	-	-
	PM	v/c	-	1.11	-	0.93	0.19	-	-	-	-	-	-	-
		LOS	-	E	-	D	A	-	-	-	-	-	-	-
		Queue (m)	-	115	-	68	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM	v/c	0.62	0.25	-	-	0.62	-	-	-	-	-	-	-
		LOS	B	A	-	-	B	-	-	-	-	-	-	-
		Queue (m)	30	0	-	-	43	-	-	-	-	-	-	-
	PM	v/c	1.26	0.30	-	-	0.60	-	-	-	-	-	-	-
		LOS	F	A	-	-	B	-	-	-	-	-	-	-
		Queue (m)	65	0	-	-	37	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM	v/c	0.67	0.26	0.40	0.36	0.71	0.17	0.32	0.14	0.02	0.13	0.13	0.34
		LOS	D	B	A	D	C	A	C	C	A	C	C	A
		Queue (m)	41	34	16	23	80	3	16	17	0	9	12	7
	PM	v/c	0.35	0.73	0.19	0.12	0.44	0.04	0.65	0.14	0.12	0.46	0.15	0.77
		LOS	D	C	A	D	C	A	D	C	A	D	C	B
		Queue (m)	19	114	7	10	47	0	41	17	0	28	14	39
Hwy 560 / RR 284 (Signalized)	AM	v/c	0.45	0.39	-	-	1	-	-	-	-	0.65	-	0.65
		LOS	B	A	-	-	B	-	-	-	-	B	-	B
		Queue (m)	18	38	-	-	110	-	-	-	-	35	-	35
	PM	v/c	0.07	0.88	-	-	0.34	0.01	-	-	-	0.64	-	0.64
		LOS	A	C	-	-	A	A	-	-	-	C	-	C
		Queue (m)	6	186	-	-	38	1	-	-	-	56	-	56
Hwy 560 / RR 283 (Signalized)	AM	v/c	0.18	0.22	0.05	0.05	0.56	0.07	0.10	0.10	0.03	0.41	0.41	0.41
		LOS	A	A	A	A	B	A	B	B	A	A	A	A
		Queue (m)	8	18	3	4	58	4	8	8	0	18	18	18
	PM	v/c	0.40	0.85	0.02	0.06	0.36	0.08	0.40	0.40	0.10	0.45	0.45	0.45
		LOS	A	B	A	B	B	A	C	C	A	B	B	B
		Queue (m)	26	133	2	4	34	3	31	31	2	27	27	27
Hwy 560 / RR 282 (N-S Stop Control)	AM	v/c	0.02	0.02	0.02	0.01	0.01	0.01	0.21	0.21	0.21	0.13	0.13	0.13
		LOS	A	A	A	A	A	A	C	C	C	C	C	C
		Queue (m)	1	1	1	0	0	0	6	6	6	4	4	4
	PM	v/c	0.03	0.03	0.03	0.01	0.01	0.01	0.15	0.15	0.15	0.09	0.09	0.09
		LOS	A	A	A	A	A	A	C	C	C	C	C	C
		Queue (m)	1	1	1	0	0	0	4	4	4	2	2	2
114 Ave / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.30	-	-	0.43	-	-	-	-	0.24	-	-
		LOS	-	A	-	-	A	-	-	-	-	C	-	-
		Queue (m)	-	22	-	-	35	-	-	-	-	12	-	-
	PM	v/c	-	0.72	-	-	0.16	-	-	-	-	0.47	-	-
		LOS	-	B	-	-	A	-	-	-	-	C	-	-
		Queue (m)	-	74	-	-	11	-	-	-	-	22	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM	v/c	-	0.19	-	-	0.34	-	0.54	-	-	-	-	-
		LOS	-	A	-	-	A	-	C	-	-	-	-	-
		Queue (m)	-	15	-	-	27	-	26	-	-	-	-	-
	PM	v/c	-	0.24	-	-	0.22	-	0.07	-	-	-	-	-
		LOS	-	A	-	-	A	-	B	-	-	-	-	-
		Queue (m)	-	40	-	-	20	-	5	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM	v/c	0.02	0.02	0.02	0.53	0.53	0.53	0.55	0.55	0.55	0.27	0.27	0.27
		LOS	A	A	A	B	B	B	B	B	B	B	B	B
		Queue (m)	0	0	0	28	28	28	72	72	72	24	24	24
	PM	v/c	0.04	0.04	0.04	0.42	0.42	0.42	0.34	0.34	0.34	0.55	0.55	0.55
		LOS	A	A	A	B	B	B	A	A	A	B	B	B
		Queue (m)	0	0.0	0	25	25	25	21	21	21	67	67	67
114 Ave / 84 St South Intersection (Signalized)	AM	v/c	0.85	-	0.11	-	-	-	0.85	0.03	-	-	0.74	0.74
		LOS	D	-	A	-	-	-	C	A	-	-	B	B
		Queue (m)	141	-	8	-	-	-	106	5	-	-	28	28
	PM	v/c	0.56	-	0.51	-	-	-	0.83	0.01	-	-	0.64	0.64
		LOS	B	-	A	-	-	-	E	A	-	-	A	A
		Queue (m)	47	-	14	-	-	-	40	3	-	-	18	18
TR 232 / RR 284 (N-S Stop Control)	AM	v/c	0.02	0.02	0.02	0.01	0.01	0.01	0.09	0.09	0.09	0.06	0.06	0.06
		LOS	A	A	A	A	A	A	B	B	B	B	B	B
		Queue (m)	1	1	1	0	0	0	2	2	2	1	1	1
	PM	v/c	0.01	0.01	0.01	0.01	0.01	0.01	-	0.03	0.03	0.08	0.08	0.08
		LOS	A	A	A	A	A	A	-	A	A	B	B	B
		Queue (m)	0	0	0	0	0	0	-	1	1	2	2	2
TR 232 / RR 283 (N-S Stop Control)	AM	v/c	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.04	0.04	0.04
		LOS	A	A	A	A	A	A	B	B	B	A	A	A
		Queue (m)	0	0	0	0	0	0	0	0	0	1	1	1
	PM	v/c	0.02	0.02	0	0.01	0.01	0.01	0.02	0.02	0.02	0.04	0.04	0.04
		LOS	A	A	A	A	A	A	B	B	B	A	A	A
		Queue (m)	1	1	1	0	0	0	0	0	0	2	1	1
TR 232 / RR 282 (N-S Stop Control)	AM	v/c	0	0	0	0	0	0	0	0	0	0	0	0
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	0	0	0	0	0	0	0	0	0	0	0	0
	PM	v/c	0	0	0	0	0	0	0	0	0	0	0	0
		LOS	A	A	A	A	A	A	A	A	A	A	A	A
		Queue (m)	0	0	0	0	0	0	0	0	0	0	0	0

2028 Background + Development Land Use 1 Synchro Results - Table Summary

Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.64	-	0.81	0.48	-	-	-	-	-	-	-
		LOS	-	B	-	D	A	-	-	-	-	-	-	-
		Queue (m)	-	40	-	53	1	-	-	-	-	-	-	-
	PM	v/c	-	0.98	-	1.03	0.21	-	-	-	-	-	-	-
		LOS	-	D	-	D	A	-	-	-	-	-	-	-
		Queue (m)	-	195	-	126	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM	v/c	0.63	0.27	-	-	0.65	-	-	-	-	-	-	-
		LOS	B	A	-	-	B	-	-	-	-	-	-	-
		Queue (m)	30	0	-	-	46	-	-	-	-	-	-	-
	PM	v/c	0.98	0.31	-	-	0.88	-	-	-	-	-	-	-
		LOS	C	A	-	-	D	-	-	-	-	-	-	-
		Queue (m)	151	0	-	-	123	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM	v/c	0.66	0.46	0.42	0.34	0.87	0.18	0.30	0.12	0.02	0.12	0.12	0.32
		LOS	D	C	A	C	D	A	C	C	A	C	C	A
		Queue (m)	37	58	18	21	105	2	14	15	0	9	11	5
	PM	v/c	0.37	0.79	0.19	0.13	0.64	0.04	0.62	0.13	0.12	0.45	0.14	0.83
		LOS	D	C	A	D	C	A	D	C	A	D	C	C
		Queue (m)	19	136	7	10	74	0	36	17	0	28	15	64
Hwy 560 / RR 284 (Signalized)	AM	v/c	0.49	0.59	0.06	0.01	0.82	0	0.04	0.04	0.04	0.67	0.67	0.67
		LOS	B	B	A	A	B	A	A	A	A	B	B	B
		Queue (m)	19	68	3	2	124	0	2	2	2	39	39	39
	PM	v/c	0.09	0.90	0.02	0.03	0.48	0.01	0.20	0.20	0.20	0.67	0.67	0.67
		LOS	A	C	A	A	A	A	C	C	C	D	D	D
		Queue (m)	6	221	1	1	63	1	14	14	14	56	56	56
Hwy 560 / RR 283 (Signalized)	AM	v/c	0.25	0.36	0.18	0.08	0.70	0.08	0.23	0.13	0.13	0.56	0.56	0.56
		LOS	A	A	A	A	B	A	B	B	B	B	B	B
		Queue (m)	12	34	7	6	82	4	14	13	13	44	44	44
	PM	v/c	0.50	0.88	0.07	0.09	0.29	0.06	0.69	0.46	0..46	0.48	0.48	0.48
		LOS	B	C	A	A	A	A	D	C	C	B	B	B
		Queue (m)	44	180	4	4	34	4	48	41	41	38	38	38
Hwy 560 / RR 282 (N-S Stop Control)	AM	v/c	0.02	0.12	0.07	0.01	0.36	0.36	0.34	0.34	0.34	0.13	0.13	0.13
		LOS	A	A	A	A	A	A	D	D	D	C	C	C
		Queue (m)	1	0	0	0	0	0	11	11	11	4	4	4
	PM	v/c	0.03	0.45	0.05	0.02	0.12	0.12	0.68	0.68	0.68	0.09	0.09	0.09
		LOS	A	A	A	A	A	A	F	F	F	C	C	C
		Queue (m)	1	0	0	0	0	0	31	31	31	2	2	2
114 Ave / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.36	-	-	0.50	-	-	-	-	0.39	-	-
		LOS	-	A	-	-	A	-	-	-	-	C	-	-
		Queue (m)	-	26	-	-	43	-	-	-	-	18	-	-
	PM	v/c	-	0.76	-	-	0.19	-	-	-	-	0.53	-	-
		LOS	-	B	-	-	A	-	-	-	-	C	-	-
		Queue (m)	-	89	-	-	23	-	-	-	-	25	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM	v/c	-	0.26	-	-	0.43	-	0.54	-	-	-	-	-
		LOS	-	A	-	-	A	-	C	-	-	-	-	-
		Queue (m)	-	21	-	-	36	-	26	-	-	-	-	-
	PM	v/c	-	0.27	-	-	0.36	-	0.07	-	-	-	-	-
		LOS	-	A	-	-	A	-	B	-	-	-	-	-
		Queue (m)	-	40	-	-	36	-	5	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM	v/c	0.03	0.03	0.03	0.54	0.53	0.53	0.60	0.64	0.64	0.37	0.37	0.37
		LOS	A	A	A	C	C	C	B	B	A	B	B	B
		Queue (m)	0	0	0	59	57	57	86	86	20	40	40	40
	PM	v/c	0.06	0.06	0.06	0.64	0.63	0.63	0.20	0.20	0.51	0.74	0.74	0.74
		LOS	A	A	A	C	C	C	B	B	A	C	C	C
		Queue (m)	0	0	0	96	94	94	30	30	17	138	138	138
114 Ave / 84 St South Intersection (Signalized)	AM	v/c	0.86	-	0.11	-	-	-	0.86	0.03	-	-	0.04	0.44
		LOS	C	-	A	-	-	-	C	B	-	-	C	A
		Queue (m)	106	-	10	-	-	-	104	5	-	-	5	31
	PM	v/c	0.38	-	0.44	-	-	-	0.34	0.02	-	-	0.04	0.43
		LOS	A	-	A	-	-	-	B	B	-	-	B	A
		Queue (m)	25	-	10	-	-	-	21	4	-	-	5	0
TR 232 / RR 284 (N-S Stop Control)	AM	v/c	0.03	0.30	0.04	0.03	0.20	0.20	0.35	0.35	0.35	0.14	0.14	0.14
		LOS	A	A	A	A	A	A	D	D	D	C	C	C
		Queue (m)	1	0	0	1	0	0	11	11	11	4	4	4
	PM	v/c	0.01	0.17	0.03	0.02	0.29	0.29	0.26	0.26	0.26	0.20	0.20	0.20
		LOS	A	A	A	A	A	A	C	C	C	C	C	C
		Queue (m)	0	0	0	1	0	0	8	8	8	6	6	6
TR 232 / RR 283 (N-S Stop Control)	AM	v/c	0.05	0.16	0.08	0.02	0.02	0.02	0.25	0.25	0.25	0.18	0.18	0.18
		LOS	A	A	A	A	A	A	C	C	C	B	B	B
		Queue (m)	1	0	0	0	0	0	8	8	8	5	5	5
	PM	v/c	0.05	0.11	0.03	0.01	0.01	0.02	0.44	0.44	0.44	0.15	0.15	0.15
		LOS	A	A	A	A	A	A	C	C	C	B	B	B
		Queue (m)	1	0	0	0	0	0	16	16	16	4	4	4
TR 232 / RR 282 (N-S Stop Control)	AM	v/c	0.01	0.01	0.01	0	0	0	0.06	0.06	0.06	0.01	0.01	0.01
		LOS	A	A	A	A	A	A	B	B	B	A	A	A
		Queue (m)	0	0	0	0	0	0	2	2	2	0	0	0
	PM	v/c	0	0	0	0	0	0	0.12	0.12	0.12	0.02	0.02	0.02
		LOS	A	A	A	A	A	A	B	B	B	A	A	A
		Queue (m)	0	0	0	0	0	0	3	3	3	0	0	0

2028 Background + Development Land Use 2 Synchro Results - Table Summary

Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.64	-	0.79	0.48	-	-	-	-	-	-	-
		LOS	-	B	-	D	A	-	-	-	-	-	-	-
		Queue (m)	-	40	-	51	1	-	-	-	-	-	-	-
	PM	v/c	-	0.98	-	1.05	0.22	-	-	-	-	-	-	-
		LOS	-	D	-	E	A	-	-	-	-	-	-	-
		Queue (m)	-	195	-	132	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM	v/c	0.63	0.28	-	-	0.65	-	-	-	-	-	-	-
		LOS	B	A	-	-	B	-	-	-	-	-	-	-
		Queue (m)	29	0	-	-	45	-	-	-	-	-	-	-
	PM	v/c	0.99	0.31	-	-	0.88	-	-	-	-	-	-	-
		LOS	C	A	-	-	D	-	-	-	-	-	-	-
		Queue (m)	151	0	-	-	122	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM	v/c	0.66	0.49	0.42	0.34	0.86	0.18	0.30	0.12	0.02	0.12	0.12	0.32
		LOS	D	C	A	C	C	A	C	C	A	C	C	A
		Queue (m)	37	63	18	21	103	2	14	15	0	9	11	5
	PM	v/c	0.37	0.77	0.19	0.13	0.64	0.04	0.63	0.14	0.12	0.45	0.14	0.83
		LOS	D	C	A	D	C	A	D	C	A	D	C	C
		Queue (m)	19	134	7	10	76	0	36	17	0	28	15	64
Hwy 560 / RR 284 (Signalized)	AM	v/c	0.47	0.63	0.06	0.03	0.82	0	0.04	0.04	0.04	0.66	0.66	0.66
		LOS	B	B	A	A	B	A	A	A	A	B	B	B
		Queue (m)	18	73	4	2	121	0	2	2	2	38	38	38
	PM	v/c	0.09	0.90	0	0	0.49	0.01	0.21	0.21	0.21	0.67	0.67	0.67
		LOS	A	C	A	A	A	A	C	C	C	D	D	D
		Queue (m)	6	216	1	1	64	1	15	15	15	56	56	56
Hwy 560 / RR 283 (Signalized)	AM	v/c	0.25	0.37	0.20	0.08	0.70	0.08	0.19	0.11	0.11	0.59	0.59	0.59
		LOS	B	A	A	A	B	A	B	B	B	C	C	C
		Queue (m)	12	38	7	6	86	5	13	12	12	51	51	51
	PM	v/c	0.51	0.88	0.06	0.09	0.29	0.06	0.70	0.52	0.52	0.48	0.48	0.48
		LOS	B	C	A	A	A	A	D	C	C	B	B	B
		Queue (m)	44	176	4	4	34	4	49	47	47	38	38	38
Hwy 560 / RR 282 (N-S Stop Control)	AM	v/c	0.02	0.12	0.08	0.01	0.36	0.36	0.34	0.34	0.34	0.14	0.14	0.14
		LOS	A	A	A	A	A	A	D	D	D	C	C	C
		Queue (m)	1	0	0	0	0	0	11	11	11	4	4	4
	PM	v/c	0.30	0.45	0.04	0.02	0.12	0.12	0.72	0.72	0.72	0.09	0.09	0.09
		LOS	A	A	A	A	A	A	F	F	F	C	C	C
		Queue (m)	1	0	0	0	0	0	34	34	34	2	2	2
114 Ave / Stoney Tr West Junction (Signalized)	AM	v/c	-	0.37	-	-	0.50	-	-	-	-	0.44	-	-
		LOS	-	A	-	-	A	-	-	-	-	C	-	-
		Queue (m)	-	28	-	-	42	-	-	-	-	21	-	-
	PM	v/c	-	0.76	-	-	0.19	-	-	-	-	0.54	-	-
		LOS	-	B	-	-	A	-	-	-	-	C	-	-
		Queue (m)	-	88	-	-	24	-	-	-	-	26	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM	v/c	-	0.29	-	-	0.42	-	0.54	-	-	-	-	-
		LOS	-	A	-	-	A	-	C	-	-	-	-	-
		Queue (m)	-	23	-	-	34	-	26	-	-	-	-	-
	PM	v/c	-	0.28	-	-	0.41	-	0.07	-	-	-	-	-
		LOS	-	A	-	-	A	-	B	-	-	-	-	-
		Queue (m)	-	40	-	-	43	-	5	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM	v/c	0.03	0.03	0.03	0.52	0.52	0.52	0.59	0.59	0.76	0.36	0.36	0.36
		LOS	A	A	A	C	C	C	B	B	A	B	B	B
		Queue (m)	0	0	0	55	54	54	82	82	24	38	38	38
	PM	v/c	0.07	0.07	0.07	0.69	0.69	0.69	0.21	0.21	0.53	0.78	0.78	0.78
		LOS	A	A	A	C	C	C	B	B	A	C	C	C
		Queue (m)	0	0	0	136	139	139	30	30	17	138	138	138
114 Ave / 84 St South Intersection (Signalized)	AM	v/c	0.89	-	0.10	-	-	-	0.93	0.03	-	-	0.04	0.40
		LOS	C	-	A	-	-	-	D	B	-	-	C	A
		Queue (m)	141	-	10	-	-	-	138	6	-	-	6	29
	PM	v/c	0.40	-	0.44	-	-	-	0.31	0.02	-	-	0.04	0.49
		LOS	A	-	A	-	-	-	B	B	-	-	B	A
		Queue (m)	29	-	11	-	-	-	22	4	-	-	6	0
TR 232 / RR 284 (N-S Stop Control)	AM	v/c	0.03	0.42	0.05	0.04	0.18	0.18	0.44	0.44	0.44	0.18	0.18	0.18
		LOS	A	A	A	A	A	A	E	E	E	C	C	C
		Queue (m)	1	0	0	1	0	0	16	16	16	5	5	5
	PM	v/c	0.01	0.18	0.03	0.02	0.38	0.38	0.44	0.44	0.44	0.25	0.25	0.25
		LOS	A	A	A	A	A	A	D	D	D	C	C	C
		Queue (m)	0	0	0	1	0	0	16	16	16	7	7	7
TR 232 / RR 283 (N-S Stop Control)	AM	v/c	0.05	0.22	0.11	0.02	0.02	0.02	0.27	0.27	0.27	0.25	0.25	0.25
		LOS	A	A	A	A	A	A	C	C	C	C	C	C
		Queue (m)	1	0	0	1	1	0	8	8	8	8	8	8
	PM	v/c	0.06	0.12	0.04	0.01	0.01	0.03	0.70	0.70	0.70	0.18	0.18	0.18
		LOS	A	A	A	A	A	A	E	E	E	B	B	B
		Queue (m)	1	0	0	0	0	0	36	36	36	5	5	5
TR 232 / RR 282 (N-S Stop Control)	AM	v/c	0.01	0.01	0.01	0.01	0.01	0.01	0.06	0.06	0.06	0	0	0
		LOS	A	A	A	A	A	A	B	B	B	A	A	A
		Queue (m)	0	0	0	0	0	0	1	1	1	0	0	0
	PM	v/c	0	0	0	0	0	0	0.16	0.16	0.16	0.02	0.02	0.02
		LOS	A	A	A	A	A	A	B	B	B	A	A	A
		Queue (m)	0	0	0	0	0	0	4	4	4	0	0	0

2048 Background Synchro Results - Table Summary

Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM		-	0.54	-	0.53	0.79	-	-	-	-	-	-	-
			-	A	-	B	A	-	-	-	-	-	-	-
			-	41	-	27	0	-	-	-	-	-	-	-
	PM		-	1.47	-	0.85	0.20	-	-	-	-	-	-	-
			-	F	-	D	A	-	-	-	-	-	-	-
			-	159	-	57	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM		1.01	0.22	-	-	0.95	-	-	-	-	-	-	-
			E	A	-	-	C	-	-	-	-	-	-	-
			147	0	-	-	143	-	-	-	-	-	-	-
	PM		1.34	0.44	-	-	0.87	-	-	-	-	-	-	-
			F	A	-	-	D	-	-	-	-	-	-	-
			311	0	-	-	75	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM		0.73	0.23	0.46	0.61	0.87	0.11	0.65	0.15	0.05	0.19	0.39	0.77
			E	B	A	E	C	A	E	D	A	D	D	C
			53	33	18	45	157	2	36	23	0	13	30	40
	PM		0.49	0.88	0.24	0.24	0.33	0.03	0.79	0.18	0.22	0.53	0.16	0.89
			E	C	A	E	C	A	E	D	A	E	D	D
			26	170	13	17	42	0	72	29	8	35	19	88
Hwy 560 / RR 284 (Signalized)	AM		0.34	0.15	0	0	0.67	0.09	0	0	0	0.09	0.09	0.31
			C	A	A	A	B	A	A	A	A	C	C	A
			23	12	0	0	129	6	0	0	0	9	9	0
	PM		0.57	0.71	0	0	0.39	0.06	0	0	0	0.35	0.35	0.18
			C	A	A	A	B	A	A	A	A	C	C	A
			38	105	0	0	45	0	0	0	0	21	21	0
Hwy 560 / RR 283 (Signalized)	AM		0.40	0.11	0.06	0.14	0.88	0.06	0.20	0.20	0.03	0.22	0.22	0.77
			C	A	A	C	C	A	C	C	A	C	C	C
			24	16	1	12	130	0	15	15	0	19	19	45
	PM		0.86	0.52	0.04	0.05	0.38	0.06	0.57	0.57	0.08	0.38	0.38	0.46
			C	B	A	C	C	A	D	D	A	C	C	A
			91	92	0	6	35	0	32	32	0	26	26	15
Hwy 560 / RR 282 (N-S Stop Control)	AM		0.04	0.01	0.01	0.35	0.01	0.24	0.24	0.24	0.24	0.26	0.26	0.26
			B	A	A	A	A	A	D	D	D	C	C	C
			1	0	0	0	0	0	7	7	7	7	7	7
	PM		0.05	0.28	0.02	0.02	0.09	0.01	0.35	0.35	0.35	0.20	0.20	0.20
			A	A	A	B	A	A	E	E	E	C	C	C
			1	0	0	0	0	0	11	11	11	6	6	6
114 Ave / Stoney Tr West Junction (Signalized)	AM		-	0.33	-	-	0.72	-	-	-	-	0.36	-	-
			-	A	-	-	A	-	-	-	-	C	-	-
			-	23	-	-	41	-	-	-	-	17	-	-
	PM		-	0.80	-	-	0.17	-	-	-	-	0.35	-	-
			-	B	-	-	A	-	-	-	-	C	-	-
			-	87	-	-	11	-	-	-	-	17	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM		-	0.33	-	-	0.44	-	0.76	-	-	-	-	-
			-	A	-	-	B	-	C	-	-	-	-	-
			-	24	-	-	35	-	50	-	-	-	-	-
	PM		-	0.29	-	-	0.28	-	0.14	-	-	-	-	-
			-	A	-	-	A	-	B	-	-	-	-	-
			-	41	-	-	23	-	8	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM		0.12	0.12	0.12	0.77	0.77	0.77	0.78	0.78	0.20	0.29	0.29	0.29
			A	A	A	D	D	D	C	C	A	B	B	B
			8	8	8	56	56	56	108	108	8	22	22	22
	PM		0.11	0.11	0.11	0.67	0.67	0.67	0.22	0.22	0.29	0.77	0.77	0.77
			B	B	B	C	C	C	A	A	A	B	B	B
			9	9	9	46	46	46	20	20	9	106	106	106
114 Ave / 84 St South Intersection (Signalized)	AM		0.67	-	0.20	-	-	-	0.62	0.07	-	-	0.12	0.30
			C	-	A	-	-	-	B	A	-	-	C	A
			57	-	10	-	-	-	43	8	-	-	9	17
	PM		0.28	-	0.46	-	-	-	0.36	0.04	-	-	0.29	0.29
			A	-	A	-	-	-	B	B	-	-	B	A
			17	-	11	-	-	-	16	4	-	-	17	0
TR 232 / RR 284 (N-S Stop Control)	AM		0.03	0.03	0.03	0.01	0.01	0.01	0.26	0.26	0.26	0.07	0.07	0.07
			A	A	A	A	A	A	B	B	B	B	B	B
			1	1	1	0	0	0	8	8	8	2	2	2
	PM		0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.05	0.05	0.28	0.28	0.28
			A	A	A	A	A	A	A	A	A	B	B	B
			0	0	0	1	1	1	1	1	1	9	9	9
TR 232 / RR 283 (N-S Stop Control)	AM		0.03	0.03	0.01	0.01	0.01	0.01	0.04	0.04	0.04	0.08	0.08	0.08
			A	A	A	A	A	A	B	B	B	A	A	A
			1	1	0	0	0	0	1	1	1	2	2	2
	PM		0.04	0.04	0.04	0.01	0.01	0.01	0.05	0.05	0.05	0.09	0.09	0.09
			A	A	A	A	A	A	B	B	B	A	A	A
			1	1	1	0	0	0	1	1	1	2	2	2
TR 232 / RR 282 (N-S Stop Control)	AM		0	0	0	0	0	0	0	0	0	0	0	0
			A	A	A	A	A	A	A	A	A	A	A	A
			0	0	0	0	0	0	0	0	0	0	0	0
	PM		0	0	0	0	0	0	0	0	0	0	0	0
			A	A	A	A	A	A	A	A	A	A	A	A
			0	0	0	0	0	0	0	0	0	0	0	0

2048 Background + Development Land Use 1 Synchro Results - Table Summary

Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM		-	0.72	-	0.82	0.85	-	-	-	-	-	-	-
			-	B	-	D	A	-	-	-	-	-	-	-
			-	45	-	51	0	-	-	-	-	-	-	-
	PM		-	1.02	-	>2.00	0.30	-	-	-	-	-	-	-
			-	F	-	F	A	-	-	-	-	-	-	-
			-	320	-	303	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM		1.73	0.33	-	-	0.90	-	-	-	-	-	-	-
			F	A	-	-	B	-	-	-	-	-	-	-
			157	0	-	-	102	-	-	-	-	-	-	-
	PM		1.80	0.48	-	-	0.91	-	-	-	-	-	-	-
			F	A	-	-	C	-	-	-	-	-	-	-
			358	0	-	-	102	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM		0.79	0.60	0.43	0.60	0.88	0.10	0.64	0.19	0.02	0.19	0.43	0.21
			E	C	A	E	C	A	E	D	A	D	D	A
			57	101	17	43	172	2	36	23	0	13	30	0
	PM		0.48	0.84	0.20	0.24	0.56	0.03	0.71	0.34	0.07	0.52	0.25	0.29
			D	C	A	D	C	A	D	D	A	E	D	A
			26	208	12	17	90	0	73	31	0	34	20	0
Hwy 560 / RR 284 (Signalized)	AM		0.50	0.44	0.12	0.08	0.63	0.08	0.31	0.10	0.10	0.19	0.07	0.31
			B	A	A	A	A	A	D	C	C	D	D	A
			30	44	4	3	88	4	18	8	8	11	7	0
	PM		0.62	0.80	0	0	0.46	0.04	1	0	0	0.34	0.03	0.05
			C	B	A	A	A	A	D	C	C	C	C	A
			60	193	4	2	62	3	35	12	12	25	6	0
Hwy 560 / RR 283 (Signalized)	AM		0.57	0.32	0.51	0.46	0.88	0.07	0.52	0.13	0.06	0.19	0.50	0.26
			D	B	A	D	C	A	D	D	A	D	D	A
			34	48	17	33	161	0	29	16	0	17	35	0
	PM		0.87	0.69	0.25	0.12	0.82	0.16	0.80	0.51	0.16	0.32	0.36	0.14
			D	C	A	D	D	A	E	D	A	E	D	A
			123	151	13	12	94	0	70	50	0	24	24	0
Hwy 560 / RR 282 (Signalized)	AM		0.12	0.09	0.35	0.07	0.60	0.01	0.43	0.02	0.02	0.03	0.15	0.15
			A	A	A	A	A	A	C	A	A	B	A	A
			5	9	10	7	69	0	25	0	0	4	8	8
	PM		0.14	0.66	0.21	0.12	0.22	0.02	0.77	0.09	0.09	0.03	0.08	0.08
			B	B	A	B	B	A	C	A	A	B	A	A
			10	64	9	5	19	0	57	6	6	3	6	6
114 Ave / Stoney Tr West Junction (Signalized)	AM		-	0.44	-	-	0.80	-	-	-	-	0.87	-	-
			-	B	-	-	C	-	-	-	-	D	-	-
			-	55	-	-	130	-	-	-	-	93	-	-
	PM		-	0.84	-	-	0.23	-	-	-	-	0.75	-	-
			-	B	-	-	A	-	-	-	-	C	-	-
			-	155	-	-	23	-	-	-	-	53	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM		-	0.89	-	-	0.70	-	0.76	-	-	-	-	-
			-	C	-	-	B	-	C	-	-	-	-	-
			-	102	-	-	65	-	50	-	-	-	-	-
	PM		-	0.47	-	-	0.74	-	0.14	-	-	-	-	-
			-	A	-	-	B	-	B	-	-	-	-	-
			-	46	-	-	130	-	8	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM		1.69	1.69	1.69	1.21	0.04	0.04	0.70	0.70	1.34	0.26	0.26	0.26
			F	F	F	F	B	B	C	C	F	C	C	C
			43	43	43	211	8	8	195	195	597	46	46	46
	PM		>2.00	>2.00	>2.00	1.29	0.02	0.02	0.40	0.40	0.75	1.20	1.20	1.20
			F	F	F	F	A	A	D	D	A	F	F	F
			40	40	40	402	5	5	65	65	0	342	342	342
114 Ave / 84 St South Intersection (Signalized)	AM		1.94	-	0.20	-	-	-	0.67	0.07	-	-	0.10	0.74
			F	-	B	-	-	-	C	B	-	-	C	B
			328	-	19	-	-	-	58	9	-	-	11	79
	PM		0.82	-	0.49	-	-	-	0.25	0.03	-	-	0.20	0.88
			C	-	A	-	-	-	B	B	-	-	B	A
			106	-	31	-	-	-	24	6	-	-	25	0
TR 232 / RR 284 (Signalized)	AM		0.22	0.64	0.11	0.26	0.32	0.07	0.24	0.38	0.38	0.06	0.14	0.14
			A	A	A	B	A	A	C	C	C	C	B	B
			12	79	5	8	28	4	18	31	31	6	9	9
	PM		0.30	0.39	0.07	0.21	0.69	0.01	0.33	0.16	0.16	0.19	0.46	0.46
			B	A	A	A	B	A	C	A	A	B	C	C
			11	36	4	11	95	0	16	8	8	11	27	27
TR 232 / RR 283 (Signalized)	AM		0.41	0.31	0.21	0.16	0.35	0.12	0.42	0.09	0.09	0.26	0.07	0.38
			A	A	A	B	B	A	C	B	B	C	B	A
			24	30	7	9	31	6	24	7	7	16	7	12
	PM		0.57	0.27	0.15	0.07	0.64	0.20	0.51	0.13	0.13	0.26	0.06	0.71
			B	B	A	B	C	A	C	B	B	C	C	B
			33	29	8	7	64	10	39	12	12	16	7	25
TR 232 / RR 282 (N-S Stop Control)	AM		0.08	0.07	0.09	0.01	0.20	0.20	0.24	0.24	0.24	0.07	0.07	0.07
			A	A	A	A	A	A	C	C	C	B	B	B
			2	0	0	0	0	0	7	7	7	2	2	2
	PM		0.03	0.14	0.05	0	0.08	0.08	0.40	0.40	0.40	0.16	0.16	0.16
			A	A	A	A	A	a	C	C	C	B	B	B
			1	0	0	0	0	0	14	14	14	4	4	4

2048 Background + Development Land Use 2 Synchro Results - Table Summary

Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM		-	0.74	-	0.81	0.85	-	-	-	-	-	-	-
			-	B	-	D	A	-	-	-	-	-	-	-
			-	47	-	51	0	-	-	-	-	-	-	-
	PM		-	1.02	-	>2.00	0.32	-	-	-	-	-	-	-
			-	D	-	F	A	-	-	-	-	-	-	-
			-	318	-	314	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM		1.73	0.35	-	-	0.90	-	-	-	-	-	-	-
			F	A	-	-	B	-	-	-	-	-	-	-
			157	0	-	-	99	-	-	-	-	-	-	-
	PM		1.81	0.47	-	-	0.93	-	-	-	-	-	-	-
			F	A	-	-	C	-	-	-	-	-	-	-
			358	0	-	-	107	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM		0.78	0.65	0.44	0.60	0.88	0.10	0.63	0.19	0.02	0.19	0.42	0.21
			E	C	A	E	C	A	E	D	A	D	D	A
			57	113	17	43	169	2	36	23	0	13	30	0
	PM		0.47	0.83	0.21	0.23	0.60	0.03	0.69	0.32	0.07	0.51	0.24	0.29
			D	C	A	D	C	A	D	D	A	E	D	A
			26	189	12	17	95	0	73	31	0	34	20	0
Hwy 560 / RR 284 (Signalized)	AM		0.45	0.45	0.13	0.10	0.59	0.07	0.27	0.10	0.10	0.19	0.07	0.31
			B	A	A	A	A	A	D	C	C	D	D	A
			20	47	4	3	83	4	16	8	8	11	7	0
	PM		0.76	0.86	0	0	0.53	0.04	1	0	0	0.37	0.04	0.05
			C	B	A	A	A	A	D	C	C	C	C	A
			65	181	3	2	68	3	37	12	12	25	6	0
Hwy 560 / RR 283 (Signalized)	AM		0.58	0.35	0.59	0.50	0.89	0.07	0.50	0.12	0.05	0.22	0.57	0.26
			D	B	A	E	C	A	D	D	A	D	D	A
			35	54	44	36	166	0	28	16	0	19	42	0
	PM		0.88	0.68	0.22	0.13	0.84	0.17	0.86	0.58	0.15	0.32	0.34	0.14
			D	C	A	E	D	A	E	D	A	E	D	A
			135	157	13	12	106	0	83	60	0	24	24	0
Hwy 560 / RR 282 (Signalized)	AM		0.12	0.09	0.39	0.07	0.59	0.01	0.41	0.02	0.02	0.03	0.15	0.15
			A	A	A	A	A	A	C	A	A	B	A	A
			5	8	10	7	68	0	23	0	0	4	8	8
	PM		0.14	0.67	0.20	0.11	0.22	0.02	0.80	0.08	0.08	0.03	0.08	0.08
			B	B	A	B	B	A	C	A	A	B	A	A
			10	64	8	4	19	0	68	6	6	3	6	6
114 Ave / Stoney Tr West Junction (Signalized)	AM		-	0.52	-	-	0.89	-	-	-	-	0.89	-	-
			-	C	-	-	D	-	-	-	-	D	-	-
			-	90	-	-	209	-	-	-	-	148	-	-
	PM		-	0.86	-	-	0.25	-	-	-	-	0.78	-	-
			-	C	-	-	A	-	-	-	-	C	-	-
			-	155	-	-	24	-	-	-	-	60	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM		-	0.87	-	-	0.54	-	0.88	-	-	-	-	-
			-	C	-	-	B	-	D	-	-	-	-	-
			-	153	-	-	62	-	91	-	-	-	-	-
	PM		-	0.49	-	-	0.87	-	0.14	-	-	-	-	-
			-	A	-	-	B	-	B	-	-	-	-	-
			-	50	-	-	168	-	8	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM		1.69	1.69	1.69	1.16	0.04	0.04	0.70	0.70	1.81	0.26	0.26	0.26
			F	F	F	F	B	B	C	C	F	C	C	C
			43	43	43	201	8	8	195	195	>500	46	46	46
	PM		2.05	2.05	2.05	1.66	0.02	0.02	0.40	0.40	0.82	1.20	1.20	1.20
			F	F	F	F	A	A	D	D	A	F	F	F
			40	40	40	>500	5	5	65	65	0	342	342	342
114 Ave / 84 St South Intersection (Signalized)	AM		2.45	-	0.20	-	-	-	0.67	0.07	-	-	0.10	0.72
			F	-	B	-	-	-	C	B	-	-	C	B
			430	-	20	-	-	-	58	9	-	-	11	74
	PM		0.90	-	0.50	-	-	-	0.25	0.03	-	-	0.20	1.08
			C	-	A	-	-	-	B	B	-	-	B	D
			136	-	34	-	-	-	24	6	-	-	25	83
TR 232 / RR 284 (Signalized)	AM		0.24	0.86	0.14	0.57	0.30	0.07	0.31	0.52	0.52	0.08	0.18	0.18
			A	B	A	D	A	A	C	C	C	C	B	B
			14	164	5	24	28	4	20	36	36	7	10	10
	PM		0.58	0.41	0.07	0.23	0.86	0.01	0.67	0.20	0.20	0.24	0.57	0.57
			D	A	A	A	B	A	E	B	B	D	D	D
			25	51	4	12	187	1	52	15	15	24	60	60
TR 232 / RR 283 (Signalized)	AM		0.56	0.48	0.32	0.30	0.38	0.14	0.42	0.09	0.09	0.37	0.10	0.43
			A	A	A	B	B	A	C	B	B	C	B	A
			30	42	8	13	29	7	21	7	7	19	9	13
	PM		0.71	0.26	0.15	0.07	0.81	0.25	0.67	0.16	0.16	0.28	0.06	0.86
			C	B	A	C	D	A	C	B	B	D	C	C
			87	40	9	9	119	17	80	18	18	23	9	66
TR 232 / RR 282 (N-S Stop Control)	AM		0.10	0.06	0.12	0.02	0.25	0.25	0.26	0.26	0.26	0.07	0.07	0.07
			A	A	A	A	A	A	C	C	C	B	B	B
			3	0	0	1	0	0	8	8	8	2	2	2
	PM		0.02	0.17	0.05	0	0.08	0.08	0.62	0.62	0.62	0.19	0.19	0.19
			A	A	A	A	A	A	D	D	D	B	B	B
			1	0	0	0	0	0	30	30	30	5	5	5

2048 Senstivity Test A Land Use 1 - 75% Build-Out Synchro Results - Table Summary

Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM		-	0.81	-	0.85	0.84	-	-	-	-	-	-	-
			-	B	-	B	A	-	-	-	-	-	-	-
			-	54	-	54	0	-	-	-	-	-	-	-
	PM		-	1.02	-	>2.00	0.27	-	-	-	-	-	-	-
			-	D	-	F	A	-	-	-	-	-	-	-
			-	318	-	492	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM		1.74	0.42	-	-	0.91	-	-	-	-	-	-	-
			F	A	-	-	B	-	-	-	-	-	-	-
			157	0	-	-	114	-	-	-	-	-	-	-
	PM		1.81	0.49	-	-	1.12	-	-	-	-	-	-	-
			F	A	-	-	F	-	-	-	-	-	-	-
			358	0	-	-	143	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM		0.75	0.74	0.42	0.68	0.87	0.09	0.64	0.20	0.02	0.20	0.44	0.21
			E	C	A	E	C	A	E	D	A	E	E	A
			58	140	15	55	182	3	39	25	0	13	33	0
	PM		0.52	0.87	0.20	0.25	0.70	0.03	0.78	0.30	0.07	0.54	0.26	0.29
			E	C	A	E	C	A	E	E	A	E	E	A
			29	219	11	19	127	0	84	34	0	38	22	0
Hwy 560 / RR 284 (Signalized)	AM		0.26	0.40	0.29	0.09	0.48	0.08	0.11	0.02	0.02	0.09	0	0.31
			A	A	A	A	A	A	B	A	A	B	A	A
			5	30	7	3	42	4	7	0	0	7	0	0
	PM		0.42	0.70	0.10	0.02	0.67	0.06	0.35	0.07	0.07	0.33	0	0.05
			D	B	A	D	B	A	C	A	A	D	A	A
			33	165	6	4	88	0	34	0	0	34	0	0
Hwy 560 / RR 283 (Signalized)	AM		0.48	0.27	0.75	0.34	0.75	0.08	0.47	0.08	0.04	0.14	0.39	0.26
			D	B	B	D	C	A	D	C	A	D	D	A
			31	31	66	26	84	0	28	13	0	14	27	0
	PM		0.89	0.54	0.33	0.13	0.78	0.15	0.87	0.31	0.12	0.31	0.34	0.14
			D	C	A	D	D	A	E	D	A	E	D	A
			132	99	16	12	70	0	96	36	0	23	21	0
Hwy 560 / RR 282 (Signalized)	AM		0.11	0.09	0.35	0.05	0.56	0.01	0.21	0.02	0.02	0.04	0.17	0.17
			A	A	A	A	A	A	B	A	A	B	A	A
			3	6	7	4	47	0	10	0	0	4	9	9
	PM		0.14	0.63	0.22	0.10	0.21	0.01	0.55	0.10	0.10	0.03	0.13	0.13
			B	B	A	B	A	A	C	B	B	C	B	B
			11	67	9	5	20	0	37	8	8	5	8	8
114 Ave / Stoney Tr West Junction (Signalized)	AM		-	0.32	-	-	0.59	-	-	-	-	0.51	-	-
			-	A	-	-	A	-	-	-	-	D	-	-
			-	30	-	-	73	-	-	-	-	28	-	-
	PM		-	0.77	-	-	0.20	-	-	-	-	0.66	-	-
			-	B	-	-	A	-	-	-	-	C	-	-
			-	121	-	-	19	-	-	-	-	40	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM		-	0.38	-	-	0.62	-	0.76	-	-	-	-	-
			-	B	-	-	B	-	C	-	-	-	-	-
			-	30	-	-	53	-	50	-	-	-	-	-
	PM		-	0.39	-	-	0.44	-	0.14	-	-	-	-	-
			-	A	-	-	A	-	B	-	-	-	-	-
			-	36	-	-	41	-	8	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM		1.69	1.69	1.69	0.82	0.04	0.04	0.82	0.82	0.71	0.32	0.32	0.32
			F	F	F	D	B	B	D	D	A	C	C	C
			43	43	43	135	8	8	195	195	60	46	46	46
	PM		>2.00	>2.00	>2.00	0.86	0.03	0.03	0.28	0.28	0.45	0.96	0.96	0.96
			F	F	F	D	A	A	C	C	A	E	E	E
			38	38	38	128	5	5	55	55	0	299	299	299
114 Ave / 84 St South Intersection (Signalized)	AM		0.88	-	0.16	-	-	-	0.76	0.08	-	-	0.12	0.55
			C	-	A	-	-	-	C	B	-	-	C	A
			142	-	16	-	-	-	92	14	-	-	13	49
	PM		0.53	-	0.45	-	-	-	0.31	0.04	-	-	0.25	0.53
			B	-	A	-	-	-	B	B	-	-	B	A
			49	-	12	-	-	-	24	6	-	-	26	0
TR 232 / RR 284 (Signalized)	AM		0.14	0.52	0.06	0.09	0.49	0.09	0.17	0.31	0.31	0.39	0.20	0.20
			A	B	A	A	A	A	B	B	B	B	B	B
			9	60	4	5	53	5	11	20	20	21	14	14
	PM		0.10	0.41	0.05	0.14	0.58	0.09	0.23	0.21	0.21	0.30	0.36	0.36
			A	A	A	A	B	A	B	B	B	B	B	B
			5	38	3	8	65	4	13	12	12	17	20	20
TR 232 / RR 283 (Signalized)	AM		0.26	0.29	0.13	0.08	0.52	0.09	0.41	0.07	0.07	0.46	0.55	0.55
			A	A	A	B	B	A	C	B	B	C	B	B
			14	29	6	7	54	4	21	7	7	28	35	35
	PM		0.26	0.25	0.10	0.04	0.51	0.13	0.36	0.38	0.38	0.29	0.46	0.46
			A	A	A	B	B	A	C	C	C	C	A	A
			13	22	5	4	53	7	18	26	26	16	18	18
TR 232 / RR 282 (N-S Stop Control)	AM		0.02	0.02	0.02	0.01	0.01	0.01	0.13	0.13	0.13	0.09	0.09	0.09
			A	A	A	A	A	A	B	B	B	B	B	B
			0	0	0	0	0	0	3	3	3	2	2	2
	PM		0.01	0.01	0.01	0	0	0	0.23	0.23	0.23	0.13	0.13	0.13
			A	A	A	A	A	A	B	B	B	B	B	B
			0	0	0	0	0	0	7	7	7	3	3	3

2048 Sensitivity Test A Land Use 2 - 60% Build-Out Synchro Results - Table Summary

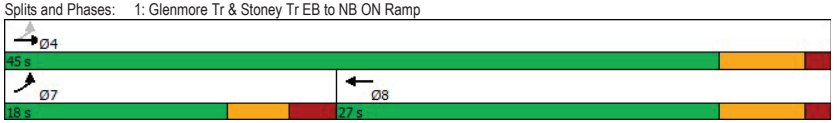
Intersection			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Glenmore Tr / Stoney Tr West Junction (Signalized)	AM		-	0.81	-	0.79	0.83	-	-	-	-	-	-	-
			-	B	-	B	A	-	-	-	-	-	-	-
			-	55	-	50	0	-	-	-	-	-	-	-
	PM		-	1.01	-	>2.00	0.27	-	-	-	-	-	-	-
			-	D	-	F	A	-	-	-	-	-	-	-
			-	313	-	480	0	-	-	-	-	-	-	-
Glenmore Tr / Stoney Tr East Junction (Signalized)	AM		1.72	0.42	-	-	0.90	-	-	-	-	-	-	-
			F	A	-	-	B	-	-	-	-	-	-	-
			157	0	-	-	97	-	-	-	-	-	-	-
	PM		1.81	0.48	-	-	1.10	-	-	-	-	-	-	-
			F	A	-	-	E	-	-	-	-	-	-	-
			358	0	-	-	139	-	-	-	-	-	-	-
Glenmore Tr / 100 St SE (Signalized)	AM		0.75	0.77	0.43	0.66	0.88	0.10	0.63	0.19	0.02	0.19	0.42	0.21
			E	C	A	E	C	A	E	D	A	D	D	A
			54	138	15	51	169	2	36	23	0	13	30	0
	PM		0.47	0.84	0.21	0.24	0.71	0.03	0.72	0.34	0.07	0.52	0.24	0.29
			D	C	A	D	C	A	D	D	A	E	D	A
			25	204	12	16	119	0	72	30	0	33	19	0
Hwy 560 / RR 284 (Signalized)	AM		0.23	0.36	0.28	0.06	0.42	0.08	0.06	0.01	0.01	0.06	0	0.31
			A	A	A	A	A	A	B	A	A	B	A	A
			5	31	7	3	42	4	5	0	0	6	0	0
	PM		0.37	0.69	0.08	0.01	0.71	0.06	0.36	0.06	0.06	0.34	0	0.05
			C	B	A	D	C	A	C	A	A	D	A	A
			29	145	1	3	82	0	30	0	0	31	0	0
Hwy 560 / RR 283 (Signalized)	AM		0.45	0.28	0.77	0.33	0.82	0.08	0.38	0.07	0.04	0.12	0.39	0.26
			D	B	B	D	C	A	D	C	A	C	C	A
			25	29	64	21	83	0	20	9	0	11	23	0
	PM		0.88	0.52	0.24	0.12	0.74	0.14	0.85	0.33	0.11	0.30	0.32	0.14
			D	C	A	D	D	A	E	D	A	E	D	A
			124	93	14	11	67	0	91	38	0	22	20	0
Hwy 560 / RR 282 (Signalized)	AM		0.09	0.08	0.30	0.04	0.49	0.01	0.15	0.02	0.02	0.03	0.16	0.16
			A	A	A	A	A	A	B	A	A	B	A	A
			3	6	7	4	47	0	9	0	0	4	9	9
	PM		0.14	0.64	0.18	0.11	0.22	0.01	0.49	0.09	0.09	0.03	0.12	0.12
			B	B	A	B	B	A	C	B	B	C	B	B
			11	68	9	5	20	0	29	8	8	5	8	8
114 Ave / Stoney Tr West Junction (Signalized)	AM		-	0.32	-	-	0.59	-	-	-	-	0.51	-	-
			-	A	-	-	A	-	-	-	-	D	-	-
			-	30	-	-	72	-	-	-	-	28	-	-
	PM		-	0.76	-	-	0.20	-	-	-	-	0.64	-	-
			-	B	-	-	A	-	-	-	-	C	-	-
			-	117	-	-	19	-	-	-	-	38	-	-
114 Ave / Stoney Tr East Junction (Signalized)	AM		-	0.38	-	-	0.57	-	0.76	-	-	-	-	-
			-	B	-	-	B	-	C	-	-	-	-	-
			-	30	-	-	47	-	50	-	-	-	-	-
	PM		-	0.38	-	-	0.45	-	0.14	-	-	-	-	-
			-	A	-	-	A	-	B	-	-	-	-	-
			-	34	-	-	43	-	8	-	-	-	-	-
114 Ave / 84 St North Intersection (Signalized)	AM		1.69	1.69	1.69	0.76	0.04	0.04	0.81	0.81	0.75	0.30	0.30	0.30
			F	F	F	D	B	B	D	D	A	C	C	C
			43	43	43	97	8	8	195	195	69	46	46	46
	PM		2.05	2.05	2.05	0.87	0.03	0.03	0.29	0.29	0.46	0.98	0.98	0.98
			F	F	F	D	A	A	C	C	A	E	E	E
			39	39	39	137	5	5	57	57	0	313	313	313
114 Ave / 84 St South Intersection (Signalized)	AM		0.88	-	0.16	-	-	-	0.75	0.08	-	-	0.13	0.47
			C	-	B	-	-	-	D	C	-	-	D	A
			170	-	18	-	-	-	104	16	-	-	16	48
	PM		0.54	-	0.45	-	-	-	0.30	0.04	-	-	0.24	0.55
			B	-	A	-	-	-	B	B	-	-	B	A
			53	-	13	-	-	-	24	6	-	-	26	0
TR 232 / RR 284 (Signalized)	AM		0.12	0.57	0.06	0.10	0.37	0.09	0.14	0.30	0.30	0.44	0.22	0.22
			A	B	A	A	A	A	B	B	B	B	B	B
			9	73	4	6	40	5	10	20	20	24	15	15
	PM		0.09	0.42	0.05	0.14	0.61	0.11	0.26	0.23	0.23	0.28	0.37	0.37
			A	A	A	A	B	A	B	B	B	B	B	B
			4	39	3	8	71	5	14	13	13	16	20	20
TR 232 / RR 283 (Signalized)	AM		0.24	0.32	0.16	0.09	0.46	0.09	0.30	0.06	0.06	0.49	0.58	0.58
			A	A	A	B	B	A	C	B	B	C	B	B
			14	32	6	8	47	3	15	6	6	28	36	36
	PM		0.33	0.29	0.12	0.04	0.59	0.14	0.23	0.29	0.29	0.21	0.47	0.47
			A	B	A	B	C	A	B	B	B	C	A	A
			17	29	6	5	65	5	18	27	27	13	18	18
TR 232 / RR 282 (N-S Stop Control)	AM		0.02	0.02	0.02	0.01	0.01	0.01	0.09	0.09	0.09	0.09	0.09	0.09
			A	A	A	A	A	A	B	B	B	B	B	B
			0	0	0	0	0	0	2	2	2	2	2	2
	PM		0.01	0.01	0.01	0	0	0	0.25	0.25	0.25	0.12	0.12	0.12
			A	A	A	A	A	A	B	B	B	B	B	B
			0	0	0	0	0	0	8	8	8	3	3	3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	377	914	985	0	0	0
Future Volume (vph)	377	914	985	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	3038	3012	0	0	0
Flt Permitted	0.175					
Satd. Flow (perm)	280	3038	3012	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	401	972	1048	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	401	972	1048	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	18.0	45.0	27.0			
Total Split (%)	40.0%	100.0%	60.0%			
Maximum Green (s)	12.0	39.0	21.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	39.0	45.0	22.1			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.87	1.00	0.49			
v/c Ratio	0.74	0.32	0.71			
Control Delay	22.2	0.3	12.6			
Queue Delay	0.0	0.0	0.0			
Total Delay	22.2	0.3	12.6			
LOS	C	A	B			
Approach Delay		6.7	12.6			
Approach LOS		A	B			
Queue Length 50th (m)	15.4	0.0	29.7			
Queue Length 95th (m)	#43.2	0.0	50.3			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	573	3038	1477			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	0.70	0.32	0.71			

Intersection Summary		
Area Type:	Other	
Cycle Length: 45		
Actuated Cycle Length: 45		
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green		
Natural Cycle: 55		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.74		
Intersection Signal Delay: 9.3		Intersection LOS: A
Intersection Capacity Utilization 59.4%		ICU Level of Service B
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	951	0	166	1430	0	0
Future Volume (vph)	951	0	166	1430	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3038	0	1506	3012	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3038	0	1506	3012	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	1012	0	177	1521	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1012	0	177	1521	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	26.0		19.0	45.0		
Total Split (%)	57.8%		42.2%	100.0%		
Maximum Green (s)	21.0		12.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	26.5		10.9	45.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.59		0.24	1.00		
v/c Ratio	0.57		0.49	0.50		
Control Delay	9.8		25.1	1.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	9.8		25.1	1.1		
LOS	A		C	A		
Approach Delay	9.8			3.6		
Approach LOS	A			A		
Queue Length 50th (m)	27.7		14.0	2.0		
Queue Length 95th (m)	47.5		m22.2	3.6		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	1790		401	3012		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.57		0.44	0.50		

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 5.9		Intersection LOS: A	
Intersection Capacity Utilization 59.4%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr

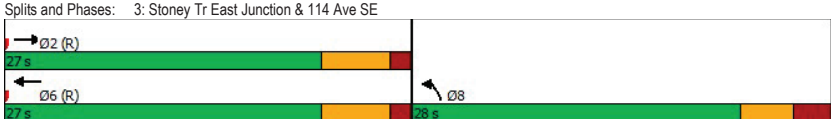


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	308	0	0	220	157	0
Future Volume (vph)	308	0	0	220	157	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	328	0	0	234	167	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	328	0	0	234	167	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	37.3			37.3	10.1	
Actuated g/C Ratio	0.68			0.68	0.18	
v/c Ratio	0.15			0.11	0.29	
Control Delay	4.4			4.7	20.9	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	4.4			4.7	20.9	
LOS	A			A	C	
Approach Delay	4.4			4.7	20.9	
Approach LOS	A			A	C	
Queue Length 50th (m)	5.5			4.4	7.4	
Queue Length 95th (m)	10.6			8.2	14.1	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2152			2115	1265	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.15			0.11	0.13	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.29			
Intersection Signal Delay: 8.3		Intersection LOS: A	
Intersection Capacity Utilization 35.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

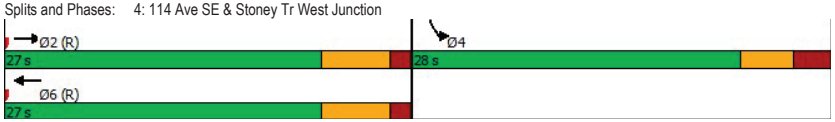


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	586	312	0	90	0
Future Volume (vph)	0	586	312	0	90	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	623	332	0	96	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	623	332	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		41.8	41.8		10.0	
Actuated g/C Ratio		0.76	0.76		0.18	
v/c Ratio		0.26	0.14		0.17	
Control Delay		4.4	2.3		19.9	
Queue Delay		0.0	0.0		0.0	
Total Delay		4.4	2.3		19.9	
LOS		A	A		B	
Approach Delay		4.4	2.3		19.9	
Approach LOS		A	A		B	
Queue Length 50th (m)		13.8	3.7		4.2	
Queue Length 95th (m)		21.0	6.0		9.2	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		2411	2369		1265	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.26	0.14		0.08	

Intersection Summary		
Area Type:	Other	
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 55		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.26		
Intersection Signal Delay: 5.1		Intersection LOS: A
Intersection Capacity Utilization 35.0%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

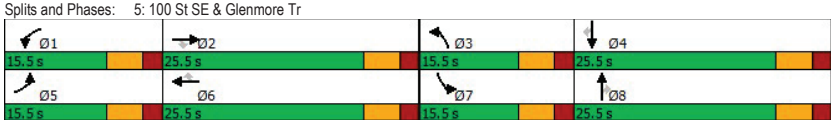


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	249	306	81	779	133	13	46	4	23	14	103
Future Volume (vph)	330	249	306	81	779	133	13	46	4	23	14	103
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			326			180			180			180
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	351	265	326	86	829	141	14	49	4	24	15	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	351	265	326	86	829	141	14	49	4	24	15	110
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (%)	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%
Maximum Green (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	10.4	27.8	27.8	8.6	20.8	20.8	7.3	10.4	10.4	7.6	12.8	12.8
Actuated g/C Ratio	0.18	0.47	0.47	0.15	0.35	0.35	0.12	0.18	0.18	0.13	0.22	0.22
v/c Ratio	0.66	0.18	0.39	0.37	0.73	0.23	0.04	0.17	0.01	0.13	0.04	0.26
Control Delay	33.3	16.2	4.5	30.8	25.1	3.0	27.9	26.7	0.0	28.7	21.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	16.2	4.5	30.8	25.1	3.0	27.9	26.7	0.0	28.7	21.7	2.7
LOS	C	B	A	C	C	A	C	C	A	C	C	A
Approach Delay		18.5			22.6			25.3			8.8	
Approach LOS		B			C			C			A	
Queue Length 50th (m)	17.5	9.2	0.0	8.1	37.8	0.0	0.6	4.3	0.0	2.3	1.3	0.0
Queue Length 95th (m)	#43.5	23.4	16.8	22.8	#88.3	7.2	3.2	14.7	0.0	9.2	6.3	3.5
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	534	1472	830	283	1132	622	516	560	592	261	563	594
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.18	0.39	0.30	0.73	0.23	0.03	0.09	0.01	0.09	0.03	0.19

Intersection Summary			
Area Type:	Other		
Cycle Length: 82			
Actuated Cycle Length: 58.8			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 20.0		Intersection LOS: C	
Intersection Capacity Utilization 53.9%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	306	2	0	927	5	1	0	0	1	0	18
Future Volume (vph)	15	306	2	0	927	5	1	0	0	1	0	18
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850					0.872	
Flt Protected		0.998						0.950			0.998	
Satd. Flow (prot)	0	1652	1407	0	1781	1514	0	1692	0	0	1272	0
Flt Permitted		0.998						0.950			0.998	
Satd. Flow (perm)	0	1652	1407	0	1781	1514	0	1692	0	0	1272	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	16	326	2	0	986	5	1	0	0	1	0	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	342	2	0	986	5	0	1	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.8%		ICU Level of Service C	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	306	2	0	927	5	1	0	0	1	0	18
Future Volume (Veh/h)	15	306	2	0	927	5	1	0	0	1	0	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	16	326	2	0	986	5	1	0	0	1	0	19
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	991			328			1363	1349	326	1344	1346	986
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	991			328			1363	1349	326	1344	1346	986
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.4	6.8	6.5
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.8	4.3	3.6
p0 queue free %	98			100			99	100	100	99	100	93
cM capacity (veh/h)	656			1215			112	145	708	111	131	269

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	342	2	986	5	1	20
Volume Left	16	0	0	0	1	1
Volume Right	0	2	0	5	0	19
cSH	656	1700	1215	1700	112	251
Volume to Capacity	0.02	0.00	0.00	0.00	0.01	0.08
Queue Length 95th (m)	0.6	0.0	0.0	0.0	0.2	2.0
Control Delay (s)	0.8	0.0	0.0	0.0	37.3	20.6
Lane LOS	A				E	C
Approach Delay (s)	0.8		0.0		37.3	20.6
Approach LOS					E	C

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	66.8%	ICU Level of Service		C
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	242	39	25	765	8	18	2	6	2	42	123
Future Volume (vph)	13	242	39	25	765	8	18	2	6	2	42	123
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		180.0	150.0		300.0	0.0		15.0	0.0		0.0
Storage Lanes	0		1	1		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.998				0.850		0.901	
Flt Protected		0.997		0.950				0.957			0.999	
Satd. Flow (prot)	0	1702	1445	1615	1698	0	0	1612	1420	0	1651	0
Flt Permitted		0.997		0.950				0.957			0.999	
Satd. Flow (perm)	0	1702	1445	1615	1698	0	0	1612	1420	0	1651	0
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	14	257	41	27	814	9	19	2	6	2	45	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	271	41	27	823	0	0	21	6	0	178	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	242	39	25	765	8	18	2	6	2	42	123
Future Volume (Veh/h)	13	242	39	25	765	8	18	2	6	2	42	123
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	14	257	41	27	814	9	19	2	6	2	45	131
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	823			298			1306	1162	257	1162	1198	818
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	823			298			1306	1162	257	1162	1198	818
tC, single (s)	4.1			4.2			7.2	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	98			98			71	99	99	99	75	65
cM capacity (veh/h)	807			1219			66	187	758	164	178	376

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	271	41	27	823	27	178
Volume Left	14	0	27	0	19	2
Volume Right	0	41	0	9	6	131
cSH	807	1700	1219	1700	100	290
Volume to Capacity	0.02	0.02	0.02	0.48	0.27	0.61
Queue Length 95th (m)	0.4	0.0	0.5	0.0	7.6	28.5
Control Delay (s)	0.7	0.0	8.0	0.0	54.7	35.3
Lane LOS	A		A		F	E
Approach Delay (s)	0.6		0.3		54.7	35.3
Approach LOS					F	E

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	248	2	3	786	0	6	0	3	0	0	2
Future Volume (vph)	0	248	2	3	786	0	6	0	3	0	0	2
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999						0.955			0.865	
Flt Protected								0.968				
Satd. Flow (prot)	0	1611	0	0	1799	0	0	1572	0	0	1471	0
Flt Permitted								0.968				
Satd. Flow (perm)	0	1611	0	0	1799	0	0	1572	0	0	1471	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	0	264	2	3	836	0	6	0	3	0	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	0	0	839	0	0	9	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.5%		ICU Level of Service B	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	248	2	3	786	0	6	0	3	0	0	2
Future Volume (Veh/h)	0	248	2	3	786	0	6	0	3	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	264	2	3	836	0	6	0	3	0	0	2
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	836			266			1109	1107	265	1110	1108	836
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	836			266			1109	1107	265	1110	1108	836
tC, single (s)	4.3			4.1			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			97	100	100	100	100	99
cM capacity (veh/h)	741			1286			179	203	755	179	202	355

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	266	839	9	2
Volume Left	0	3	6	0
Volume Right	2	0	3	2
cSH	741	1286	240	355
Volume to Capacity	0.00	0.00	0.04	0.01
Queue Length 95th (m)	0.0	0.1	0.9	0.1
Control Delay (s)	0.0	0.1	20.6	15.2
Lane LOS		A	C	C
Approach Delay (s)	0.0	0.1	20.6	15.2
Approach LOS			C	C

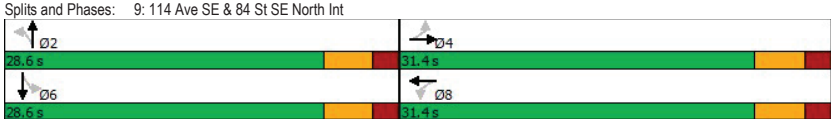
Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		57.5%	ICU Level of Service	B
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	3	128	0	2	0	276	99	1	82	1
Future Volume (vph)	0	0	3	128	0	2	0	276	99	1	82	1
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.998			0.964			0.998	
Flt Protected					0.953						0.999	
Satd. Flow (prot)	0	1471	0	0	1435	0	0	1717	0	0	1361	0
Flt Permitted					0.728						0.996	
Satd. Flow (perm)	0	1471	0	0	1096	0	0	1717	0	0	1357	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		818			45			35			1	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	0	0	3	136	0	2	0	294	105	1	87	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	138	0	0	399	0	0	89	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type		NA		Perm	NA			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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5		25.5	25.5	
Total Split (s)	31.4	31.4		31.4	31.4		28.6	28.6		28.6	28.6	
Total Split (%)	52.3%	52.3%		52.3%	52.3%		47.7%	47.7%		47.7%	47.7%	
Maximum Green (s)	25.9	25.9		25.9	25.9		23.1	23.1		23.1	23.1	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)		11.1			11.1			20.5			20.5	
Actuated g/C Ratio		0.30			0.30			0.55			0.55	
v/c Ratio		0.00			0.39			0.42			0.12	
Control Delay		0.0			11.8			9.1			7.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.0			11.8			9.1			7.8	
LOS		A			B			A			A	
Approach Delay					11.8			9.1			7.8	
Approach LOS					B			A			A	
Queue Length 50th (m)		0.0			3.9			14.6			3.0	
Queue Length 95th (m)		0.0			15.6			37.4			9.9	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)												
Base Capacity (vph)		1277			784			1172			917	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.00			0.18			0.34			0.10	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 37.6			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay: 9.5		Intersection LOS: A	
Intersection Capacity Utilization 44.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int

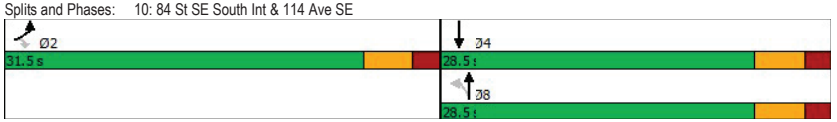


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	372	59	31	3	7	205
Future Volume (vph)	372	59	31	3	7	205
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.869	
Flt Protected	0.950			0.956		
Satd. Flow (prot)	1692	1514	0	1515	1222	0
Flt Permitted	0.950			0.634		
Satd. Flow (perm)	1692	1514	0	1005	1222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		63			218	
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	396	63	33	3	7	218
Shared Lane Traffic (%)						
Lane Group Flow (vph)	396	63	0	36	225	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	2			8	4	
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	31.5	31.5	28.5	28.5	28.5	
Total Split (%)	52.5%	52.5%	47.5%	47.5%	47.5%	
Maximum Green (s)	26.0	26.0	23.0	23.0	23.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	
Walk Time (s)	8.0	8.0				
Flash Dont Walk (s)	12.0	12.0				
Pedestrian Calls (#/hr)	0	0				

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	21.2	21.2		10.5	10.5	
Actuated g/C Ratio	0.50	0.50		0.25	0.25	
v/c Ratio	0.47	0.08		0.15	0.48	
Control Delay	9.8	2.6		13.6	6.7	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	9.8	2.6		13.6	6.7	
LOS	A	A		B	A	
Approach Delay	8.8			13.6	6.7	
Approach LOS	A			B	A	
Queue Length 50th (m)	16.4	0.0		2.0	0.4	
Queue Length 95th (m)	36.8	4.0		6.7	11.6	
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)						
Base Capacity (vph)	1033	950		541	759	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.38	0.07		0.07	0.30	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 42.8			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 8.4		Intersection LOS: A	
Intersection Capacity Utilization 56.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	138	6	4	85	0	8	0	14	0	0	0
Future Volume (vph)	1	138	6	4	85	0	8	0	14	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995						0.916				
Flt Protected					0.998			0.982				
Satd. Flow (prot)	0	1773	0	0	1697	0	0	1602	0	0	1781	0
Flt Permitted					0.998			0.982				
Satd. Flow (perm)	0	1773	0	0	1697	0	0	1602	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	1	147	6	4	90	0	9	0	15	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	94	0	0	24	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	18.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	138	6	4	85	0	8	0	14	0	0	0
Future Volume (Veh/h)	1	138	6	4	85	0	8	0	14	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	1	147	6	4	90	0	9	0	15	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	90			153			250	250	150	265	253	90
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	90			153			250	250	150	265	253	90
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			99	100	98	100	100	100
cM capacity (veh/h)	1486			1380			695	645	889	668	643	960

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	154	94	24	0
Volume Left	1	4	9	0
Volume Right	6	0	15	0
cSH	1486	1380	805	1700
Volume to Capacity	0.00	0.00	0.03	0.00
Queue Length 95th (m)	0.0	0.1	0.7	0.0
Control Delay (s)	0.1	0.3	9.6	0.0
Lane LOS	A	A	A	A
Approach Delay (s)	0.1	0.3	9.6	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay		1.0		
Intersection Capacity Utilization		18.2%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	25	0	0	35	17	0	0	0	8	0	54
Future Volume (vph)	128	25	0	0	35	17	0	0	0	8	0	54
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.883	
Flt Protected		0.960									0.993	
Satd. Flow (prot)	0	1710	1781	0	1701	1445	0	1781	0	0	1562	0
Flt Permitted		0.960									0.993	
Satd. Flow (perm)	0	1710	1781	0	1701	1445	0	1781	0	0	1562	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	136	27	0	0	37	18	0	0	0	9	0	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	163	0	0	37	18	0	0	0	0	66	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	25	0	0	35	17	0	0	0	8	0	54
Future Volume (Veh/h)	128	25	0	0	35	17	0	0	0	8	0	54
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	136	27	0	0	37	18	0	0	0	9	0	57
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	55			27			393	354	27	336	336	37
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	55			27			393	354	27	336	336	37
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			100			100	100	100	98	100	94
cM capacity (veh/h)	1531			1536			494	516	1040	570	528	1027

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	163	0	37	18	0	66
Volume Left	136	0	0	0	0	9
Volume Right	0	0	0	18	0	57
cSH	1531	1700	1536	1700	1700	926
Volume to Capacity	0.09	0.00	0.00	0.01	0.00	0.07
Queue Length 95th (m)	2.2	0.0	0.0	0.0	0.0	1.7
Control Delay (s)	6.4	0.0	0.0	0.0	0.0	9.2
Lane LOS	A				A	A
Approach Delay (s)	6.4		0.0		0.0	9.2
Approach LOS					A	A

Intersection Summary				
Average Delay	5.8			
Intersection Capacity Utilization	25.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	33	0	0	51	0	0	0	0	0	0	0
Future Volume (vph)	0	33	0	0	51	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	1781	0	0	1701	0	0	1781	0	0	1781	0
Flt Permitted												
Satd. Flow (perm)	0	1781	0	0	1701	0	0	1781	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	35	0	0	54	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	35	0	0	54	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	6.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	33	0	0	51	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	33	0	0	51	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	35	0	0	54	0	0	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	54			35			89	89	35	89	89	54
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	54			35			89	89	35	89	89	54
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			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)	1532			1526			889	795	1029	889	795	1005

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	35	54	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1532	1526	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	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		6.7%	ICU Level of Service	A
Analysis Period (min)		15		

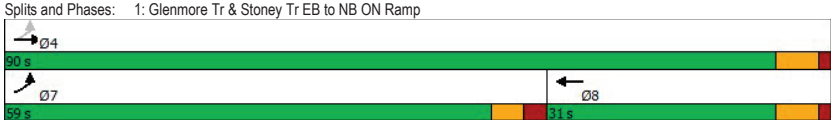
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	976	1319	783	0	0	0
Future Volume (vph)	976	1319	783	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	3118	3145	0	0	0
Flt Permitted	0.129					
Satd. Flow (perm)	212	3118	3145	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1027	1388	824	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1027	1388	824	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	59.0	90.0	31.0			
Total Split (%)	65.6%	100.0%	34.4%			
Maximum Green (s)	53.0	84.0	25.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	84.0	90.0	24.9			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.93	1.00	0.28			
v/c Ratio	1.03	0.45	0.95			
Control Delay	54.0	0.3	53.4			
Queue Delay	0.0	0.0	0.0			
Total Delay	54.0	0.3	53.4			
LOS	D	A	D			
Approach Delay		23.1	53.4			
Approach LOS		C	D			
Queue Length 50th (m)	~186.5	0.0	73.2			
Queue Length 95th (m)	m#211.7	m0.0	#109.7			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	993	3118	873			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	1.03	0.45	0.94			

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 30.8 Intersection LOS: C
Intersection Capacity Utilization 87.8% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



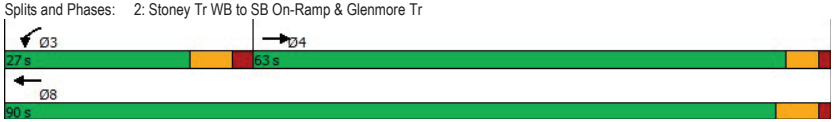
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1845	0	329	554	0	0
Future Volume (vph)	1845	0	329	554	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3118	0	1573	3145	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3118	0	1573	3145	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1942	0	346	583	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1942	0	346	583	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	63.0		27.0	90.0		
Total Split (%)	70.0%		30.0%	100.0%		
Maximum Green (s)	58.0		20.0	84.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	58.0		20.0	90.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.64		0.22	1.00		
v/c Ratio	0.97		0.99	0.19		
Control Delay	29.9		62.2	0.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	29.9		62.2	0.1		
LOS	C		E	A		
Approach Delay	29.9			23.2		
Approach LOS	C			C		
Queue Length 50th (m)	149.2		27.9	0.0		
Queue Length 95th (m)	#220.9		m#67.9	m0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	2009		349	3145		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.97		0.99	0.19		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 27.7 Intersection LOS: C
Intersection Capacity Utilization 87.8% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr

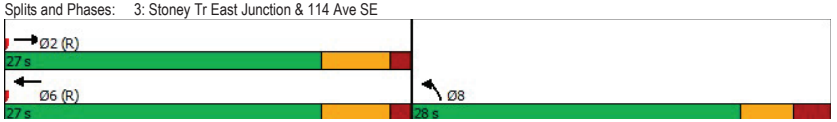


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	224	0	0	443	44	0
Future Volume (vph)	224	0	0	443	44	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	236	0	0	466	46	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	236	0	0	466	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	46.2			46.2	10.0	
Actuated g/C Ratio	0.84			0.84	0.18	
v/c Ratio	0.09			0.18	0.08	
Control Delay	3.4			3.1	19.1	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	3.4			3.1	19.1	
LOS	A			A	B	
Approach Delay	3.4			3.1	19.1	
Approach LOS	A			A	B	
Queue Length 50th (m)	0.0			0.0	2.0	
Queue Length 95th (m)	9.4			15.4	5.3	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2739			2642	1288	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.09			0.18	0.04	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.18			
Intersection Signal Delay: 4.2		Intersection LOS: A	
Intersection Capacity Utilization 38.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

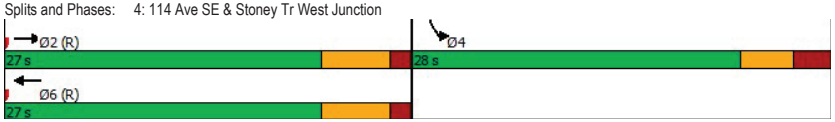


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	710	254	0	91	0
Future Volume (vph)	0	710	254	0	91	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	747	267	0	96	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	747	267	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		41.8	41.8		10.0	
Actuated g/C Ratio		0.76	0.76		0.18	
v/c Ratio		0.30	0.11		0.16	
Control Delay		4.6	3.6		19.9	
Queue Delay		0.0	0.0		0.0	
Total Delay		4.6	3.6		19.9	
LOS		A	A		B	
Approach Delay		4.6	3.6		19.9	
Approach LOS		A	A		B	
Queue Length 50th (m)		17.2	4.6		4.1	
Queue Length 95th (m)		25.7	8.1		9.2	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		2478	2390		1288	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.30	0.11		0.07	

Intersection Summary		
Area Type:	Other	
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 55		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.30		
Intersection Signal Delay: 5.7		Intersection LOS: A
Intersection Capacity Utilization 38.5%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

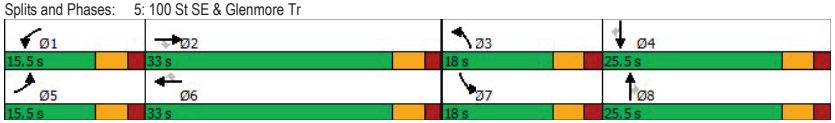


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	788	102	15	259	31	333	93	95	165	36	316
Future Volume (vph)	106	788	102	15	259	31	333	93	95	165	36	316
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			160			160			160			333
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	112	829	107	16	273	33	351	98	100	174	38	333
Shared Lane Traffic (%)												
Lane Group Flow (vph)	112	829	107	16	273	33	351	98	100	174	38	333
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	33.0	33.0	15.5	33.0	33.0	18.0	25.5	25.5	18.0	25.5	25.5
Total Split (%)	16.8%	35.9%	35.9%	16.8%	35.9%	35.9%	19.6%	27.7%	27.7%	19.6%	27.7%	27.7%
Maximum Green (s)	10.0	27.5	27.5	10.0	27.5	27.5	12.5	20.0	20.0	12.5	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	8.2	29.7	29.7	7.3	21.3	21.3	12.2	11.7	11.7	16.2	11.7	11.7
Actuated g/C Ratio	0.11	0.41	0.41	0.10	0.29	0.29	0.17	0.16	0.16	0.22	0.16	0.16
v/c Ratio	0.32	0.63	0.16	0.09	0.28	0.06	0.71	0.38	0.28	0.51	0.15	0.67
Control Delay	34.8	21.1	1.8	35.1	22.3	0.2	39.9	34.0	3.3	38.0	29.7	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.8	21.1	1.8	35.1	22.3	0.2	39.9	34.0	3.3	38.0	29.7	11.1
LOS	C	C	A	D	C	A	D	C	A	D	C	B
Approach Delay		20.6			20.7			32.2			21.0	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	7.4	40.9	0.0	2.0	15.3	0.0	23.3	12.4	0.0	22.4	4.7	0.0
Queue Length 95th (m)	16.8	#89.7	4.0	8.3	28.3	0.0	#51.4	27.9	3.4	#61.1	13.3	22.5
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	439	1405	718	237	1306	682	516	448	496	338	448	620
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.59	0.15	0.07	0.21	0.05	0.68	0.22	0.20	0.51	0.08	0.54

Intersection Summary			
Area Type:	Other		
Cycle Length: 92			
Actuated Cycle Length: 72.6			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 23.3		Intersection LOS: C	
Intersection Capacity Utilization 60.3%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	1124	0	0	382	1	1	0	1	5	0	19
Future Volume (vph)	19	1124	0	0	382	1	1	0	1	5	0	19
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850		0.932			0.892	
Flt Protected		0.999						0.976			0.990	
Satd. Flow (prot)	0	1814	1816	0	1748	1486	0	1620	0	0	1588	0
Flt Permitted		0.999						0.976			0.990	
Satd. Flow (perm)	0	1814	1816	0	1748	1486	0	1620	0	0	1588	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	20	1183	0	0	402	1	1	0	1	5	0	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1203	0	0	402	1	0	2	0	0	25	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 86.4%		ICU Level of Service E	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1124	0	0	382	1	1	0	1	5	0	19
Future Volume (Veh/h)	19	1124	0	0	382	1	1	0	1	5	0	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	20	1183	0	0	402	1	1	0	1	5	0	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	403			1183			1645	1626	1183	1626	1625	402
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	403			1183			1645	1626	1183	1626	1625	402
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			99	100	100	94	100	97
cM capacity (veh/h)	1150			573			75	99	228	80	99	644

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	1203	0	402	1	2	25
Volume Left	20	0	0	0	1	5
Volume Right	0	0	0	1	1	20
cSH	1150	1700	573	1700	113	266
Volume to Capacity	0.02	0.00	0.00	0.00	0.02	0.09
Queue Length 95th (m)	0.4	0.0	0.0	0.0	0.4	2.3
Control Delay (s)	0.6	0.0	0.0	0.0	37.6	19.9
Lane LOS	A				E	C
Approach Delay (s)	0.6		0.0		37.6	19.9
Approach LOS					E	C

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	86.4%	ICU Level of Service		E
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	175	901	50	9	249	13	45	36	22	16	4	88
Future Volume (vph)	175	901	50	9	249	13	45	36	22	16	4	88
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		180.0	150.0		300.0	0.0		15.0	0.0		0.0
Storage Lanes	0		1	1		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.992				0.850		0.890	
Flt Protected		0.992		0.950				0.973			0.993	
Satd. Flow (prot)	0	1687	1445	1630	1702	0	0	1456	1272	0	1621	0
Flt Permitted		0.992		0.950				0.973			0.993	
Satd. Flow (perm)	0	1687	1445	1630	1702	0	0	1456	1272	0	1621	0
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	184	948	53	9	262	14	47	38	23	17	4	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1132	53	9	276	0	0	85	23	0	114	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	901	50	9	249	13	45	36	22	16	4	88
Future Volume (Veh/h)	175	901	50	9	249	13	45	36	22	16	4	88
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	184	948	53	9	262	14	47	38	23	17	4	93
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	276			1001			1691	1610	948	1634	1656	269
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	276			1001			1691	1610	948	1634	1656	269
tC, single (s)	4.2			4.2			7.3	6.8	6.5	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.7	4.2	3.5	3.5	4.0	3.3
p0 queue free %	85			99			2	51	92	58	95	88
cM capacity (veh/h)	1242			665			48	78	287	41	82	770

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	1132	53	9	276	108	114
Volume Left	184	0	9	0	47	17
Volume Right	0	53	0	14	23	93
cSH	1242	1700	665	1700	72	195
Volume to Capacity	0.15	0.03	0.01	0.16	1.50	0.59
Queue Length 95th (m)	3.9	0.0	0.3	0.0	68.5	24.5
Control Delay (s)	3.7	0.0	10.5	0.0	385.1	46.8
Lane LOS	A		B		F	E
Approach Delay (s)	3.6		0.3		385.1	46.8
Approach LOS					F	E

Intersection Summary					
Average Delay	30.3				
Intersection Capacity Utilization	96.3%	ICU Level of Service		F	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	922	4	2	268	0	4	0	1	0	0	1
Future Volume (vph)	1	922	4	2	268	0	4	0	1	0	0	1
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999						0.973			0.865	
Flt Protected								0.962				
Satd. Flow (prot)	0	1832	0	0	1765	0	0	1592	0	0	1471	0
Flt Permitted								0.962				
Satd. Flow (perm)	0	1832	0	0	1765	0	0	1592	0	0	1471	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	1	971	4	2	282	0	4	0	1	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	976	0	0	284	0	0	5	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	922	4	2	268	0	4	0	1	0	0	1
Future Volume (Veh/h)	1	922	4	2	268	0	4	0	1	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1	971	4	2	282	0	4	0	1	0	0	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	282			975			1262	1261	973	1262	1263	282
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	282			975			1262	1261	973	1262	1263	282
tC, single (s)	4.1			4.2			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			97	100	100	100	100	100
cM capacity (veh/h)	1280			692			141	164	295	140	163	738

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	976	284	5	1
Volume Left	1	2	4	0
Volume Right	4	0	1	1
cSH	1280	692	157	738
Volume to Capacity	0.00	0.00	0.03	0.00
Queue Length 95th (m)	0.0	0.1	0.7	0.0
Control Delay (s)	0.0	0.1	28.7	9.9
Lane LOS	A	A	D	A
Approach Delay (s)	0.0	0.1	28.7	9.9
Approach LOS			D	A

Intersection Summary					
Average Delay		0.2			
Intersection Capacity Utilization		61.1%	ICU Level of Service		B
Analysis Period (min)		15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	2	129	0	2	3	108	98	4	368	0
Future Volume (vph)	0	0	2	129	0	2	3	108	98	4	368	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.998			0.937				
Flt Protected					0.953			0.999			0.999	
Satd. Flow (prot)	0	1471	0	0	1617	0	0	1577	0	0	1780	0
Flt Permitted					0.729			0.995			0.997	
Satd. Flow (perm)	0	1471	0	0	1237	0	0	1571	0	0	1776	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		391			45			102				
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	0	0	2	136	0	2	3	114	103	4	387	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	0	138	0	0	220	0	0	391	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type		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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5		25.5	25.5	
Total Split (s)	25.0	25.0		25.5	25.5		35.0	35.0		35.0	35.0	
Total Split (%)	41.3%	41.3%		42.1%	42.1%		57.9%	57.9%		57.9%	57.9%	
Maximum Green (s)	19.5	19.5		20.0	20.0		29.5	29.5		29.5	29.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)		10.7			10.7			20.5			20.5	
Actuated g/C Ratio		0.29			0.29			0.55			0.55	
v/c Ratio		0.00			0.36			0.24			0.40	
Control Delay		0.0			11.2			5.1			9.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.0			11.2			5.1			9.2	
LOS		A			B			A			A	
Approach Delay					11.2			5.1			9.2	
Approach LOS					B			A			A	
Queue Length 50th (m)		0.0			3.9			4.1			15.9	
Queue Length 95th (m)		0.0			15.2			13.9			36.1	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)												
Base Capacity (vph)		981			696			1286			1432	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.00			0.20			0.17			0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60.5			
Actuated Cycle Length: 37.2			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 8.3		Intersection LOS: A	
Intersection Capacity Utilization 45.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



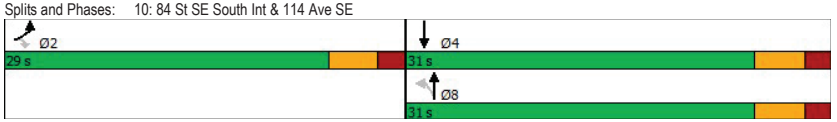
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	210	42	38	2	2	487
Future Volume (vph)	210	42	38	2	2	487
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.866	
Flt Protected	0.950			0.955		
Satd. Flow (prot)	1601	1432	0	1734	1558	0
Flt Permitted	0.950			0.352		
Satd. Flow (perm)	1601	1432	0	639	1558	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		44			513	
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	221	44	40	2	2	513
Shared Lane Traffic (%)						
Lane Group Flow (vph)	221	44	0	42	515	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	2			8	4	
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	23.5	23.5	23.5	
Total Split (s)	29.0	29.0	31.0	31.0	31.0	
Total Split (%)	48.3%	48.3%	51.7%	51.7%	51.7%	
Maximum Green (s)	23.5	23.5	25.5	25.5	25.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	
Walk Time (s)	8.0	8.0				
Flash Dont Walk (s)	12.0	12.0				
Pedestrian Calls (#/hr)	0	0				

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	20.0	20.0		11.0	11.0	
Actuated g/C Ratio	0.48	0.48		0.26	0.26	
v/c Ratio	0.29	0.06		0.25	0.66	
Control Delay	8.6	3.3		16.3	6.2	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	8.6	3.3		16.3	6.2	
LOS	A	A		B	A	
Approach Delay	7.7			16.3	6.2	
Approach LOS	A			B	A	
Queue Length 50th (m)	8.1	0.0		2.4	0.1	
Queue Length 95th (m)	22.7	3.8		8.0	15.5	
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)						
Base Capacity (vph)	895	820		387	1146	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.25	0.05		0.11	0.45	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 42.1
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 7.2 — Intersection LOS: A
Intersection Capacity Utilization 58.8% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	101	7	11	78	0	5	2	10	0	0	0
Future Volume (vph)	2	101	7	11	78	0	5	2	10	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992						0.917				
Flt Protected		0.999			0.994			0.986				
Satd. Flow (prot)	0	1716	0	0	1788	0	0	1611	0	0	1781	0
Flt Permitted		0.999			0.994			0.986				
Satd. Flow (perm)	0	1716	0	0	1788	0	0	1611	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	2	106	7	12	82	0	5	2	11	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	115	0	0	94	0	0	18	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	20.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	101	7	11	78	0	5	2	10	0	0	0
Future Volume (Veh/h)	2	101	7	11	78	0	5	2	10	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	2	106	7	12	82	0	5	2	11	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	82			113			220	220	110	232	223	82
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	82			113			220	220	110	232	223	82
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	100	100
cM capacity (veh/h)	1478			1464			725	667	936	702	664	969

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	115	94	18	0
Volume Left	2	12	5	0
Volume Right	7	0	11	0
cSH	1478	1464	831	1700
Volume to Capacity	0.00	0.01	0.02	0.00
Queue Length 95th (m)	0.0	0.2	0.5	0.0
Control Delay (s)	0.1	1.0	9.4	0.0
Lane LOS	A	A	A	A
Approach Delay (s)	0.1	1.0	9.4	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay		1.2		
Intersection Capacity Utilization		20.6%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	61	0	0	18	10	2	0	0	13	0	67
Future Volume (vph)	50	61	0	0	18	10	2	0	0	13	0	67
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.887	
Flt Protected		0.978						0.950			0.992	
Satd. Flow (prot)	0	1694	1732	0	1799	1529	0	1692	0	0	1568	0
Flt Permitted		0.978						0.950			0.992	
Satd. Flow (perm)	0	1694	1732	0	1799	1529	0	1692	0	0	1568	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	53	64	0	0	19	11	2	0	0	14	0	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	19	11	0	2	0	0	85	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	24.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	61	0	0	18	10	2	0	0	13	0	67
Future Volume (Veh/h)	50	61	0	0	18	10	2	0	0	13	0	67
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	53	64	0	0	19	11	2	0	0	14	0	71
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	30			64			260	200	64	189	189	19
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	30			64			260	200	64	189	189	19
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	100	98	100	93
cM capacity (veh/h)	1545			1526			624	667	992	745	676	1051

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	117	0	19	11	2	85
Volume Left	53	0	0	0	2	14
Volume Right	0	0	0	11	0	71
cSH	1545	1700	1526	1700	624	984
Volume to Capacity	0.03	0.00	0.00	0.01	0.00	0.09
Queue Length 95th (m)	0.8	0.0	0.0	0.0	0.1	2.2
Control Delay (s)	3.5	0.0	0.0	0.0	10.8	9.0
Lane LOS	A				B	A
Approach Delay (s)	3.5		0.0		10.8	9.0
Approach LOS					B	A

Intersection Summary					
Average Delay	5.1				
Intersection Capacity Utilization	24.1%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	74	0	0	27	0	0	0	0	0	0	0
Future Volume (vph)	0	74	0	0	27	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	1732	0	0	1799	0	0	1781	0	0	1781	0
Flt Permitted												
Satd. Flow (perm)	0	1732	0	0	1799	0	0	1781	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	78	0	0	28	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	78	0	0	28	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	7.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	74	0	0	27	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	74	0	0	27	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	78	0	0	28	0	0	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	28			78			106	106	78	106	106	28
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	28			78			106	106	78	106	106	28
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			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)	1547			1508			866	778	974	866	778	1039

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	78	28	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1547	1508	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	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

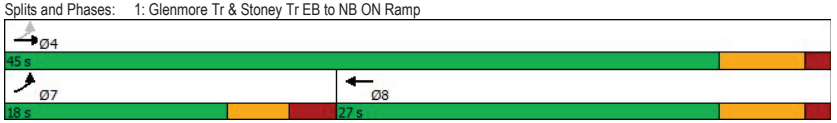
Intersection Summary					
Average Delay		0.0			
Intersection Capacity Utilization		7.3%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	377	914	985	0	0	0
Future Volume (vph)	377	914	985	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	3038	3012	0	0	0
Flt Permitted	0.175					
Satd. Flow (perm)	280	3038	3012	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	401	972	1048	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	401	972	1048	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	18.0	45.0	27.0			
Total Split (%)	40.0%	100.0%	60.0%			
Maximum Green (s)	12.0	39.0	21.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	39.0	45.0	22.1			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.87	1.00	0.49			
v/c Ratio	0.74	0.32	0.71			
Control Delay	22.2	0.3	12.6			
Queue Delay	0.0	0.0	0.0			
Total Delay	22.2	0.3	12.6			
LOS	C	A	B			
Approach Delay		6.7	12.6			
Approach LOS		A	B			
Queue Length 50th (m)	15.4	0.0	29.7			
Queue Length 95th (m)	#43.2	0.0	50.3			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	573	3038	1477			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	0.70	0.32	0.71			

Intersection Summary		
Area Type:	Other	
Cycle Length: 45		
Actuated Cycle Length: 45		
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green		
Natural Cycle: 55		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.74		
Intersection Signal Delay: 9.3		Intersection LOS: A
Intersection Capacity Utilization 59.4%		ICU Level of Service B
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	951	0	166	1447	0	0
Future Volume (vph)	951	0	166	1447	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3038	0	1506	3012	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3038	0	1506	3012	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	1012	0	177	1539	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1012	0	177	1539	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	26.0		19.0	45.0		
Total Split (%)	57.8%		42.2%	100.0%		
Maximum Green (s)	21.0		12.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	26.5		10.9	45.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.59		0.24	1.00		
v/c Ratio	0.57		0.49	0.51		
Control Delay	9.8		25.0	1.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	9.8		25.0	1.1		
LOS	A		C	A		
Approach Delay	9.8			3.6		
Approach LOS	A			A		
Queue Length 50th (m)	27.7		14.0	2.2		
Queue Length 95th (m)	47.5		m22.2	4.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	1790		401	3012		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.57		0.44	0.51		

Intersection Summary		
Area Type:	Other	
Cycle Length: 45		
Actuated Cycle Length: 45		
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green		
Natural Cycle: 45		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.57		
Intersection Signal Delay: 5.9		Intersection LOS: A
Intersection Capacity Utilization 59.4%		ICU Level of Service B
Analysis Period (min) 15		
m Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



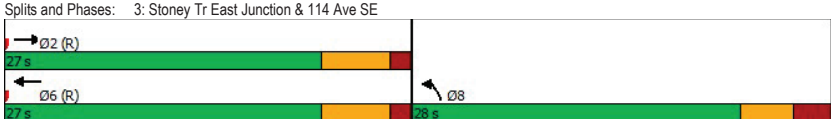
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	366	0	0	283	157	0
Future Volume (vph)	366	0	0	283	157	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	389	0	0	301	167	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	389	0	0	301	167	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	37.3			37.3	10.1	
Actuated g/C Ratio	0.68			0.68	0.18	
v/c Ratio	0.18			0.14	0.29	
Control Delay	4.2			4.8	20.9	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	4.2			4.8	20.9	
LOS	A			A	C	
Approach Delay	4.2			4.8	20.9	
Approach LOS	A			A	C	
Queue Length 50th (m)	6.3			5.9	7.4	
Queue Length 95th (m)	11.8			10.3	14.1	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2152			2115	1265	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.18			0.14	0.13	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.29
Intersection Signal Delay: 7.7 Intersection LOS: A
Intersection Capacity Utilization 35.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

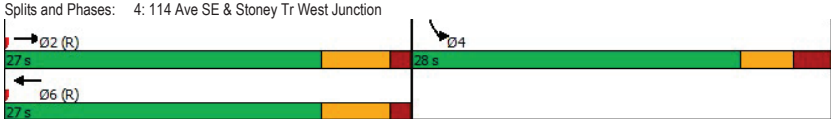


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	596	318	0	138	0
Future Volume (vph)	0	596	318	0	138	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	634	338	0	147	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	634	338	0	147	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		37.4	37.4		10.0	
Actuated g/C Ratio		0.68	0.68		0.18	
v/c Ratio		0.29	0.16		0.26	
Control Delay		5.4	3.0		20.7	
Queue Delay		0.0	0.0		0.0	
Total Delay		5.4	3.0		20.7	
LOS		A	A		C	
Approach Delay		5.4	3.0		20.7	
Approach LOS		A	A		C	
Queue Length 50th (m)		14.0	4.2		6.5	
Queue Length 95th (m)		21.4	6.8		12.8	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		2157	2120		1265	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.29	0.16		0.12	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.29			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 35.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction



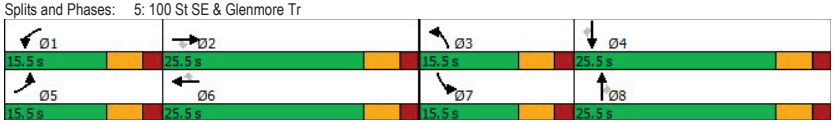
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	249	306	81	779	133	13	46	4	23	14	103
Future Volume (vph)	330	249	306	81	779	133	13	46	4	23	14	103
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			326			180			180			180
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	351	265	326	86	829	141	14	49	4	24	15	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	351	265	326	86	829	141	14	49	4	24	15	110
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (%)	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%
Maximum Green (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	10.4	27.8	27.8	8.6	20.8	20.8	7.3	10.4	10.4	7.6	12.8	12.8
Actuated g/C Ratio	0.18	0.47	0.47	0.15	0.35	0.35	0.12	0.18	0.18	0.13	0.22	0.22
v/c Ratio	0.66	0.18	0.39	0.37	0.73	0.23	0.04	0.17	0.01	0.13	0.04	0.26
Control Delay	33.3	16.2	4.5	30.8	25.1	3.0	27.9	26.7	0.0	28.7	21.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	16.2	4.5	30.8	25.1	3.0	27.9	26.7	0.0	28.7	21.7	2.7
LOS	C	B	A	C	C	A	C	C	A	C	C	A
Approach Delay		18.5			22.6			25.3			8.8	
Approach LOS		B			C			C			A	
Queue Length 50th (m)	17.5	9.2	0.0	8.1	37.8	0.0	0.6	4.3	0.0	2.3	1.3	0.0
Queue Length 95th (m)	#43.5	23.4	16.8	22.8	#88.3	7.2	3.2	14.7	0.0	9.2	6.3	3.5
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	534	1472	830	283	1132	622	516	560	592	261	563	594
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.18	0.39	0.30	0.73	0.23	0.03	0.09	0.01	0.09	0.03	0.19

Intersection Summary

Area Type: Other
Cycle Length: 82
Actuated Cycle Length: 58.8
Natural Cycle: 85
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 20.0 Intersection LOS: C
Intersection Capacity Utilization 53.9% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	306	2	0	927	5	1	0	0	1	0	18
Future Volume (vph)	15	306	2	0	927	5	1	0	0	1	0	18
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850					0.872	
Flt Protected		0.998						0.950			0.998	
Satd. Flow (prot)	0	1652	1407	0	1781	1514	0	1692	0	0	1272	0
Flt Permitted		0.998						0.950			0.998	
Satd. Flow (perm)	0	1652	1407	0	1781	1514	0	1692	0	0	1272	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	16	326	2	0	986	5	1	0	0	1	0	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	342	2	0	986	5	0	1	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.8%		ICU Level of Service C	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	306	2	0	927	5	1	0	0	1	0	18
Future Volume (Veh/h)	15	306	2	0	927	5	1	0	0	1	0	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	16	326	2	0	986	5	1	0	0	1	0	19
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	991			328			1363	1349	326	1344	1346	986
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	991			328			1363	1349	326	1344	1346	986
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.4	6.8	6.5
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.8	4.3	3.6
p0 queue free %	98			100			99	100	100	99	100	93
cM capacity (veh/h)	656			1215			112	145	708	111	131	269

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	342	2	986	5	1	20
Volume Left	16	0	0	0	1	1
Volume Right	0	2	0	5	0	19
cSH	656	1700	1215	1700	112	251
Volume to Capacity	0.02	0.00	0.00	0.00	0.01	0.08
Queue Length 95th (m)	0.6	0.0	0.0	0.0	0.2	2.0
Control Delay (s)	0.8	0.0	0.0	0.0	37.3	20.6
Lane LOS	A				E	C
Approach Delay (s)	0.8		0.0		37.3	20.6
Approach LOS					E	C

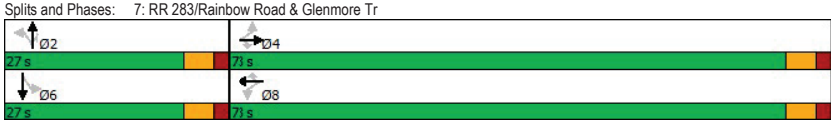
Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	66.8%	ICU Level of Service		C
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	242	39	25	765	8	18	16	6	2	60	123
Future Volume (vph)	13	242	39	25	765	8	18	16	6	2	60	123
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	0.0		15.0	0.0		0.0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.910	
Flt Protected	0.950			0.950				0.974			0.999	
Satd. Flow (prot)	1742	1701	1445	1615	1701	1559	0	1698	1420	0	1667	0
Flt Permitted	0.213			0.600				0.841			0.998	
Satd. Flow (perm)	391	1701	1445	1020	1701	1559	0	1466	1420	0	1665	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			41			27			27		91	
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	14	257	41	27	814	9	19	17	6	2	64	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	257	41	27	814	9	0	36	6	0	197	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	73.0	73.0	73.0	73.0	73.0	73.0	27.0	27.0	27.0	27.0	27.0	
Total Split (%)	73.0%	73.0%	73.0%	73.0%	73.0%	73.0%	27.0%	27.0%	27.0%	27.0%	27.0%	
Maximum Green (s)	67.5	67.5	67.5	67.5	67.5	67.5	21.5	21.5	21.5	21.5	21.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Act Effct Green (s)	33.0	33.0	33.0	33.0	33.0	33.0		11.9	11.9		11.9	
Actuated g/C Ratio	0.58	0.58	0.58	0.58	0.58	0.58		0.21	0.21		0.21	
v/c Ratio	0.06	0.26	0.05	0.05	0.82	0.01		0.12	0.02		0.47	
Control Delay	5.5	6.2	1.8	4.9	17.2	0.5		23.8	0.2		17.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	5.5	6.2	1.8	4.9	17.2	0.5		23.8	0.2		17.6	
LOS	A	A	A	A	B	A		C	A		B	
Approach Delay		5.6			16.6			20.4			17.6	
Approach LOS		A			B			C			B	
Queue Length 50th (m)	0.5	9.6	0.0	0.9	49.6	0.0		2.7	0.0		8.2	
Queue Length 95th (m)	2.6	23.6	2.8	3.8	116.7	0.5		12.5	0.3		33.9	
Internal Link Dist (m)		224.8			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0			15.0			
Base Capacity (vph)	375	1631	1388	978	1631	1496		592	590		727	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	
Reduced v/c Ratio	0.04	0.16	0.03	0.03	0.50	0.01		0.06	0.01		0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 56.6			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 65.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	248	2	3	786	0	6	0	3	0	0	2
Future Volume (vph)	0	248	2	3	786	0	6	0	3	0	0	2
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999						0.955			0.865	
Flt Protected								0.968				
Satd. Flow (prot)	0	1611	0	0	1799	0	0	1572	0	0	1471	0
Flt Permitted								0.968				
Satd. Flow (perm)	0	1611	0	0	1799	0	0	1572	0	0	1471	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	0	264	2	3	836	0	6	0	3	0	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	0	0	839	0	0	9	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 57.5%	ICU Level of Service B
Analysis Period (min) 15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	248	2	3	786	0	6	0	3	0	0	2
Future Volume (Veh/h)	0	248	2	3	786	0	6	0	3	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	264	2	3	836	0	6	0	3	0	0	2
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	836			266			1109	1107	265	1110	1108	836
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	836			266			1109	1107	265	1110	1108	836
tC, single (s)	4.3			4.1			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			97	100	100	100	100	99
cM capacity (veh/h)	741			1286			179	203	755	179	202	355

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	266	839	9	2
Volume Left	0	3	6	0
Volume Right	2	0	3	2
cSH	741	1286	240	355
Volume to Capacity	0.00	0.00	0.04	0.01
Queue Length 95th (m)	0.0	0.1	0.9	0.1
Control Delay (s)	0.0	0.1	20.6	15.2
Lane LOS		A	C	C
Approach Delay (s)	0.0	0.1	20.6	15.2
Approach LOS			C	C

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	57.5%	ICU Level of Service	B	
Analysis Period (min)	15			

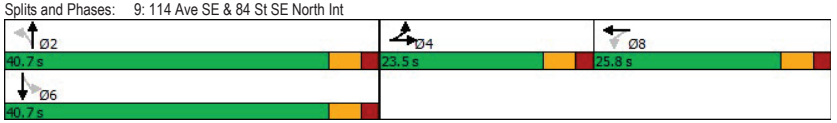
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	3	234	0	2	0	276	322	1	82	1
Future Volume (vph)	0	0	3	234	0	2	0	276	322	1	82	1
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.999			0.927			0.998	
Flt Protected					0.953						0.999	
Satd. Flow (prot)	0	1471	0	0	1436	0	0	1651	0	0	1361	0
Flt Permitted					0.727						0.995	
Satd. Flow (perm)	0	1471	0	0	1096	0	0	1651	0	0	1356	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		616			97			77			1	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	0	0	3	249	0	2	0	294	343	1	87	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	251	0	0	637	0	0	89	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type		NA		Perm	NA			NA		Perm	NA	
Protected Phases	4	4			8			2			6	
Permitted Phases				8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5		25.5	25.5	
Total Split (s)	23.5	23.5		25.8	25.8		40.7	40.7		40.7	40.7	
Total Split (%)	26.1%	26.1%		28.7%	28.7%		45.2%	45.2%		45.2%	45.2%	
Maximum Green (s)	18.0	18.0		20.3	20.3		35.2	35.2		35.2	35.2	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)		10.6			15.6			28.6			28.6	
Actuated g/C Ratio		0.18			0.27			0.49			0.49	
v/c Ratio		0.00			0.69			0.75			0.13	
Control Delay		0.0			25.3			19.2			10.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.0			25.3			19.2			10.8	
LOS		A			C			B			B	
Approach Delay					25.3			19.2			10.8	
Approach LOS					C			B			B	
Queue Length 50th (m)		0.0			13.0			38.5			4.1	
Queue Length 95th (m)		0.0			#56.8			#139.5			17.0	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)												
Base Capacity (vph)		896			467			1087			871	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.00			0.54			0.59			0.10	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 58.1			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 20.0		Intersection LOS: B	
Intersection Capacity Utilization 64.4%		ICU Level of Service C	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



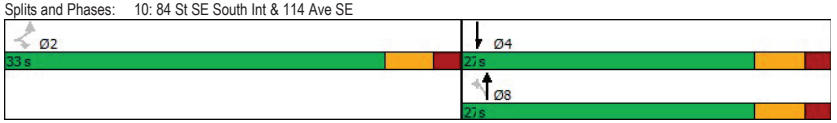
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	595	59	31	3	7	311
Future Volume (vph)	595	59	31	3	7	311
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.868	
Flt Protected	0.950			0.956		
Satd. Flow (prot)	1692	1514	0	1515	1221	0
Flt Permitted	0.950			0.661		
Satd. Flow (perm)	1692	1514	0	1048	1221	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		63				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	633	63	33	3	7	331
Shared Lane Traffic (%)						
Lane Group Flow (vph)	633	63	0	36	338	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Perm	Perm	Perm	NA	NA	
Protected Phases				8	4	
Permitted Phases	2	2	8			
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	24.5	24.5	24.5	
Total Split (s)	33.0	33.0	27.0	27.0	27.0	
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%	
Maximum Green (s)	27.5	27.5	21.5	21.5	21.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	
Walk Time (s)	8.0	8.0				
Flash Dont Walk (s)	12.0	12.0				
Pedestrian Calls (#/hr)	0	0				

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	24.8	24.8		18.3	18.3	
Actuated g/C Ratio	0.46	0.46		0.34	0.34	
v/c Ratio	0.82	0.09		0.10	0.82	
Control Delay	24.9	3.4		13.7	36.0	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	24.9	3.4		13.7	36.0	
LOS	C	A		B	D	
Approach Delay	23.0			13.7	36.0	
Approach LOS	C			B	D	
Queue Length 50th (m)	56.7	0.0		2.6	32.1	
Queue Length 95th (m)	#111.5	5.1		7.7	#70.1	
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)						
Base Capacity (vph)	873	812		423	492	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.73	0.08		0.09	0.69	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 54.3
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 26.8 Intersection LOS: C
Intersection Capacity Utilization 70.2% ICU Level of Service C
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	339	29	8	181	0	18	0	17	0	0	0
Future Volume (vph)	1	339	29	8	181	0	18	0	17	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989						0.934				
Flt Protected					0.998			0.975				
Satd. Flow (prot)	0	1762	0	0	1697	0	0	1622	0	0	1781	0
Flt Permitted					0.998			0.975				
Satd. Flow (perm)	0	1762	0	0	1697	0	0	1622	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	1	361	31	9	193	0	19	0	18	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	393	0	0	202	0	0	37	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	339	29	8	181	0	18	0	17	0	0	0
Future Volume (Veh/h)	1	339	29	8	181	0	18	0	17	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	1	361	31	9	193	0	19	0	18	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	193			392			590	590	376	608	605	193
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	193			392			590	590	376	608	605	193
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			95	100	97	100	100	100
cM capacity (veh/h)	1362			1124			412	413	663	390	404	841

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	393	202	37	0
Volume Left	1	9	19	0
Volume Right	31	0	18	0
cSH	1362	1124	505	1700
Volume to Capacity	0.00	0.01	0.07	0.00
Queue Length 95th (m)	0.0	0.2	1.8	0.0
Control Delay (s)	0.0	0.4	12.7	0.0
Lane LOS	A	A	B	A
Approach Delay (s)	0.0	0.4	12.7	0.0
Approach LOS			B	A

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	127	56	4	89	23	27	4	2	16	5	60
Future Volume (vph)	133	127	56	4	89	23	27	4	2	16	5	60
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.992			0.900	
Flt Protected	0.950				0.998			0.960			0.990	
Satd. Flow (prot)	1692	1781	1514	0	1697	1445	0	1697	0	0	1587	0
Flt Permitted	0.950				0.998			0.960			0.990	
Satd. Flow (perm)	1692	1781	1514	0	1697	1445	0	1697	0	0	1587	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	141	135	60	4	95	24	29	4	2	17	5	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	135	60	0	99	24	0	35	0	0	86	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary				
Area Type:	Other			
Control Type: Unsignalized				
Intersection Capacity Utilization	26.9%	ICU Level of Service A		
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	127	56	4	89	23	27	4	2	16	5	60
Future Volume (Veh/h)	133	127	56	4	89	23	27	4	2	16	5	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	141	135	60	4	95	24	29	4	2	17	5	64
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	119			195			586	544	135	524	580	95
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	119			195			586	544	135	524	580	95
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			100			92	99	100	96	99	93
cM capacity (veh/h)	1451			1331			356	398	906	420	380	953

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	141	135	60	99	24	35	86
Volume Left	141	0	0	4	0	29	17
Volume Right	0	0	60	0	24	2	64
cSH	1451	1700	1700	1331	1700	373	712
Volume to Capacity	0.10	0.08	0.04	0.00	0.01	0.09	0.12
Queue Length 95th (m)	2.5	0.0	0.0	0.1	0.0	2.3	3.1
Control Delay (s)	7.7	0.0	0.0	0.3	0.0	15.6	10.7
Lane LOS	A			A		C	B
Approach Delay (s)	3.3			0.3		15.6	10.7
Approach LOS						C	B

Intersection Summary					
Average Delay	4.5				
Intersection Capacity Utilization	26.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	40	36	2	65	0	18	0	1	0	0	0
Future Volume (vph)	0	40	36	2	65	0	18	0	1	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.937						0.993				
Flt Protected					0.999			0.955				
Satd. Flow (prot)	0	1669	0	0	1699	0	0	1689	0	0	1781	0
Flt Permitted					0.999			0.955				
Satd. Flow (perm)	0	1669	0	0	1699	0	0	1689	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	43	38	2	69	0	19	0	1	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	81	0	0	71	0	0	20	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	40	36	2	65	0	18	0	1	0	0	0
Future Volume (Veh/h)	0	40	36	2	65	0	18	0	1	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	43	38	2	69	0	19	0	1	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	69			81			135	135	62	136	154	69
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	69			81			135	135	62	136	154	69
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	100	100	100	100
cM capacity (veh/h)	1513			1467			829	749	995	827	731	986

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	81	71	20	0
Volume Left	0	2	19	0
Volume Right	38	0	1	0
cSH	1513	1467	836	1700
Volume to Capacity	0.00	0.00	0.02	0.00
Queue Length 95th (m)	0.0	0.0	0.6	0.0
Control Delay (s)	0.0	0.2	9.4	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.2	9.4	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	15.2%	ICU Level of Service		A
Analysis Period (min)	15			

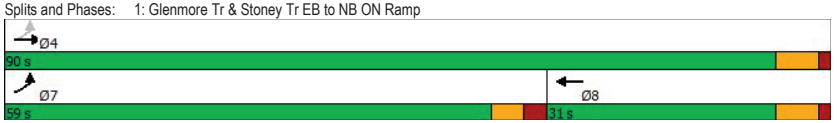
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	976	1319	783	0	0	0
Future Volume (vph)	976	1319	783	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	3118	3145	0	0	0
Flt Permitted	0.129					
Satd. Flow (perm)	212	3118	3145	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1027	1388	824	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1027	1388	824	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	59.0	90.0	31.0			
Total Split (%)	65.6%	100.0%	34.4%			
Maximum Green (s)	53.0	84.0	25.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	84.0	90.0	24.9			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.93	1.00	0.28			
v/c Ratio	1.03	0.45	0.95			
Control Delay	54.0	0.3	53.4			
Queue Delay	0.0	0.0	0.0			
Total Delay	54.0	0.3	53.4			
LOS	D	A	D			
Approach Delay		23.1	53.4			
Approach LOS		C	D			
Queue Length 50th (m)	~186.5	0.0	73.2			
Queue Length 95th (m)	m#211.7	m0.0	#109.7			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	993	3118	873			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	1.03	0.45	0.94			

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 30.8 Intersection LOS: C
Intersection Capacity Utilization 87.8% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp

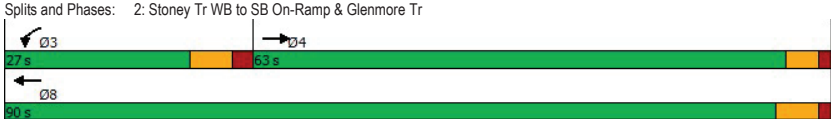


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1845	0	329	574	0	0
Future Volume (vph)	1845	0	329	574	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3118	0	1573	3145	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3118	0	1573	3145	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1942	0	346	604	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1942	0	346	604	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	63.0		27.0	90.0		
Total Split (%)	70.0%		30.0%	100.0%		
Maximum Green (s)	58.0		20.0	84.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	58.0		20.0	90.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.64		0.22	1.00		
v/c Ratio	0.97		0.99	0.19		
Control Delay	29.9		63.3	0.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	29.9		63.3	0.1		
LOS	C		E	A		
Approach Delay	29.9			23.1		
Approach LOS	C			C		
Queue Length 50th (m)	149.2		28.5	0.0		
Queue Length 95th (m)	#220.9		m#68.6	m0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	2009		349	3145		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.97		0.99	0.19		

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 27.7		Intersection LOS: C	
Intersection Capacity Utilization 87.8%		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.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



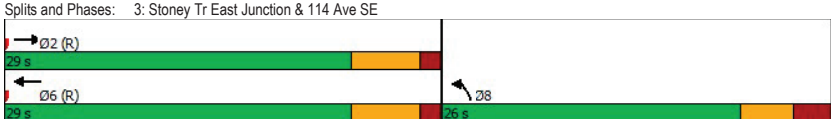
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	267	0	0	597	44	0
Future Volume (vph)	267	0	0	597	44	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	281	0	0	628	46	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	281	0	0	628	46	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	29.0			29.0	26.0	
Total Split (%)	52.7%			52.7%	47.3%	
Maximum Green (s)	23.0			23.0	20.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	46.2			46.2	10.0	
Actuated g/C Ratio	0.84			0.84	0.18	
v/c Ratio	0.10			0.24	0.08	
Control Delay	3.5			3.3	19.1	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	3.5			3.3	19.1	
LOS	A			A	B	
Approach Delay	3.5			3.3	19.1	
Approach LOS	A			A	B	
Queue Length 50th (m)	0.0			0.0	2.0	
Queue Length 95th (m)	11.6			21.3	5.3	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2739			2642	1171	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.10			0.24	0.04	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.24
Intersection Signal Delay: 4.1 Intersection LOS: A
Intersection Capacity Utilization 38.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

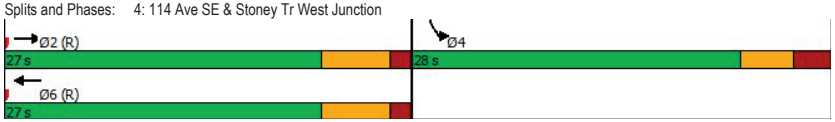


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	720	270	0	124	0
Future Volume (vph)	0	720	270	0	124	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	758	284	0	131	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	758	284	0	131	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		37.4	37.4		10.0	
Actuated g/C Ratio		0.68	0.68		0.18	
v/c Ratio		0.34	0.13		0.22	
Control Delay		5.7	4.4		20.4	
Queue Delay		0.0	0.0		0.0	
Total Delay		5.7	4.4		20.4	
LOS		A	A		C	
Approach Delay		5.7	4.4		20.4	
Approach LOS		A	A		C	
Queue Length 50th (m)		17.5	5.1		5.8	
Queue Length 95th (m)		26.1	8.7		11.7	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		2217	2139		1288	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.34	0.13		0.10	

Intersection Summary		
Area Type:	Other	
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 55		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.34		
Intersection Signal Delay: 7.0		Intersection LOS: A
Intersection Capacity Utilization 38.8%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction



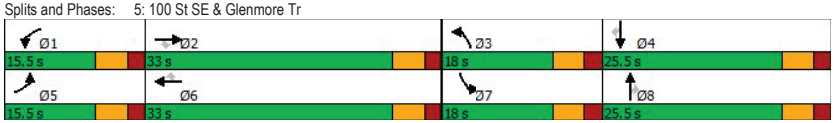
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	788	102	15	259	31	333	93	95	165	36	316
Future Volume (vph)	106	788	102	15	259	31	333	93	95	165	36	316
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			160			160			160			333
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	112	829	107	16	273	33	351	98	100	174	38	333
Shared Lane Traffic (%)												
Lane Group Flow (vph)	112	829	107	16	273	33	351	98	100	174	38	333
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	33.0	33.0	15.5	33.0	33.0	18.0	25.5	25.5	18.0	25.5	25.5
Total Split (%)	16.8%	35.9%	35.9%	16.8%	35.9%	35.9%	19.6%	27.7%	27.7%	19.6%	27.7%	27.7%
Maximum Green (s)	10.0	27.5	27.5	10.0	27.5	27.5	12.5	20.0	20.0	12.5	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	8.2	29.7	29.7	7.3	21.3	21.3	12.2	11.7	11.7	16.2	11.7	11.7
Actuated g/C Ratio	0.11	0.41	0.41	0.10	0.29	0.29	0.17	0.16	0.16	0.22	0.16	0.16
v/c Ratio	0.32	0.63	0.16	0.09	0.28	0.06	0.71	0.38	0.28	0.51	0.15	0.67
Control Delay	34.8	21.1	1.8	35.1	22.3	0.2	39.9	34.0	3.3	38.0	29.7	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.8	21.1	1.8	35.1	22.3	0.2	39.9	34.0	3.3	38.0	29.7	11.1
LOS	C	C	A	D	C	A	D	C	A	D	C	B
Approach Delay		20.6			20.7			32.2			21.0	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	7.4	40.9	0.0	2.0	15.3	0.0	23.3	12.4	0.0	22.4	4.7	0.0
Queue Length 95th (m)	16.8	#89.7	4.0	8.3	28.3	0.0	#51.4	27.9	3.4	#61.1	13.3	22.5
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	439	1405	718	237	1306	682	516	448	496	338	448	620
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.59	0.15	0.07	0.21	0.05	0.68	0.22	0.20	0.51	0.08	0.54

Intersection Summary

Area Type: Other
Cycle Length: 92
Actuated Cycle Length: 72.6
Natural Cycle: 85
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 23.3 Intersection LOS: C
Intersection Capacity Utilization 60.3% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	1124	0	0	382	1	1	0	1	5	0	19
Future Volume (vph)	19	1124	0	0	382	1	1	0	1	5	0	19
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850		0.932			0.892	
Flt Protected		0.999						0.976			0.990	
Satd. Flow (prot)	0	1814	1816	0	1748	1486	0	1620	0	0	1588	0
Flt Permitted		0.999						0.976			0.990	
Satd. Flow (perm)	0	1814	1816	0	1748	1486	0	1620	0	0	1588	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	20	1183	0	0	402	1	1	0	1	5	0	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1203	0	0	402	1	0	2	0	0	25	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 86.4%		ICU Level of Service E	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1124	0	0	382	1	1	0	1	5	0	19
Future Volume (Veh/h)	19	1124	0	0	382	1	1	0	1	5	0	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	20	1183	0	0	402	1	1	0	1	5	0	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	403			1183			1645	1626	1183	1626	1625	402
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	403			1183			1645	1626	1183	1626	1625	402
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			99	100	100	94	100	97
cM capacity (veh/h)	1150			573			75	99	228	80	99	644

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	1203	0	402	1	2	25
Volume Left	20	0	0	0	1	5
Volume Right	0	0	0	1	1	20
cSH	1150	1700	573	1700	113	266
Volume to Capacity	0.02	0.00	0.00	0.00	0.02	0.09
Queue Length 95th (m)	0.4	0.0	0.0	0.0	0.4	2.3
Control Delay (s)	0.6	0.0	0.0	0.0	37.6	19.9
Lane LOS	A				E	C
Approach Delay (s)	0.6		0.0		37.6	19.9
Approach LOS					E	C

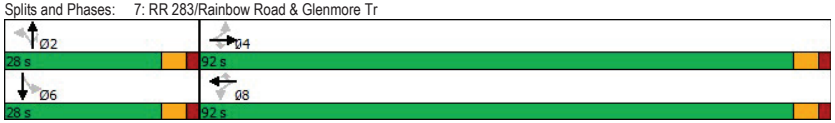
Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	86.4%	ICU Level of Service		E
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	175	901	50	9	249	13	45	62	22	16	12	88
Future Volume (vph)	175	901	50	9	249	13	45	62	22	16	12	88
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	0.0		15.0	0.0		0.0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.898	
Flt Protected	0.950			0.950				0.979			0.993	
Satd. Flow (prot)	1615	1701	1445	1630	1716	1459	0	1465	1272	0	1635	0
Flt Permitted	0.597			0.202				0.818			0.939	
Satd. Flow (perm)	1015	1701	1445	347	1716	1459	0	1224	1272	0	1546	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			53			23			23		93	
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	184	948	53	9	262	14	47	65	23	17	13	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	948	53	9	262	14	0	112	23	0	123	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	92.0	92.0	92.0	92.0	92.0	92.0	28.0	28.0	28.0	28.0	28.0	
Total Split (%)	76.7%	76.7%	76.7%	76.7%	76.7%	76.7%	23.3%	23.3%	23.3%	23.3%	23.3%	
Maximum Green (s)	86.5	86.5	86.5	86.5	86.5	86.5	22.5	22.5	22.5	22.5	22.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Act Effct Green (s)	54.2	54.2	54.2	54.2	54.2	54.2		14.6	14.6		14.6	
Actuated g/C Ratio	0.74	0.74	0.74	0.74	0.74	0.74		0.20	0.20		0.20	
v/c Ratio	0.25	0.76	0.05	0.04	0.21	0.01		0.46	0.08		0.32	
Control Delay	6.2	13.9	1.5	5.0	5.3	1.2		40.5	15.7		15.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	6.2	13.9	1.5	5.0	5.3	1.2		40.5	15.7		15.3	
LOS	A	B	A	A	A	A		D	B		B	
Approach Delay		12.2			5.1			36.3			15.3	
Approach LOS		B			A			D			B	
Queue Length 50th (m)	8.2	78.4	0.0	0.3	11.3	0.0		12.8	0.0		3.2	
Queue Length 95th (m)	21.9	182.5	3.3	2.1	27.2	1.2		42.4	7.2		22.6	
Internal Link Dist (m)		224.8			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0			15.0			
Base Capacity (vph)	958	1606	1367	328	1620	1379		432	464		606	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	
Reduced v/c Ratio	0.19	0.59	0.04	0.03	0.16	0.01		0.26	0.05		0.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 73.6			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 92.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	922	4	2	268	0	4	0	1	0	0	1
Future Volume (vph)	1	922	4	2	268	0	4	0	1	0	0	1
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999						0.973			0.865	
Flt Protected								0.962				
Satd. Flow (prot)	0	1832	0	0	1765	0	0	1592	0	0	1471	0
Flt Permitted								0.962				
Satd. Flow (perm)	0	1832	0	0	1765	0	0	1592	0	0	1471	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	1	971	4	2	282	0	4	0	1	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	976	0	0	284	0	0	5	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	922	4	2	268	0	4	0	1	0	0	1
Future Volume (Veh/h)	1	922	4	2	268	0	4	0	1	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1	971	4	2	282	0	4	0	1	0	0	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	282			975			1262	1261	973	1262	1263	282
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	282			975			1262	1261	973	1262	1263	282
tC, single (s)	4.1			4.2			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			97	100	100	100	100	100
cM capacity (veh/h)	1280			692			141	164	295	140	163	738

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	976	284	5	1
Volume Left	1	2	4	0
Volume Right	4	0	1	1
cSH	1280	692	157	738
Volume to Capacity	0.00	0.00	0.03	0.00
Queue Length 95th (m)	0.0	0.1	0.7	0.0
Control Delay (s)	0.0	0.1	28.7	9.9
Lane LOS	A	A	D	A
Approach Delay (s)	0.0	0.1	28.7	9.9
Approach LOS			D	A

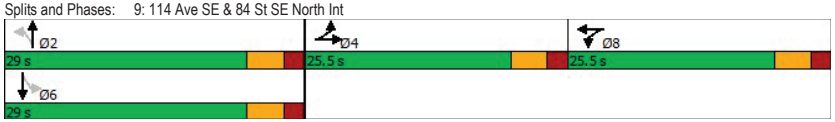
Intersection Summary					
Average Delay	0.2				
Intersection Capacity Utilization	61.1%	ICU Level of Service		B	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	2	337	0	2	3	108	208	4	368	0
Future Volume (vph)	0	0	2	337	0	2	3	108	208	4	368	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.999			0.912				
Flt Protected					0.953						0.999	
Satd. Flow (prot)	0	1471	0	0	1619	0	0	1537	0	0	1780	0
Flt Permitted					0.953			0.996			0.995	
Satd. Flow (perm)	0	1471	0	0	1619	0	0	1531	0	0	1773	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		182			109			119				
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	0	0	2	355	0	2	3	114	219	4	387	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	0	357	0	0	336	0	0	391	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type		NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5		25.5	25.5		25.5	25.5		25.5	25.5	
Total Split (s)	25.5	25.5		25.5	25.5		29.0	29.0		29.0	29.0	
Total Split (%)	31.9%	31.9%		31.9%	31.9%		36.3%	36.3%		36.3%	36.3%	
Maximum Green (s)	20.0	20.0		20.0	20.0		23.5	23.5		23.5	23.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)		10.9			14.0			15.8			15.8	
Actuated g/C Ratio		0.25			0.32			0.36			0.36	
v/c Ratio		0.00			0.60			0.54			0.61	
Control Delay		0.0			15.2			12.0			17.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.0			15.2			12.0			17.9	
LOS		A			B			B			B	
Approach Delay					15.2			12.0			17.9	
Approach LOS					B			B			B	
Queue Length 50th (m)		0.0			12.4			9.7			19.2	
Queue Length 95th (m)		0.0			54.7			45.7			70.3	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)												
Base Capacity (vph)		823			859			943			1036	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.00			0.42			0.36			0.38	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 43.7			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 57.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



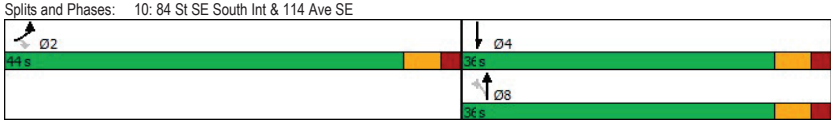
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	320	42	38	2	2	695
Future Volume (vph)	320	42	38	2	2	695
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.865	
Flt Protected	0.950			0.955		
Satd. Flow (prot)	1601	1432	0	1734	1556	0
Flt Permitted	0.950			0.488		
Satd. Flow (perm)	1601	1432	0	886	1556	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		44				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	337	44	40	2	2	732
Shared Lane Traffic (%)						
Lane Group Flow (vph)	337	44	0	42	734	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	2			8	4	
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	7.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	44.0	44.0	36.0	36.0	36.0	
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%	
Maximum Green (s)	38.5	38.5	30.5	30.5	30.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	
Walk Time (s)	8.0	8.0				
Flash Dont Walk (s)	12.0	12.0				
Pedestrian Calls (#/hr)	0	0				

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	21.0	21.0		30.5	30.5	
Actuated g/C Ratio	0.34	0.34		0.49	0.49	
v/c Ratio	0.63	0.09		0.10	0.97	
Control Delay	23.4	5.5		10.0	44.8	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	23.4	5.5		10.0	44.8	
LOS	C	A		A	D	
Approach Delay	21.4			10.0	44.8	
Approach LOS	C			A	D	
Queue Length 50th (m)	32.0	0.0		2.3	73.4	
Queue Length 95th (m)	55.1	5.4		7.8	#158.7	
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)						
Base Capacity (vph)	986	898		432	759	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.34	0.05		0.10	0.97	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 62.6
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 35.8 Intersection LOS: D
Intersection Capacity Utilization 71.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	201	18	13	266	0	26	2	15	0	0	0
Future Volume (vph)	2	201	18	13	266	0	26	2	15	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989						0.952				
Flt Protected					0.998			0.971				
Satd. Flow (prot)	0	1713	0	0	1795	0	0	1647	0	0	1781	0
Flt Permitted					0.998			0.971				
Satd. Flow (perm)	0	1713	0	0	1795	0	0	1647	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	2	212	19	14	280	0	27	2	16	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	233	0	0	294	0	0	45	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization	33.0%
	ICU Level of Service A
Analysis Period (min)	15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	201	18	13	266	0	26	2	15	0	0	0
Future Volume (Veh/h)	2	201	18	13	266	0	26	2	15	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	2	212	19	14	280	0	27	2	16	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	280			231			534	534	222	550	543	280
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	280			231			534	534	222	550	543	280
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			94	100	98	100	100	100
cM capacity (veh/h)	1249			1325			448	443	811	427	437	752

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	233	294	45	0
Volume Left	2	14	27	0
Volume Right	19	0	16	0
cSH	1249	1325	533	1700
Volume to Capacity	0.00	0.01	0.08	0.00
Queue Length 95th (m)	0.0	0.2	2.1	0.0
Control Delay (s)	0.1	0.5	12.4	0.0
Lane LOS	A	A	B	A
Approach Delay (s)	0.1	0.5	12.4	0.0
Approach LOS			B	A

Intersection Summary			
Average Delay		1.2	
Intersection Capacity Utilization		33.0%	ICU Level of Service A
Analysis Period (min)		15	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	118	28	3	114	22	55	7	6	16	2	70
Future Volume (vph)	58	118	28	3	114	22	55	7	6	16	2	70
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.989			0.893	
Flt Protected	0.950				0.999			0.961			0.991	
Satd. Flow (prot)	1645	1732	1472	0	1797	1529	0	1693	0	0	1577	0
Flt Permitted	0.950				0.999			0.961			0.991	
Satd. Flow (perm)	1645	1732	1472	0	1797	1529	0	1693	0	0	1577	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	61	124	29	3	120	23	58	7	6	17	2	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	124	29	0	123	23	0	71	0	0	93	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	118	28	3	114	22	55	7	6	16	2	70
Future Volume (Veh/h)	58	118	28	3	114	22	55	7	6	16	2	70
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	61	124	29	3	120	23	58	7	6	17	2	74
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	143			153			447	395	124	382	401	120
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	143			153			447	395	124	382	401	120
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			100			87	99	99	97	100	92
cM capacity (veh/h)	1404			1415			457	513	919	542	509	923

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	61	124	29	123	23	71	93
Volume Left	61	0	0	3	0	58	17
Volume Right	0	0	29	0	23	6	74
cSH	1404	1700	1700	1415	1700	483	806
Volume to Capacity	0.04	0.07	0.02	0.00	0.01	0.15	0.12
Queue Length 95th (m)	1.0	0.0	0.0	0.0	0.0	3.9	3.0
Control Delay (s)	7.7	0.0	0.0	0.2	0.0	13.7	10.1
Lane LOS	A			A		B	B
Approach Delay (s)	2.2			0.2		13.7	10.1
Approach LOS						B	B

Intersection Summary					
Average Delay	4.6				
Intersection Capacity Utilization	27.2%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	93	18	2	36	0	35	0	3	0	0	0
Future Volume (vph)	0	93	18	2	36	0	35	0	3	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978						0.990				
Flt Protected					0.998			0.956				
Satd. Flow (prot)	0	1694	0	0	1795	0	0	1686	0	0	1781	0
Flt Permitted					0.998			0.956				
Satd. Flow (perm)	0	1694	0	0	1795	0	0	1686	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	98	19	2	38	0	37	0	3	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	40	0	0	40	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization	16.1%
	ICU Level of Service A
Analysis Period (min)	15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	93	18	2	36	0	35	0	3	0	0	0
Future Volume (Veh/h)	0	93	18	2	36	0	35	0	3	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	98	19	2	38	0	37	0	3	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	38			117			150	150	108	152	159	38
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	38			117			150	150	108	152	159	38
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			95	100	100	100	100	100
cM capacity (veh/h)	1534			1459			811	736	938	804	727	1025

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	117	40	40	0
Volume Left	0	2	37	0
Volume Right	19	0	3	0
cSH	1534	1459	819	1700
Volume to Capacity	0.00	0.00	0.05	0.00
Queue Length 95th (m)	0.0	0.0	1.2	0.0
Control Delay (s)	0.0	0.4	9.6	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.4	9.6	0.0
Approach LOS			A	A

Intersection Summary			
Average Delay		2.0	
Intersection Capacity Utilization		16.1%	ICU Level of Service A
Analysis Period (min)		15	

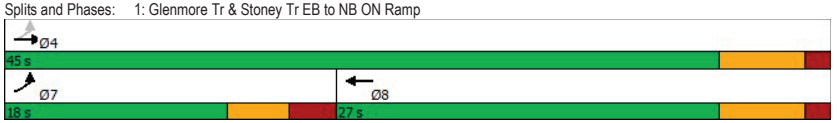
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	377	914	985	0	0	0
Future Volume (vph)	377	914	985	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	3038	3012	0	0	0
Flt Permitted	0.175					
Satd. Flow (perm)	280	3038	3012	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	401	972	1048	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	401	972	1048	0	0	0
Number of Detectors	1	2	2			
Detector Template	Left	Thru	Thru			
Leading Detector (m)	2.0	10.0	10.0			
Trailing Detector (m)	0.0	0.0	0.0			
Detector 1 Position(m)	0.0	0.0	0.0			
Detector 1 Size(m)	2.0	0.6	0.6			
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0			
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	18.0	45.0	27.0			
Total Split (%)	40.0%	100.0%	60.0%			
Maximum Green (s)	12.0	39.0	21.0			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	39.0	45.0	22.1			
Actuated g/C Ratio	0.87	1.00	0.49			
v/c Ratio	0.74	0.32	0.71			
Control Delay	22.2	0.3	12.6			
Queue Delay	0.0	0.0	0.0			
Total Delay	22.2	0.3	12.6			
LOS	C	A	B			
Approach Delay		6.7	12.6			
Approach LOS		A	B			
Queue Length 50th (m)	15.4	0.0	29.7			
Queue Length 95th (m)	#43.2	0.0	50.3			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	573	3038	1477			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	0.70	0.32	0.71			

Intersection Summary

Area Type: Other
Cycle Length: 45
Actuated Cycle Length: 45
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 9.3 Intersection LOS: A
Intersection Capacity Utilization 59.4% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	951	0	166	1444	0	0
Future Volume (vph)	951	0	166	1444	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3038	0	1506	3012	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3038	0	1506	3012	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	1012	0	177	1536	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1012	0	177	1536	0	0
Number of Detectors	2		1	2		
Detector Template	Thru		Left	Thru		
Leading Detector (m)	10.0		2.0	10.0		
Trailing Detector (m)	0.0		0.0	0.0		
Detector 1 Position(m)	0.0		0.0	0.0		
Detector 1 Size(m)	0.6		2.0	0.6		
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0		0.0	0.0		
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	26.0		19.0	45.0		
Total Split (%)	57.8%		42.2%	100.0%		
Maximum Green (s)	21.0		12.0	39.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	26.5		10.9	45.0		
Actuated g/C Ratio	0.59		0.24	1.00		
v/c Ratio	0.57		0.49	0.51		
Control Delay	9.8		25.0	1.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	9.8		25.0	1.1		
LOS	A		C	A		
Approach Delay	9.8			3.6		
Approach LOS	A			A		
Queue Length 50th (m)	27.7		14.0	2.1		
Queue Length 95th (m)	47.5		m22.2	4.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	1790		401	3012		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.57		0.44	0.51		

Intersection Summary

Area Type: Other
Cycle Length: 45
Actuated Cycle Length: 45
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 5.9 Intersection LOS: A
Intersection Capacity Utilization 59.4% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



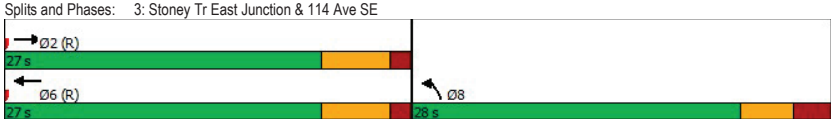
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	390	0	0	277	157	0
Future Volume (vph)	390	0	0	277	157	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	415	0	0	295	167	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	415	0	0	295	167	0
Number of Detectors	2			2	1	
Detector Template	Thru			Thru	Left	
Leading Detector (m)	30.5			30.5	6.1	
Trailing Detector (m)	0.0			0.0	0.0	
Detector 1 Position(m)	0.0			0.0	0.0	
Detector 1 Size(m)	1.8			1.8	6.1	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	
Detector 2 Position(m)	28.7			28.7		
Detector 2 Size(m)	1.8			1.8		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	37.3			37.3	10.1	
Actuated g/C Ratio	0.68			0.68	0.18	
v/c Ratio	0.19			0.14	0.29	
Control Delay	4.3			4.8	20.9	
Queue Delay	0.0			0.0	0.0	
Total Delay	4.3			4.8	20.9	
LOS	A			A	C	
Approach Delay	4.3			4.8	20.9	
Approach LOS	A			A	C	
Queue Length 50th (m)	6.5			5.7	7.4	
Queue Length 95th (m)	13.4			10.1	14.1	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2152			2115	1265	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.19			0.14	0.13	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.29
Intersection Signal Delay: 7.6 Intersection LOS: A
Intersection Capacity Utilization 35.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE



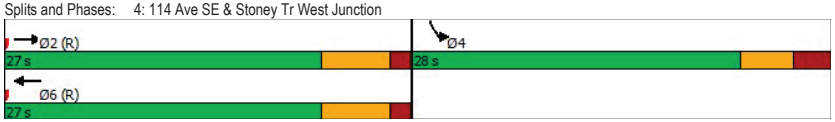
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	600	318	0	158	0
Future Volume (vph)	0	600	318	0	158	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	638	338	0	168	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	638	338	0	168	0
Number of Detectors		2	2		1	
Detector Template		Thru	Thru		Left	
Leading Detector (m)		30.5	30.5		6.1	
Trailing Detector (m)		0.0	0.0		0.0	
Detector 1 Position(m)		0.0	0.0		0.0	
Detector 1 Size(m)		1.8	1.8		6.1	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		37.3	37.3		10.1	
Actuated g/C Ratio		0.68	0.68		0.18	
v/c Ratio		0.30	0.16		0.29	
Control Delay		5.5	3.0		20.9	
Queue Delay		0.0	0.0		0.0	
Total Delay		5.5	3.0		20.9	
LOS		A	A		C	
Approach Delay		5.5	3.0		20.9	
Approach LOS		A	A		C	
Queue Length 50th (m)		14.2	4.2		7.5	
Queue Length 95th (m)		22.1	6.9		14.2	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		2151	2114		1265	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.30	0.16		0.13	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.30
Intersection Signal Delay: 7.0 — Intersection LOS: A
Intersection Capacity Utilization 35.4% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction



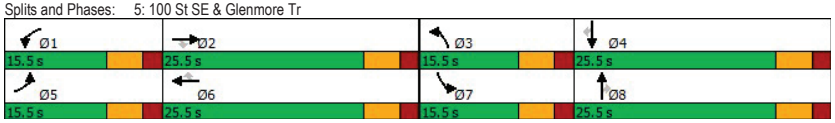
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	249	306	81	779	133	13	46	4	23	14	103
Future Volume (vph)	330	249	306	81	779	133	13	46	4	23	14	103
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			326			180			180			180
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	351	265	326	86	829	141	14	49	4	24	15	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	351	265	326	86	829	141	14	49	4	24	15	110
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (%)	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%
Maximum Green (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	10.4	27.8	27.8	8.6	20.8	20.8	7.3	10.4	10.4	7.6	12.8	12.8
Actuated g/C Ratio	0.18	0.47	0.47	0.15	0.35	0.35	0.12	0.18	0.18	0.13	0.22	0.22
v/c Ratio	0.66	0.18	0.39	0.37	0.73	0.23	0.04	0.17	0.01	0.13	0.04	0.26
Control Delay	33.3	16.2	4.5	30.8	25.1	3.0	27.9	26.7	0.0	28.7	21.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	16.2	4.5	30.8	25.1	3.0	27.9	26.7	0.0	28.7	21.7	2.7
LOS	C	B	A	C	C	A	C	C	A	C	C	A
Approach Delay		18.5			22.6			25.3			8.8	
Approach LOS		B			C			C			A	
Queue Length 50th (m)	17.5	9.2	0.0	8.1	37.8	0.0	0.6	4.3	0.0	2.3	1.3	0.0
Queue Length 95th (m)	#43.5	23.4	16.8	22.8	#88.3	7.2	3.2	14.7	0.0	9.2	6.3	3.5
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	534	1472	830	283	1132	622	516	560	592	261	563	594
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.18	0.39	0.30	0.73	0.23	0.03	0.09	0.01	0.09	0.03	0.19

Intersection Summary

Area Type: Other
Cycle Length: 82
Actuated Cycle Length: 58.8
Natural Cycle: 85
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 20.0 Intersection LOS: C
Intersection Capacity Utilization 53.9% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	306	2	0	927	5	1	0	0	1	0	18
Future Volume (vph)	15	306	2	0	927	5	1	0	0	1	0	18
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850					0.872	
Flt Protected		0.998						0.950			0.998	
Satd. Flow (prot)	0	1652	1407	0	1781	1514	0	1692	0	0	1272	0
Flt Permitted		0.998						0.950			0.998	
Satd. Flow (perm)	0	1652	1407	0	1781	1514	0	1692	0	0	1272	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	16	326	2	0	986	5	1	0	0	1	0	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	342	2	0	986	5	0	1	0	0	20	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	306	2	0	927	5	1	0	0	1	0	18
Future Volume (Veh/h)	15	306	2	0	927	5	1	0	0	1	0	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	16	326	2	0	986	5	1	0	0	1	0	19
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	991			328			1363	1349	326	1344	1346	986
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	991			328			1363	1349	326	1344	1346	986
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.4	6.8	6.5
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.8	4.3	3.6
p0 queue free %	98			100			99	100	100	99	100	93
cM capacity (veh/h)	656			1215			112	145	708	111	131	269

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	342	2	986	5	1	20
Volume Left	16	0	0	0	1	1
Volume Right	0	2	0	5	0	19
cSH	656	1700	1215	1700	112	251
Volume to Capacity	0.02	0.00	0.00	0.00	0.01	0.08
Queue Length 95th (m)	0.6	0.0	0.0	0.0	0.2	2.0
Control Delay (s)	0.8	0.0	0.0	0.0	37.3	20.6
Lane LOS	A				E	C
Approach Delay (s)	0.8		0.0		37.3	20.6
Approach LOS					E	C

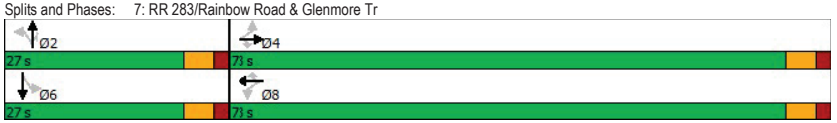
Intersection Summary					
Average Delay	0.5				
Intersection Capacity Utilization	66.8%	ICU Level of Service		C	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	242	39	25	765	8	18	12	6	2	68	123
Future Volume (vph)	13	242	39	25	765	8	18	12	6	2	68	123
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	0.0		15.0	0.0		0.0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.914	
Flt Protected	0.950			0.950				0.971				
Satd. Flow (prot)	1742	1701	1445	1615	1701	1559	0	1683	1420	0	1676	0
Flt Permitted	0.211			0.600				0.829			0.998	
Satd. Flow (perm)	387	1701	1445	1020	1701	1559	0	1437	1420	0	1673	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			41			27			27		81	
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	14	257	41	27	814	9	19	13	6	2	72	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	257	41	27	814	9	0	32	6	0	205	0
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	73.0	73.0	73.0	73.0	73.0	73.0	27.0	27.0	27.0	27.0	27.0	
Total Split (%)	73.0%	73.0%	73.0%	73.0%	73.0%	73.0%	27.0%	27.0%	27.0%	27.0%	27.0%	
Maximum Green (s)	67.5	67.5	67.5	67.5	67.5	67.5	21.5	21.5	21.5	21.5	21.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Act Effct Green (s)	33.3	33.3	33.3	33.3	33.3	33.3		12.3	12.3		12.3	
Actuated g/C Ratio	0.58	0.58	0.58	0.58	0.58	0.58		0.21	0.21		0.21	
v/c Ratio	0.06	0.26	0.05	0.05	0.83	0.01		0.10	0.02		0.49	
Control Delay	5.7	6.3	1.9	5.0	17.6	0.6		24.2	0.2		19.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	5.7	6.3	1.9	5.0	17.6	0.6		24.2	0.2		19.5	
LOS	A	A	A	A	B	A		C	A		B	
Approach Delay		5.7			17.0			20.4			19.5	
Approach LOS		A			B			C			B	
Queue Length 50th (m)	0.5	9.6	0.0	0.9	49.6	0.0		2.4	0.0		9.9	
Queue Length 95th (m)	2.7	24.5	2.9	4.0	121.1	0.5		11.8	0.3		38.2	
Internal Link Dist (m)		224.8			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0			15.0			
Base Capacity (vph)	369	1623	1380	973	1623	1488		578	588		722	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	
Reduced v/c Ratio	0.04	0.16	0.03	0.03	0.50	0.01		0.06	0.01		0.28	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 57.4			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 15.0		Intersection LOS: B	
Intersection Capacity Utilization 64.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	248	2	3	786	0	6	0	3	0	0	2
Future Volume (vph)	0	248	2	3	786	0	6	0	3	0	0	2
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999						0.955			0.865	
Flt Protected								0.968				
Satd. Flow (prot)	0	1611	0	0	1799	0	0	1572	0	0	1471	0
Flt Permitted								0.968				
Satd. Flow (perm)	0	1611	0	0	1799	0	0	1572	0	0	1471	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	0	264	2	3	836	0	6	0	3	0	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	0	0	839	0	0	9	0	0	2	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	248	2	3	786	0	6	0	3	0	0	2
Future Volume (Veh/h)	0	248	2	3	786	0	6	0	3	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	264	2	3	836	0	6	0	3	0	0	2
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	836			266			1109	1107	265	1110	1108	836
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	836			266			1109	1107	265	1110	1108	836
tC, single (s)	4.3			4.1			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			97	100	100	100	100	99
cM capacity (veh/h)	741			1286			179	203	755	179	202	355

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	266	839	9	2
Volume Left	0	3	6	0
Volume Right	2	0	3	2
cSH	741	1286	240	355
Volume to Capacity	0.00	0.00	0.04	0.01
Queue Length 95th (m)	0.0	0.1	0.9	0.1
Control Delay (s)	0.0	0.1	20.6	15.2
Lane LOS		A	C	C
Approach Delay (s)	0.0	0.1	20.6	15.2
Approach LOS			C	C

Intersection Summary					
Average Delay		0.2			
Intersection Capacity Utilization		57.5%	ICU Level of Service		B
Analysis Period (min)		15			

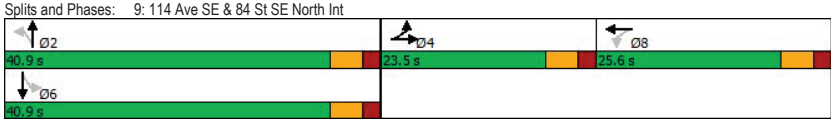
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	3	222	0	2	0	276	422	1	82	1
Future Volume (vph)	0	0	3	222	0	2	0	276	422	1	82	1
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.999			0.918			0.998	
Flt Protected					0.953						0.999	
Satd. Flow (prot)	0	1471	0	0	1436	0	0	1635	0	0	1361	0
Flt Permitted					0.727						0.995	
Satd. Flow (perm)	0	1471	0	0	1096	0	0	1635	0	0	1356	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		625			97			101			1	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	0	0	3	236	0	2	0	294	449	1	87	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	238	0	0	743	0	0	89	0
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA		Perm	NA			NA		Perm	NA	
Protected Phases	4	4			8			2			6	
Permitted Phases				8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5		25.5	25.5	
Total Split (s)	23.5	23.5		25.6	25.6		40.9	40.9		40.9	40.9	
Total Split (%)	26.1%	26.1%		28.4%	28.4%		45.4%	45.4%		45.4%	45.4%	
Maximum Green (s)	18.0	18.0		20.1	20.1		35.4	35.4		35.4	35.4	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.5			5.5			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		10.2			14.8			37.1			37.1	
Actuated g/C Ratio		0.16			0.23			0.57			0.57	
v/c Ratio		0.00			0.74			0.77			0.12	
Control Delay		0.0			29.5			19.1			9.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.0			29.5			19.1			9.9	
LOS		A			C			B			A	
Approach Delay					29.5			19.1			9.9	
Approach LOS					C			B			A	
Queue Length 50th (m)		0.0			13.8			46.4			3.9	
Queue Length 95th (m)		0.0			#51.5			#174.2			16.9	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)												
Base Capacity (vph)		861			408			970			768	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.00			0.58			0.77			0.12	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 65.5
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 70.1% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



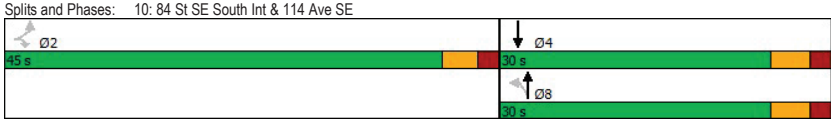
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	695	59	31	3	7	299
Future Volume (vph)	695	59	31	3	7	299
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.868	
Flt Protected	0.950			0.956		
Satd. Flow (prot)	1692	1514	0	1515	1221	0
Flt Permitted	0.950			0.667		
Satd. Flow (perm)	1692	1514	0	1057	1221	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		63				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	739	63	33	3	7	318
Shared Lane Traffic (%)						
Lane Group Flow (vph)	739	63	0	36	325	0
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (m)	2.0	2.0	2.0	10.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	2.0	2.0	0.6	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)				9.4	9.4	
Detector 2 Size(m)				0.6	0.6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	Perm	NA	NA	
Protected Phases				8	4	
Permitted Phases	2	2	8			
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	24.5	24.5	24.5	
Total Split (s)	45.0	45.0	30.0	30.0	30.0	
Total Split (%)	60.0%	60.0%	40.0%	40.0%	40.0%	
Maximum Green (s)	39.5	39.5	24.5	24.5	24.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Lost Time (s)	5.5	5.5		5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	
Walk Time (s)	8.0	8.0				
Flash Dont Walk (s)	12.0	12.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	32.7	32.7		21.0	21.0	
Actuated g/C Ratio	0.50	0.50		0.32	0.32	
v/c Ratio	0.87	0.08		0.11	0.83	
Control Delay	27.9	2.9		18.4	42.0	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	27.9	2.9		18.4	42.0	
LOS	C	A		B	D	
Approach Delay	26.0			18.4	42.0	
Approach LOS	C			B	D	
Queue Length 50th (m)	81.8	0.0		3.4	40.0	
Queue Length 95th (m)	#149.5	4.9		9.7	#83.3	
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)						
Base Capacity (vph)	1070	980		414	478	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.69	0.06		0.09	0.68	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 65.2
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 30.2 Intersection LOS: C
Intersection Capacity Utilization 75.9% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	429	39	9	170	0	17	0	16	0	0	0
Future Volume (vph)	1	429	39	9	170	0	17	0	16	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989						0.934				
Flt Protected					0.997			0.975				
Satd. Flow (prot)	0	1762	0	0	1695	0	0	1622	0	0	1781	0
Flt Permitted					0.997			0.975				
Satd. Flow (perm)	0	1762	0	0	1695	0	0	1622	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	1	456	41	10	181	0	18	0	17	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	498	0	0	191	0	0	35	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	429	39	9	170	0	17	0	16	0	0	0
Future Volume (Veh/h)	1	429	39	9	170	0	17	0	16	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	1	456	41	10	181	0	18	0	17	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	181			497			680	680	476	696	700	181
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	181			497			680	680	476	696	700	181
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			95	100	97	100	100	100
cM capacity (veh/h)	1376			1027			358	366	582	339	356	854

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	498	191	35	0
Volume Left	1	10	18	0
Volume Right	41	0	17	0
cSH	1376	1027	441	1700
Volume to Capacity	0.00	0.01	0.08	0.00
Queue Length 95th (m)	0.0	0.2	2.0	0.0
Control Delay (s)	0.0	0.5	13.9	0.0
Lane LOS	A	A	B	A
Approach Delay (s)	0.0	0.5	13.9	0.0
Approach LOS			B	A

Intersection Summary				
Average Delay		0.8		
Intersection Capacity Utilization		35.9%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	172	81	5	83	22	24	3	2	20	7	62
Future Volume (vph)	131	172	81	5	83	22	24	3	2	20	7	62
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.991			0.905	
Flt Protected	0.950				0.997			0.960			0.989	
Satd. Flow (prot)	1692	1781	1514	0	1695	1445	0	1695	0	0	1595	0
Flt Permitted	0.950				0.997			0.960			0.989	
Satd. Flow (perm)	1692	1781	1514	0	1695	1445	0	1695	0	0	1595	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	139	183	86	5	88	23	26	3	2	21	7	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	183	86	0	93	23	0	31	0	0	94	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	26.0%	ICU Level of Service A	
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	172	81	5	83	22	24	3	2	20	7	62
Future Volume (Veh/h)	131	172	81	5	83	22	24	3	2	20	7	62
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	139	183	86	5	88	23	26	3	2	21	7	66
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	111			269			628	582	183	562	645	88
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	111			269			628	582	183	562	645	88
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			100			92	99	100	95	98	93
cM capacity (veh/h)	1460			1250			331	379	852	397	349	962

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	139	183	86	93	23	31	94
Volume Left	139	0	0	5	0	26	21
Volume Right	0	0	86	0	23	2	66
cSH	1460	1700	1700	1250	1700	349	664
Volume to Capacity	0.10	0.11	0.05	0.00	0.01	0.09	0.14
Queue Length 95th (m)	2.4	0.0	0.0	0.1	0.0	2.2	3.7
Control Delay (s)	7.7	0.0	0.0	0.5	0.0	16.3	11.3
Lane LOS	A			A		C	B
Approach Delay (s)	2.6			0.4		16.3	11.3
Approach LOS						C	B

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	26.0%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	40	52	3	68	0	16	0	1	0	0	0
Future Volume (vph)	0	40	52	3	68	0	16	0	1	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.924						0.992				
Flt Protected					0.998			0.955				
Satd. Flow (prot)	0	1646	0	0	1697	0	0	1688	0	0	1781	0
Flt Permitted					0.998			0.955				
Satd. Flow (perm)	0	1646	0	0	1697	0	0	1688	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	43	55	3	72	0	17	0	1	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	75	0	0	18	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	40	52	3	68	0	16	0	1	0	0	0
Future Volume (Veh/h)	0	40	52	3	68	0	16	0	1	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	43	55	3	72	0	17	0	1	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	72			98			148	148	70	150	176	72
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	72			98			148	148	70	150	176	72
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	100	100	100	100
cM capacity (veh/h)	1509			1446			811	736	984	809	711	982

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	98	75	18	0
Volume Left	0	3	17	0
Volume Right	55	0	1	0
cSH	1509	1446	819	1700
Volume to Capacity	0.00	0.00	0.02	0.00
Queue Length 95th (m)	0.0	0.0	0.5	0.0
Control Delay (s)	0.0	0.3	9.5	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.3	9.5	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay		1.0		
Intersection Capacity Utilization		16.2%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	976	1319	783	0	0	0
Future Volume (vph)	976	1319	783	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	3118	3145	0	0	0
Flt Permitted	0.129					
Satd. Flow (perm)	212	3118	3145	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1027	1388	824	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1027	1388	824	0	0	0
Number of Detectors	1	2	2			
Detector Template	Left	Thru	Thru			
Leading Detector (m)	2.0	10.0	10.0			
Trailing Detector (m)	0.0	0.0	0.0			
Detector 1 Position(m)	0.0	0.0	0.0			
Detector 1 Size(m)	2.0	0.6	0.6			
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0			
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	59.0	90.0	31.0			
Total Split (%)	65.6%	100.0%	34.4%			
Maximum Green (s)	53.0	84.0	25.0			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	84.0	90.0	24.9			
Actuated g/C Ratio	0.93	1.00	0.28			
v/c Ratio	1.03	0.45	0.95			
Control Delay	54.0	0.3	53.4			
Queue Delay	0.0	0.0	0.0			
Total Delay	54.0	0.3	53.4			
LOS	D	A	D			
Approach Delay		23.1	53.4			
Approach LOS		C	D			
Queue Length 50th (m)	~186.5	0.0	73.2			
Queue Length 95th (m)	m#211.7	m0.0	#109.7			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	993	3118	873			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	1.03	0.45	0.94			

Intersection Summary

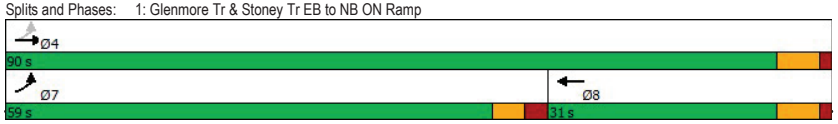
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 30.8 Intersection LOS: C
Intersection Capacity Utilization 87.8% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



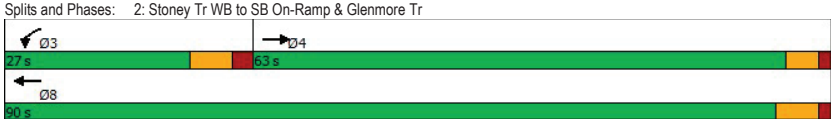
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1845	0	329	582	0	0
Future Volume (vph)	1845	0	329	582	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3118	0	1573	3145	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3118	0	1573	3145	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1942	0	346	613	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1942	0	346	613	0	0
Number of Detectors	2		1	2		
Detector Template	Thru		Left	Thru		
Leading Detector (m)	10.0		2.0	10.0		
Trailing Detector (m)	0.0		0.0	0.0		
Detector 1 Position(m)	0.0		0.0	0.0		
Detector 1 Size(m)	0.6		2.0	0.6		
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0		0.0	0.0		
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	63.0		27.0	90.0		
Total Split (%)	70.0%		30.0%	100.0%		
Maximum Green (s)	58.0		20.0	84.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	58.0		20.0	90.0		
Actuated g/C Ratio	0.64		0.22	1.00		
v/c Ratio	0.97		0.99	0.19		
Control Delay	29.9		63.7	0.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	29.9		63.7	0.1		
LOS	C		E	A		
Approach Delay	29.9			23.0		
Approach LOS	C			C		
Queue Length 50th (m)	149.2		28.7	0.0		
Queue Length 95th (m)	#220.9		m#68.9	m0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	2009		349	3145		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.97		0.99	0.19		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 27.6 Intersection LOS: C
Intersection Capacity Utilization 87.8% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



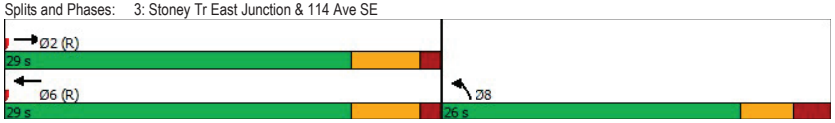
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	271	0	0	656	44	0
Future Volume (vph)	271	0	0	656	44	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	285	0	0	691	46	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	285	0	0	691	46	0
Number of Detectors	2			2	1	
Detector Template	Thru			Thru	Left	
Leading Detector (m)	30.5			30.5	6.1	
Trailing Detector (m)	0.0			0.0	0.0	
Detector 1 Position(m)	0.0			0.0	0.0	
Detector 1 Size(m)	1.8			1.8	6.1	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	
Detector 2 Position(m)	28.7			28.7		
Detector 2 Size(m)	1.8			1.8		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	29.0			29.0	26.0	
Total Split (%)	52.7%			52.7%	47.3%	
Maximum Green (s)	23.0			23.0	20.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	46.2			46.2	10.0	
Actuated g/C Ratio	0.84			0.84	0.18	
v/c Ratio	0.10			0.26	0.08	
Control Delay	3.6			3.4	19.1	
Queue Delay	0.0			0.0	0.0	
Total Delay	3.6			3.4	19.1	
LOS	A			A	B	
Approach Delay	3.6			3.4	19.1	
Approach LOS	A			A	B	
Queue Length 50th (m)	0.0			0.0	2.0	
Queue Length 95th (m)	11.9			23.7	5.3	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2739			2642	1171	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.10			0.26	0.04	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.26
Intersection Signal Delay: 4.1 Intersection LOS: A
Intersection Capacity Utilization 38.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE



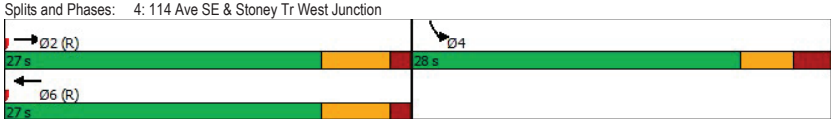
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	723	274	0	125	0
Future Volume (vph)	0	723	274	0	125	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	761	288	0	132	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	761	288	0	132	0
Number of Detectors		2	2		1	
Detector Template		Thru	Thru		Left	
Leading Detector (m)		30.5	30.5		6.1	
Trailing Detector (m)		0.0	0.0		0.0	
Detector 1 Position(m)		0.0	0.0		0.0	
Detector 1 Size(m)		1.8	1.8		6.1	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		37.4	37.4		10.0	
Actuated g/C Ratio		0.68	0.68		0.18	
v/c Ratio		0.34	0.13		0.23	
Control Delay		5.7	4.7		20.4	
Queue Delay		0.0	0.0		0.0	
Total Delay		5.7	4.7		20.4	
LOS		A	A		C	
Approach Delay		5.7	4.7		20.4	
Approach LOS		A	A		C	
Queue Length 50th (m)		17.6	5.2		5.8	
Queue Length 95th (m)		26.2	10.4		11.8	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		2217	2139		1288	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.34	0.13		0.10	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.34
Intersection Signal Delay: 7.1 — Intersection LOS: A
Intersection Capacity Utilization 38.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	788	102	15	259	31	333	93	95	165	36	316
Future Volume (vph)	106	788	102	15	259	31	333	93	95	165	36	316
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			160			160			160			333
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	112	829	107	16	273	33	351	98	100	174	38	333
Shared Lane Traffic (%)												
Lane Group Flow (vph)	112	829	107	16	273	33	351	98	100	174	38	333
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	33.0	33.0	15.5	33.0	33.0	18.0	25.5	25.5	18.0	25.5	25.5
Total Split (%)	16.8%	35.9%	35.9%	16.8%	35.9%	35.9%	19.6%	27.7%	27.7%	19.6%	27.7%	27.7%
Maximum Green (s)	10.0	27.5	27.5	10.0	27.5	27.5	12.5	20.0	20.0	12.5	20.0	20.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	8.2	29.7	29.7	7.3	21.3	21.3	12.2	11.7	11.7	16.2	11.7	11.7
Actuated g/C Ratio	0.11	0.41	0.41	0.10	0.29	0.29	0.17	0.16	0.16	0.22	0.16	0.16
v/c Ratio	0.32	0.63	0.16	0.09	0.28	0.06	0.71	0.38	0.28	0.51	0.15	0.67
Control Delay	34.8	21.1	1.8	35.1	22.3	0.2	39.9	34.0	3.3	38.0	29.7	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.8	21.1	1.8	35.1	22.3	0.2	39.9	34.0	3.3	38.0	29.7	11.1
LOS	C	C	A	D	C	A	D	C	A	D	C	B
Approach Delay		20.6			20.7			32.2			21.0	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	7.4	40.9	0.0	2.0	15.3	0.0	23.3	12.4	0.0	22.4	4.7	0.0
Queue Length 95th (m)	16.8	#89.7	4.0	8.3	28.3	0.0	#51.4	27.9	3.4	#61.1	13.3	22.5
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	439	1405	718	237	1306	682	516	448	496	338	448	620
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.59	0.15	0.07	0.21	0.05	0.68	0.22	0.20	0.51	0.08	0.54

Intersection Summary

Area Type: Other
Cycle Length: 92
Actuated Cycle Length: 72.6
Natural Cycle: 85
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 23.3 Intersection LOS: C
Intersection Capacity Utilization 60.3% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	1124	0	0	382	1	1	0	1	5	0	19
Future Volume (vph)	19	1124	0	0	382	1	1	0	1	5	0	19
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850		0.932			0.892	
Flt Protected		0.999						0.976			0.990	
Satd. Flow (prot)	0	1814	1816	0	1748	1486	0	1620	0	0	1588	0
Flt Permitted		0.999						0.976			0.990	
Satd. Flow (perm)	0	1814	1816	0	1748	1486	0	1620	0	0	1588	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	20	1183	0	0	402	1	1	0	1	5	0	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1203	0	0	402	1	0	2	0	0	25	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1124	0	0	382	1	1	0	1	5	0	19
Future Volume (Veh/h)	19	1124	0	0	382	1	1	0	1	5	0	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	20	1183	0	0	402	1	1	0	1	5	0	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	403			1183			1645	1626	1183	1626	1625	402
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	403			1183			1645	1626	1183	1626	1625	402
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			99	100	100	94	100	97
cM capacity (veh/h)	1150			573			75	99	228	80	99	644

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	1203	0	402	1	2	25
Volume Left	20	0	0	0	1	5
Volume Right	0	0	0	1	1	20
cSH	1150	1700	573	1700	113	266
Volume to Capacity	0.02	0.00	0.00	0.00	0.02	0.09
Queue Length 95th (m)	0.4	0.0	0.0	0.0	0.4	2.3
Control Delay (s)	0.6	0.0	0.0	0.0	37.6	19.9
Lane LOS	A				E	C
Approach Delay (s)	0.6		0.0		37.6	19.9
Approach LOS					E	C

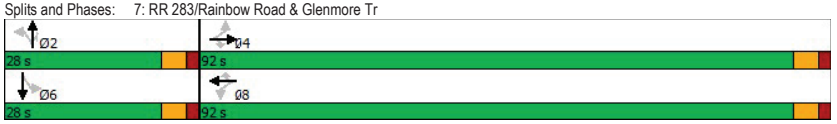
Intersection Summary					
Average Delay	0.8				
Intersection Capacity Utilization	86.4%	ICU Level of Service		E	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	175	901	50	9	249	13	45	70	22	16	12	88
Future Volume (vph)	175	901	50	9	249	13	45	70	22	16	12	88
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	0.0		15.0	0.0		0.0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.898	
Flt Protected	0.950			0.950				0.981			0.993	
Satd. Flow (prot)	1615	1701	1445	1630	1716	1459	0	1468	1272	0	1635	0
Flt Permitted	0.597			0.202				0.829			0.938	
Satd. Flow (perm)	1015	1701	1445	347	1716	1459	0	1241	1272	0	1545	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			53			23			23		93	
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	184	948	53	9	262	14	47	74	23	17	13	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	948	53	9	262	14	0	121	23	0	123	0
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	92.0	92.0	92.0	92.0	92.0	92.0	28.0	28.0	28.0	28.0	28.0	
Total Split (%)	76.7%	76.7%	76.7%	76.7%	76.7%	76.7%	23.3%	23.3%	23.3%	23.3%	23.3%	
Maximum Green (s)	86.5	86.5	86.5	86.5	86.5	86.5	22.5	22.5	22.5	22.5	22.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Act Effct Green (s)	54.6	54.6	54.6	54.6	54.6	54.6		15.0	15.0		15.0	
Actuated g/C Ratio	0.74	0.74	0.74	0.74	0.74	0.74		0.20	0.20		0.20	
v/c Ratio	0.25	0.76	0.05	0.04	0.21	0.01		0.48	0.08		0.32	
Control Delay	6.2	14.0	1.5	5.0	5.4	1.2		41.2	15.8		15.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	6.2	14.0	1.5	5.0	5.4	1.2		41.2	15.8		15.3	
LOS	A	B	A	A	A	A		D	B		B	
Approach Delay		12.2			5.2			37.2			15.3	
Approach LOS		B			A			D			B	
Queue Length 50th (m)	8.5	80.6	0.0	0.4	11.6	0.0		14.2	0.0		3.3	
Queue Length 95th (m)	21.9	182.5	3.3	2.1	27.2	1.2		45.6	7.2		22.6	
Internal Link Dist (m)		224.8			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0			15.0			
Base Capacity (vph)	954	1599	1361	326	1613	1373		441	467		609	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	
Reduced v/c Ratio	0.19	0.59	0.04	0.03	0.16	0.01		0.27	0.05		0.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 74			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 92.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	922	4	2	268	0	4	0	1	0	0	1
Future Volume (vph)	1	922	4	2	268	0	4	0	1	0	0	1
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999						0.973			0.865	
Flt Protected								0.962				
Satd. Flow (prot)	0	1832	0	0	1765	0	0	1592	0	0	1471	0
Flt Permitted								0.962				
Satd. Flow (perm)	0	1832	0	0	1765	0	0	1592	0	0	1471	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	1	971	4	2	282	0	4	0	1	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	976	0	0	284	0	0	5	0	0	1	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	922	4	2	268	0	4	0	1	0	0	1
Future Volume (Veh/h)	1	922	4	2	268	0	4	0	1	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1	971	4	2	282	0	4	0	1	0	0	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	282			975			1262	1261	973	1262	1263	282
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	282			975			1262	1261	973	1262	1263	282
tC, single (s)	4.1			4.2			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			97	100	100	100	100	100
cM capacity (veh/h)	1280			692			141	164	295	140	163	738

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	976	284	5	1
Volume Left	1	2	4	0
Volume Right	4	0	1	1
cSH	1280	692	157	738
Volume to Capacity	0.00	0.00	0.03	0.00
Queue Length 95th (m)	0.0	0.1	0.7	0.0
Control Delay (s)	0.0	0.1	28.7	9.9
Lane LOS	A	A	D	A
Approach Delay (s)	0.0	0.1	28.7	9.9
Approach LOS			D	A

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

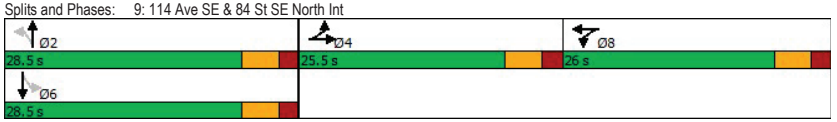
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	2	416	0	2	3	108	216	4	368	0
Future Volume (vph)	0	0	2	416	0	2	3	108	216	4	368	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.999			0.911				
Flt Protected					0.953						0.999	
Satd. Flow (prot)	0	1471	0	0	1619	0	0	1535	0	0	1780	0
Flt Permitted					0.953			0.996			0.995	
Satd. Flow (perm)	0	1471	0	0	1619	0	0	1529	0	0	1773	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		152			109			123				
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	0	0	2	438	0	2	3	114	227	4	387	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	0	440	0	0	344	0	0	391	0
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5		25.5	25.5		25.5	25.5		25.5	25.5	
Total Split (s)	25.5	25.5		26.0	26.0		28.5	28.5		28.5	28.5	
Total Split (%)	31.9%	31.9%		32.5%	32.5%		35.6%	35.6%		35.6%	35.6%	
Maximum Green (s)	20.0	20.0		20.5	20.5		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.5			5.5			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		10.7			17.6			16.1			16.1	
Actuated g/C Ratio		0.22			0.37			0.34			0.34	
v/c Ratio		0.00			0.66			0.57			0.65	
Control Delay		0.0			17.7			13.8			20.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.0			17.7			13.8			20.8	
LOS		A			B			B			C	
Approach Delay					17.7			13.8			20.8	
Approach LOS					B			B			C	
Queue Length 50th (m)		0.0			18.3			13.1			25.4	
Queue Length 95th (m)		0.0			#84.7			47.5			71.3	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)												
Base Capacity (vph)		742			802			847			913	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.00			0.55			0.41			0.43	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 47.6
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 17.5 Intersection LOS: B
Intersection Capacity Utilization 62.1% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



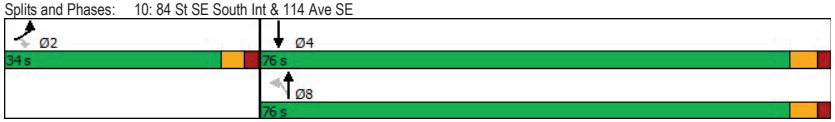
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	328	42	38	2	2	774
Future Volume (vph)	328	42	38	2	2	774
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.865	
Flt Protected	0.950			0.955		
Satd. Flow (prot)	1601	1432	0	1734	1556	0
Flt Permitted	0.950			0.495		
Satd. Flow (perm)	1601	1432	0	899	1556	0
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		44				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	345	44	40	2	2	815
Shared Lane Traffic (%)						
Lane Group Flow (vph)	345	44	0	42	817	0
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (m)	2.0	2.0	2.0	10.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	2.0	2.0	0.6	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)				9.4	9.4	
Detector 2 Size(m)				0.6	0.6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	2			8	4	
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	7.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	34.0	34.0	76.0	76.0	76.0	
Total Split (%)	30.9%	30.9%	69.1%	69.1%	69.1%	
Maximum Green (s)	28.5	28.5	70.5	70.5	70.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Lost Time (s)	5.5	5.5		5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	
Walk Time (s)	8.0	8.0				
Flash Dont Walk (s)	12.0	12.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	25.0	25.0		50.9	50.9	
Actuated g/C Ratio	0.29	0.29		0.58	0.58	
v/c Ratio	0.76	0.10		0.08	0.90	
Control Delay	44.0	10.0		8.1	30.4	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	44.0	10.0		8.1	30.4	
LOS	D	A		A	C	
Approach Delay	40.2			8.1	30.4	
Approach LOS	D			A	C	
Queue Length 50th (m)	54.8	0.0		2.8	111.2	
Queue Length 95th (m)	#116.7	8.4		7.3	185.9	
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)						
Base Capacity (vph)	550	521		729	1261	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.63	0.08		0.06	0.65	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 87.5
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 32.7 — Intersection LOS: C
Intersection Capacity Utilization 77.2% — ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	208	19	13	337	0	34	2	16	0	0	0
Future Volume (vph)	2	208	19	13	337	0	34	2	16	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989						0.958				
Flt Protected					0.998			0.968				
Satd. Flow (prot)	0	1713	0	0	1795	0	0	1652	0	0	1781	0
Flt Permitted					0.998			0.968				
Satd. Flow (perm)	0	1713	0	0	1795	0	0	1652	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	2	219	20	14	355	0	36	2	17	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	241	0	0	369	0	0	55	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	208	19	13	337	0	34	2	16	0	0	0
Future Volume (Veh/h)	2	208	19	13	337	0	34	2	16	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	2	219	20	14	355	0	36	2	17	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	355			239			616	616	229	634	626	355
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	355			239			616	616	229	634	626	355
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			91	99	98	100	100	100
cM capacity (veh/h)	1171			1316			395	397	803	374	392	682

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	241	369	55	0
Volume Left	2	14	36	0
Volume Right	20	0	17	0
cSH	1171	1316	468	1700
Volume to Capacity	0.00	0.01	0.12	0.00
Queue Length 95th (m)	0.0	0.2	3.0	0.0
Control Delay (s)	0.1	0.4	13.7	0.0
Lane LOS	A	A	B	A
Approach Delay (s)	0.1	0.4	13.7	0.0
Approach LOS			B	A

Intersection Summary					
Average Delay	1.4				
Intersection Capacity Utilization	36.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	122	30	3	150	25	74	9	7	16	2	70
Future Volume (vph)	61	122	30	3	150	25	74	9	7	16	2	70
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990			0.893	
Flt Protected	0.950				0.999			0.960			0.991	
Satd. Flow (prot)	1645	1732	1472	0	1797	1529	0	1693	0	0	1577	0
Flt Permitted	0.950				0.999			0.960			0.991	
Satd. Flow (perm)	1645	1732	1472	0	1797	1529	0	1693	0	0	1577	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	64	128	32	3	158	26	78	9	7	17	2	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	128	32	0	161	26	0	94	0	0	93	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	122	30	3	150	25	74	9	7	16	2	70
Future Volume (Veh/h)	61	122	30	3	150	25	74	9	7	16	2	70
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	64	128	32	3	158	26	78	9	7	17	2	74
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	184			160			495	446	128	432	452	158
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	184			160			495	446	128	432	452	158
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			100			82	98	99	97	100	92
cM capacity (veh/h)	1355			1407			422	478	914	498	474	880

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	64	128	32	161	26	94	93
Volume Left	64	0	0	3	0	78	17
Volume Right	0	0	32	0	26	7	74
cSH	1355	1700	1700	1407	1700	445	759
Volume to Capacity	0.05	0.08	0.02	0.00	0.02	0.21	0.12
Queue Length 95th (m)	1.1	0.0	0.0	0.0	0.0	6.0	3.2
Control Delay (s)	7.8	0.0	0.0	0.2	0.0	15.3	10.4
Lane LOS	A			A		C	B
Approach Delay (s)	2.2			0.1		15.3	10.4
Approach LOS						C	B

Intersection Summary					
Average Delay	4.9				
Intersection Capacity Utilization	36.7%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	97	19	2	36	0	48	0	4	0	0	0
Future Volume (vph)	0	97	19	2	36	0	48	0	4	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978						0.990				
Flt Protected					0.998			0.956				
Satd. Flow (prot)	0	1694	0	0	1795	0	0	1686	0	0	1781	0
Flt Permitted					0.998			0.956				
Satd. Flow (perm)	0	1694	0	0	1795	0	0	1686	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	102	20	2	38	0	51	0	4	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	0	0	40	0	0	55	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	97	19	2	36	0	48	0	4	0	0	0
Future Volume (Veh/h)	0	97	19	2	36	0	48	0	4	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	102	20	2	38	0	51	0	4	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	38			122			154	154	112	158	164	38
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	38			122			154	154	112	158	164	38
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			94	100	100	100	100	100
cM capacity (veh/h)	1534			1453			805	731	933	797	722	1025

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	122	40	55	0
Volume Left	0	2	51	0
Volume Right	20	0	4	0
cSH	1534	1453	813	1700
Volume to Capacity	0.00	0.00	0.07	0.00
Queue Length 95th (m)	0.0	0.0	1.6	0.0
Control Delay (s)	0.0	0.4	9.7	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.4	9.7	0.0
Approach LOS			A	A

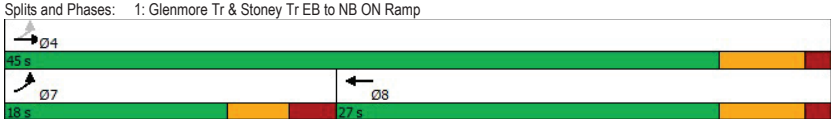
Intersection Summary					
Average Delay	2.5				
Intersection Capacity Utilization	16.4%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	330	720	880	0	0	0
Future Volume (vph)	330	720	880	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	3038	3012	0	0	0
Flt Permitted	0.215					
Satd. Flow (perm)	344	3038	3012	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	351	766	936	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	351	766	936	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	18.0	45.0	27.0			
Total Split (%)	40.0%	100.0%	60.0%			
Maximum Green (s)	12.0	39.0	21.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	39.0	45.0	22.6			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.87	1.00	0.50			
v/c Ratio	0.62	0.25	0.62			
Control Delay	16.8	0.2	10.5			
Queue Delay	0.0	0.0	0.0			
Total Delay	16.8	0.2	10.5			
LOS	B	A	B			
Approach Delay		5.4	10.5			
Approach LOS		A	B			
Queue Length 50th (m)	15.0	0.0	24.2			
Queue Length 95th (m)	30.0	0.0	42.6			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	611	3038	1512			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	0.57	0.25	0.62			

Intersection Summary		
Area Type:	Other	
Cycle Length: 45		
Actuated Cycle Length: 45		
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green		
Natural Cycle: 45		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.62		
Intersection Signal Delay: 7.7		Intersection LOS: A
Intersection Capacity Utilization 53.8%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	830	0	270	1310	0	0
Future Volume (vph)	830	0	270	1310	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3038	0	1506	3012	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3038	0	1506	3012	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	883	0	287	1394	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	883	0	287	1394	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	26.0		19.0	45.0		
Total Split (%)	57.8%		42.2%	100.0%		
Maximum Green (s)	21.0		12.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	21.2		11.8	45.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.47		0.26	1.00		
v/c Ratio	0.62		0.73	0.46		
Control Delay	11.3		31.7	0.7		
Queue Delay	0.0		0.0	0.0		
Total Delay	11.3		31.7	0.7		
LOS	B		C	A		
Approach Delay	11.3			6.0		
Approach LOS	B			A		
Queue Length 50th (m)	26.3		17.5	0.4		
Queue Length 95th (m)	39.1		m#46.3	0.5		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	1447		408	3012		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.61		0.70	0.46		

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 7.8		Intersection LOS: A	
Intersection Capacity Utilization 53.8%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



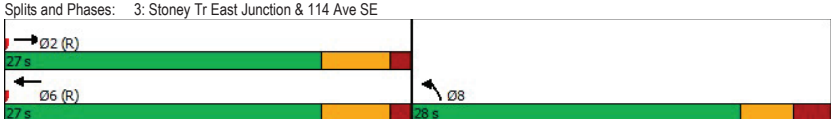
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	320	0	0	560	360	0
Future Volume (vph)	320	0	0	560	360	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	340	0	0	596	383	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	340	0	0	596	383	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	30.7			30.7	12.3	
Actuated g/C Ratio	0.56			0.56	0.22	
v/c Ratio	0.19			0.34	0.54	
Control Delay	6.2			7.7	21.6	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	6.2			7.7	21.6	
LOS	A			A	C	
Approach Delay	6.2			7.7	21.6	
Approach LOS	A			A	C	
Queue Length 50th (m)	6.1			14.7	17.5	
Queue Length 95th (m)	14.9			27.0	25.8	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	1773			1742	1265	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.19			0.34	0.30	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 11.4 Intersection LOS: B
Intersection Capacity Utilization 42.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

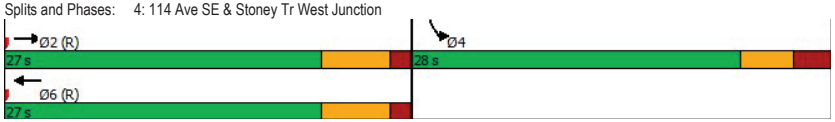


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	600	850	0	130	0
Future Volume (vph)	0	600	850	0	130	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	638	904	0	138	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	638	904	0	138	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		37.4	37.4		10.0	
Actuated g/C Ratio		0.68	0.68		0.18	
v/c Ratio		0.30	0.43		0.24	
Control Delay		5.4	5.7		20.6	
Queue Delay		0.0	0.0		0.0	
Total Delay		5.4	5.7		20.6	
LOS		A	A		C	
Approach Delay		5.4	5.7		20.6	
Approach LOS		A	A		C	
Queue Length 50th (m)		14.2	12.0		6.1	
Queue Length 95th (m)		21.5	34.6		12.3	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		2157	2120		1265	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.30	0.43		0.11	

Intersection Summary		
Area Type:	Other	
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 55		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.43		
Intersection Signal Delay: 6.8		Intersection LOS: A
Intersection Capacity Utilization 42.5%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

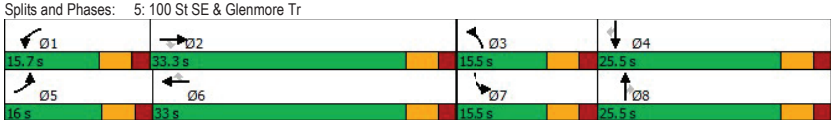


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	370	320	70	790	100	110	50	10	20	30	110
Future Volume (vph)	290	370	320	70	790	100	110	50	10	20	30	110
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			340			164			164			164
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	309	394	340	74	840	106	117	53	11	21	32	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	309	394	340	74	840	106	117	53	11	21	32	117
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	16.0	33.3	33.3	15.7	33.0	33.0	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (%)	17.8%	37.0%	37.0%	17.4%	36.7%	36.7%	17.2%	28.3%	28.3%	17.2%	28.3%	28.3%
Maximum Green (s)	10.5	27.8	27.8	10.2	27.5	27.5	10.0	20.0	20.0	10.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	10.7	33.9	33.9	9.1	25.9	25.9	8.9	16.4	16.4	7.8	10.8	10.8
Actuated g/C Ratio	0.15	0.48	0.48	0.13	0.37	0.37	0.13	0.23	0.23	0.11	0.15	0.15
v/c Ratio	0.67	0.26	0.40	0.36	0.71	0.17	0.32	0.14	0.02	0.13	0.13	0.34
Control Delay	40.4	18.0	4.1	37.2	25.4	1.6	34.5	28.2	0.1	34.7	32.5	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	18.0	4.1	37.2	25.4	1.6	34.5	28.2	0.1	34.7	32.5	5.3
LOS	D	B	A	D	C	A	C	C	A	C	C	A
Approach Delay		20.1			23.8			30.6			14.1	
Approach LOS		C			C			C			B	
Queue Length 50th (m)	22.8	21.7	0.0	10.3	57.0	0.0	8.3	5.5	0.0	2.9	4.3	0.0
Queue Length 95th (m)	#42.1	34.4	16.3	22.6	80.0	3.4	15.9	17.1	0.0	9.4	12.2	6.7
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	487	1521	854	250	1352	699	449	516	549	227	479	520
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.26	0.40	0.30	0.62	0.15	0.26	0.10	0.02	0.09	0.07	0.23

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 70			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 22.0		Intersection LOS: C	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	320	0	0	700	0	0	0	0	20	0	260
Future Volume (vph)	80	320	0	0	700	0	0	0	0	20	0	260
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	90.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt											0.875	
Flt Protected	0.950										0.996	
Satd. Flow (prot)	1573	1655	1655	1781	1781	1781	0	1781	0	0	1274	0
Flt Permitted	0.220										0.981	
Satd. Flow (perm)	364	1655	1655	1781	1781	1781	0	1781	0	0	1254	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											189	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	85	340	0	0	745	0	0	0	0	21	0	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	340	0	0	745	0	0	0	0	0	298	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm				Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	44.5	44.5	44.5	44.5	44.5	44.5	25.5	25.5		25.5	25.5	
Total Split (%)	63.6%	63.6%	63.6%	63.6%	63.6%	63.6%	36.4%	36.4%		36.4%	36.4%	
Maximum Green (s)	39.0	39.0	39.0	39.0	39.0	39.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	27.0	27.0			27.0						13.0	
Actuated g/C Ratio	0.52	0.52			0.52						0.25	
v/c Ratio	0.45	0.39			0.80						0.65	
Control Delay	17.1	9.1			18.0						15.4	
Queue Delay	0.0	0.0			0.0						0.0	
Total Delay	17.1	9.1			18.0						15.4	
LOS	B	A			B						B	
Approach Delay		10.7			18.0						15.4	
Approach LOS		B			B						B	
Queue Length 50th (m)	3.7	14.0			41.9						7.4	
Queue Length 95th (m)	17.8	38.0			110.0						34.5	
Internal Link Dist (m)		135.6			122.5			174.3			175.1	
Turn Bay Length (m)	90.0											
Base Capacity (vph)	288	1312			1412						622	
Starvation Cap Reductn	0	0			0						0	
Spillback Cap Reductn	0	0			0						0	
Storage Cap Reductn	0	0			0						0	
Reduced v/c Ratio	0.30	0.26			0.53						0.48	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 51.5			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 15.4		Intersection LOS: B	
Intersection Capacity Utilization 85.9%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr

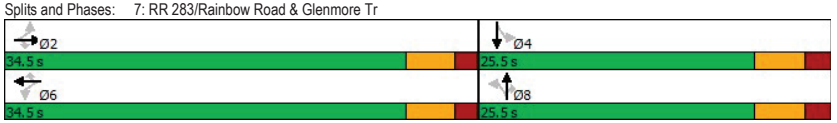


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	210	40	30	550	60	20	10	10	10	50	130
Future Volume (vph)	70	210	40	30	550	60	20	10	10	10	50	130
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	0.0		15.0	0.0		0.0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.908	
Flt Protected	0.950			0.950				0.968			0.997	
Satd. Flow (prot)	1742	1701	1445	1615	1701	1559	0	1668	1420	0	1660	0
Flt Permitted	0.378			0.619				0.758			0.980	
Satd. Flow (perm)	693	1701	1445	1053	1701	1559	0	1306	1420	0	1632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45			64			45		138	
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	74	223	43	32	585	64	21	11	11	11	53	138
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	223	43	32	585	64	0	32	11	0	202	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	2	2	2	6	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5	25.5	25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%	42.5%	42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0	20.0	20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None	None	None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Act Effct Green (s)	26.6	26.6	26.6	26.6	26.6	26.6		10.4	10.4		10.4	
Actuated g/C Ratio	0.61	0.61	0.61	0.61	0.61	0.61		0.24	0.24		0.24	
v/c Ratio	0.18	0.22	0.05	0.05	0.56	0.07		0.10	0.03		0.41	
Control Delay	7.2	6.5	2.2	5.7	10.1	2.1		15.3	0.3		9.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	7.2	6.5	2.2	5.7	10.1	2.1		15.3	0.3		9.1	
LOS	A	A	A	A	B	A		B	A		A	
Approach Delay		6.1			9.2			11.5			9.1	
Approach LOS		A			A			B			A	
Queue Length 50th (m)	2.6	8.1	0.0	1.1	28.4	0.0		1.7	0.0		3.5	
Queue Length 95th (m)	8.4	18.0	2.9	3.9	57.9	3.5		7.6	0.4		18.1	
Internal Link Dist (m)		224.8			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0			15.0			
Base Capacity (vph)	504	1238	1064	766	1238	1152		604	681		829	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	
Reduced v/c Ratio	0.15	0.18	0.04	0.04	0.47	0.06		0.05	0.02		0.24	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 43.6			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 8.4		Intersection LOS: A	
Intersection Capacity Utilization 78.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	190	20	10	560	10	40	0	10	10	0	40
Future Volume (vph)	20	190	20	10	560	10	40	0	10	10	0	40
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.998			0.972			0.892	
Flt Protected		0.996			0.999			0.962			0.990	
Satd. Flow (prot)	0	1587	0	0	1793	0	0	1590	0	0	1502	0
Flt Permitted		0.996			0.999			0.962			0.990	
Satd. Flow (perm)	0	1587	0	0	1793	0	0	1590	0	0	1502	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	21	202	21	11	596	11	43	0	11	11	0	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	244	0	0	618	0	0	54	0	0	54	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	190	20	10	560	10	40	0	10	10	0	40
Future Volume (Veh/h)	20	190	20	10	560	10	40	0	10	10	0	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	21	202	21	11	596	11	43	0	11	11	0	43
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	607			223			921	884	212	889	888	602
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	607			223			921	884	212	889	888	602
tC, single (s)	4.3			4.1			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	98			99			80	100	99	96	100	91
cM capacity (veh/h)	907			1334			216	267	808	246	266	485

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	244	618	54	54
Volume Left	21	11	43	11
Volume Right	21	11	11	43
cSH	907	1334	254	405
Volume to Capacity	0.02	0.01	0.21	0.13
Queue Length 95th (m)	0.5	0.2	6.0	3.5
Control Delay (s)	1.0	0.2	23.0	15.2
Lane LOS	A	A	C	C
Approach Delay (s)	1.0	0.2	23.0	15.2
Approach LOS			C	C

Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	48.9%	ICU Level of Service		A
Analysis Period (min)	15			

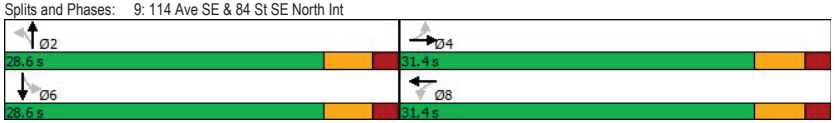
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	20	160	10	10	20	370	100	10	160	10
Future Volume (vph)	0	0	20	160	10	10	20	370	100	10	160	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992			0.973			0.992	
Flt Protected					0.958			0.998			0.997	
Satd. Flow (prot)	0	1471	0	0	1434	0	0	1730	0	0	1350	0
Flt Permitted					0.735			0.985			0.966	
Satd. Flow (perm)	0	1471	0	0	1100	0	0	1707	0	0	1308	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		620			6			25			6	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	0	0	21	170	11	11	21	394	106	11	170	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	0	192	0	0	521	0	0	192	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type		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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5		25.5	25.5	
Total Split (s)	31.4	31.4		31.4	31.4		28.6	28.6		28.6	28.6	
Total Split (%)	52.3%	52.3%		52.3%	52.3%		47.7%	47.7%		47.7%	47.7%	
Maximum Green (s)	25.9	25.9		25.9	25.9		23.1	23.1		23.1	23.1	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)		13.7			13.7			23.1			23.1	
Actuated g/C Ratio		0.32			0.32			0.54			0.54	
v/c Ratio		0.02			0.53			0.55			0.27	
Control Delay		0.1			18.8			13.1			10.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.1			18.8			13.1			10.2	
LOS		A			B			B			B	
Approach Delay		0.1			18.8			13.1			10.2	
Approach LOS		A			B			B			B	
Queue Length 50th (m)		0.0			10.7			26.5			8.2	
Queue Length 95th (m)		0.0			28.4			#71.6			24.4	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)												
Base Capacity (vph)		1161			702			1061			808	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.02			0.27			0.49			0.24	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 42.5			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 59.0%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int

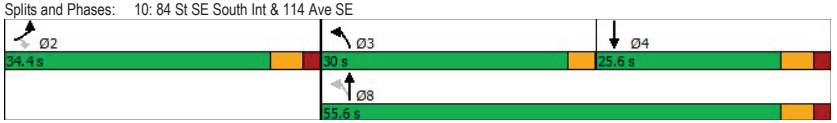


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	470	60	450	20	10	330
Future Volume (vph)	470	60	450	20	10	330
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	0.0	120.0			0.0
Storage Lanes	1	1	1			0
Taper Length (m)	25.0		25.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.869	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1692	1514	1506	1585	1222	0
Flt Permitted	0.950		0.260			
Satd. Flow (perm)	1692	1514	412	1585	1222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		64			351	
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	500	64	479	21	11	351
Shared Lane Traffic (%)						
Lane Group Flow (vph)	500	64	479	21	362	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	pm+pt	NA	NA	
Protected Phases	2		3	8	4	
Permitted Phases		2	8			
Detector Phase	2	2	3	8	4	
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	15.5	25.5	25.5	
Total Split (s)	34.4	34.4	30.0	55.6	25.6	
Total Split (%)	38.2%	38.2%	33.3%	61.8%	28.4%	
Maximum Green (s)	28.9	28.9	27.0	50.1	20.1	
Yellow Time (s)	3.5	3.5	2.9	3.5	3.5	
All-Red Time (s)	2.0	2.0	0.1	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	3.0	5.5	5.5	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Walk Time (s)	8.0	8.0				
Flash Dont Walk (s)	12.0	12.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	26.9	26.9	42.1	39.5	12.3	
Actuated g/C Ratio	0.35	0.35	0.54	0.51	0.16	
v/c Ratio	0.85	0.11	0.85	0.03	0.74	
Control Delay	41.0	6.3	31.5	9.7	14.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	41.0	6.3	31.5	9.7	14.4	
LOS	D	A	C	A	B	
Approach Delay	37.0			30.6	14.4	
Approach LOS	D			C	B	
Queue Length 50th (m)	67.4	0.0	49.8	1.5	1.5	
Queue Length 95th (m)	#141.1	8.3	#106.0	4.6	27.5	
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)			120.0			
Base Capacity (vph)	642	614	611	1042	580	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.78	0.10	0.78	0.02	0.62	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 77.6			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 29.0		Intersection LOS: C	
Intersection Capacity Utilization 86.4%		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: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	40	20	20	80	20	10	30	20	10	10	20
Future Volume (vph)	30	40	20	20	80	20	10	30	20	10	10	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.978			0.956			0.934	
Flt Protected		0.984			0.992			0.991			0.987	
Satd. Flow (prot)	0	1700	0	0	1650	0	0	1688	0	0	1642	0
Flt Permitted		0.984			0.992			0.991			0.987	
Satd. Flow (perm)	0	1700	0	0	1650	0	0	1688	0	0	1642	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	32	43	21	21	85	21	11	32	21	11	11	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	127	0	0	64	0	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 20.1%	ICU Level of Service A
Analysis Period (min) 15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	40	20	20	80	20	10	30	20	10	10	20
Future Volume (Veh/h)	30	40	20	20	80	20	10	30	20	10	10	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	32	43	21	21	85	21	11	32	21	11	11	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	106			64			282	266	54	292	266	96
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	106			64			282	266	54	292	266	96
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			98	95	98	98	98	98
cM capacity (veh/h)	1467			1489			624	612	1005	598	612	953

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	96	127	64	43
Volume Left	32	21	11	11
Volume Right	21	21	21	21
cSH	1467	1489	705	737
Volume to Capacity	0.02	0.01	0.09	0.06
Queue Length 95th (m)	0.5	0.3	2.3	1.4
Control Delay (s)	2.6	1.3	10.6	10.2
Lane LOS	A	A	B	B
Approach Delay (s)	2.6	1.3	10.6	10.2
Approach LOS			B	B

Intersection Summary				
Average Delay	4.7			
Intersection Capacity Utilization	20.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	40	10	10	90	10	0	10	0	0	10	20
Future Volume (vph)	20	40	10	10	90	10	0	10	0	0	10	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850					0.911	
Flt Protected		0.984			0.995							
Satd. Flow (prot)	0	1753	1514	0	1692	1445	0	1781	0	0	1623	0
Flt Permitted		0.984			0.995							
Satd. Flow (perm)	0	1753	1514	0	1692	1445	0	1781	0	0	1623	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	21	43	11	11	96	11	0	11	0	0	11	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	64	11	0	107	11	0	11	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	22.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	40	10	10	90	10	0	10	0	0	10	20
Future Volume (Veh/h)	20	40	10	10	90	10	0	10	0	0	10	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	21	43	11	11	96	11	0	11	0	0	11	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	107			54			230	214	43	208	214	96
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	107			54			230	214	43	208	214	96
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			100	98	100	100	98	98
cM capacity (veh/h)	1465			1502			683	664	1019	721	664	952

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	64	11	107	11	11	32
Volume Left	21	0	11	0	0	0
Volume Right	0	11	0	11	0	21
cSH	1465	1700	1502	1700	664	828
Volume to Capacity	0.01	0.01	0.01	0.01	0.02	0.04
Queue Length 95th (m)	0.3	0.0	0.2	0.0	0.4	0.9
Control Delay (s)	2.5	0.0	0.8	0.0	10.5	9.5
Lane LOS	A		A		B	A
Approach Delay (s)	2.2		0.7		10.5	9.5
Approach LOS					B	A

Intersection Summary					
Average Delay	2.8				
Intersection Capacity Utilization	22.1%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	40	0	0	110	0	0	0	0	0	0	0
Future Volume (vph)	0	40	0	0	110	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	1781	0	0	1701	0	0	1781	0	0	1781	0
Flt Permitted												
Satd. Flow (perm)	0	1781	0	0	1701	0	0	1781	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	43	0	0	117	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	117	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	9.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	40	0	0	110	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	40	0	0	110	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	43	0	0	117	0	0	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	117			43			160	160	43	160	160	117
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	117			43			160	160	43	160	160	117
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			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)	1453			1516			799	727	1019	799	727	927

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	43	117	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1453	1516	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	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		9.3%	ICU Level of Service		A
Analysis Period (min)		15			

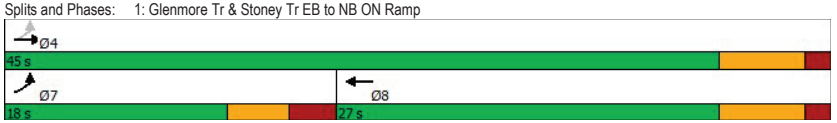
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	790	890	810	0	0	0
Future Volume (vph)	790	890	810	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	3118	3145	0	0	0
Flt Permitted	0.227					
Satd. Flow (perm)	372	3118	3145	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	832	937	853	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	832	937	853	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	18.0	45.0	27.0			
Total Split (%)	40.0%	100.0%	60.0%			
Maximum Green (s)	12.0	39.0	21.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	39.0	45.0	20.2			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.87	1.00	0.45			
v/c Ratio	1.26	0.30	0.60			
Control Delay	140.9	0.0	11.5			
Queue Delay	0.0	0.0	0.0			
Total Delay	140.9	0.0	11.5			
LOS	F	A	B			
Approach Delay		66.3	11.5			
Approach LOS		E	B			
Queue Length 50th (m)	~72.5	0.0	24.7			
Queue Length 95th (m)	m#65.0	m0.0	36.6			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	659	3118	1467			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	1.26	0.30	0.58			

Intersection Summary

Area Type: Other
Cycle Length: 45
Actuated Cycle Length: 45
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.26
Intersection Signal Delay: 48.5 Intersection LOS: D
Intersection Capacity Utilization 77.9% ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



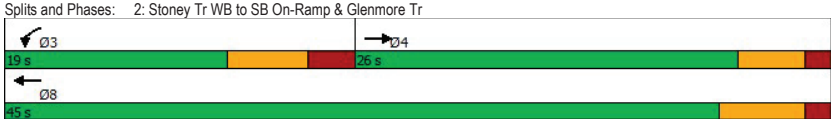
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1540	0	370	570	0	0
Future Volume (vph)	1540	0	370	570	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3118	0	1573	3145	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3118	0	1573	3145	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1621	0	389	600	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1621	0	389	600	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	26.0		19.0	45.0		
Total Split (%)	57.8%		42.2%	100.0%		
Maximum Green (s)	21.0		12.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	21.0		12.0	45.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.47		0.27	1.00		
v/c Ratio	1.11		0.93	0.19		
Control Delay	78.0		54.6	0.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	78.0		54.6	0.1		
LOS	E		D	A		
Approach Delay	78.0			21.6		
Approach LOS	E			C		
Queue Length 50th (m)	~81.5		28.8	0.0		
Queue Length 95th (m)	#115.3		#67.7	0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	1455		419	3145		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	1.11		0.93	0.19		

Intersection Summary

Area Type: Other
Cycle Length: 45
Actuated Cycle Length: 45
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 56.6 Intersection LOS: E
Intersection Capacity Utilization 77.9% ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr

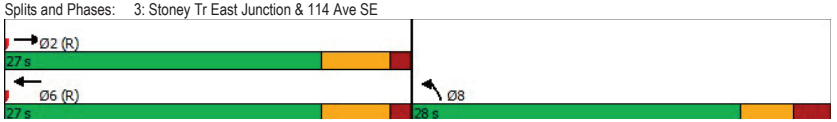


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	620	0	0	560	40	0
Future Volume (vph)	620	0	0	560	40	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	653	0	0	589	42	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	653	0	0	589	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	46.2			46.2	10.0	
Actuated g/C Ratio	0.84			0.84	0.18	
v/c Ratio	0.24			0.22	0.07	
Control Delay	5.5			3.2	19.1	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	5.5			3.2	19.1	
LOS	A			A	B	
Approach Delay	5.5			3.2	19.1	
Approach LOS	A			A	B	
Queue Length 50th (m)	0.0			0.0	1.8	
Queue Length 95th (m)	40.0			19.7	5.0	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2739			2642	1288	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.24			0.22	0.03	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.24			
Intersection Signal Delay: 4.9		Intersection LOS: A	
Intersection Capacity Utilization 55.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

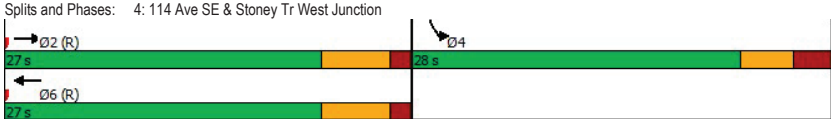


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1290	280	0	290	0
Future Volume (vph)	0	1290	280	0	290	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	1358	295	0	305	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1358	295	0	305	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		31.8	31.8		11.2	
Actuated g/C Ratio		0.58	0.58		0.20	
v/c Ratio		0.72	0.16		0.47	
Control Delay		11.5	5.5		21.5	
Queue Delay		0.0	0.0		0.0	
Total Delay		11.5	5.5		21.5	
LOS		B	A		C	
Approach Delay		11.5	5.5		21.5	
Approach LOS		B	A		C	
Queue Length 50th (m)		42.4	5.4		14.1	
Queue Length 95th (m)		74.0	11.2		21.9	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1887	1821		1288	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.72	0.16		0.24	

Intersection Summary		
Area Type:	Other	
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 65		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.72		
Intersection Signal Delay: 12.2		Intersection LOS: B
Intersection Capacity Utilization 55.1%		ICU Level of Service B
Analysis Period (min) 15		

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

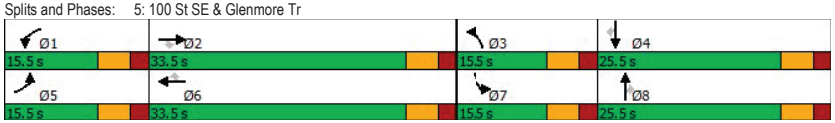


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	880	120	20	440	20	250	50	50	80	40	370
Future Volume (vph)	120	880	120	20	440	20	250	50	50	80	40	370
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			164			164			327
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	126	926	126	21	463	21	263	53	53	84	42	389
Shared Lane Traffic (%)												
Lane Group Flow (vph)	126	926	126	21	463	21	263	53	53	84	42	389
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	33.5	33.5	15.5	33.5	33.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (%)	17.2%	37.2%	37.2%	17.2%	37.2%	37.2%	17.2%	28.3%	28.3%	17.2%	28.3%	28.3%
Maximum Green (s)	10.0	28.0	28.0	10.0	28.0	28.0	10.0	20.0	20.0	10.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	8.5	28.8	28.8	7.4	22.6	22.6	10.0	17.3	17.3	8.8	12.8	12.8
Actuated g/C Ratio	0.12	0.39	0.39	0.10	0.31	0.31	0.14	0.24	0.24	0.12	0.18	0.18
v/c Ratio	0.35	0.73	0.19	0.12	0.44	0.04	0.65	0.14	0.12	0.46	0.15	0.77
Control Delay	35.7	25.2	2.6	36.4	23.3	0.1	41.8	28.4	0.5	42.1	28.9	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	25.2	2.6	36.4	23.3	0.1	41.8	28.4	0.5	42.1	28.9	17.6
LOS	D	C	A	D	C	A	D	C	A	D	C	B
Approach Delay		23.9			22.9			34.0			22.5	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	7.9	44.0	0.0	2.6	26.3	0.0	17.0	6.2	0.0	10.3	5.0	7.5
Queue Length 95th (m)	18.6	#114.3	6.7	10.1	47.3	0.0	#41.0	16.5	0.0	27.7	13.9	38.6
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	439	1367	705	237	1330	694	413	474	518	213	448	616
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.68	0.18	0.09	0.35	0.03	0.64	0.11	0.10	0.39	0.09	0.63

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 73.1			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 24.9		Intersection LOS: C	
Intersection Capacity Utilization 61.3%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	970	0	0	360	10	0	0	0	80	0	120
Future Volume (vph)	40	970	0	0	360	10	0	0	0	80	0	120
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	90.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.919	
Flt Protected	0.950										0.980	
Satd. Flow (prot)	1725	1816	1816	1748	1748	1486	0	1781	0	0	1620	0
Flt Permitted	0.522										0.869	
Satd. Flow (perm)	948	1816	1816	1748	1748	1486	0	1781	0	0	1436	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						25					60	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	42	1021	0	0	379	11	0	0	0	84	0	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	1021	0	0	379	11	0	0	0	0	210	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm				Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	84.0	84.0	84.0	84.0	84.0	84.0	26.0	26.0		26.0	26.0	
Total Split (%)	76.4%	76.4%	76.4%	76.4%	76.4%	76.4%	23.6%	23.6%		23.6%	23.6%	
Maximum Green (s)	78.5	78.5	78.5	78.5	78.5	78.5	20.5	20.5		20.5	20.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	47.7	47.7			47.7	47.7					14.5	
Actuated g/C Ratio	0.64	0.64			0.64	0.64					0.19	
v/c Ratio	0.07	0.88			0.34	0.01					0.64	
Control Delay	5.0	20.3			6.6	0.7					33.6	
Queue Delay	0.0	0.0			0.0	0.0					0.0	
Total Delay	5.0	20.3			6.6	0.7					33.6	
LOS	A	C			A	A					C	
Approach Delay		19.7			6.4						33.6	
Approach LOS		B			A						C	
Queue Length 50th (m)	1.7	90.9			18.8	0.0					18.1	
Queue Length 95th (m)	5.6	186.0			38.4	0.7					55.5	
Internal Link Dist (m)		135.6			122.5			174.3			175.1	
Turn Bay Length (m)	90.0					90.0						
Base Capacity (vph)	868	1663			1601	1363					480	
Starvation Cap Reductn	0	0			0	0					0	
Spillback Cap Reductn	0	0			0	0					0	
Storage Cap Reductn	0	0			0	0					0	
Reduced v/c Ratio	0.05	0.61			0.24	0.01					0.44	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 74.4			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 18.3		Intersection LOS: B	
Intersection Capacity Utilization 73.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr

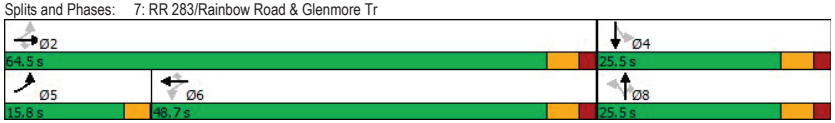


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	800	20	10	200	40	40	60	30	30	20	140
Future Volume (vph)	270	800	20	10	200	40	40	60	30	30	20	140
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	0.0		15.0	0.0		0.0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.901	
Flt Protected	0.950			0.950				0.980			0.992	
Satd. Flow (prot)	1615	1701	1445	1630	1716	1459	0	1467	1272	0	1639	0
Flt Permitted	0.546			0.332				0.817			0.931	
Satd. Flow (perm)	928	1701	1445	570	1716	1459	0	1223	1272	0	1538	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			30			67			67		143	
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	284	842	21	11	211	42	42	63	32	32	21	147
Shared Lane Traffic (%)												
Lane Group Flow (vph)	284	842	21	11	211	42	0	105	32	0	200	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8		8	4		
Detector Phase	5	2	2	6	6	6	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	7.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	15.8	64.5	64.5	48.7	48.7	48.7	25.5	25.5	25.5	25.5	25.5	
Total Split (%)	17.6%	71.7%	71.7%	54.1%	54.1%	54.1%	28.3%	28.3%	28.3%	28.3%	28.3%	
Maximum Green (s)	12.8	59.0	59.0	43.2	43.2	43.2	20.0	20.0	20.0	20.0	20.0	
Yellow Time (s)	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)	3.0	5.5	5.5	5.5	5.5	5.5		5.5	5.5		5.5	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min	Min	Min	Min	Min	None	None	None	None	None	
Walk Time (s)		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0	0	0	0	
Act Effct Green (s)	37.4	34.7	34.7	20.2	20.2	20.2		12.7	12.7		12.7	
Actuated g/C Ratio	0.63	0.59	0.59	0.34	0.34	0.34		0.21	0.21		0.21	
v/c Ratio	0.40	0.85	0.02	0.06	0.36	0.08		0.40	0.10		0.45	
Control Delay	6.5	19.0	1.6	13.2	15.9	1.9		29.5	2.4		12.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	6.5	19.0	1.6	13.2	15.9	1.9		29.5	2.4		12.9	
LOS	A	B	A	B	B	A		C	A		B	
Approach Delay		15.6			13.6			23.1			12.9	
Approach LOS		B			B			C			B	
Queue Length 50th (m)	9.6	55.0	0.0	0.7	15.3	0.0		9.0	0.0		4.6	
Queue Length 95th (m)	25.5	133.3	1.7	3.7	34.1	2.8		30.6	2.1		26.6	
Internal Link Dist (m)		224.8			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0			15.0			
Base Capacity (vph)	745	1549	1318	443	1333	1149		443	504		648	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	
Reduced v/c Ratio	0.38	0.54	0.02	0.02	0.16	0.04		0.24	0.06		0.31	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 59.3			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 15.6		Intersection LOS: B	
Intersection Capacity Utilization 83.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	720	40	10	180	10	20	0	10	10	0	20
Future Volume (vph)	40	720	40	10	180	10	20	0	10	10	0	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.993			0.954			0.911	
Flt Protected		0.998			0.997			0.968			0.983	
Satd. Flow (prot)	0	1817	0	0	1747	0	0	1570	0	0	1523	0
Flt Permitted		0.998			0.997			0.968			0.983	
Satd. Flow (perm)	0	1817	0	0	1747	0	0	1570	0	0	1523	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	42	758	42	11	189	11	21	0	11	11	0	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	842	0	0	211	0	0	32	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	720	40	10	180	10	20	0	10	10	0	20
Future Volume (Veh/h)	40	720	40	10	180	10	20	0	10	10	0	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	42	758	42	11	189	11	21	0	11	11	0	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	200			800			1100	1085	779	1090	1100	194
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	200			800			1100	1085	779	1090	1100	194
tC, single (s)	4.1			4.2			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	97			99			88	100	97	94	100	97
cM capacity (veh/h)	1372			806			172	200	383	174	196	827

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	842	211	32	32
Volume Left	42	11	21	11
Volume Right	42	11	11	21
cSH	1372	806	212	362
Volume to Capacity	0.03	0.01	0.15	0.09
Queue Length 95th (m)	0.7	0.3	4.0	2.2
Control Delay (s)	0.8	0.6	24.9	15.9
Lane LOS	A	A	C	C
Approach Delay (s)	0.8	0.6	24.9	15.9
Approach LOS			C	C

Intersection Summary					
Average Delay	1.9				
Intersection Capacity Utilization	65.4%	ICU Level of Service		C	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	20	120	10	10	10	120	180	10	520	10
Future Volume (vph)	0	0	20	120	10	10	10	120	180	10	520	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.990			0.922			0.997	
Flt Protected					0.959			0.998			0.999	
Satd. Flow (prot)	0	1471	0	0	1614	0	0	1551	0	0	1774	0
Flt Permitted					0.743			0.979			0.992	
Satd. Flow (perm)	0	1471	0	0	1251	0	0	1521	0	0	1762	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		253			7			160			2	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	0	0	21	126	11	11	11	126	189	11	547	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	0	148	0	0	326	0	0	569	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type		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)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5		25.5	25.5	
Total Split (s)	25.0	25.0		25.5	25.5		35.0	35.0		35.0	35.0	
Total Split (%)	41.3%	41.3%		42.1%	42.1%		57.9%	57.9%		57.9%	57.9%	
Maximum Green (s)	19.5	19.5		20.0	20.0		29.5	29.5		29.5	29.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.5			5.5			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)		11.9			11.9			25.3			25.3	
Actuated g/C Ratio		0.28			0.28			0.59			0.59	
v/c Ratio		0.04			0.42			0.34			0.55	
Control Delay		0.1			18.1			5.1			11.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		0.1			18.1			5.1			11.0	
LOS		A			B			A			B	
Approach Delay		0.1			18.1			5.1			11.0	
Approach LOS		A			B			A			B	
Queue Length 50th (m)		0.0			7.4			5.9			26.5	
Queue Length 95th (m)		0.0			24.9			20.9			66.5	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)												
Base Capacity (vph)		847			613			1138			1267	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.02			0.24			0.29			0.45	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60.5			
Actuated Cycle Length: 42.8			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 9.9		Intersection LOS: A	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int

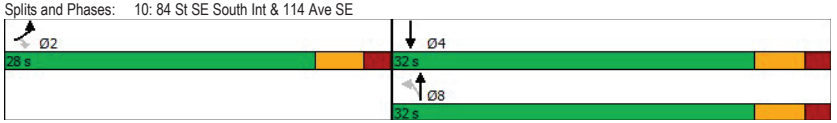


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	300	370	120	10	20	640
Future Volume (vph)	300	370	120	10	20	640
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	0.0	120.0			0.0
Storage Lanes	1	1	1			0
Taper Length (m)	25.0		25.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.869	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1601	1432	1725	1816	1563	0
Flt Permitted	0.950		0.183			
Satd. Flow (perm)	1601	1432	332	1816	1563	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		389			674	
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	316	389	126	11	21	674
Shared Lane Traffic (%)						
Lane Group Flow (vph)	316	389	126	11	695	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	2			8	4	
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	23.5	23.5	23.5	
Total Split (s)	28.0	28.0	32.0	32.0	32.0	
Total Split (%)	46.7%	46.7%	53.3%	53.3%	53.3%	
Maximum Green (s)	22.5	22.5	26.5	26.5	26.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Walk Time (s)	8.0	8.0				
Flash Dont Walk (s)	12.0	12.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	20.5	20.5	26.3	26.3	26.3	
Actuated g/C Ratio	0.35	0.35	0.46	0.46	0.46	
v/c Ratio	0.56	0.51	0.83	0.01	0.64	
Control Delay	19.6	4.5	62.1	9.1	4.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.6	4.5	62.1	9.1	4.5	
LOS	B	A	E	A	A	
Approach Delay	11.2			57.8	4.5	
Approach LOS	B			E	A	
Queue Length 50th (m)	26.2	0.0	10.7	0.6	1.1	
Queue Length 95th (m)	46.8	14.3	#39.9	2.9	17.6	
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)			120.0			
Base Capacity (vph)	623	795	152	832	1081	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.51	0.49	0.83	0.01	0.64	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 57.8			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 12.4		Intersection LOS: B	
Intersection Capacity Utilization 80.9%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	60	20	20	50	10	0	10	10	10	30	20
Future Volume (vph)	10	60	20	20	50	10	0	10	10	10	30	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.983			0.932			0.956	
Flt Protected		0.994			0.988						0.991	
Satd. Flow (prot)	0	1670	0	0	1747	0	0	1660	0	0	1688	0
Flt Permitted		0.994			0.988						0.991	
Satd. Flow (perm)	0	1670	0	0	1747	0	0	1660	0	0	1688	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	11	63	21	21	53	11	0	11	11	11	32	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	85	0	0	22	0	0	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization	25.1%
	ICU Level of Service A
Analysis Period (min)	15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	60	20	20	50	10	0	10	10	10	30	20
Future Volume (Veh/h)	10	60	20	20	50	10	0	10	10	10	30	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	63	21	21	53	11	0	11	11	11	32	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	64			84			233	202	74	212	206	58
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	64			84			233	202	74	212	206	58
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			100	98	99	98	95	98
cM capacity (veh/h)	1501			1500			664	675	980	709	670	999

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	95	85	22	64
Volume Left	11	21	0	11
Volume Right	21	11	11	21
cSH	1501	1500	799	759
Volume to Capacity	0.01	0.01	0.03	0.08
Queue Length 95th (m)	0.2	0.3	0.6	2.1
Control Delay (s)	0.9	1.9	9.6	10.2
Lane LOS	A	A	A	B
Approach Delay (s)	0.9	1.9	9.6	10.2
Approach LOS			A	B

Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	25.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	60	0	10	60	10	0	10	0	0	10	20
Future Volume (vph)	30	60	0	10	60	10	0	10	0	0	10	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.911	
Flt Protected		0.983			0.993							
Satd. Flow (prot)	0	1703	1732	0	1786	1529	0	1781	0	0	1623	0
Flt Permitted		0.983			0.993							
Satd. Flow (perm)	0	1703	1732	0	1786	1529	0	1781	0	0	1623	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	32	63	0	11	63	11	0	11	0	0	11	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	74	11	0	11	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	21.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	60	0	10	60	10	0	10	0	0	10	20
Future Volume (Veh/h)	30	60	0	10	60	10	0	10	0	0	10	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	32	63	0	11	63	11	0	11	0	0	11	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	74			63			238	223	63	218	212	63
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	74			63			238	223	63	218	212	63
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			100	98	100	100	98	98
cM capacity (veh/h)	1488			1527			671	651	993	707	661	993

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	95	0	74	11	11	32
Volume Left	32	0	11	0	0	0
Volume Right	0	0	0	11	0	21
cSH	1488	1700	1527	1700	651	847
Volume to Capacity	0.02	0.01	0.01	0.01	0.02	0.04
Queue Length 95th (m)	0.5	0.0	0.2	0.0	0.4	0.9
Control Delay (s)	2.6	0.0	1.1	0.0	10.6	9.4
Lane LOS	A		A		B	A
Approach Delay (s)	2.6		1.0		10.6	9.4
Approach LOS					B	A

Intersection Summary					
Average Delay	3.4				
Intersection Capacity Utilization	21.6%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	60	0	0	80	0	0	0	0	0	0	0
Future Volume (vph)	0	60	0	0	80	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	1732	0	0	1799	0	0	1781	0	0	1781	0
Flt Permitted												
Satd. Flow (perm)	0	1732	0	0	1799	0	0	1781	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	63	0	0	84	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	84	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	7.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	60	0	0	80	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	60	0	0	80	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	63	0	0	84	0	0	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	84			63			147	147	63	147	147	84
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	84			63			147	147	63	147	147	84
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			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)	1476			1527			815	739	993	815	739	967

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	63	84	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1476	1527	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	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

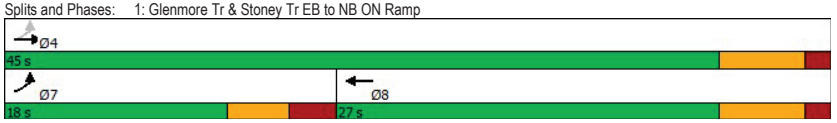
Intersection Summary				
Average Delay		0.0		
Intersection Capacity Utilization		7.7%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	330	777	927	0	0	0
Future Volume (vph)	330	777	927	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	3038	3012	0	0	0
Flt Permitted	0.198					
Satd. Flow (perm)	317	3038	3012	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	351	827	986	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	351	827	986	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	18.0	45.0	27.0			
Total Split (%)	40.0%	100.0%	60.0%			
Maximum Green (s)	12.0	39.0	21.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	39.0	45.0	22.5			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.87	1.00	0.50			
v/c Ratio	0.63	0.27	0.65			
Control Delay	17.9	0.2	11.2			
Queue Delay	0.0	0.0	0.0			
Total Delay	17.9	0.2	11.2			
LOS	B	A	B			
Approach Delay		5.5	11.2			
Approach LOS		A	B			
Queue Length 50th (m)	15.5	0.0	26.1			
Queue Length 95th (m)	m30.6	0.0	45.9			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	595	3038	1507			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	0.59	0.27	0.65			

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 55.1%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	847	0	305	1356	0	0
Future Volume (vph)	847	0	305	1356	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3038	0	1506	3012	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3038	0	1506	3012	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	901	0	324	1443	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	901	0	324	1443	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	26.0		19.0	45.0		
Total Split (%)	57.8%		42.2%	100.0%		
Maximum Green (s)	21.0		12.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	21.0		12.0	45.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.47		0.27	1.00		
v/c Ratio	0.64		0.81	0.48		
Control Delay	11.8		37.0	0.7		
Queue Delay	0.0		0.0	0.0		
Total Delay	11.8		37.0	0.7		
LOS	B		D	A		
Approach Delay	11.8			7.4		
Approach LOS	B			A		
Queue Length 50th (m)	27.1		20.3	0.4		
Queue Length 95th (m)	40.2		m#53.2	0.6		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	1443		415	3012		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.62		0.78	0.48		

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 8.9		Intersection LOS: A	
Intersection Capacity Utilization 55.1%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



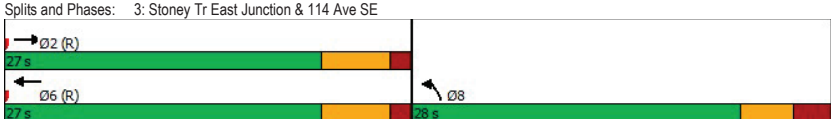
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	437	0	0	709	360	0
Future Volume (vph)	437	0	0	709	360	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	465	0	0	754	383	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	465	0	0	754	383	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	30.7			30.7	12.3	
Actuated g/C Ratio	0.56			0.56	0.22	
v/c Ratio	0.26			0.43	0.54	
Control Delay	6.8			8.5	21.6	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	6.8			8.5	21.6	
LOS	A			A	C	
Approach Delay	6.8			8.5	21.6	
Approach LOS	A			A	C	
Queue Length 50th (m)	7.7			19.8	17.5	
Queue Length 95th (m)	20.5			35.6	25.8	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	1773			1742	1265	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.26			0.43	0.30	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 11.1 Intersection LOS: B
Intersection Capacity Utilization 42.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

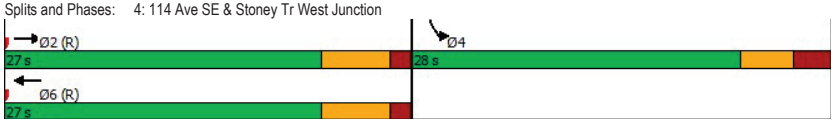


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	632	865	0	222	0
Future Volume (vph)	0	632	865	0	222	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	672	920	0	236	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	672	920	0	236	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		32.5	32.5		10.5	
Actuated g/C Ratio		0.59	0.59		0.19	
v/c Ratio		0.36	0.50		0.39	
Control Delay		6.7	8.5		21.4	
Queue Delay		0.0	0.0		0.0	
Total Delay		6.7	8.5		21.4	
LOS		A	A		C	
Approach Delay		6.7	8.5		21.4	
Approach LOS		A	A		C	
Queue Length 50th (m)		15.2	18.8		10.8	
Queue Length 95th (m)		26.0	42.7		18.1	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1873	1841		1265	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.36	0.50		0.19	

Intersection Summary		
Area Type:	Other	
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 55		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.50		
Intersection Signal Delay: 9.5		Intersection LOS: A
Intersection Capacity Utilization 42.9%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	597	320	70	859	100	110	50	10	20	30	110
Future Volume (vph)	290	597	320	70	859	100	110	50	10	20	30	110
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			340			180			180			180
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	309	635	340	74	914	106	117	53	11	21	32	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	309	635	340	74	914	106	117	53	11	21	32	117
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (%)	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%
Maximum Green (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

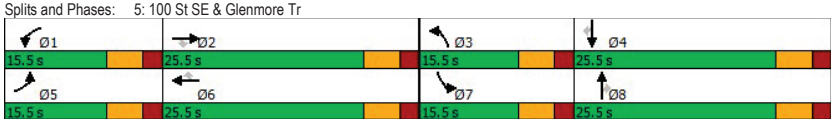
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	10.0	28.2	28.2	8.8	21.1	21.1	8.6	18.4	18.4	7.6	10.6	10.6
Actuated g/C Ratio	0.16	0.44	0.44	0.14	0.33	0.33	0.13	0.29	0.29	0.12	0.16	0.16
v/c Ratio	0.66	0.46	0.42	0.34	0.87	0.18	0.30	0.12	0.02	0.12	0.12	0.32
Control Delay	36.5	21.6	4.7	32.9	35.7	1.4	30.6	21.3	0.1	30.7	28.4	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	21.6	4.7	32.9	35.7	1.4	30.6	21.3	0.1	30.7	28.4	4.0
LOS	D	C	A	C	D	A	C	C	A	C	C	A
Approach Delay		20.7			32.2			26.0			11.9	
Approach LOS		C			C			C			B	
Queue Length 50th (m)	20.2	37.8	0.0	9.1	~62.7	0.0	7.4	4.7	0.0	2.6	3.7	0.0
Queue Length 95th (m)	#37.3	58.3	17.5	20.6	#105.0	2.3	14.4	15.4	0.0	8.6	11.0	4.8
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	497	1368	803	263	1052	591	480	570	599	243	512	556
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.46	0.42	0.28	0.87	0.18	0.24	0.09	0.02	0.09	0.06	0.21

Intersection Summary

Area Type: Other
Cycle Length: 82
Actuated Cycle Length: 64.3
Natural Cycle: 85
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 25.1 Intersection LOS: C
Intersection Capacity Utilization 56.5% ICU Level of Service B
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	506	41	5	756	0	13	0	1	20	0	260
Future Volume (vph)	80	506	41	5	756	0	13	0	1	20	0	260
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	90.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.991			0.875	
Flt Protected	0.950			0.950				0.955			0.996	
Satd. Flow (prot)	1573	1655	1407	1692	1781	1781	0	1686	0	0	1274	0
Flt Permitted	0.193			0.389				0.757			0.979	
Satd. Flow (perm)	319	1655	1407	693	1781	1781	0	1336	0	0	1252	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			44					34			192	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	85	538	44	5	804	0	14	0	1	21	0	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	538	44	5	804	0	0	15	0	0	298	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	54.0	54.0	54.0	54.0	54.0	54.0	26.0	26.0		26.0	26.0	
Total Split (%)	67.5%	67.5%	67.5%	67.5%	67.5%	67.5%	32.5%	32.5%		32.5%	32.5%	
Maximum Green (s)	48.5	48.5	48.5	48.5	48.5	48.5	20.5	20.5		20.5	20.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	30.3	30.3	30.3	30.3	30.3			13.3			13.3	
Actuated g/C Ratio	0.55	0.55	0.55	0.55	0.55			0.24			0.24	
v/c Ratio	0.49	0.59	0.06	0.01	0.82			0.04			0.67	
Control Delay	19.1	11.5	2.4	6.0	18.7			3.6			17.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay	19.1	11.5	2.4	6.0	18.7			3.6			17.1	
LOS	B	B	A	A	B			A			B	
Approach Delay		11.9			18.7			3.6			17.1	
Approach LOS		B			B			A			B	
Queue Length 50th (m)	3.9	26.5	0.0	0.2	49.0			0.0			8.0	
Queue Length 95th (m)	19.2	67.9	3.4	1.5	124.2			2.1			39.2	
Internal Link Dist (m)		135.6			122.5			174.3			175.1	
Turn Bay Length (m)	90.0		90.0	90.0								
Base Capacity (vph)	276	1435	1226	601	1545			549			611	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.31	0.37	0.04	0.01	0.52			0.03			0.49	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 55.4			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 15.7		Intersection LOS: B	
Intersection Capacity Utilization 88.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr

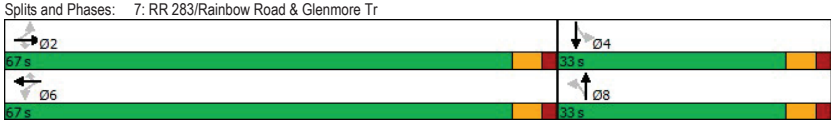


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	294	142	37	576	63	52	42	13	17	96	133
Future Volume (vph)	71	294	142	37	576	63	52	42	13	17	96	133
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	60.0		15.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.964			0.927	
Flt Protected	0.950			0.950			0.950				0.997	
Satd. Flow (prot)	1742	1701	1445	1615	1701	1559	1587	1728	0	0	1695	0
Flt Permitted	0.319			0.570			0.567				0.978	
Satd. Flow (perm)	585	1701	1445	969	1701	1559	947	1728	0	0	1663	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			151			67		14			58	
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	76	313	151	39	613	67	55	45	14	18	102	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	313	151	39	613	67	55	59	0	0	261	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	67.0	67.0	67.0	67.0	67.0	67.0	33.0	33.0		33.0	33.0	
Total Split (%)	67.0%	67.0%	67.0%	67.0%	67.0%	67.0%	33.0%	33.0%		33.0%	33.0%	
Maximum Green (s)	61.5	61.5	61.5	61.5	61.5	61.5	27.5	27.5		27.5	27.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	26.4	26.4	26.4	26.4	26.4	26.4	13.1	13.1			13.1	
Actuated g/C Ratio	0.52	0.52	0.52	0.52	0.52	0.52	0.26	0.26			0.26	
v/c Ratio	0.25	0.36	0.18	0.08	0.70	0.08	0.23	0.13			0.56	
Control Delay	9.7	8.8	2.1	7.0	14.5	2.3	19.9	14.6			19.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	9.7	8.8	2.1	7.0	14.5	2.3	19.9	14.6			19.0	
LOS	A	A	A	A	B	A	B	B			B	
Approach Delay		7.0			12.9			17.2			19.0	
Approach LOS		A			B			B			B	
Queue Length 50th (m)	3.1	13.6	0.0	1.5	33.8	0.0	3.5	2.8			13.8	
Queue Length 95th (m)	11.6	34.1	6.5	5.9	82.0	4.4	14.4	12.6			43.7	
Internal Link Dist (m)		224.8			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0	60.0					
Base Capacity (vph)	567	1649	1405	939	1649	1513	535	982			964	
Starvation Cap Reductn	0	0	0	0	0	0	0	0			0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0			0	
Storage Cap Reductn	0	0	0	0	0	0	0	0			0	
Reduced v/c Ratio	0.13	0.19	0.11	0.04	0.37	0.04	0.10	0.06			0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 51			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 12.3		Intersection LOS: B	
Intersection Capacity Utilization 83.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	193	111	13	569	10	67	0	10	10	0	40
Future Volume (vph)	20	193	111	13	569	10	67	0	10	10	0	40
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997			0.982			0.892	
Flt Protected	0.950			0.950				0.959			0.990	
Satd. Flow (prot)	1532	1613	1371	1709	1793	0	0	1601	0	0	1502	0
Flt Permitted	0.950			0.950				0.959			0.990	
Satd. Flow (perm)	1532	1613	1371	1709	1793	0	0	1601	0	0	1502	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	21	205	118	14	605	11	71	0	11	11	0	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	205	118	14	616	0	0	82	0	0	54	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	193	111	13	569	10	67	0	10	10	0	40
Future Volume (Veh/h)	20	193	111	13	569	10	67	0	10	10	0	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	21	205	118	14	605	11	71	0	11	11	0	43
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	616			323			923	891	205	896	1004	610
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	616			323			923	891	205	896	1004	610
tC, single (s)	4.3			4.1			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	98			99			67	100	99	95	100	91
cM capacity (veh/h)	899			1226			215	264	816	243	226	480

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	21	205	118	14	616	82	54
Volume Left	21	0	0	14	0	71	11
Volume Right	0	0	118	0	11	11	43
cSH	899	1700	1700	1226	1700	238	400
Volume to Capacity	0.02	0.12	0.07	0.01	0.36	0.34	0.13
Queue Length 95th (m)	0.5	0.0	0.0	0.3	0.0	11.1	3.5
Control Delay (s)	9.1	0.0	0.0	8.0	0.0	27.8	15.4
Lane LOS	A			A		D	C
Approach Delay (s)	0.6			0.2		27.8	15.4
Approach LOS						D	C

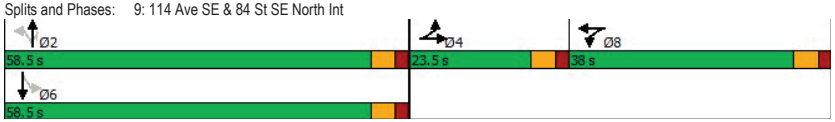
Intersection Summary					
Average Delay	3.1				
Intersection Capacity Utilization	49.1%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	20	393	10	10	20	370	588	10	160	10
Future Volume (vph)	0	0	20	393	10	10	20	370	588	10	160	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992				0.850		0.992	
Flt Protected				0.950	0.957			0.997			0.997	
Satd. Flow (prot)	0	1471	0	1361	1360	0	0	1776	1514	0	1350	0
Flt Permitted				0.950	0.957			0.980			0.970	
Satd. Flow (perm)	0	1471	0	1361	1360	0	0	1746	1514	0	1314	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		468			2				626		3	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	0	0	21	418	11	11	21	394	626	11	170	11
Shared Lane Traffic (%)				47%								
Lane Group Flow (vph)	0	21	0	222	218	0	0	415	626	0	192	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type		NA		Split	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5	23.5	25.5	25.5	
Total Split (s)	23.5	23.5		38.0	38.0		58.5	58.5	58.5	58.5	58.5	
Total Split (%)	19.6%	19.6%		31.7%	31.7%		48.8%	48.8%	48.8%	48.8%	48.8%	
Maximum Green (s)	18.0	18.0		32.5	32.5		53.0	53.0	53.0	53.0	53.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		11.8		17.1	17.1			22.4	22.4		22.4	
Actuated g/C Ratio		0.21		0.30	0.30			0.40	0.40		0.40	
v/c Ratio		0.03		0.54	0.53			0.60	0.64		0.37	
Control Delay		0.1		26.2	25.8			20.0	5.1		16.9	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		0.1		26.2	25.8			20.0	5.1		16.9	
LOS		A		C	C			B	A		B	
Approach Delay		0.1			26.0			11.0			16.9	
Approach LOS		A			C			B			B	
Queue Length 50th (m)		0.0		14.0	13.5			21.6	0.0		8.8	
Queue Length 95th (m)		0.0		58.6	57.0			86.3	20.1		40.2	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)				120.0								
Base Capacity (vph)		845		924	924			1486	1382		1119	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.02		0.24	0.24			0.28	0.45		0.17	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 56.7			
Natural Cycle: 75			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 15.5		Intersection LOS: B	
Intersection Capacity Utilization 69.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



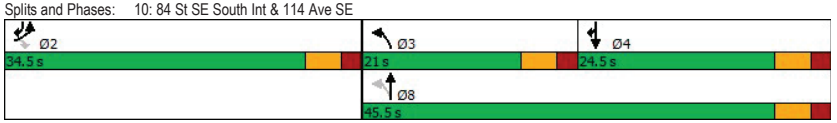
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	958	60	450	20	10	563
Future Volume (vph)	958	60	450	20	10	563
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3283	1514	1506	1585	1406	2104
Flt Permitted	0.950		0.556			
Satd. Flow (perm)	3283	1514	881	1585	1406	2104
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		43				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	1019	64	479	21	11	599
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1019	64	479	21	11	599
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	2		3	8	4	4 2
Permitted Phases		2	8			
Detector Phase	2	2	3	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	15.5	24.5	24.5	
Total Split (s)	34.5	34.5	21.0	45.5	24.5	
Total Split (%)	43.1%	43.1%	26.3%	56.9%	30.6%	
Maximum Green (s)	29.0	29.0	15.5	40.0	19.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	27.2	27.2	36.7	36.7	15.7	48.5
Actuated g/C Ratio	0.36	0.36	0.49	0.49	0.21	0.65
v/c Ratio	0.86	0.11	0.86	0.03	0.04	0.44
Control Delay	31.3	8.7	32.8	10.4	24.1	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	8.7	32.8	10.4	24.1	7.6
LOS	C	A	C	B	C	A
Approach Delay	29.9			31.8	7.9	
Approach LOS	C			C	A	
Queue Length 50th (m)	67.5	1.9	50.5	1.5	1.3	20.5
Queue Length 95th (m)	#105.7	9.5	#104.0	4.9	5.2	30.6
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)		30.0	120.0			120.0
Base Capacity (vph)	1278	616	561	851	358	1399
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.10	0.85	0.02	0.03	0.43

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 24.2 Intersection LOS: C
Intersection Capacity Utilization 69.5% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	484	64	27	292	20	31	30	25	10	10	20
Future Volume (vph)	30	484	64	27	292	20	31	30	25	10	10	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.991			0.960			0.934	
Flt Protected	0.950			0.950				0.982			0.987	
Satd. Flow (prot)	1692	1781	1514	1615	1685	0	0	1679	0	0	1642	0
Flt Permitted	0.950			0.950				0.982			0.987	
Satd. Flow (perm)	1692	1781	1514	1615	1685	0	0	1679	0	0	1642	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	32	515	68	29	311	21	33	32	27	11	11	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	515	68	29	332	0	0	92	0	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	484	64	27	292	20	31	30	25	10	10	20
Future Volume (Veh/h)	30	484	64	27	292	20	31	30	25	10	10	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	32	515	68	29	311	21	33	32	27	11	11	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	332			583			974	969	515	1002	1026	322
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	332			583			974	969	515	1002	1026	322
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			97			84	86	95	94	95	97
cM capacity (veh/h)	1211			953			204	237	554	179	219	712

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	32	515	68	29	332	92	43
Volume Left	32	0	0	29	0	33	11
Volume Right	0	0	68	0	21	27	21
cSH	1211	1700	1700	953	1700	266	304
Volume to Capacity	0.03	0.30	0.04	0.03	0.20	0.35	0.14
Queue Length 95th (m)	0.6	0.0	0.0	0.7	0.0	11.3	3.7
Control Delay (s)	8.1	0.0	0.0	8.9	0.0	25.5	18.8
Lane LOS	A			A		D	C
Approach Delay (s)	0.4			0.7		25.5	18.8
Approach LOS						D	C

Intersection Summary					
Average Delay	3.3				
Intersection Capacity Utilization	40.5%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	257	121	18	202	25	54	17	4	18	19	45
Future Volume (vph)	62	257	121	18	202	25	54	17	4	18	19	45
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.993			0.926	
Flt Protected	0.950				0.996			0.965			0.989	
Satd. Flow (prot)	1692	1781	1514	0	1694	1445	0	1707	0	0	1632	0
Flt Permitted	0.950				0.996			0.965			0.989	
Satd. Flow (perm)	1692	1781	1514	0	1694	1445	0	1707	0	0	1632	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	66	273	129	19	215	27	57	18	4	19	20	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	273	129	0	234	27	0	79	0	0	87	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	257	121	18	202	25	54	17	4	18	19	45
Future Volume (Veh/h)	62	257	121	18	202	25	54	17	4	18	19	45
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	66	273	129	19	215	27	57	18	4	19	20	48
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	242			402			716	685	273	671	787	215
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	242			402			716	685	273	671	787	215
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			98			80	95	99	94	93	94
cM capacity (veh/h)	1307			1115			290	342	759	332	299	817

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	66	273	129	234	27	79	87
Volume Left	66	0	0	19	0	57	19
Volume Right	0	0	129	0	27	4	48
cSH	1307	1700	1700	1115	1700	310	476
Volume to Capacity	0.05	0.16	0.08	0.02	0.02	0.25	0.18
Queue Length 95th (m)	1.2	0.0	0.0	0.4	0.0	7.5	5.0
Control Delay (s)	7.9	0.0	0.0	0.8	0.0	20.5	14.3
Lane LOS	A			A		C	B
Approach Delay (s)	1.1			0.7		20.5	14.3
Approach LOS						C	B

Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	46.7%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	55	72	5	140	3	37	0	2	0	0	5
Future Volume (vph)	11	55	72	5	140	3	37	0	2	0	0	5
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.930			0.997			0.993			0.865	
Flt Protected		0.996			0.998			0.955				
Satd. Flow (prot)	0	1650	0	0	1692	0	0	1689	0	0	1541	0
Flt Permitted		0.996			0.998			0.955				
Satd. Flow (perm)	0	1650	0	0	1692	0	0	1689	0	0	1541	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	12	59	77	5	149	3	39	0	2	0	0	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	148	0	0	157	0	0	41	0	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	55	72	5	140	3	37	0	2	0	0	5
Future Volume (Veh/h)	11	55	72	5	140	3	37	0	2	0	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	12	59	77	5	149	3	39	0	2	0	0	5
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	152			136			287	284	98	284	320	150
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	152			136			287	284	98	284	320	150
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			94	100	100	100	100	99
cM capacity (veh/h)	1411			1400			650	613	950	655	584	888

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	148	157	41	5
Volume Left	12	5	39	0
Volume Right	77	3	2	5
cSH	1411	1400	660	888
Volume to Capacity	0.01	0.00	0.06	0.01
Queue Length 95th (m)	0.2	0.1	1.5	0.1
Control Delay (s)	0.7	0.3	10.8	9.1
Lane LOS	A	A	B	A
Approach Delay (s)	0.7	0.3	10.8	9.1
Approach LOS			B	A

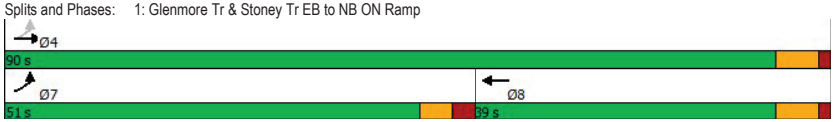
Intersection Summary					
Average Delay	1.8				
Intersection Capacity Utilization	28.3%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	790	914	974	0	0	0
Future Volume (vph)	790	914	974	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	3118	3145	0	0	0
Flt Permitted	0.108					
Satd. Flow (perm)	177	3118	3145	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	832	962	1025	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	832	962	1025	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	51.0	90.0	39.0			
Total Split (%)	56.7%	100.0%	43.3%			
Maximum Green (s)	45.0	84.0	33.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	84.0	90.0	33.5			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.93	1.00	0.37			
v/c Ratio	0.98	0.31	0.88			
Control Delay	32.1	0.1	36.7			
Queue Delay	0.0	0.0	0.0			
Total Delay	32.1	0.1	36.7			
LOS	C	A	D			
Approach Delay		14.9	36.7			
Approach LOS		B	D			
Queue Length 50th (m)	148.8	0.0	86.1			
Queue Length 95th (m)	m#155.9	m0.0	#123.4			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	857	3118	1172			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	0.97	0.31	0.87			

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 83.1%		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.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



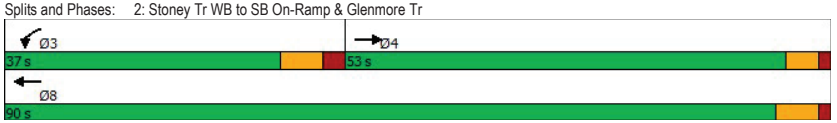
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1552	0	511	633	0	0
Future Volume (vph)	1552	0	511	633	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3118	0	1573	3145	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3118	0	1573	3145	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1634	0	538	666	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1634	0	538	666	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	53.0		37.0	90.0		
Total Split (%)	58.9%		41.1%	100.0%		
Maximum Green (s)	48.0		30.0	84.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	48.0		30.0	90.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.53		0.33	1.00		
v/c Ratio	0.98		1.03	0.21		
Control Delay	40.2		51.7	0.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	40.2		51.7	0.1		
LOS	D		D	A		
Approach Delay	40.2			23.1		
Approach LOS	D			C		
Queue Length 50th (m)	137.5		~100.4	0.0		
Queue Length 95th (m)	#194.7		m#126.1	m0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	1662		524	3145		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.98		1.03	0.21		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 33.0 Intersection LOS: C
Intersection Capacity Utilization 83.1% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



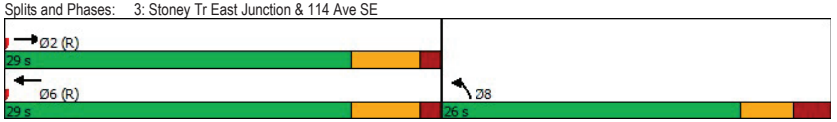
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	712	0	0	909	40	0
Future Volume (vph)	712	0	0	909	40	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	749	0	0	957	42	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	749	0	0	957	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	29.0			29.0	26.0	
Total Split (%)	52.7%			52.7%	47.3%	
Maximum Green (s)	23.0			23.0	20.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	46.2			46.2	10.0	
Actuated g/C Ratio	0.84			0.84	0.18	
v/c Ratio	0.27			0.36	0.07	
Control Delay	5.6			3.9	19.1	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	5.6			3.9	19.1	
LOS	A			A	B	
Approach Delay	5.6			3.9	19.1	
Approach LOS	A			A	B	
Queue Length 50th (m)	0.0			0.0	1.8	
Queue Length 95th (m)	m40.0			36.0	5.0	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2739			2642	1171	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.27			0.36	0.04	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 58.0%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE



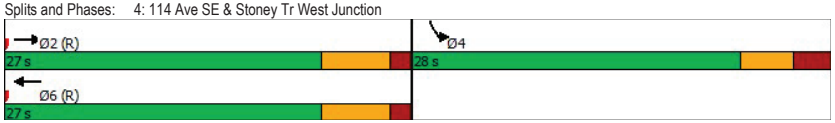
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1325	315	0	354	0
Future Volume (vph)	0	1325	315	0	354	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	1395	332	0	373	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1395	332	0	373	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		31.0	31.0		12.0	
Actuated g/C Ratio		0.56	0.56		0.22	
v/c Ratio		0.76	0.19		0.53	
Control Delay		13.7	9.0		21.6	
Queue Delay		0.0	0.0		0.0	
Total Delay		13.7	9.0		21.6	
LOS		B	A		C	
Approach Delay		13.7	9.0		21.6	
Approach LOS		B	A		C	
Queue Length 50th (m)		48.1	6.9		17.1	
Queue Length 95th (m)		#89.0	22.6		25.4	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1837	1772		1288	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.76	0.19		0.29	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 14.4 Intersection LOS: B
Intersection Capacity Utilization 58.0% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

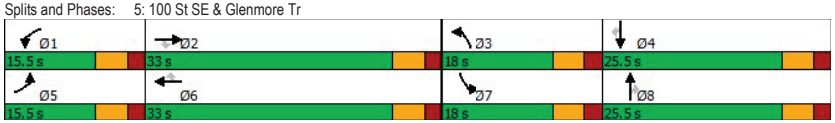


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	959	120	20	646	20	250	50	50	80	40	370
Future Volume (vph)	120	959	120	20	646	20	250	50	50	80	40	370
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			160			160			160			267
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	126	1009	126	21	680	21	263	53	53	84	42	389
Shared Lane Traffic (%)												
Lane Group Flow (vph)	126	1009	126	21	680	21	263	53	53	84	42	389
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	33.0	33.0	15.5	33.0	33.0	18.0	25.5	25.5	18.0	25.5	25.5
Total Split (%)	16.8%	35.9%	35.9%	16.8%	35.9%	35.9%	19.6%	27.7%	27.7%	19.6%	27.7%	27.7%
Maximum Green (s)	10.0	27.5	27.5	10.0	27.5	27.5	12.5	20.0	20.0	12.5	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	8.6	31.3	31.3	7.5	24.9	24.9	11.3	19.4	19.4	9.7	14.7	14.7
Actuated g/C Ratio	0.11	0.40	0.40	0.10	0.32	0.32	0.14	0.25	0.25	0.12	0.19	0.19
v/c Ratio	0.37	0.79	0.19	0.13	0.64	0.04	0.62	0.13	0.12	0.45	0.14	0.83
Control Delay	38.6	29.5	2.8	39.5	28.4	0.1	41.0	28.7	0.5	43.0	29.5	26.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	29.5	2.8	39.5	28.4	0.1	41.0	28.7	0.5	43.0	29.5	26.9
LOS	D	C	A	D	C	A	D	C	A	D	C	C
Approach Delay		27.7			27.9			33.4			29.8	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	9.2	62.1	0.0	3.0	49.3	0.0	19.0	6.4	0.0	11.9	5.3	16.4
Queue Length 95th (m)	19.3	#135.5	7.3	10.4	74.1	0.0	35.6	17.3	0.0	27.8	14.6	#64.1
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	406	1284	671	219	1208	643	478	436	487	246	415	550
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.79	0.19	0.10	0.56	0.03	0.55	0.12	0.11	0.34	0.10	0.71

Intersection Summary			
Area Type:	Other		
Cycle Length: 92			
Actuated Cycle Length: 78.8			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 28.9		Intersection LOS: C	
Intersection Capacity Utilization 62.9%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: 100 St SE & Glenmore Tr



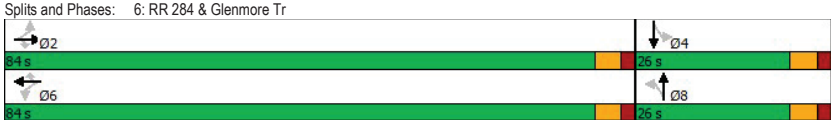
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1034	15	3	529	10	37	0	7	80	0	120
Future Volume (vph)	40	1034	15	3	529	10	37	0	7	80	0	120
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	90.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.979			0.919	
Flt Protected	0.950			0.950				0.959			0.980	
Satd. Flow (prot)	1725	1816	1544	1661	1748	1486	0	1673	0	0	1620	0
Flt Permitted	0.402			0.099				0.635			0.849	
Satd. Flow (perm)	730	1816	1544	173	1748	1486	0	1107	0	0	1403	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			25			25		25			60	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	42	1088	16	3	557	11	39	0	7	84	0	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	1088	16	3	557	11	0	46	0	0	210	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	84.0	84.0	84.0	84.0	84.0	84.0	26.0	26.0		26.0	26.0	
Total Split (%)	76.4%	76.4%	76.4%	76.4%	76.4%	76.4%	23.6%	23.6%		23.6%	23.6%	
Maximum Green (s)	78.5	78.5	78.5	78.5	78.5	78.5	20.5	20.5		20.5	20.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	54.1	54.1	54.1	54.1	54.1	54.1		15.4			15.4	
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.66	0.66		0.19			0.19	
v/c Ratio	0.09	0.90	0.02	0.03	0.48	0.01		0.20			0.67	
Control Delay	5.2	23.1	1.2	5.3	8.0	0.7		23.2			37.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	5.2	23.1	1.2	5.3	8.0	0.7		23.2			37.4	
LOS	A	C	A	A	A	A		C			D	
Approach Delay		22.1			7.9			23.2			37.4	
Approach LOS		C			A			C			D	
Queue Length 50th (m)	1.9	113.8	0.0	0.1	34.2	0.0		2.7			21.4	
Queue Length 95th (m)	5.8	220.8	1.3	1.0	63.0	0.7		14.0			#56.2	
Internal Link Dist (m)		135.6			122.5			174.3			175.1	
Turn Bay Length (m)	90.0		90.0	90.0		90.0						
Base Capacity (vph)	647	1610	1372	153	1549	1320		323			430	
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	0.06	0.68	0.01	0.02	0.36	0.01		0.14			0.49	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 81.6
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 76.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: RR 284 & Glenmore Tr



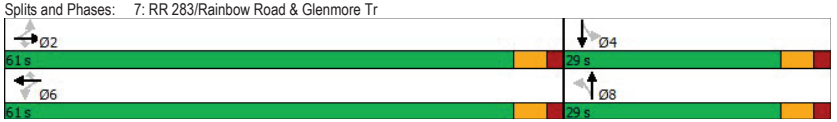
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	832	55	14	277	50	134	125	37	33	40	141
Future Volume (vph)	274	832	55	14	277	50	134	125	37	33	40	141
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	60.0		15.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.966			0.911	
Flt Protected	0.950			0.950			0.950				0.992	
Satd. Flow (prot)	1615	1701	1445	1630	1716	1459	1422	1446	0	0	1657	0
Flt Permitted	0.579			0.161			0.547				0.927	
Satd. Flow (perm)	985	1701	1445	276	1716	1459	819	1446	0	0	1549	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			58			53		16			104	
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	288	876	58	15	292	53	141	132	39	35	42	148
Shared Lane Traffic (%)												
Lane Group Flow (vph)	288	876	58	15	292	53	141	171	0	0	225	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	61.0	61.0	61.0	61.0	61.0	61.0	29.0	29.0		29.0	29.0	
Total Split (%)	67.8%	67.8%	67.8%	67.8%	67.8%	67.8%	32.2%	32.2%		32.2%	32.2%	
Maximum Green (s)	55.5	55.5	55.5	55.5	55.5	55.5	23.5	23.5		23.5	23.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	42.6	42.6	42.6	42.6	42.6	42.6	18.3	18.3			18.3	
Actuated g/C Ratio	0.59	0.59	0.59	0.59	0.59	0.59	0.25	0.25			0.25	
v/c Ratio	0.50	0.88	0.07	0.09	0.29	0.06	0.69	0.46			0.48	
Control Delay	12.6	25.1	2.2	8.7	8.5	2.3	47.4	28.0			18.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	12.6	25.1	2.2	8.7	8.5	2.3	47.4	28.0			18.5	
LOS	B	C	A	A	A	A	D	C			B	
Approach Delay		21.1			7.6			36.8			18.5	
Approach LOS		C			A			D			B	
Queue Length 50th (m)	22.1	98.1	0.0	0.9	19.2	0.0	19.1	19.4			14.7	
Queue Length 95th (m)	43.9	#179.6	4.1	3.7	33.8	4.0	#48.0	40.8			37.5	
Internal Link Dist (m)		224.8			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0	60.0					
Base Capacity (vph)	757	1307	1124	212	1319	1134	285	515			608	
Starvation Cap Reductn	0	0	0	0	0	0	0	0			0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0			0	
Storage Cap Reductn	0	0	0	0	0	0	0	0			0	
Reduced v/c Ratio	0.38	0.67	0.05	0.07	0.22	0.05	0.49	0.33			0.37	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 72.8
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 20.9 — Intersection LOS: C
Intersection Capacity Utilization 102.0% — ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	729	73	13	186	10	105	0	14	10	0	20
Future Volume (vph)	40	729	73	13	186	10	105	0	14	10	0	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.992			0.984			0.911	
Flt Protected	0.950			0.950				0.958			0.983	
Satd. Flow (prot)	1742	1834	1559	1676	1751	0	0	1603	0	0	1523	0
Flt Permitted	0.950			0.950				0.958			0.983	
Satd. Flow (perm)	1742	1834	1559	1676	1751	0	0	1603	0	0	1523	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	42	767	77	14	196	11	111	0	15	11	0	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	767	77	14	207	0	0	126	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	729	73	13	186	10	105	0	14	10	0	20
Future Volume (Veh/h)	40	729	73	13	186	10	105	0	14	10	0	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	42	767	77	14	196	11	111	0	15	11	0	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	207			844			1096	1086	767	1096	1158	202
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	207			844			1096	1086	767	1096	1158	202
tC, single (s)	4.1			4.2			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	97			98			36	100	96	94	100	97
cM capacity (veh/h)	1364			775			173	199	390	171	180	819

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	42	767	77	14	207	126	32
Volume Left	42	0	0	14	0	111	11
Volume Right	0	0	77	0	11	15	21
cSH	1364	1700	1700	775	1700	185	355
Volume to Capacity	0.03	0.45	0.05	0.02	0.12	0.68	0.09
Queue Length 95th (m)	0.7	0.0	0.0	0.4	0.0	31.2	2.2
Control Delay (s)	7.7	0.0	0.0	9.7	0.0	58.1	16.1
Lane LOS	A			A		F	C
Approach Delay (s)	0.4			0.6		58.1	16.1
Approach LOS						F	C

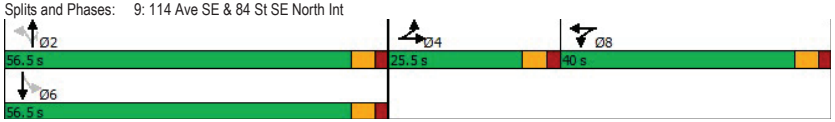
Intersection Summary				
Average Delay	6.6			
Intersection Capacity Utilization	59.6%	ICU Level of Service		B
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	20	575	10	10	10	120	418	10	520	10
Future Volume (vph)	0	0	20	575	10	10	10	120	418	10	520	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.995				0.850		0.997	
Flt Protected				0.950	0.956			0.996			0.999	
Satd. Flow (prot)	0	1471	0	1535	1537	0	0	1678	1432	0	1774	0
Flt Permitted				0.950	0.956			0.951			0.995	
Satd. Flow (perm)	0	1471	0	1535	1537	0	0	1603	1432	0	1767	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		142			2				440		1	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	0	0	21	605	11	11	11	126	440	11	547	11
Shared Lane Traffic (%)				48%								
Lane Group Flow (vph)	0	21	0	315	312	0	0	137	440	0	569	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type		NA		Split	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5		25.5	25.5		25.5	25.5	25.5	25.5	25.5	
Total Split (s)	25.5	25.5		40.0	40.0		56.5	56.5	56.5	56.5	56.5	
Total Split (%)	20.9%	20.9%		32.8%	32.8%		46.3%	46.3%	46.3%	46.3%	46.3%	
Maximum Green (s)	20.0	20.0		34.5	34.5		51.0	51.0	51.0	51.0	51.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		11.9		22.4	22.4			30.3	30.3		30.3	
Actuated g/C Ratio		0.17		0.32	0.32			0.43	0.43		0.43	
v/c Ratio		0.06		0.64	0.63			0.20	0.51		0.74	
Control Delay		0.3		31.5	31.0			15.9	4.1		25.6	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		0.3		31.5	31.0			15.9	4.1		25.6	
LOS		A		C	C			B	A		C	
Approach Delay		0.3			31.2			6.9			25.6	
Approach LOS		A			C			A			C	
Queue Length 50th (m)		0.0		26.9	26.3			7.8	0.0		43.4	
Queue Length 95th (m)		0.0		95.8	94.1			29.8	16.9		138.4	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)				120.0								
Base Capacity (vph)		594		902	904			1246	1211		1374	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.04		0.35	0.35			0.11	0.36		0.41	

Intersection Summary			
Area Type:	Other		
Cycle Length: 122			
Actuated Cycle Length: 70			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 21.3		Intersection LOS: C	
Intersection Capacity Utilization 78.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int

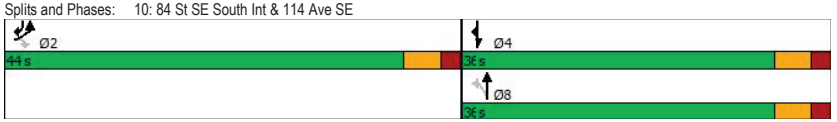


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	538	370	120	10	20	1095
Future Volume (vph)	538	370	120	10	20	1095
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3106	1432	1725	1816	1799	2691
Flt Permitted	0.950		0.744			
Satd. Flow (perm)	3106	1432	1351	1816	1799	2691
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		389				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	566	389	126	11	21	1153
Shared Lane Traffic (%)						
Lane Group Flow (vph)	566	389	126	11	21	1153
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	Perm	NA	NA	pt+ov
Protected Phases	2			8	4	4 2
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	7.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	44.0	44.0	36.0	36.0	36.0	
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%	
Maximum Green (s)	38.5	38.5	30.5	30.5	30.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	21.8	21.8	12.6	12.6	12.6	45.6
Actuated g/C Ratio	0.48	0.48	0.28	0.28	0.28	1.00
v/c Ratio	0.38	0.44	0.34	0.02	0.04	0.43
Control Delay	8.7	2.8	16.6	12.9	13.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	2.8	16.6	12.9	13.1	0.5
LOS	A	A	B	B	B	A
Approach Delay	6.3			16.3	0.7	
Approach LOS	A			B	A	
Queue Length 50th (m)	13.2	0.0	7.3	0.6	1.1	0.0
Queue Length 95th (m)	25.3	10.4	21.1	3.6	5.3	0.0
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)		30.0	120.0			120.0
Base Capacity (vph)	2652	1279	914	1228	1217	2691
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.30	0.14	0.01	0.02	0.43

Intersection Summary		
Area Type:	Other	
Cycle Length: 80		
Actuated Cycle Length: 45.6		
Natural Cycle: 55		
Control Type: Semi Act-Uncoord		
Maximum v/c Ratio: 0.44		
Intersection Signal Delay: 4.0		Intersection LOS: A
Intersection Capacity Utilization 55.3%		ICU Level of Service B
Analysis Period (min) 15		

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	276	43	24	463	10	42	10	19	10	30	20
Future Volume (vph)	10	276	43	24	463	10	42	10	19	10	30	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997			0.964			0.956	
Flt Protected	0.950			0.950				0.972			0.991	
Satd. Flow (prot)	1645	1732	1472	1709	1793	0	0	1669	0	0	1688	0
Flt Permitted	0.950			0.950				0.972			0.991	
Satd. Flow (perm)	1645	1732	1472	1709	1793	0	0	1669	0	0	1688	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	11	291	45	25	487	11	44	11	20	11	32	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	291	45	25	498	0	0	75	0	0	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	276	43	24	463	10	42	10	19	10	30	20
Future Volume (Veh/h)	10	276	43	24	463	10	42	10	19	10	30	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	291	45	25	487	11	44	11	20	11	32	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	498			336			887	861	291	881	900	492
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	498			336			887	861	291	881	900	492
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			80	96	97	95	88	96
cM capacity (veh/h)	1036			1212			223	281	741	243	266	570

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	11	291	45	25	498	75	64
Volume Left	11	0	0	25	0	44	11
Volume Right	0	0	45	0	11	20	21
cSH	1036	1700	1700	1212	1700	285	317
Volume to Capacity	0.01	0.17	0.03	0.02	0.29	0.26	0.20
Queue Length 95th (m)	0.2	0.0	0.0	0.5	0.0	7.8	5.6
Control Delay (s)	8.5	0.0	0.0	8.0	0.0	22.1	19.2
Lane LOS	A			A		C	C
Approach Delay (s)	0.3			0.4		22.1	19.2
Approach LOS						C	C

Intersection Summary					
Average Delay	3.2				
Intersection Capacity Utilization	43.1%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	175	56	16	265	34	105	23	11	12	14	51
Future Volume (vph)	57	175	56	16	265	34	105	23	11	12	14	51
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.989			0.911	
Flt Protected	0.950				0.997			0.964			0.992	
Satd. Flow (prot)	1645	1732	1472	0	1793	1529	0	1698	0	0	1610	0
Flt Permitted	0.950				0.997			0.964			0.992	
Satd. Flow (perm)	1645	1732	1472	0	1793	1529	0	1698	0	0	1610	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	60	184	59	17	279	36	111	24	12	13	15	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	184	59	0	296	36	0	147	0	0	82	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	175	56	16	265	34	105	23	11	12	14	51
Future Volume (Veh/h)	57	175	56	16	265	34	105	23	11	12	14	51
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	60	184	59	17	279	36	111	24	12	13	15	54
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	315			243			678	653	184	641	676	279
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	315			243			678	653	184	641	676	279
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			99			64	93	99	96	96	93
cM capacity (veh/h)	1212			1312			310	359	851	342	348	753

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	60	184	59	296	36	147	82
Volume Left	60	0	0	17	0	111	13
Volume Right	0	0	59	0	36	12	54
cSH	1212	1700	1700	1312	1700	334	537
Volume to Capacity	0.05	0.11	0.03	0.01	0.02	0.44	0.15
Queue Length 95th (m)	1.2	0.0	0.0	0.3	0.0	16.4	4.1
Control Delay (s)	8.1	0.0	0.0	0.6	0.0	23.9	12.9
Lane LOS	A			A		C	B
Approach Delay (s)	1.6			0.5		23.9	12.9
Approach LOS						C	B

Intersection Summary			
Average Delay	6.1		
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	100	36	3	100	1	70	0	7	4	0	10
Future Volume (vph)	4	100	36	3	100	1	70	0	7	4	0	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.999			0.988			0.901	
Flt Protected		0.999			0.999			0.956			0.987	
Satd. Flow (prot)	0	1670	0	0	1795	0	0	1683	0	0	1584	0
Flt Permitted		0.999			0.999			0.956			0.987	
Satd. Flow (perm)	0	1670	0	0	1795	0	0	1683	0	0	1584	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	4	105	38	3	105	1	74	0	7	4	0	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	147	0	0	109	0	0	81	0	0	15	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	100	36	3	100	1	70	0	7	4	0	10
Future Volume (Veh/h)	4	100	36	3	100	1	70	0	7	4	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	4	105	38	3	105	1	74	0	7	4	0	11
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	106			143			254	244	124	250	262	106
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	106			143			254	244	124	250	262	106
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			89	100	99	99	100	99
cM capacity (veh/h)	1448			1427			682	650	919	689	634	941

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	147	109	81	15
Volume Left	4	3	74	4
Volume Right	38	1	7	11
cSH	1448	1427	697	857
Volume to Capacity	0.00	0.00	0.12	0.02
Queue Length 95th (m)	0.1	0.0	3.0	0.4
Control Delay (s)	0.2	0.2	10.8	9.3
Lane LOS	A	A	B	A
Approach Delay (s)	0.2	0.2	10.8	9.3
Approach LOS			B	A

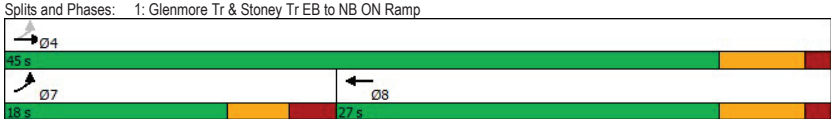
Intersection Summary					
Average Delay		3.1			
Intersection Capacity Utilization		27.3%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	330	788	917	0	0	0
Future Volume (vph)	330	788	917	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	3038	3012	0	0	0
Flt Permitted	0.202					
Satd. Flow (perm)	323	3038	3012	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	351	838	976	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	351	838	976	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	18.0	45.0	27.0			
Total Split (%)	40.0%	100.0%	60.0%			
Maximum Green (s)	12.0	39.0	21.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	39.0	45.0	22.6			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.87	1.00	0.50			
v/c Ratio	0.63	0.28	0.65			
Control Delay	17.5	0.2	11.0			
Queue Delay	0.0	0.0	0.0			
Total Delay	17.5	0.2	11.0			
LOS	B	A	B			
Approach Delay		5.3	11.0			
Approach LOS		A	B			
Queue Length 50th (m)	15.2	0.0	25.7			
Queue Length 95th (m)	m30.1	0.0	45.4			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	598	3038	1510			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	0.59	0.28	0.65			

Intersection Summary		
Area Type:	Other	
Cycle Length: 45		
Actuated Cycle Length: 45		
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green		
Natural Cycle: 45		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.65		
Intersection Signal Delay: 7.9		Intersection LOS: A
Intersection Capacity Utilization 54.8%		ICU Level of Service A
Analysis Period (min) 15		
m Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	850	0	296	1351	0	0
Future Volume (vph)	850	0	296	1351	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3038	0	1506	3012	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3038	0	1506	3012	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	904	0	315	1437	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	904	0	315	1437	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	26.0		19.0	45.0		
Total Split (%)	57.8%		42.2%	100.0%		
Maximum Green (s)	21.0		12.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	21.0		12.0	45.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.47		0.27	1.00		
v/c Ratio	0.64		0.79	0.48		
Control Delay	11.8		35.2	0.7		
Queue Delay	0.0		0.0	0.0		
Total Delay	11.8		35.2	0.7		
LOS	B		D	A		
Approach Delay	11.8			6.9		
Approach LOS	B			A		
Queue Length 50th (m)	27.1		19.7	0.5		
Queue Length 95th (m)	40.4		m#51.3	0.6		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	1444		415	3012		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.63		0.76	0.48		

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 8.6		Intersection LOS: A	
Intersection Capacity Utilization 54.8%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



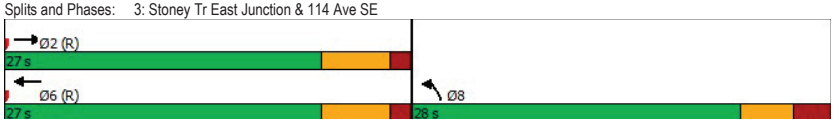
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	487	0	0	690	360	0
Future Volume (vph)	487	0	0	690	360	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	518	0	0	734	383	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	518	0	0	734	383	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	30.7			30.7	12.3	
Actuated g/C Ratio	0.56			0.56	0.22	
v/c Ratio	0.29			0.42	0.54	
Control Delay	7.3			8.4	21.6	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	7.3			8.4	21.6	
LOS	A			A	C	
Approach Delay	7.3			8.4	21.6	
Approach LOS	A			A	C	
Queue Length 50th (m)	8.3			19.2	17.5	
Queue Length 95th (m)	23.3			34.4	25.8	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	1773			1742	1265	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.29			0.42	0.30	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 11.1 Intersection LOS: B
Intersection Capacity Utilization 42.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

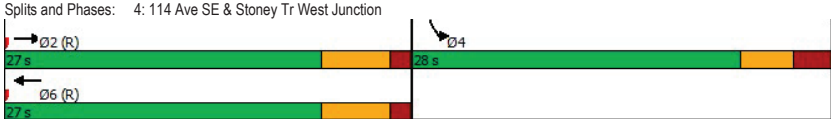


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	642	861	0	262	0
Future Volume (vph)	0	642	861	0	262	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	683	916	0	279	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	683	916	0	279	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		32.1	32.1		10.9	
Actuated g/C Ratio		0.58	0.58		0.20	
v/c Ratio		0.37	0.50		0.44	
Control Delay		7.0	8.7		21.6	
Queue Delay		0.0	0.0		0.0	
Total Delay		7.0	8.7		21.6	
LOS		A	A		C	
Approach Delay		7.0	8.7		21.6	
Approach LOS		A	A		C	
Queue Length 50th (m)		15.5	18.0		12.9	
Queue Length 95th (m)		27.8	42.0		20.5	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1851	1819		1265	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.37	0.50		0.22	

Intersection Summary		
Area Type:	Other	
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 55		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.50		
Intersection Signal Delay: 10.0		Intersection LOS: B
Intersection Capacity Utilization 42.8%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

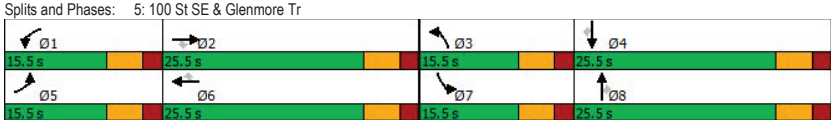


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	628	320	70	846	100	110	50	10	20	30	110
Future Volume (vph)	290	628	320	70	846	100	110	50	10	20	30	110
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	3118	1395	1601	3202	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			340			180			180			180
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	309	668	340	74	900	106	117	53	11	21	32	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	309	668	340	74	900	106	117	53	11	21	32	117
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (%)	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%	18.9%	31.1%	31.1%
Maximum Green (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	10.0	28.2	28.2	8.8	21.1	21.1	8.6	18.4	18.4	7.6	10.6	10.6
Actuated g/C Ratio	0.16	0.44	0.44	0.14	0.33	0.33	0.13	0.29	0.29	0.12	0.16	0.16
v/c Ratio	0.66	0.49	0.42	0.34	0.86	0.18	0.30	0.12	0.02	0.12	0.12	0.32
Control Delay	36.5	22.2	4.7	32.9	34.6	1.4	30.6	21.3	0.1	30.7	28.4	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	22.2	4.7	32.9	34.6	1.4	30.6	21.3	0.1	30.7	28.4	4.0
LOS	D	C	A	C	C	A	C	C	A	C	C	A
Approach Delay		21.1			31.3			26.0			11.9	
Approach LOS		C			C			C			B	
Queue Length 50th (m)	20.2	40.3	0.0	9.1	61.3	0.0	7.4	4.7	0.0	2.6	3.7	0.0
Queue Length 95th (m)	#37.3	#62.5	17.5	20.6	#102.7	2.3	14.4	15.4	0.0	8.6	11.0	4.8
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	497	1368	803	263	1052	591	480	570	599	243	512	556
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.49	0.42	0.28	0.86	0.18	0.24	0.09	0.02	0.09	0.06	0.21

Intersection Summary			
Area Type:	Other		
Cycle Length: 82			
Actuated Cycle Length: 64.3			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 24.8		Intersection LOS: C	
Intersection Capacity Utilization 56.2%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	532	46	8	744	0	12	0	1	20	0	260
Future Volume (vph)	80	532	46	8	744	0	12	0	1	20	0	260
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	90.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.990			0.875	
Flt Protected	0.950			0.950				0.956			0.996	
Satd. Flow (prot)	1573	1655	1407	1692	1781	1781	0	1686	0	0	1274	0
Flt Permitted	0.202			0.368				0.766			0.979	
Satd. Flow (perm)	334	1655	1407	656	1781	1781	0	1351	0	0	1252	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			49					34			197	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	85	566	49	9	791	0	13	0	1	21	0	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	566	49	9	791	0	0	14	0	0	298	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	54.0	54.0	54.0	54.0	54.0	54.0	26.0	26.0		26.0	26.0	
Total Split (%)	67.5%	67.5%	67.5%	67.5%	67.5%	67.5%	32.5%	32.5%		32.5%	32.5%	
Maximum Green (s)	48.5	48.5	48.5	48.5	48.5	48.5	20.5	20.5		20.5	20.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	29.8	29.8	29.8	29.8	29.8			13.1			13.1	
Actuated g/C Ratio	0.54	0.54	0.54	0.54	0.54			0.24			0.24	
v/c Ratio	0.47	0.63	0.06	0.03	0.82			0.04			0.66	
Control Delay	17.8	12.2	2.3	6.1	18.2			3.2			16.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay	17.8	12.2	2.3	6.1	18.2			3.2			16.5	
LOS	B	B	A	A	B			A			B	
Approach Delay		12.1			18.0			3.2			16.5	
Approach LOS		B			B			A			B	
Queue Length 50th (m)	3.7	28.0	0.0	0.3	46.3			0.0			7.4	
Queue Length 95th (m)	18.2	73.2	3.6	2.2	120.6			1.8			38.3	
Internal Link Dist (m)		135.6			122.5			174.3			175.1	
Turn Bay Length (m)	90.0		90.0	90.0								
Base Capacity (vph)	292	1450	1238	574	1560			561			619	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.29	0.39	0.04	0.02	0.51			0.02			0.48	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 54.7			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 15.4		Intersection LOS: B	
Intersection Capacity Utilization 87.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr



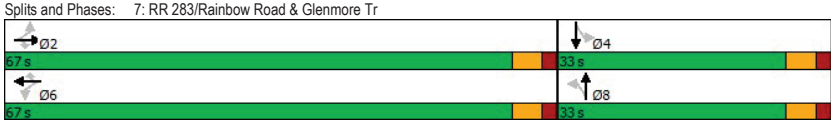
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	306	157	37	576	63	42	39	11	18	113	134
Future Volume (vph)	71	306	157	37	576	63	42	39	11	18	113	134
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	60.0		15.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.966			0.932	
Flt Protected	0.950			0.950			0.950				0.997	
Satd. Flow (prot)	1742	1701	1445	1615	1701	1559	1587	1733	0	0	1704	0
Flt Permitted	0.316			0.563			0.531				0.979	
Satd. Flow (perm)	580	1701	1445	957	1701	1559	887	1733	0	0	1673	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			167			67		12			51	
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	76	326	167	39	613	67	45	41	12	19	120	143
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	326	167	39	613	67	45	53	0	0	282	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	67.0	67.0	67.0	67.0	67.0	67.0	33.0	33.0		33.0	33.0	
Total Split (%)	67.0%	67.0%	67.0%	67.0%	67.0%	67.0%	33.0%	33.0%		33.0%	33.0%	
Maximum Green (s)	61.5	61.5	61.5	61.5	61.5	61.5	27.5	27.5		27.5	27.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	27.2	27.2	27.2	27.2	27.2	27.2	13.8	13.8			13.8	
Actuated g/C Ratio	0.52	0.52	0.52	0.52	0.52	0.52	0.26	0.26			0.26	
v/c Ratio	0.25	0.37	0.20	0.08	0.70	0.08	0.19	0.11			0.59	
Control Delay	10.1	9.2	2.1	7.3	14.9	2.4	20.0	14.9			20.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	10.1	9.2	2.1	7.3	14.9	2.4	20.0	14.9			20.9	
LOS	B	A	A	A	B	A	B	B			C	
Approach Delay		7.3			13.3			17.2			20.9	
Approach LOS		A			B			B			C	
Queue Length 50th (m)	3.2	15.0	0.0	1.5	35.7	0.0	2.9	2.6			16.5	
Queue Length 95th (m)	12.3	37.5	7.1	6.3	86.3	4.5	12.7	12.0			50.5	
Internal Link Dist (m)		224.8			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0	60.0					
Base Capacity (vph)	557	1635	1395	920	1635	1501	489	962			946	
Starvation Cap Reductn	0	0	0	0	0	0	0	0			0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0			0	
Storage Cap Reductn	0	0	0	0	0	0	0	0			0	
Reduced v/c Ratio	0.14	0.20	0.12	0.04	0.37	0.04	0.09	0.06			0.30	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 52.6
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 83.8% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	191	124	14	571	10	65	0	10	10	0	40
Future Volume (vph)	20	191	124	14	571	10	65	0	10	10	0	40
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997			0.981			0.892	
Flt Protected	0.950			0.950				0.959			0.990	
Satd. Flow (prot)	1532	1613	1371	1709	1793	0	0	1600	0	0	1502	0
Flt Permitted	0.950			0.950				0.959			0.990	
Satd. Flow (perm)	1532	1613	1371	1709	1793	0	0	1600	0	0	1502	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	21	203	132	15	607	11	69	0	11	11	0	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	203	132	15	618	0	0	80	0	0	54	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	191	124	14	571	10	65	0	10	10	0	40
Future Volume (Veh/h)	20	191	124	14	571	10	65	0	10	10	0	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	21	203	132	15	607	11	69	0	11	11	0	43
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	618			335			925	893	203	898	1020	612
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	618			335			925	893	203	898	1020	612
tC, single (s)	4.3			4.1			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	98			99			68	100	99	95	100	91
cM capacity (veh/h)	898			1213			214	263	818	242	221	478

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	21	203	132	15	618	80	54
Volume Left	21	0	0	15	0	69	11
Volume Right	0	0	132	0	11	11	43
cSH	898	1700	1700	1213	1700	238	399
Volume to Capacity	0.02	0.12	0.08	0.01	0.36	0.34	0.14
Queue Length 95th (m)	0.5	0.0	0.0	0.3	0.0	10.8	3.5
Control Delay (s)	9.1	0.0	0.0	8.0	0.0	27.6	15.4
Lane LOS	A			A		D	C
Approach Delay (s)	0.5			0.2		27.6	15.4
Approach LOS						D	C

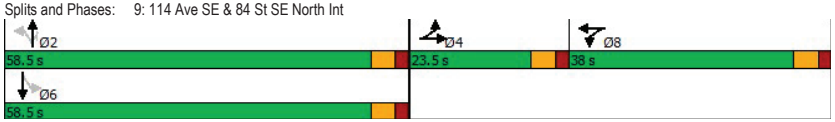
Intersection Summary					
Average Delay	3.0				
Intersection Capacity Utilization	49.1%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	20	364	10	10	20	370	795	10	160	10
Future Volume (vph)	0	0	20	364	10	10	20	370	795	10	160	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.992				0.850		0.992	
Flt Protected				0.950	0.957			0.997			0.997	
Satd. Flow (prot)	0	1471	0	1361	1360	0	0	1776	1514	0	1350	0
Flt Permitted				0.950	0.957			0.980			0.970	
Satd. Flow (perm)	0	1471	0	1361	1360	0	0	1746	1514	0	1314	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		477			2				846		3	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	0	0	21	387	11	11	21	394	846	11	170	11
Shared Lane Traffic (%)				47%								
Lane Group Flow (vph)	0	21	0	205	204	0	0	415	846	0	192	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type		NA		Split	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5	23.5	25.5	25.5	
Total Split (s)	23.5	23.5		38.0	38.0		58.5	58.5	58.5	58.5	58.5	
Total Split (%)	19.6%	19.6%		31.7%	31.7%		48.8%	48.8%	48.8%	48.8%	48.8%	
Maximum Green (s)	18.0	18.0		32.5	32.5		53.0	53.0	53.0	53.0	53.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		11.8		16.3	16.3			22.7	22.7		22.7	
Actuated g/C Ratio		0.21		0.29	0.29			0.40	0.40		0.40	
v/c Ratio		0.03		0.52	0.52			0.59	0.76		0.36	
Control Delay		0.1		26.5	26.2			18.9	6.6		16.0	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		0.1		26.5	26.2			18.9	6.6		16.0	
LOS		A		C	C			B	A		B	
Approach Delay		0.1			26.4			10.6			16.0	
Approach LOS		A			C			B			B	
Queue Length 50th (m)		0.0		13.0	12.8			20.9	0.0		8.5	
Queue Length 95th (m)		0.0		54.5	54.0			82.3	24.0		38.4	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)				120.0								
Base Capacity (vph)		852		925	925			1493	1417		1124	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.02		0.22	0.22			0.28	0.60		0.17	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 56.1			
Natural Cycle: 75			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 14.5		Intersection LOS: B	
Intersection Capacity Utilization 82.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



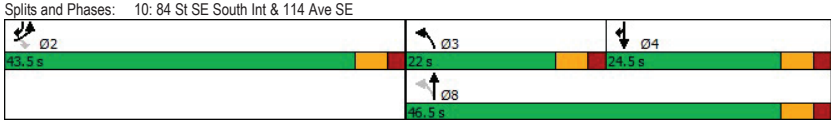
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1165	60	450	20	10	534
Future Volume (vph)	1165	60	450	20	10	534
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3283	1514	1506	1585	1406	2104
Flt Permitted	0.950		0.553			
Satd. Flow (perm)	3283	1514	877	1585	1406	2104
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		34				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	1239	64	479	21	11	568
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1239	64	479	21	11	568
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	2		3	8	4	4 2
Permitted Phases		2	8			
Detector Phase	2	2	3	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	15.5	24.5	24.5	
Total Split (s)	43.5	43.5	22.0	46.5	24.5	
Total Split (%)	48.3%	48.3%	24.4%	51.7%	27.2%	
Maximum Green (s)	38.0	38.0	16.5	41.0	19.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	35.5	35.5	37.5	37.5	15.4	56.4
Actuated g/C Ratio	0.42	0.42	0.45	0.45	0.18	0.67
v/c Ratio	0.89	0.10	0.93	0.03	0.04	0.40
Control Delay	32.7	9.1	48.6	13.9	29.2	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	9.1	48.6	13.9	29.2	7.1
LOS	C	A	D	B	C	A
Approach Delay	31.6			47.2	7.5	
Approach LOS	C			D	A	
Queue Length 50th (m)	92.2	2.8	63.9	1.9	1.5	20.0
Queue Length 95th (m)	#140.8	10.2	#137.5	5.9	5.8	29.0
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)		30.0	120.0			120.0
Base Capacity (vph)	1493	707	515	777	319	1448
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.09	0.93	0.03	0.03	0.39

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 84.1
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 29.0 Intersection LOS: C
Intersection Capacity Utilization 75.6% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	671	84	29	265	20	29	30	24	10	10	20
Future Volume (vph)	30	671	84	29	265	20	29	30	24	10	10	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.990			0.961			0.934	
Flt Protected	0.950			0.950				0.983			0.987	
Satd. Flow (prot)	1692	1781	1514	1615	1683	0	0	1683	0	0	1642	0
Flt Permitted	0.950			0.950				0.983			0.987	
Satd. Flow (perm)	1692	1781	1514	1615	1683	0	0	1683	0	0	1642	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	32	714	89	31	282	21	31	32	26	11	11	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	714	89	31	303	0	0	89	0	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	671	84	29	265	20	29	30	24	10	10	20
Future Volume (Veh/h)	30	671	84	29	265	20	29	30	24	10	10	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	32	714	89	31	282	21	31	32	26	11	11	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	303			803			1148	1143	714	1174	1222	292
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	303			803			1148	1143	714	1174	1222	292
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			96			80	83	94	91	93	97
cM capacity (veh/h)	1241			787			152	185	426	129	166	740

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	32	714	89	31	303	89	43
Volume Left	32	0	0	31	0	31	11
Volume Right	0	0	89	0	21	26	21
cSH	1241	1700	1700	787	1700	203	239
Volume to Capacity	0.03	0.42	0.05	0.04	0.18	0.44	0.18
Queue Length 95th (m)	0.6	0.0	0.0	0.9	0.0	15.5	4.9
Control Delay (s)	8.0	0.0	0.0	9.8	0.0	35.8	23.4
Lane LOS	A			A		E	C
Approach Delay (s)	0.3			0.9		35.8	23.4
Approach LOS						E	C

Intersection Summary					
Average Delay	3.7				
Intersection Capacity Utilization	50.2%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	347	171	21	190	24	47	16	3	25	23	47
Future Volume (vph)	66	347	171	21	190	24	47	16	3	25	23	47
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.994			0.933	
Flt Protected	0.950				0.995			0.966			0.987	
Satd. Flow (prot)	1692	1781	1514	0	1692	1445	0	1711	0	0	1641	0
Flt Permitted	0.950				0.995			0.966			0.987	
Satd. Flow (perm)	1692	1781	1514	0	1692	1445	0	1711	0	0	1641	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	70	369	182	22	202	26	50	17	3	27	24	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	369	182	0	224	26	0	70	0	0	101	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	347	171	21	190	24	47	16	3	25	23	47
Future Volume (Veh/h)	66	347	171	21	190	24	47	16	3	25	23	47
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	70	369	182	22	202	26	50	17	3	27	24	50
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	228			551			817	781	369	766	937	202
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	228			551			817	781	369	766	937	202
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			98			79	94	100	90	90	94
cM capacity (veh/h)	1323			980			239	299	670	284	242	831

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	70	369	182	224	26	70	101
Volume Left	70	0	0	22	0	50	27
Volume Right	0	0	182	0	26	3	50
cSH	1323	1700	1700	980	1700	259	397
Volume to Capacity	0.05	0.22	0.11	0.02	0.02	0.27	0.25
Queue Length 95th (m)	1.3	0.0	0.0	0.5	0.0	8.1	7.6
Control Delay (s)	7.9	0.0	0.0	1.1	0.0	24.0	17.1
Lane LOS	A			A		C	C
Approach Delay (s)	0.9			1.0		24.0	17.1
Approach LOS						C	C

Intersection Summary					
Average Delay	4.0				
Intersection Capacity Utilization	48.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	51	105	7	150	4	32	0	2	0	0	4
Future Volume (vph)	13	51	105	7	150	4	32	0	2	0	0	4
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.916			0.997			0.992			0.865	
Flt Protected		0.996			0.998			0.955				
Satd. Flow (prot)	0	1625	0	0	1692	0	0	1688	0	0	1541	0
Flt Permitted		0.996			0.998			0.955				
Satd. Flow (perm)	0	1625	0	0	1692	0	0	1688	0	0	1541	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	14	54	112	7	160	4	34	0	2	0	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	180	0	0	171	0	0	36	0	0	4	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	51	105	7	150	4	32	0	2	0	0	4
Future Volume (Veh/h)	13	51	105	7	150	4	32	0	2	0	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	14	54	112	7	160	4	34	0	2	0	0	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	164			166			318	316	110	316	370	162
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	164			166			318	316	110	316	370	162
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			95	100	100	100	100	100
cM capacity (veh/h)	1396			1365			619	586	935	622	546	875

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	180	171	36	4
Volume Left	14	7	34	0
Volume Right	112	4	2	4
cSH	1396	1365	631	875
Volume to Capacity	0.01	0.01	0.06	0.00
Queue Length 95th (m)	0.2	0.1	1.4	0.1
Control Delay (s)	0.7	0.4	11.1	9.1
Lane LOS	A	A	B	A
Approach Delay (s)	0.7	0.4	11.1	9.1
Approach LOS			B	A

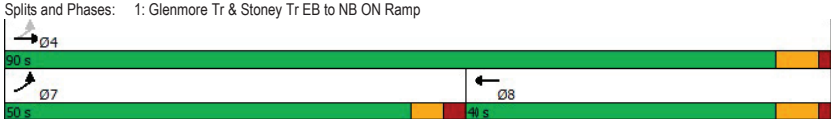
Intersection Summary					
Average Delay	1.6				
Intersection Capacity Utilization	30.1%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	790	913	984	0	0	0
Future Volume (vph)	790	913	984	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	3118	3145	0	0	0
Flt Permitted	0.106					
Satd. Flow (perm)	174	3118	3145	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	832	961	1036	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	832	961	1036	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	50.0	90.0	40.0			
Total Split (%)	55.6%	100.0%	44.4%			
Maximum Green (s)	44.0	84.0	34.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	84.0	90.0	33.7			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.93	1.00	0.37			
v/c Ratio	0.99	0.31	0.88			
Control Delay	33.6	0.1	36.5			
Queue Delay	0.0	0.0	0.0			
Total Delay	33.6	0.1	36.5			
LOS	C	A	D			
Approach Delay		15.6	36.5			
Approach LOS		B	D			
Queue Length 50th (m)	148.9	0.0	85.9			
Queue Length 95th (m)	m#159.2	m0.0	#122.3			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	843	3118	1188			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	0.99	0.31	0.87			

Intersection Summary		
Area Type:	Other	
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green		
Natural Cycle: 80		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.99		
Intersection Signal Delay: 23.3		Intersection LOS: C
Intersection Capacity Utilization 83.7%		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.		
m Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



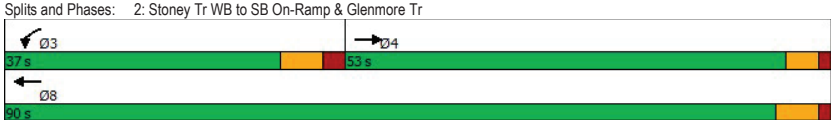
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1552	0	521	649	0	0
Future Volume (vph)	1552	0	521	649	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	3118	0	1573	3145	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	3118	0	1573	3145	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1634	0	548	683	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1634	0	548	683	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	53.0		37.0	90.0		
Total Split (%)	58.9%		41.1%	100.0%		
Maximum Green (s)	48.0		30.0	84.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	48.0		30.0	90.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.53		0.33	1.00		
v/c Ratio	0.98		1.05	0.22		
Control Delay	40.2		58.3	0.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	40.2		58.3	0.1		
LOS	D		E	A		
Approach Delay	40.2			26.0		
Approach LOS	D			C		
Queue Length 50th (m)	137.5		~104.2	0.0		
Queue Length 95th (m)	#194.7		m#131.8	m0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	1662		524	3145		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.98		1.05	0.22		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 34.1 Intersection LOS: C
Intersection Capacity Utilization 83.7% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



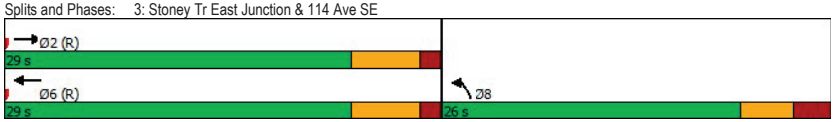
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	716	0	0	1024	40	0
Future Volume (vph)	716	0	0	1024	40	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	754	0	0	1078	42	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	754	0	0	1078	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	29.0			29.0	26.0	
Total Split (%)	52.7%			52.7%	47.3%	
Maximum Green (s)	23.0			23.0	20.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	46.2			46.2	10.0	
Actuated g/C Ratio	0.84			0.84	0.18	
v/c Ratio	0.28			0.41	0.07	
Control Delay	5.6			4.2	19.1	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	5.6			4.2	19.1	
LOS	A			A	B	
Approach Delay	5.6			4.2	19.1	
Approach LOS	A			A	B	
Queue Length 50th (m)	0.0			0.0	1.8	
Queue Length 95th (m)	m40.2			42.9	5.0	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2739			2642	1171	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.28			0.41	0.04	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 5.1 Intersection LOS: A
Intersection Capacity Utilization 58.0% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE



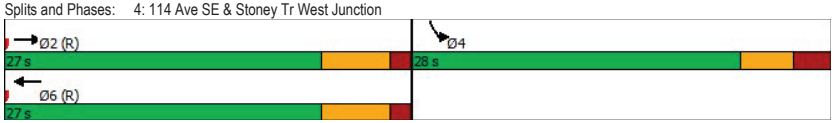
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1323	325	0	358	0
Future Volume (vph)	0	1323	325	0	358	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	1393	342	0	377	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1393	342	0	377	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		31.0	31.0		12.0	
Actuated g/C Ratio		0.56	0.56		0.22	
v/c Ratio		0.76	0.19		0.54	
Control Delay		13.7	9.5		21.7	
Queue Delay		0.0	0.0		0.0	
Total Delay		13.7	9.5		21.7	
LOS		B	A		C	
Approach Delay		13.7	9.5		21.7	
Approach LOS		B	A		C	
Queue Length 50th (m)		47.8	7.2		17.3	
Queue Length 95th (m)		#88.4	24.1		25.6	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1836	1771		1288	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.76	0.19		0.29	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 14.4 Intersection LOS: B
Intersection Capacity Utilization 58.0% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction



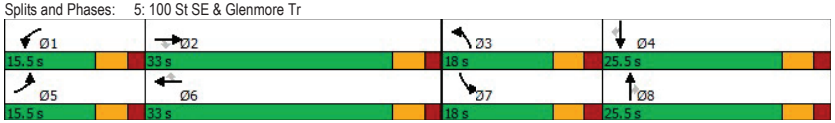
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	949	120	20	656	20	250	50	50	80	40	370
Future Volume (vph)	120	949	120	20	656	20	250	50	50	80	40	370
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	3231	1445	1692	3385	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			160			160			160			266
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	126	999	126	21	691	21	263	53	53	84	42	389
Shared Lane Traffic (%)												
Lane Group Flow (vph)	126	999	126	21	691	21	263	53	53	84	42	389
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.5	33.0	33.0	15.5	33.0	33.0	18.0	25.5	25.5	18.0	25.5	25.5
Total Split (%)	16.8%	35.9%	35.9%	16.8%	35.9%	35.9%	19.6%	27.7%	27.7%	19.6%	27.7%	27.7%
Maximum Green (s)	10.0	27.5	27.5	10.0	27.5	27.5	12.5	20.0	20.0	12.5	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	8.6	31.7	31.7	7.5	25.2	25.2	11.3	19.4	19.4	9.8	14.7	14.7
Actuated g/C Ratio	0.11	0.40	0.40	0.09	0.32	0.32	0.14	0.24	0.24	0.12	0.19	0.19
v/c Ratio	0.37	0.77	0.19	0.13	0.64	0.04	0.63	0.14	0.12	0.45	0.14	0.83
Control Delay	38.9	28.9	2.8	39.6	28.5	0.1	41.3	28.9	0.5	43.2	29.7	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	28.9	2.8	39.6	28.5	0.1	41.3	28.9	0.5	43.2	29.7	27.4
LOS	D	C	A	D	C	A	D	C	A	D	C	C
Approach Delay		27.3			28.0			33.7			30.1	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	9.4	61.5	0.0	3.1	50.7	0.0	19.5	6.6	0.0	12.2	5.4	17.0
Queue Length 95th (m)	19.3	#133.5	7.3	10.4	75.5	0.0	35.6	17.3	0.0	27.8	14.6	#64.4
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	404	1292	674	218	1203	641	476	434	486	245	413	548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.77	0.19	0.10	0.57	0.03	0.55	0.12	0.11	0.34	0.10	0.71

Intersection Summary

Area Type: Other
Cycle Length: 92
Actuated Cycle Length: 79.2
Natural Cycle: 85
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 28.8 Intersection LOS: C
Intersection Capacity Utilization 63.2% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: 100 St SE & Glenmore Tr

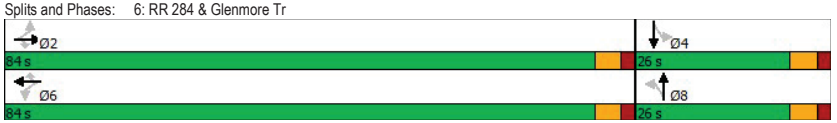


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1026	13	2	537	10	39	0	8	80	0	120
Future Volume (vph)	40	1026	13	2	537	10	39	0	8	80	0	120
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	90.0		90.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.978			0.919	
Flt Protected	0.950			0.950				0.960			0.980	
Satd. Flow (prot)	1725	1816	1544	1661	1748	1486	0	1673	0	0	1620	0
Flt Permitted	0.397			0.101				0.633			0.848	
Satd. Flow (perm)	721	1816	1544	177	1748	1486	0	1103	0	0	1402	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			25			25		25			60	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			146.5			198.3			199.1	
Travel Time (s)		7.2			6.6			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	42	1080	14	2	565	11	41	0	8	84	0	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	1080	14	2	565	11	0	49	0	0	210	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	84.0	84.0	84.0	84.0	84.0	84.0	26.0	26.0		26.0	26.0	
Total Split (%)	76.4%	76.4%	76.4%	76.4%	76.4%	76.4%	23.6%	23.6%		23.6%	23.6%	
Maximum Green (s)	78.5	78.5	78.5	78.5	78.5	78.5	20.5	20.5		20.5	20.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	53.2	53.2	53.2	53.2	53.2	53.2		15.3			15.3	
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.66	0.66		0.19			0.19	
v/c Ratio	0.09	0.90	0.01	0.02	0.49	0.01		0.21			0.67	
Control Delay	5.2	22.7	1.0	5.0	8.1	0.7		23.7			37.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	5.2	22.7	1.0	5.0	8.1	0.7		23.7			37.0	
LOS	A	C	A	A	A	A		C			D	
Approach Delay		21.8			8.0			23.7			37.0	
Approach LOS		C			A			C			D	
Queue Length 50th (m)	1.9	110.5	0.0	0.1	34.5	0.0		3.0			21.0	
Queue Length 95th (m)	5.8	216.3	1.0	0.8	64.4	0.7		15.0			#56.2	
Internal Link Dist (m)		135.6			122.5			174.3			175.1	
Turn Bay Length (m)	90.0		90.0	90.0		90.0						
Base Capacity (vph)	643	1621	1381	158	1560	1329		326			435	
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	0.67	0.01	0.01	0.36	0.01		0.15			0.48	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 80.6			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 19.4		Intersection LOS: B	
Intersection Capacity Utilization 76.2%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 6: RR 284 & Glenmore Tr



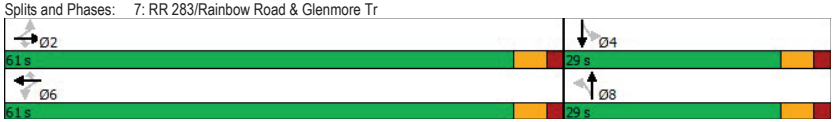
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	275	829	51	14	280	51	138	145	40	33	40	141
Future Volume (vph)	275	829	51	14	280	51	138	145	40	33	40	141
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	60.0		15.0	0.0		0.0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.968			0.911	
Flt Protected	0.950			0.950			0.950				0.992	
Satd. Flow (prot)	1615	1701	1445	1630	1716	1459	1422	1449	0	0	1657	0
Flt Permitted	0.576			0.163			0.547				0.923	
Satd. Flow (perm)	979	1701	1445	280	1716	1459	819	1449	0	0	1542	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			54			54		15			104	
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			3229.7			232.8	
Travel Time (s)		11.2			73.3			145.3			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	289	873	54	15	295	54	145	153	42	35	42	148
Shared Lane Traffic (%)												
Lane Group Flow (vph)	289	873	54	15	295	54	145	195	0	0	225	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	61.0	61.0	61.0	61.0	61.0	61.0	29.0	29.0		29.0	29.0	
Total Split (%)	67.8%	67.8%	67.8%	67.8%	67.8%	67.8%	32.2%	32.2%		32.2%	32.2%	
Maximum Green (s)	55.5	55.5	55.5	55.5	55.5	55.5	23.5	23.5		23.5	23.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	42.7	42.7	42.7	42.7	42.7	42.7	18.5	18.5			18.5	
Actuated g/C Ratio	0.58	0.58	0.58	0.58	0.58	0.58	0.25	0.25			0.25	
v/c Ratio	0.51	0.88	0.06	0.09	0.29	0.06	0.70	0.52			0.48	
Control Delay	12.8	25.0	2.3	8.6	8.6	2.3	48.6	29.8			18.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	12.8	25.0	2.3	8.6	8.6	2.3	48.6	29.8			18.5	
LOS	B	C	A	A	A	A	D	C			B	
Approach Delay		21.1			7.7			37.8			18.5	
Approach LOS		C			A			D			B	
Queue Length 50th (m)	22.8	99.6	0.0	0.9	19.9	0.0	19.9	23.3			14.8	
Queue Length 95th (m)	44.2	#176.2	4.0	3.7	34.2	4.0	#49.4	46.9			37.6	
Internal Link Dist (m)		224.8			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0	60.0					
Base Capacity (vph)	749	1301	1118	214	1313	1129	284	513			603	
Starvation Cap Reductn	0	0	0	0	0	0	0	0			0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0			0	
Storage Cap Reductn	0	0	0	0	0	0	0	0			0	
Reduced v/c Ratio	0.39	0.67	0.05	0.07	0.22	0.05	0.51	0.38			0.37	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 73.1
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 21.2 — Intersection LOS: C
Intersection Capacity Utilization 103.1% — ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	732	70	13	185	10	110	0	16	10	0	20
Future Volume (vph)	40	732	70	13	185	10	110	0	16	10	0	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.992			0.983			0.911	
Flt Protected	0.950			0.950				0.958			0.983	
Satd. Flow (prot)	1742	1834	1559	1676	1751	0	0	1601	0	0	1523	0
Flt Permitted	0.950			0.950				0.958			0.983	
Satd. Flow (perm)	1742	1834	1559	1676	1751	0	0	1601	0	0	1523	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	42	771	74	14	195	11	116	0	17	11	0	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	771	74	14	206	0	0	133	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	732	70	13	185	10	110	0	16	10	0	20
Future Volume (Veh/h)	40	732	70	13	185	10	110	0	16	10	0	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	42	771	74	14	195	11	116	0	17	11	0	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	206			845			1099	1089	771	1100	1158	200
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	206			845			1099	1089	771	1100	1158	200
tC, single (s)	4.1			4.2			7.2	6.6	6.3	7.2	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	97			98			33	100	96	93	100	97
cM capacity (veh/h)	1365			775			172	198	388	168	180	820

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	42	771	74	14	206	133	32
Volume Left	42	0	0	14	0	116	11
Volume Right	0	0	74	0	11	17	21
cSH	1365	1700	1700	775	1700	185	352
Volume to Capacity	0.03	0.45	0.04	0.02	0.12	0.72	0.09
Queue Length 95th (m)	0.7	0.0	0.0	0.4	0.0	34.3	2.3
Control Delay (s)	7.7	0.0	0.0	9.7	0.0	62.6	16.3
Lane LOS	A			A		F	C
Approach Delay (s)	0.4			0.6		62.6	16.3
Approach LOS						F	C

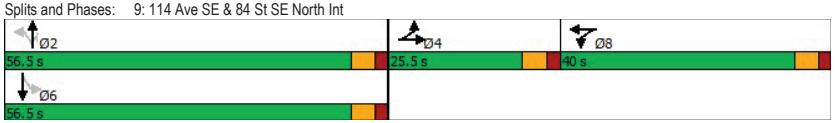
Intersection Summary					
Average Delay	7.3				
Intersection Capacity Utilization	60.2%	ICU Level of Service		B	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	20	730	10	10	10	120	428	10	520	10
Future Volume (vph)	0	0	20	730	10	10	10	120	428	10	520	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865			0.996				0.850		0.997	
Flt Protected				0.950	0.955			0.996			0.999	
Satd. Flow (prot)	0	1471	0	1535	1537	0	0	1678	1432	0	1774	0
Flt Permitted				0.950	0.955			0.951			0.995	
Satd. Flow (perm)	0	1471	0	1535	1537	0	0	1603	1432	0	1767	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		128			1				451		1	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	0	0	21	768	11	11	11	126	451	11	547	11
Shared Lane Traffic (%)				49%								
Lane Group Flow (vph)	0	21	0	392	398	0	0	137	451	0	569	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type		NA		Split	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5		25.5	25.5		25.5	25.5	25.5	25.5	25.5	
Total Split (s)	25.5	25.5		40.0	40.0		56.5	56.5	56.5	56.5	56.5	
Total Split (%)	20.9%	20.9%		32.8%	32.8%		46.3%	46.3%	46.3%	46.3%	46.3%	
Maximum Green (s)	20.0	20.0		34.5	34.5		51.0	51.0	51.0	51.0	51.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		11.1		29.0	29.0			32.0	32.0		32.0	
Actuated g/C Ratio		0.14		0.37	0.37			0.41	0.41		0.41	
v/c Ratio		0.07		0.69	0.69			0.21	0.53		0.78	
Control Delay		0.4		32.4	32.7			17.7	4.3		30.1	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		0.4		32.4	32.7			17.7	4.3		30.1	
LOS		A		C	C			B	A		C	
Approach Delay		0.4			32.5			7.5			30.1	
Approach LOS		A			C			A			C	
Queue Length 50th (m)		0.0		38.9	39.4			11.0	0.0		61.3	
Queue Length 95th (m)		0.0		#135.6	#139.0			29.8	17.0		138.4	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)				120.0								
Base Capacity (vph)		512		757	759			1137	1147		1254	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.04		0.52	0.52			0.12	0.39		0.45	

Intersection Summary			
Area Type:	Other		
Cycle Length: 122			
Actuated Cycle Length: 77.8			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 24.0		Intersection LOS: C	
Intersection Capacity Utilization 78.6%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int

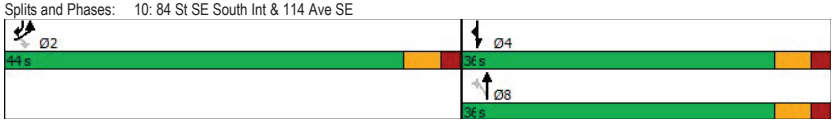


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	548	370	120	10	20	1250
Future Volume (vph)	548	370	120	10	20	1250
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3106	1432	1725	1816	1799	2691
Flt Permitted	0.950		0.744			
Satd. Flow (perm)	3106	1432	1351	1816	1799	2691
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		389				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	577	389	126	11	21	1316
Shared Lane Traffic (%)						
Lane Group Flow (vph)	577	389	126	11	21	1316
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	Perm	NA	NA	pt+ov
Protected Phases	2			8	4	4 2
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	7.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	44.0	44.0	36.0	36.0	36.0	
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%	
Maximum Green (s)	38.5	38.5	30.5	30.5	30.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	22.9	22.9	14.9	14.9	14.9	49.0
Actuated g/C Ratio	0.47	0.47	0.30	0.30	0.30	1.00
v/c Ratio	0.40	0.44	0.31	0.02	0.04	0.49
Control Delay	9.8	3.0	16.3	13.3	13.4	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	3.0	16.3	13.3	13.4	0.6
LOS	A	A	B	B	B	A
Approach Delay	7.0			16.1	0.8	
Approach LOS	A			B	A	
Queue Length 50th (m)	15.2	0.0	7.3	0.6	1.1	0.0
Queue Length 95th (m)	28.7	11.0	22.4	3.7	5.6	0.0
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)		30.0	120.0			120.0
Base Capacity (vph)	2491	1225	858	1154	1143	2691
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.32	0.15	0.01	0.02	0.49

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 49			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 4.2		Intersection LOS: A	
Intersection Capacity Utilization 60.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	285	43	24	603	10	57	10	23	10	30	20
Future Volume (vph)	10	285	43	24	603	10	57	10	23	10	30	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997			0.966			0.956	
Flt Protected	0.950			0.950				0.969			0.991	
Satd. Flow (prot)	1645	1732	1472	1709	1793	0	0	1668	0	0	1688	0
Flt Permitted	0.950			0.950				0.969			0.991	
Satd. Flow (perm)	1645	1732	1472	1709	1793	0	0	1668	0	0	1688	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	11	300	45	25	635	11	60	11	24	11	32	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	300	45	25	646	0	0	95	0	0	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	285	43	24	603	10	57	10	23	10	30	20
Future Volume (Veh/h)	10	285	43	24	603	10	57	10	23	10	30	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	300	45	25	635	11	60	11	24	11	32	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	646			345			1044	1018	300	1042	1058	640
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	646			345			1044	1018	300	1042	1058	640
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			64	95	97	94	85	96
cM capacity (veh/h)	911			1203			169	227	733	186	215	470

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	11	300	45	25	646	95	64
Volume Left	11	0	0	25	0	60	11
Volume Right	0	0	45	0	11	24	21
cSH	911	1700	1700	1203	1700	217	253
Volume to Capacity	0.01	0.18	0.03	0.02	0.38	0.44	0.25
Queue Length 95th (m)	0.3	0.0	0.0	0.5	0.0	15.6	7.4
Control Delay (s)	9.0	0.0	0.0	8.1	0.0	33.8	24.0
Lane LOS	A			A		D	C
Approach Delay (s)	0.3			0.3		33.8	24.0
Approach LOS						D	C

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	51.8%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	187	59	16	335	43	143	28	14	12	14	54
Future Volume (vph)	62	187	59	16	335	43	143	28	14	12	14	54
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990			0.909	
Flt Protected	0.950				0.998			0.963			0.992	
Satd. Flow (prot)	1645	1732	1472	0	1795	1529	0	1698	0	0	1606	0
Flt Permitted	0.950				0.998			0.963			0.992	
Satd. Flow (perm)	1645	1732	1472	0	1795	1529	0	1698	0	0	1606	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	65	197	62	17	353	45	151	29	15	13	15	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	197	62	0	370	45	0	195	0	0	85	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	187	59	16	335	43	143	28	14	12	14	54
Future Volume (Veh/h)	62	187	59	16	335	43	143	28	14	12	14	54
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	65	197	62	17	353	45	151	29	15	13	15	57
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	398			259			778	759	197	744	776	353
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	398			259			778	759	197	744	776	353
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			99			42	91	98	95	95	92
cM capacity (veh/h)	1129			1294			259	309	837	282	302	684

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	65	197	62	370	45	195	85
Volume Left	65	0	0	17	0	151	13
Volume Right	0	0	62	0	45	15	57
cSH	1129	1700	1700	1294	1700	280	475
Volume to Capacity	0.06	0.12	0.04	0.01	0.03	0.70	0.18
Queue Length 95th (m)	1.4	0.0	0.0	0.3	0.0	36.0	4.9
Control Delay (s)	8.4	0.0	0.0	0.5	0.0	42.7	14.2
Lane LOS	A			A		E	B
Approach Delay (s)	1.7			0.4		42.7	14.2
Approach LOS						E	B

Intersection Summary					
Average Delay	10.1				
Intersection Capacity Utilization	56.3%	ICU Level of Service		B	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	110	38	3	100	0	96	0	8	4	0	11
Future Volume (vph)	4	110	38	3	100	0	96	0	8	4	0	11
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966						0.990			0.899	
Flt Protected		0.999			0.999			0.956			0.988	
Satd. Flow (prot)	0	1671	0	0	1797	0	0	1686	0	0	1582	0
Flt Permitted		0.999			0.999			0.956			0.988	
Satd. Flow (perm)	0	1671	0	0	1797	0	0	1686	0	0	1582	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	4	116	40	3	105	0	101	0	8	4	0	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	160	0	0	108	0	0	109	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	29.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	110	38	3	100	0	96	0	8	4	0	11
Future Volume (Veh/h)	4	110	38	3	100	0	96	0	8	4	0	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	4	116	40	3	105	0	101	0	8	4	0	12
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	105			156			267	255	136	263	275	105
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	105			156			267	255	136	263	275	105
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			85	100	99	99	100	99
cM capacity (veh/h)	1450			1412			668	640	905	675	624	941

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	160	108	109	16
Volume Left	4	3	101	4
Volume Right	40	0	8	12
cSH	1450	1412	681	857
Volume to Capacity	0.00	0.00	0.16	0.02
Queue Length 95th (m)	0.1	0.0	4.3	0.4
Control Delay (s)	0.2	0.2	11.3	9.3
Lane LOS	A	A	B	A
Approach Delay (s)	0.2	0.2	11.3	9.3
Approach LOS			B	A

Intersection Summary					
Average Delay		3.7			
Intersection Capacity Utilization		29.5%	ICU Level of Service		A
Analysis Period (min)		15			

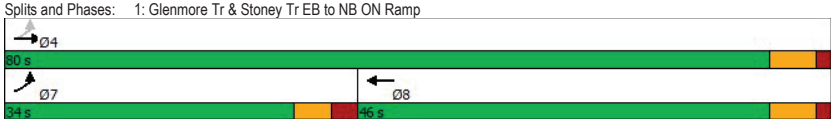
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	580	920	1930	0	0	0
Future Volume (vph)	580	920	1930	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	4365	4328	0	0	0
Flt Permitted	0.087					
Satd. Flow (perm)	139	4365	4328	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	617	979	2053	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	617	979	2053	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	34.0	80.0	46.0			
Total Split (%)	42.5%	100.0%	57.5%			
Maximum Green (s)	28.0	74.0	40.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	74.0	80.0	40.0			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.92	1.00	0.50			
v/c Ratio	1.01	0.22	0.95			
Control Delay	61.8	0.1	30.6			
Queue Delay	0.0	0.0	0.0			
Total Delay	61.8	0.1	30.6			
LOS	E	A	C			
Approach Delay		24.0	30.6			
Approach LOS		C	C			
Queue Length 50th (m)	~79.8	0.0	102.6			
Queue Length 95th (m)	#147.4	0.0	#143.0			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	611	4365	2164			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	1.01	0.22	0.95			

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 27.7 — Intersection LOS: C
Intersection Capacity Utilization 81.3% — ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1270	0	190	3230	0	0
Future Volume (vph)	1270	0	190	3230	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	4365	0	1506	4328	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	4365	0	1506	4328	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	1351	0	202	3436	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1351	0	202	3436	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	25.0		20.0	45.0		
Total Split (%)	55.6%		44.4%	100.0%		
Maximum Green (s)	20.0		13.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	26.0		11.4	45.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.58		0.25	1.00		
v/c Ratio	0.54		0.53	0.79		
Control Delay	9.3		19.8	1.6		
Queue Delay	0.0		0.0	0.0		
Total Delay	9.3		19.8	1.6		
LOS	A		B	A		
Approach Delay	9.3			2.6		
Approach LOS	A			A		
Queue Length 50th (m)	25.9		13.8	0.0		
Queue Length 95th (m)	41.0		27.0	0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	2520		435	4328		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.54		0.46	0.79		

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 4.4		Intersection LOS: A	
Intersection Capacity Utilization 81.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



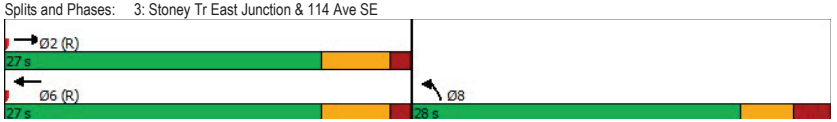
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	430	0	0	560	790	0
Future Volume (vph)	430	0	0	560	790	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	457	0	0	596	840	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	457	0	0	596	840	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	23.7			23.7	19.3	
Actuated g/C Ratio	0.43			0.43	0.35	
v/c Ratio	0.33			0.44	0.76	
Control Delay	10.0			13.1	20.3	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	10.0			13.1	20.3	
LOS	A			B	C	
Approach Delay	10.0			13.1	20.3	
Approach LOS	A			B	C	
Queue Length 50th (m)	10.0			21.5	35.7	
Queue Length 95th (m)	24.2			35.2	49.7	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	1366			1342	1265	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.33			0.44	0.66	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 15.6 Intersection LOS: B
Intersection Capacity Utilization 53.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

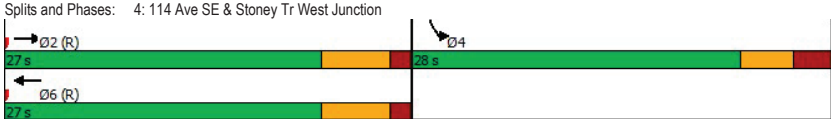


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	590	1250	0	200	0
Future Volume (vph)	0	590	1250	0	200	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	628	1330	0	213	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	628	1330	0	213	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		32.7	32.7		10.3	
Actuated g/C Ratio		0.59	0.59		0.19	
v/c Ratio		0.33	0.72		0.36	
Control Delay		6.3	9.3		21.3	
Queue Delay		0.0	0.0		0.0	
Total Delay		6.3	9.3		21.3	
LOS		A	A		C	
Approach Delay		6.3	9.3		21.3	
Approach LOS		A	A		C	
Queue Length 50th (m)		13.9	33.7		9.6	
Queue Length 95th (m)		23.3	41.4		16.8	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1885	1852		1265	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.33	0.72		0.17	

Intersection Summary		
Area Type:	Other	
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 65		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.72		
Intersection Signal Delay: 9.6		Intersection LOS: A
Intersection Capacity Utilization 53.8%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction



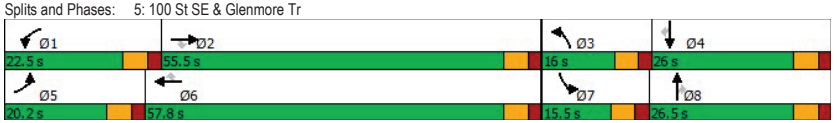
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	430	360	110	1650	70	170	50	20	20	70	260
Future Volume (vph)	270	430	360	110	1650	70	170	50	20	20	70	260
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	4479	1395	1601	4601	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	4479	1395	1601	4601	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			383			123			123			227
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	287	457	383	117	1755	74	181	53	21	21	74	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	457	383	117	1755	74	181	53	21	21	74	277
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	20.2	55.5	55.5	22.5	57.8	57.8	16.0	26.5	26.5	15.5	26.0	26.0
Total Split (%)	16.8%	46.3%	46.3%	18.8%	48.2%	48.2%	13.3%	22.1%	22.1%	12.9%	21.7%	21.7%
Maximum Green (s)	14.7	50.0	50.0	17.0	52.3	52.3	10.5	21.0	21.0	10.0	20.5	20.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	13.8	47.6	47.6	12.7	46.5	46.5	10.1	23.6	23.6	7.7	13.1	13.1
Actuated g/C Ratio	0.13	0.45	0.45	0.12	0.44	0.44	0.10	0.22	0.22	0.07	0.12	0.12
v/c Ratio	0.73	0.23	0.46	0.61	0.87	0.11	0.65	0.15	0.05	0.19	0.39	0.77
Control Delay	57.5	19.0	4.1	59.8	32.8	0.9	59.9	39.9	0.2	54.5	50.7	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	19.0	4.1	59.8	32.8	0.9	59.9	39.9	0.2	54.5	50.7	25.3
LOS	E	B	A	E	C	A	E	D	A	D	D	C
Approach Delay		23.8			33.2			50.8			32.0	
Approach LOS		C			C			D			C	
Queue Length 50th (m)	29.6	19.7	0.0	23.3	113.5	0.0	18.9	8.6	0.0	4.2	14.8	9.9
Queue Length 95th (m)	#53.2	33.3	17.8	45.0	157.0	1.9	#36.4	22.5	0.0	12.8	29.6	39.7
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	425	2157	870	260	2303	778	293	362	402	141	305	442
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.21	0.44	0.45	0.76	0.10	0.62	0.15	0.05	0.15	0.24	0.63

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 105.8
Natural Cycle: 95
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 31.4 Intersection LOS: C
Intersection Capacity Utilization 68.9% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	390	0	0	1460	90	0	0	0	20	0	360
Future Volume (vph)	70	390	0	0	1460	90	0	0	0	20	0	360
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		90.0	120.0		90.0	0.0		0.0	0.0		90.0
Storage Lanes	1		1	1		1	0		0	0		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	1573	3145	1655	1781	3385	1514	0	1781	0	0	1388	1242
Flt Permitted	0.950											
Satd. Flow (perm)	1573	3145	1655	1781	3385	1514	0	1781	0	0	1461	1242
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						97						383
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			242.7			198.3			199.1	
Travel Time (s)		7.2			10.9			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	74	415	0	0	1553	96	0	0	0	21	0	383
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	415	0	0	1553	96	0	0	0	0	21	383
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm				Perm	NA	Free
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8			4		Free
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	15.5	49.0	49.0	15.5	49.0	49.0	25.5	25.5		25.5	25.5	
Total Split (%)	17.2%	54.4%	54.4%	17.2%	54.4%	54.4%	28.3%	28.3%		28.3%	28.3%	
Maximum Green (s)	10.0	43.5	43.5	10.0	43.5	43.5	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effct Green (s)	8.9	56.8			43.6	43.6					10.7	63.5
Actuated g/C Ratio	0.14	0.89			0.69	0.69					0.17	1.00
v/c Ratio	0.34	0.15			0.67	0.09					0.09	0.31
Control Delay	33.9	1.9			12.2	2.4					29.8	0.6
Queue Delay	0.0	0.0			0.0	0.0					0.0	0.0
Total Delay	33.9	1.9			12.2	2.4					29.8	0.6
LOS	C	A			B	A					C	A
Approach Delay		6.8			11.6						2.2	
Approach LOS		A			B						A	
Queue Length 50th (m)	6.5	0.0			42.5	0.0					1.7	0.0
Queue Length 95th (m)	22.7	11.7			128.6	5.9					9.2	0.0
Internal Link Dist (m)		135.6			218.7			174.3			175.1	
Turn Bay Length (m)	120.0					90.0						90.0
Base Capacity (vph)	264	2815			2437	1117					491	1242
Starvation Cap Reductn	0	0			0	0					0	0
Spillback Cap Reductn	0	0			0	0					0	0
Storage Cap Reductn	0	0			0	0					0	0
Reduced v/c Ratio	0.28	0.15			0.64	0.09					0.04	0.31

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 63.5			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 9.2		Intersection LOS: A	
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr



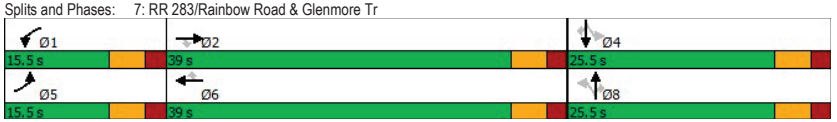
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	190	50	30	1150	40	30	20	10	10	60	370
Future Volume (vph)	180	190	50	30	1150	40	30	20	10	10	60	370
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	0.0		15.0	0.0		90.0
Storage Lanes	2		1	1		1	0		1	0		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950				0.971			0.993	
Satd. Flow (prot)	3380	3231	1445	1615	3231	1559	0	1681	1420	0	1821	1559
Flt Permitted	0.950			0.950				0.797			0.957	
Satd. Flow (perm)	3380	3231	1445	1615	3231	1559	0	1380	1420	0	1755	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			109			109			267
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		1380.0			1627.8			3229.7			232.8	
Travel Time (s)		62.1			73.3			145.3			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	191	202	53	32	1223	43	32	21	11	11	64	394
Shared Lane Traffic (%)												
Lane Group Flow (vph)	191	202	53	32	1223	43	0	53	11	0	75	394
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (s)	15.5	39.0	39.0	15.5	39.0	39.0	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (%)	19.4%	48.8%	48.8%	19.4%	48.8%	48.8%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%
Maximum Green (s)	10.0	33.5	33.5	10.0	33.5	33.5	20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5		5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	10.1	40.8	40.8	10.1	30.8	30.8		13.6	13.6		13.6	13.6
Actuated g/C Ratio	0.14	0.57	0.57	0.14	0.43	0.43		0.19	0.19		0.19	0.19
v/c Ratio	0.40	0.11	0.06	0.14	0.88	0.06		0.20	0.03		0.22	0.77
Control Delay	32.4	10.0	0.5	31.5	27.7	0.1		26.6	0.2		26.5	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	32.4	10.0	0.5	31.5	27.7	0.1		26.6	0.2		26.5	20.3
LOS	C	A	A	C	C	A		C	A		C	C
Approach Delay		18.5			26.9			22.1			21.3	
Approach LOS		B			C			C			C	
Queue Length 50th (m)	12.4	4.1	0.0	3.9	71.8	0.0		6.3	0.0		8.9	15.8
Queue Length 95th (m)	23.7	16.1	1.0	12.1	#130.3	0.0		15.0	0.0		19.2	45.0
Internal Link Dist (m)		1356.0			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0			15.0			90.0
Base Capacity (vph)	480	1853	875	229	1537	799		391	481		498	634
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.40	0.11	0.06	0.14	0.80	0.05		0.14	0.02		0.15	0.62

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 71.1
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 24.0 Intersection LOS: C
Intersection Capacity Utilization 78.3% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	150	20	10	1110	10	40	0	10	10	0	60
Future Volume (vph)	20	150	20	10	1110	10	40	0	10	10	0	60
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		120.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.972			0.885	
Flt Protected	0.950			0.950				0.962			0.993	
Satd. Flow (prot)	1532	3064	1371	1709	3417	1529	0	1590	0	0	1494	0
Flt Permitted	0.950			0.950				0.962			0.993	
Satd. Flow (perm)	1532	3064	1371	1709	3417	1529	0	1590	0	0	1494	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	21	160	21	11	1181	11	43	0	11	11	0	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	160	21	11	1181	11	0	54	0	0	75	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	150	20	10	1110	10	40	0	10	10	0	60
Future Volume (Veh/h)	20	150	20	10	1110	10	40	0	10	10	0	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	21	160	21	11	1181	11	43	0	11	11	0	64
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1192			181			878	1416	80	1336	1426	590
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1192			181			878	1416	80	1336	1426	590
tC, single (s)	4.4			4.2			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.4			2.2			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	96			99			77	100	99	89	100	85
cM capacity (veh/h)	509			1377			188	121	939	99	119	431

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	21	80	80	21	11	590	590	11	54	75
Volume Left	21	0	0	0	11	0	0	0	43	11
Volume Right	0	0	0	21	0	0	0	11	11	64
cSH	509	1700	1700	1700	1377	1700	1700	1700	225	289
Volume to Capacity	0.04	0.05	0.05	0.01	0.01	0.35	0.35	0.01	0.24	0.26
Queue Length 95th (m)	1.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	6.9	7.7
Control Delay (s)	12.4	0.0	0.0	0.0	7.6	0.0	0.0	0.0	26.0	21.8
Lane LOS	B				A				D	C
Approach Delay (s)	1.3				0.1				26.0	21.8
Approach LOS									D	C

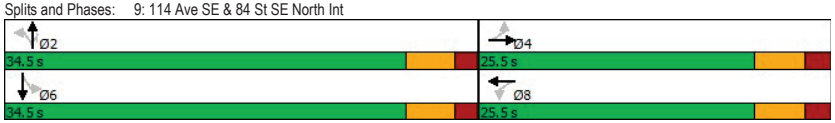
Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	47.7%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	30	220	10	10	30	580	150	10	150	10
Future Volume (vph)	10	10	30	220	10	10	30	580	150	10	150	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.994				0.850		0.992	
Flt Protected		0.990			0.956			0.998			0.997	
Satd. Flow (prot)	0	1549	0	0	1433	0	0	1778	1514	0	1350	0
Flt Permitted		0.920			0.705			0.980			0.958	
Satd. Flow (perm)	0	1439	0	0	1057	0	0	1746	1514	0	1298	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			4				160		7	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	11	11	32	234	11	11	32	617	160	11	160	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	0	256	0	0	649	160	0	182	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5	23.5	25.5	25.5	
Total Split (s)	25.5	25.5		25.5	25.5		34.5	34.5	34.5	34.5	34.5	
Total Split (%)	42.5%	42.5%		42.5%	42.5%		57.5%	57.5%	57.5%	57.5%	57.5%	
Maximum Green (s)	20.0	20.0		20.0	20.0		29.0	29.0	29.0	29.0	29.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.5			5.5			5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)		16.4			16.4			25.3	25.3		25.3	
Actuated g/C Ratio		0.31			0.31			0.48	0.48		0.48	
v/c Ratio		0.12			0.77			0.78	0.20		0.29	
Control Delay		8.8			35.4			20.6	2.5		10.4	
Queue Delay		0.0			0.0			0.0	0.0		0.0	
Total Delay		8.8			35.4			20.6	2.5		10.4	
LOS		A			D			C	A		B	
Approach Delay		8.8			35.4			17.0			10.4	
Approach LOS		A			D			B			B	
Queue Length 50th (m)		1.5			22.4			53.1	0.0		10.4	
Queue Length 95th (m)		7.8			#56.1			#107.7	7.5		21.7	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)												
Base Capacity (vph)		574			410			975	916		728	
Starvation Cap Reductn		0			0			0	0		0	
Spillback Cap Reductn		0			0			0	0		0	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.09			0.62			0.67	0.17		0.25	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 19.4		Intersection LOS: B	
Intersection Capacity Utilization 70.3%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int

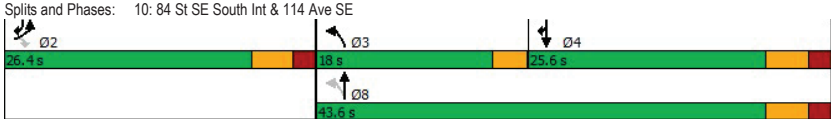


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	710	110	350	50	30	370
Future Volume (vph)	710	110	350	50	30	370
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			150.0
Storage Lanes	2	1	1			2
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3283	1514	1506	1585	1406	2104
Flt Permitted	0.950		0.583			
Satd. Flow (perm)	3283	1514	924	1585	1406	2104
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		109				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	755	117	372	53	32	394
Shared Lane Traffic (%)						
Lane Group Flow (vph)	755	117	372	53	32	394
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	2		3	8	4	4 2
Permitted Phases		2	8			
Detector Phase	2	2	3	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	15.5	25.5	25.5	
Total Split (s)	26.4	26.4	18.0	43.6	25.6	
Total Split (%)	37.7%	37.7%	25.7%	62.3%	36.6%	
Maximum Green (s)	20.9	20.9	15.0	38.1	20.1	
Yellow Time (s)	3.5	3.5	2.9	3.5	3.5	
All-Red Time (s)	2.0	2.0	0.1	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	3.0	5.5	5.5	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Walk Time (s)	8.0	8.0				
Flash Dont Walk (s)	12.0	12.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	20.5	20.5	30.4	27.9	11.4	37.4
Actuated g/C Ratio	0.35	0.35	0.51	0.47	0.19	0.63
v/c Ratio	0.67	0.20	0.62	0.07	0.12	0.30
Control Delay	20.6	5.3	14.4	8.8	21.5	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	5.3	14.4	8.8	21.5	5.9
LOS	C	A	B	A	C	A
Approach Delay	18.6			13.7	7.1	
Approach LOS	B			B	A	
Queue Length 50th (m)	35.9	0.6	23.8	2.9	3.0	10.1
Queue Length 95th (m)	57.0	9.9	42.8	7.7	9.1	16.6
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)		30.0	120.0			150.0
Base Capacity (vph)	1160	605	620	1021	478	1343
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.19	0.60	0.05	0.07	0.29

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 59.4			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 14.5		Intersection LOS: B	
Intersection Capacity Utilization 56.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	40	20	20	100	50	20	100	30	10	10	20
Future Volume (vph)	40	40	20	20	100	50	20	100	30	10	10	20
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974			0.960			0.973			0.934	
Flt Protected		0.980			0.994			0.993			0.987	
Satd. Flow (prot)	0	1700	0	0	1623	0	0	1721	0	0	1642	0
Flt Permitted		0.980			0.994			0.993			0.987	
Satd. Flow (perm)	0	1700	0	0	1623	0	0	1721	0	0	1642	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	43	43	21	21	106	53	21	106	32	11	11	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	107	0	0	180	0	0	159	0	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	40	20	20	100	50	20	100	30	10	10	20
Future Volume (Veh/h)	40	40	20	20	100	50	20	100	30	10	10	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	43	43	21	21	106	53	21	106	32	11	11	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	159			64			340	340	54	399	324	132
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	159			64			340	340	54	399	324	132
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			96	81	97	98	98	98
cM capacity (veh/h)	1402			1489			565	551	1005	444	562	909

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	107	180	159	43
Volume Left	43	21	21	11
Volume Right	21	53	32	21
cSH	1402	1489	608	637
Volume to Capacity	0.03	0.01	0.26	0.07
Queue Length 95th (m)	0.7	0.3	7.9	1.6
Control Delay (s)	3.2	1.0	13.0	11.1
Lane LOS	A	A	B	B
Approach Delay (s)	3.2	1.0	13.0	11.1
Approach LOS			B	B

Intersection Summary				
Average Delay	6.3			
Intersection Capacity Utilization	30.4%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	40	10	10	120	10	10	10	0	0	10	50
Future Volume (vph)	40	40	10	10	120	10	10	10	0	0	10	50
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850					0.888	
Flt Protected		0.976			0.996			0.976				
Satd. Flow (prot)	0	1739	1514	0	1694	1445	0	1739	0	0	1582	0
Flt Permitted		0.976			0.996			0.976				
Satd. Flow (perm)	0	1739	1514	0	1694	1445	0	1739	0	0	1582	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	43	43	11	11	128	11	11	11	0	0	11	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	11	0	139	11	0	22	0	0	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	40	10	10	120	10	10	10	0	0	10	50
Future Volume (Veh/h)	40	40	10	10	120	10	10	10	0	0	10	50
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	43	43	11	11	128	11	11	11	0	0	11	53
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	139			54			338	290	43	284	290	128
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	139			54			338	290	43	284	290	128
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			98	98	100	100	98	94
cM capacity (veh/h)	1426			1502			551	592	1019	634	592	914

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	86	11	139	11	22	64
Volume Left	43	0	11	0	11	0
Volume Right	0	11	0	11	0	53
cSH	1426	1700	1502	1700	571	836
Volume to Capacity	0.03	0.01	0.01	0.01	0.04	0.08
Queue Length 95th (m)	0.7	0.0	0.2	0.0	0.9	1.9
Control Delay (s)	3.9	0.0	0.6	0.0	11.6	9.7
Lane LOS	A		A		B	A
Approach Delay (s)	3.5		0.6		11.6	9.7
Approach LOS					B	A

Intersection Summary					
Average Delay	3.9				
Intersection Capacity Utilization	28.2%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	40	0	0	140	0	0	0	0	0	0	0
Future Volume (vph)	0	40	0	0	140	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	1781	0	0	1701	0	0	1781	0	0	1781	0
Flt Permitted												
Satd. Flow (perm)	0	1781	0	0	1701	0	0	1781	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	43	0	0	149	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	149	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	10.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	40	0	0	140	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	40	0	0	140	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	43	0	0	149	0	0	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	149			43			192	192	43	192	192	149
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	149			43			192	192	43	192	192	149
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			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)	1414			1516			761	698	1019	761	698	890

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	43	149	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1414	1516	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	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

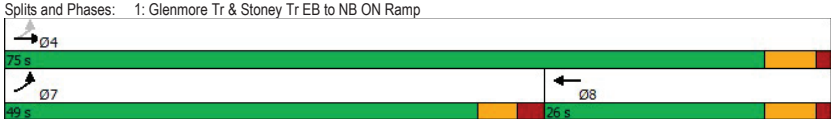
Intersection Summary					
Average Delay		0.0			
Intersection Capacity Utilization		10.9%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1250	1860	1000	0	0	0
Future Volume (vph)	1250	1860	1000	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	4479	4519	0	0	0
Flt Permitted	0.154					
Satd. Flow (perm)	253	4479	4519	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	205.6		302.6	
Travel Time (s)		36.3	14.8		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1316	1958	1053	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1316	1958	1053	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	NA			
Protected Phases	7	4	8			
Permitted Phases	4					
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	49.0	75.0	26.0			
Total Split (%)	65.3%	100.0%	34.7%			
Maximum Green (s)	43.0	69.0	20.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	69.0	75.0	20.0			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.92	1.00	0.27			
v/c Ratio	1.34	0.44	0.87			
Control Delay	178.8	0.3	36.1			
Queue Delay	0.0	0.0	0.0			
Total Delay	178.8	0.3	36.1			
LOS	F	A	D			
Approach Delay		72.1	36.1			
Approach LOS		E	D			
Queue Length 50th (m)	~236.5	0.0	52.0			
Queue Length 95th (m)	#310.5	0.0	#74.5			
Internal Link Dist (m)		681.9	181.6		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	981	4479	1205			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	1.34	0.44	0.87			

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.34			
Intersection Signal Delay: 63.3		Intersection LOS: E	
Intersection Capacity Utilization 101.0%		ICU Level of Service G	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



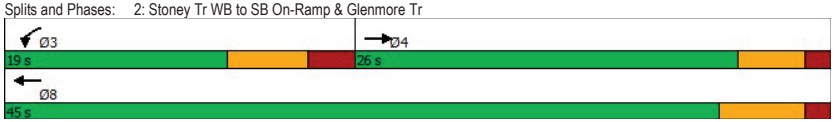
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2960	0	330	870	0	0
Future Volume (vph)	2960	0	330	870	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	4479	0	1573	4519	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	4479	0	1573	4519	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	3116	0	347	916	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3116	0	347	916	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	26.0		19.0	45.0		
Total Split (%)	57.8%		42.2%	100.0%		
Maximum Green (s)	21.0		12.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	21.3		11.7	45.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.47		0.26	1.00		
v/c Ratio	1.47		0.85	0.20		
Control Delay	232.6		39.1	0.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	232.6		39.1	0.1		
LOS	F		D	A		
Approach Delay	232.6			10.8		
Approach LOS	F			B		
Queue Length 50th (m)	~131.4		25.4	0.0		
Queue Length 95th (m)	#158.5		#60.6	0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	2120		419	4519		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	1.47		0.83	0.20		

Intersection Summary

Area Type: Other
Cycle Length: 45
Actuated Cycle Length: 45
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.47
Intersection Signal Delay: 168.6 Intersection LOS: F
Intersection Capacity Utilization 101.0% ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



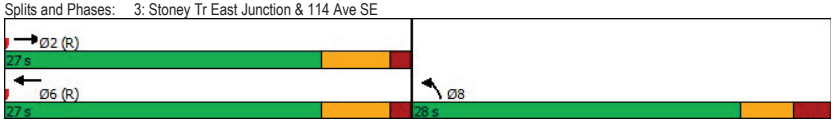
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	680	0	0	640	80	0
Future Volume (vph)	680	0	0	640	80	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	716	0	0	674	84	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	716	0	0	674	84	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	41.8			41.8	10.0	
Actuated g/C Ratio	0.76			0.76	0.18	
v/c Ratio	0.29			0.28	0.14	
Control Delay	7.7			4.5	19.7	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	7.7			4.5	19.7	
LOS	A			A	B	
Approach Delay	7.7			4.5	19.7	
Approach LOS	A			A	B	
Queue Length 50th (m)	26.7			15.3	3.6	
Queue Length 95th (m)	m40.5			23.1	8.3	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2478			2390	1288	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.29			0.28	0.07	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.29
Intersection Signal Delay: 6.9 Intersection LOS: A
Intersection Capacity Utilization 60.4% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

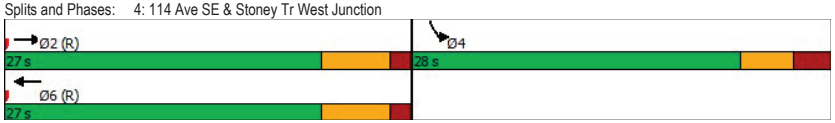


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1480	310	0	200	0
Future Volume (vph)	0	1480	310	0	200	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	1558	326	0	211	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1558	326	0	211	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		27.0	27.0		28.0	
Total Split (%)		49.1%	49.1%		50.9%	
Maximum Green (s)		21.0	21.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		32.7	32.7		10.3	
Actuated g/C Ratio		0.59	0.59		0.19	
v/c Ratio		0.80	0.17		0.35	
Control Delay		13.4	5.1		21.2	
Queue Delay		0.0	0.0		0.0	
Total Delay		13.4	5.1		21.2	
LOS		B	A		C	
Approach Delay		13.4	5.1		21.2	
Approach LOS		B	A		C	
Queue Length 50th (m)		53.0	5.6		9.5	
Queue Length 95th (m)		#86.8	11.3		16.7	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1938	1870		1288	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.80	0.17		0.16	

Intersection Summary		
Area Type:	Other	
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 70		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.80		
Intersection Signal Delay: 12.9		Intersection LOS: B
Intersection Capacity Utilization 60.4%		ICU Level of Service B
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

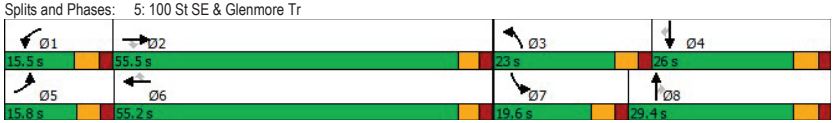


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	1700	170	30	550	20	360	70	90	80	40	380
Future Volume (vph)	130	1700	170	30	550	20	360	70	90	80	40	380
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	4642	1445	1692	4863	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	4642	1445	1692	4863	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179			123			123			271
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		356.6			263.7			437.5			411.5	
Travel Time (s)		16.0			11.9			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	137	1789	179	32	579	21	379	74	95	84	42	400
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	1789	179	32	579	21	379	74	95	84	42	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5
Total Split (s)	15.8	55.5	55.5	15.5	55.2	55.2	23.0	29.4	29.4	19.6	26.0	26.0
Total Split (%)	13.2%	46.3%	46.3%	12.9%	46.0%	46.0%	19.2%	24.5%	24.5%	16.3%	21.7%	21.7%
Maximum Green (s)	10.3	50.0	50.0	10.0	49.7	49.7	17.5	23.9	23.9	14.1	20.5	20.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	9.4	45.5	45.5	8.2	38.0	38.0	17.0	26.6	26.6	11.0	17.0	17.0
Actuated g/C Ratio	0.09	0.44	0.44	0.08	0.36	0.36	0.16	0.26	0.26	0.11	0.16	0.16
v/c Ratio	0.49	0.88	0.24	0.24	0.33	0.03	0.79	0.18	0.22	0.53	0.16	0.89
Control Delay	55.4	34.6	4.1	55.7	24.1	0.1	57.6	39.4	4.7	60.8	42.9	38.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.4	34.6	4.1	55.7	24.1	0.1	57.6	39.4	4.7	60.8	42.9	38.8
LOS	E	C	A	E	C	A	E	D	A	E	D	D
Approach Delay		33.4			24.9			46.0			42.7	
Approach LOS		C			C			D			D	
Queue Length 50th (m)	15.8	138.6	0.0	7.2	32.7	0.0	44.5	14.0	0.0	18.7	8.3	30.3
Queue Length 95th (m)	26.4	#169.7	13.1	17.3	41.7	0.0	#71.7	28.5	8.3	35.1	18.8	#87.5
Internal Link Dist (m)		332.6			239.7			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	321	2311	809	168	2407	811	513	410	440	213	326	493
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.77	0.22	0.19	0.24	0.03	0.74	0.18	0.22	0.39	0.13	0.81

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 104.2			
Natural Cycle: 105			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 35.0		Intersection LOS: D	
Intersection Capacity Utilization 70.5%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	1700	0	0	530	40	0	0	0	80	0	70
Future Volume (vph)	180	1700	0	0	530	40	0	0	0	80	0	70
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		90.0	120.0		90.0	0.0		0.0	0.0		90.0
Storage Lanes	1		1	1		1	0		0	0		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	1725	3451	1816	1748	3322	1486	0	1781	0	0	1709	1529
Flt Permitted	0.950										0.757	
Satd. Flow (perm)	1725	3451	1816	1748	3322	1486	0	1781	0	0	1362	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						164						164
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		159.6			242.7			198.3			199.1	
Travel Time (s)		7.2			10.9			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	189	1789	0	0	558	42	0	0	0	84	0	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	1789	0	0	558	42	0	0	0	0	84	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm				Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8			4		4
Detector Phase	5	2	2	1	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	25.5	25.5		25.5	25.5	25.5
Total Split (s)	23.7	49.0	49.0	15.5	40.8	40.8	25.5	25.5		25.5	25.5	25.5
Total Split (%)	26.3%	54.4%	54.4%	17.2%	45.3%	45.3%	28.3%	28.3%		28.3%	28.3%	28.3%
Maximum Green (s)	18.2	43.5	43.5	10.0	35.3	35.3	20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5			5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0	8.0	8.0		8.0	8.0	8.0
Flash Dont Walk (s)		12.0	12.0		12.0	12.0	12.0	12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	0
Act Effct Green (s)	12.0	45.8			26.8	26.8					10.9	10.9
Actuated g/C Ratio	0.19	0.73			0.43	0.43					0.17	0.17
v/c Ratio	0.57	0.71			0.39	0.06					0.35	0.18
Control Delay	30.6	9.0			15.8	0.1					29.1	1.0
Queue Delay	0.0	0.0			0.0	0.0					0.0	0.0
Total Delay	30.6	9.0			15.8	0.1					29.1	1.0
LOS	C	A			B	A					C	A
Approach Delay		11.1			14.7						15.9	
Approach LOS		B			B						B	
Queue Length 50th (m)	20.9	62.1			24.1	0.0					9.2	0.0
Queue Length 95th (m)	37.5	104.8			44.9	0.0					20.9	0.0
Internal Link Dist (m)		135.6			218.7			174.3			175.1	
Turn Bay Length (m)	120.0					90.0						90.0
Base Capacity (vph)	509	2528			1904	921					442	607
Starvation Cap Reductn	0	0			0	0					0	0
Spillback Cap Reductn	0	0			0	0					0	0
Storage Cap Reductn	0	0			0	0					0	0
Reduced v/c Ratio	0.37	0.71			0.29	0.05					0.19	0.12

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 62.5			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 12.2		Intersection LOS: B	
Intersection Capacity Utilization 76.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr



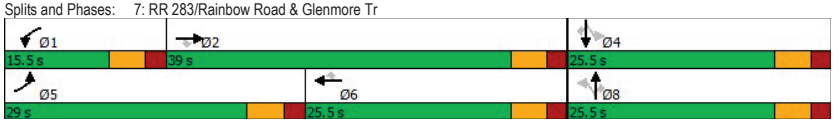
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	780	1000	40	10	330	30	50	70	30	40	60	200
Future Volume (vph)	780	1000	40	10	330	30	50	70	30	40	60	200
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	150.0		180.0	150.0		300.0	0.0		15.0	0.0		90.0
Storage Lanes	2		1	1		1	0		1	0		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950				0.980			0.980	
Satd. Flow (prot)	3134	3231	1445	1630	3261	1459	0	1467	1272	0	1797	1559
Flt Permitted	0.950			0.950				0.817			0.819	
Satd. Flow (perm)	3134	3231	1445	1630	3261	1459	0	1223	1272	0	1502	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			184			184			211
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		1380.0			1627.8			3229.7			232.8	
Travel Time (s)		62.1			73.3			145.3			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	821	1053	42	11	347	32	53	74	32	42	63	211
Shared Lane Traffic (%)												
Lane Group Flow (vph)	821	1053	42	11	347	32	0	127	32	0	105	211
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (s)	29.0	39.0	39.0	15.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (%)	36.3%	48.8%	48.8%	19.4%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%
Maximum Green (s)	23.5	33.5	33.5	10.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5		5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	22.0	44.8	44.8	10.1	20.1	20.1		13.2	13.2		13.2	13.2
Actuated g/C Ratio	0.31	0.62	0.62	0.14	0.28	0.28		0.18	0.18		0.18	0.18
v/c Ratio	0.86	0.52	0.04	0.05	0.38	0.06		0.57	0.08		0.38	0.46
Control Delay	34.6	10.8	0.1	30.0	23.4	0.2		37.5	0.4		30.2	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	34.6	10.8	0.1	30.0	23.4	0.2		37.5	0.4		30.2	7.6
LOS	C	B	A	C	C	A		D	A		C	A
Approach Delay		20.8			21.7			30.0			15.1	
Approach LOS		C			C			C			B	
Queue Length 50th (m)	52.0	30.3	0.0	1.3	20.0	0.0		16.2	0.0		12.9	0.0
Queue Length 95th (m)	#91.4	92.3	0.0	5.9	34.7	0.0		31.8	0.0		25.9	15.4
Internal Link Dist (m)		1356.0			1603.8			3205.7			208.8	
Turn Bay Length (m)	150.0		180.0	150.0		300.0			15.0			90.0
Base Capacity (vph)	1029	2014	941	227	911	540		342	488		419	587
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.80	0.52	0.04	0.05	0.38	0.06		0.37	0.07		0.25	0.36

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 71.9
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 20.8 — Intersection LOS: C
Intersection Capacity Utilization 66.6% — ICU Level of Service C
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	920	40	10	300	10	20	10	10	10	10	30
Future Volume (vph)	60	920	40	10	300	10	20	10	10	10	10	30
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		120.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.965			0.920	
Flt Protected	0.950			0.950				0.976			0.990	
Satd. Flow (prot)	1742	3484	1559	1676	3353	1500	0	1602	0	0	1549	0
Flt Permitted	0.950			0.950				0.976			0.990	
Satd. Flow (perm)	1742	3484	1559	1676	3353	1500	0	1602	0	0	1549	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	63	968	42	11	316	11	21	11	11	11	11	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	968	42	11	316	11	0	43	0	0	54	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	920	40	10	300	10	20	10	10	10	10	30
Future Volume (Veh/h)	60	920	40	10	300	10	20	10	10	10	10	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	63	968	42	11	316	11	21	11	11	11	11	32
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	327			1010			1312	1443	484	964	1474	158
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	327			1010			1312	1443	484	964	1474	158
tC, single (s)	4.1			4.2			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	95			98			77	90	98	94	90	96
cM capacity (veh/h)	1229			658			91	114	508	170	109	835

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	63	484	484	42	11	158	158	11	43	54
Volume Left	63	0	0	0	11	0	0	0	21	11
Volume Right	0	0	0	42	0	0	0	11	11	32
cSH	1229	1700	1700	1700	658	1700	1700	1700	124	265
Volume to Capacity	0.05	0.28	0.28	0.02	0.02	0.09	0.09	0.01	0.35	0.20
Queue Length 95th (m)	1.2	0.0	0.0	0.0	0.4	0.0	0.0	0.0	10.7	5.7
Control Delay (s)	8.1	0.0	0.0	0.0	10.6	0.0	0.0	0.0	48.9	22.1
Lane LOS	A				B				E	C
Approach Delay (s)	0.5				0.3				48.9	22.1
Approach LOS									E	C

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	20	190	10	10	20	150	240	20	650	10
Future Volume (vph)	10	10	20	190	10	10	20	150	240	20	650	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934			0.993				0.850		0.998	
Flt Protected		0.987			0.957			0.994			0.999	
Satd. Flow (prot)	0	1568	0	0	1616	0	0	1675	1432	0	1776	0
Flt Permitted		0.903			0.716			0.906			0.990	
Satd. Flow (perm)	0	1434	0	0	1209	0	0	1527	1432	0	1760	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			4				253		2	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			2396.2			343.2			388.8	
Travel Time (s)		16.8			215.7			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	11	11	21	200	11	11	21	158	253	21	684	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	222	0	0	179	253	0	716	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5	23.5	25.5	25.5	
Total Split (s)	26.0	26.0		26.0	26.0		44.0	44.0	44.0	44.0	44.0	
Total Split (%)	37.1%	37.1%		37.1%	37.1%		62.9%	62.9%	62.9%	62.9%	62.9%	
Maximum Green (s)	20.5	20.5		20.5	20.5		38.5	38.5	38.5	38.5	38.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.5			5.5			5.5	5.5		5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Act Effct Green (s)		15.1			15.1			29.5	29.5		29.5	
Actuated g/C Ratio		0.27			0.27			0.53	0.53		0.53	
v/c Ratio		0.11			0.67			0.22	0.29		0.77	
Control Delay		12.2			30.4			8.5	2.2		18.0	
Queue Delay		0.0			0.0			0.0	0.0		0.0	
Total Delay		12.2			30.4			8.5	2.2		18.0	
LOS		B			C			A	A		B	
Approach Delay		12.2			30.4			4.8			18.0	
Approach LOS		B			C			A			B	
Queue Length 50th (m)		1.5			18.2			8.6	0.0		50.8	
Queue Length 95th (m)		8.5			#46.4			20.3	8.6		105.9	
Internal Link Dist (m)		209.3			2372.2			319.2			364.8	
Turn Bay Length (m)												
Base Capacity (vph)		557			461			1088	1093		1255	
Starvation Cap Reductn		0			0			0	0		0	
Spillback Cap Reductn		0			0			0	0		0	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.08			0.48			0.16	0.23		0.57	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 56			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 15.7		Intersection LOS: B	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	390	390	110	20	130	730
Future Volume (vph)	390	390	110	20	130	730
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			150.0
Storage Lanes	2	1	1			2
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3106	1432	1725	1816	1799	2691
Flt Permitted	0.950		0.669			
Satd. Flow (perm)	3106	1432	1215	1816	1799	2691
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		411				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	411	411	116	21	137	768
Shared Lane Traffic (%)						
Lane Group Flow (vph)	411	411	116	21	137	768
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	Perm	NA	NA	pt+ov
Protected Phases	2			8	4	4 2
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	10.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	23.5	23.5	23.5	
Total Split (s)	36.0	36.0	64.0	64.0	64.0	
Total Split (%)	36.0%	36.0%	64.0%	64.0%	64.0%	
Maximum Green (s)	30.5	30.5	58.5	58.5	58.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Walk Time (s)	8.0	8.0				
Flash Dont Walk (s)	12.0	12.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	20.0	20.0	11.1	11.1	11.1	42.2
Actuated g/C Ratio	0.47	0.47	0.26	0.26	0.26	1.00
v/c Ratio	0.28	0.46	0.36	0.04	0.29	0.29
Control Delay	7.7	3.1	16.2	11.4	14.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	3.1	16.2	11.4	14.1	0.3
LOS	A	A	B	B	B	A
Approach Delay	5.4			15.4	2.4	
Approach LOS	A			B	A	
Queue Length 50th (m)	7.7	0.0	6.8	1.1	7.8	0.0
Queue Length 95th (m)	17.0	11.1	16.4	4.4	17.3	0.0
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)		30.0	120.0			150.0
Base Capacity (vph)	2249	1150	1215	1816	1799	2691
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.36	0.10	0.01	0.08	0.29

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 42.2			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 4.6		Intersection LOS: A	
Intersection Capacity Utilization 47.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	70	20	70	60	10	0	10	30	40	80	40
Future Volume (vph)	20	70	20	70	60	10	0	10	30	40	80	40
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.990			0.900			0.966	
Flt Protected		0.991			0.976						0.988	
Satd. Flow (prot)	0	1675	0	0	1738	0	0	1603	0	0	1700	0
Flt Permitted		0.991			0.976						0.988	
Satd. Flow (perm)	0	1675	0	0	1738	0	0	1603	0	0	1700	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		867.7			1481.6			351.5			364.6	
Travel Time (s)		39.0			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	21	74	21	74	63	11	0	11	32	42	84	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	148	0	0	43	0	0	168	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	70	20	70	60	10	0	10	30	40	80	40
Future Volume (Veh/h)	20	70	20	70	60	10	0	10	30	40	80	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	21	74	21	74	63	11	0	11	32	42	84	42
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	74			95			427	348	84	380	354	68
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	74			95			427	348	84	380	354	68
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			95			100	98	97	92	84	96
cM capacity (veh/h)	1488			1486			427	534	966	518	531	986

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	116	148	43	168
Volume Left	21	74	0	42
Volume Right	21	11	32	42
cSH	1488	1486	801	596
Volume to Capacity	0.01	0.05	0.05	0.28
Queue Length 95th (m)	0.3	1.2	1.3	8.8
Control Delay (s)	1.4	4.0	9.8	13.4
Lane LOS	A	A	A	B
Approach Delay (s)	1.4	4.0	9.8	13.4
Approach LOS			A	B

Intersection Summary					
Average Delay		7.2			
Intersection Capacity Utilization		36.9%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	80	0	10	60	10	10	10	10	0	10	70
Future Volume (vph)	60	80	0	10	60	10	10	10	10	0	10	70
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		90.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850		0.955			0.882	
Flt Protected		0.979			0.993			0.984				
Satd. Flow (prot)	0	1696	1732	0	1786	1529	0	1674	0	0	1571	0
Flt Permitted		0.979			0.993			0.984				
Satd. Flow (perm)	0	1696	1732	0	1786	1529	0	1674	0	0	1571	0
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			111.0			492.4			3229.7	
Travel Time (s)		6.0			5.0			22.2			145.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	63	84	0	11	63	11	11	11	11	0	11	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	147	0	0	74	11	0	33	0	0	85	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.5%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	80	0	10	60	10	10	10	10	0	10	70
Future Volume (Veh/h)	60	80	0	10	60	10	10	10	10	0	10	70
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	63	84	0	11	63	11	11	11	11	0	11	74
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	74			84			374	306	84	312	295	63
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	74			84			374	306	84	312	295	63
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			98	98	99	100	98	93
cM capacity (veh/h)	1488			1500			507	573	967	596	581	993

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	147	0	74	11	33	85
Volume Left	63	0	11	0	11	0
Volume Right	0	0	0	11	11	74
cSH	1488	1700	1500	1700	631	910
Volume to Capacity	0.04	0.01	0.01	0.01	0.05	0.09
Queue Length 95th (m)	1.0	0.0	0.2	0.0	1.3	2.3
Control Delay (s)	3.4	0.0	1.2	0.0	11.0	9.4
Lane LOS	A		A		B	A
Approach Delay (s)	3.4		1.0		11.0	9.4
Approach LOS					B	A

Intersection Summary				
Average Delay	5.0			
Intersection Capacity Utilization	29.5%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	90	0	0	80	0	0	0	0	0	0	0
Future Volume (vph)	0	90	0	0	80	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	1732	0	0	1799	0	0	1781	0	0	1781	0
Flt Permitted												
Satd. Flow (perm)	0	1732	0	0	1799	0	0	1781	0	0	1781	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1452.6			486.5			451.0			344.1	
Travel Time (s)		65.4			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	0	95	0	0	84	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	84	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	8.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	90	0	0	80	0	0	0	0	0	0	0
Future Volume (Veh/h)	0	90	0	0	80	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	95	0	0	84	0	0	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	84			95			179	179	95	179	179	84
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	84			95			179	179	95	179	179	84
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			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)	1476			1486			776	709	953	776	709	967

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	95	84	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1476	1486	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	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		8.2%	ICU Level of Service		A
Analysis Period (min)		15			

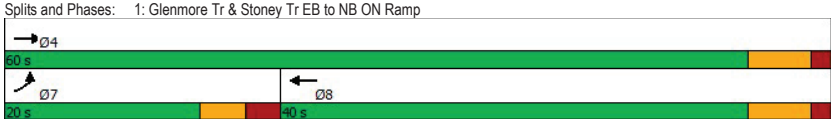
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	580	1358	2079	0	0	0
Future Volume (vph)	580	1358	2079	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	4365	4328	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1519	4365	4328	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	1506.2		302.6	
Travel Time (s)		36.3	108.4		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	617	1445	2212	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	617	1445	2212	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Prot	NA	NA			
Protected Phases	7	4	8			
Permitted Phases						
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	20.0	60.0	40.0			
Total Split (%)	33.3%	100.0%	66.7%			
Maximum Green (s)	14.0	54.0	34.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	14.1	60.0	33.9			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.24	1.00	0.56			
v/c Ratio	1.73	0.33	0.90			
Control Delay	364.6	0.2	18.7			
Queue Delay	0.0	0.0	0.0			
Total Delay	364.6	0.2	18.7			
LOS	F	A	B			
Approach Delay		109.2	18.7			
Approach LOS		F	B			
Queue Length 50th (m)	~104.1	0.0	70.0			
Queue Length 95th (m)	#157.1	0.0	#101.7			
Internal Link Dist (m)		681.9	1482.2		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	356	4365	2452			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	1.73	0.33	0.90			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.73
Intersection Signal Delay: 62.4 Intersection LOS: E
Intersection Capacity Utilization 84.3% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp

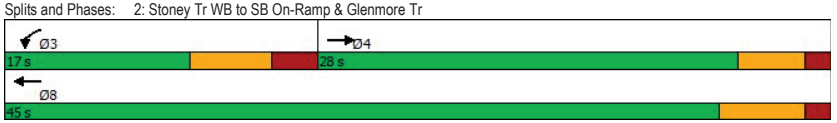


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1519	0	257	3459	0	0
Future Volume (vph)	1519	0	257	3459	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	4365	0	1506	4328	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	4365	0	1506	4328	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	1616	0	273	3680	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1616	0	273	3680	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	28.0		17.0	45.0		
Total Split (%)	62.2%		37.8%	100.0%		
Maximum Green (s)	23.0		10.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	23.0		10.0	45.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.51		0.22	1.00		
v/c Ratio	0.72		0.82	0.85		
Control Delay	10.9		40.9	2.4		
Queue Delay	0.0		0.0	0.0		
Total Delay	10.9		40.9	2.4		
LOS	B		D	A		
Approach Delay	10.9			5.1		
Approach LOS	B			A		
Queue Length 50th (m)	31.7		20.5	0.0		
Queue Length 95th (m)	45.2		#51.4	0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	2231		334	4328		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.72		0.82	0.85		

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 6.8		Intersection LOS: A	
Intersection Capacity Utilization 84.3%		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: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



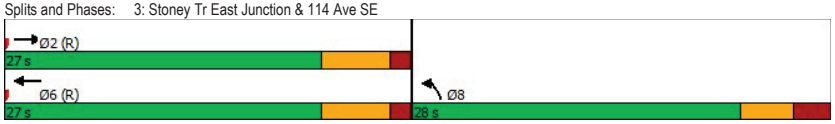
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1139	0	0	888	790	0
Future Volume (vph)	1139	0	0	888	790	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	1212	0	0	945	840	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1212	0	0	945	840	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	23.7			23.7	19.3	
Actuated g/C Ratio	0.43			0.43	0.35	
v/c Ratio	0.89			0.70	0.76	
Control Delay	27.1			17.6	20.3	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	27.1			17.6	20.3	
LOS	C			B	C	
Approach Delay	27.1			17.6	20.3	
Approach LOS	C			B	C	
Queue Length 50th (m)	57.4			39.6	35.7	
Queue Length 95th (m)	#102.3			#64.7	49.7	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	1366			1342	1265	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.89			0.70	0.66	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 22.2 Intersection LOS: C
Intersection Capacity Utilization 70.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE



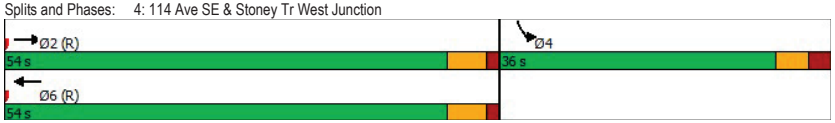
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	726	1298	0	814	0
Future Volume (vph)	0	726	1298	0	814	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	772	1381	0	866	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	772	1381	0	866	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		54.0	54.0		36.0	
Total Split (%)		60.0%	60.0%		40.0%	
Maximum Green (s)		48.0	48.0		30.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		49.7	49.7		28.3	
Actuated g/C Ratio		0.55	0.55		0.31	
v/c Ratio		0.44	0.80		0.87	
Control Delay		13.3	21.3		39.8	
Queue Delay		0.0	0.0		0.0	
Total Delay		13.3	21.3		39.8	
LOS		B	C		D	
Approach Delay		13.3	21.3		39.8	
Approach LOS		B	C		D	
Queue Length 50th (m)		40.8	99.2		70.1	
Queue Length 95th (m)		54.7	130.0		#93.2	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1753	1722		1054	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.44	0.80		0.82	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 24.5 Intersection LOS: C
Intersection Capacity Utilization 70.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction



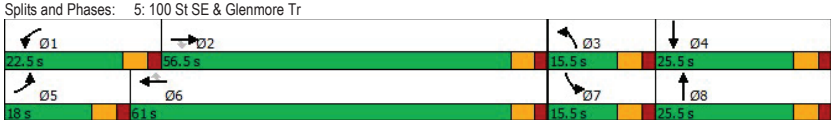
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	1245	360	110	1891	70	170	50	20	20	70	260
Future Volume (vph)	270	1245	360	110	1891	70	170	50	20	20	70	260
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	4479	1395	1601	4601	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	4479	1395	1601	4601	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			383			123			173			277
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		292.3			195.2			437.5			411.5	
Travel Time (s)		13.2			8.8			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	287	1324	383	117	2012	74	181	53	21	21	74	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	1324	383	117	2012	74	181	53	21	21	74	277
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	18.0	56.5	56.5	22.5	61.0	61.0	15.5	25.5		15.5	25.5	
Total Split (%)	15.0%	47.1%	47.1%	18.8%	50.8%	50.8%	12.9%	21.3%		12.9%	21.3%	
Maximum Green (s)	12.5	51.0	51.0	17.0	55.5	55.5	10.0	20.0		10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0			8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	12.7	51.8	51.8	12.8	51.9	51.9	10.2	18.1	104.8	7.8	11.7	104.8
Actuated g/C Ratio	0.12	0.49	0.49	0.12	0.50	0.50	0.10	0.17	1.00	0.07	0.11	1.00
v/c Ratio	0.79	0.60	0.43	0.60	0.88	0.10	0.64	0.19	0.02	0.19	0.43	0.21
Control Delay	63.4	21.8	3.6	59.1	30.2	0.8	59.3	43.2	0.0	53.5	54.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	21.8	3.6	59.1	30.2	0.8	59.3	43.2	0.0	53.5	54.8	0.4
LOS	E	C	A	E	C	A	E	D	A	D	D	A
Approach Delay		24.3			30.7			51.1			14.2	
Approach LOS		C			C			D			B	
Queue Length 50th (m)	31.8	72.5	0.0	24.3	135.8	0.0	19.8	9.1	0.0	4.4	15.4	0.0
Queue Length 95th (m)	#56.8	100.6	16.7	43.2	172.4	1.7	#35.8	22.9	0.0	12.5	30.1	0.0
Internal Link Dist (m)		268.3			171.2			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	369	2319	907	266	2496	833	285	343	1347	144	304	1325
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.57	0.42	0.44	0.81	0.09	0.64	0.15	0.02	0.15	0.24	0.21

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 104.8
Natural Cycle: 115
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 27.9 Intersection LOS: C
Intersection Capacity Utilization 70.8% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: 100 St SE & Glenmore Tr

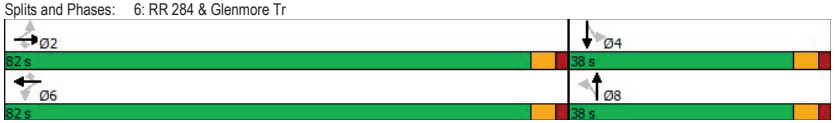


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	1075	130	27	1661	90	40	10	7	20	10	360
Future Volume (vph)	70	1075	130	27	1661	90	40	10	7	20	10	360
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	90.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.942				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1573	3145	1407	1692	3385	1514	1692	1678	0	1388	1461	1242
Flt Permitted	0.108			0.236			0.750			0.746		
Satd. Flow (perm)	179	3145	1407	420	3385	1514	1336	1678	0	1090	1461	1242
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			138			76		7				284
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		168.0			146.5			198.3			199.1	
Travel Time (s)		7.6			6.6			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	74	1144	138	29	1767	96	43	11	7	21	11	383
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	1144	138	29	1767	96	43	18	0	21	11	383
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Free
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		Free
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	82.0	82.0	82.0	82.0	82.0	82.0	38.0	38.0		38.0	38.0	
Total Split (%)	68.3%	68.3%	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%		31.7%	31.7%	
Maximum Green (s)	76.5	76.5	76.5	76.5	76.5	76.5	32.5	32.5		32.5	32.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	83.9	83.9	83.9	83.9	83.9	83.9	10.4	10.4		10.4	10.4	101.0
Actuated g/C Ratio	0.83	0.83	0.83	0.83	0.83	0.83	0.10	0.10		0.10	0.10	1.00
v/c Ratio	0.50	0.44	0.12	0.08	0.63	0.08	0.31	0.10		0.19	0.07	0.31
Control Delay	18.7	3.8	0.7	3.2	5.5	1.0	47.8	31.1		44.6	40.7	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	18.7	3.8	0.7	3.2	5.5	1.0	47.8	31.1		44.6	40.7	0.6
LOS	B	A	A	A	A	A	D	C		D	D	A
Approach Delay		4.3			5.2			42.9			3.9	
Approach LOS		A			A			D			A	
Queue Length 50th (m)	4.0	30.0	0.0	1.0	61.7	0.7	7.7	1.9		3.7	1.9	0.0
Queue Length 95th (m)	#29.9	43.5	3.5	3.2	87.8	3.7	18.0	8.3		10.8	7.1	0.0
Internal Link Dist (m)		144.0			122.5			174.3			175.1	
Turn Bay Length (m)	90.0		60.0	90.0		60.0	60.0			60.0		60.0
Base Capacity (vph)	148	2612	1192	349	2812	1270	431	546		352	471	1242
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.50	0.44	0.12	0.08	0.63	0.08	0.10	0.03		0.06	0.02	0.31

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 101			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 5.3		Intersection LOS: A	
Intersection Capacity Utilization 77.9%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 6: RR 284 & Glenmore Tr

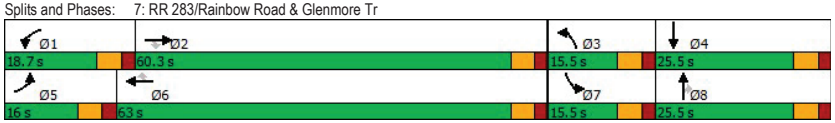


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	475	455	77	1252	49	147	79	21	31	193	379
Future Volume (vph)	183	475	455	77	1252	49	147	79	21	31	193	379
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3380	3231	1445	1615	3231	1559	3078	3484	1420	1742	3484	1559
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3380	3231	1445	1615	3231	1559	3078	3484	1420	1742	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			484			123			123			373
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			401.7			232.8	
Travel Time (s)		11.2			73.3			18.1			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	195	505	484	82	1332	52	156	84	22	33	205	403
Shared Lane Traffic (%)												
Lane Group Flow (vph)	195	505	484	82	1332	52	156	84	22	33	205	403
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	
Total Split (s)	16.0	60.3	60.3	18.7	63.0	63.0	15.5	25.5	25.5	15.5	25.5	
Total Split (%)	13.3%	50.3%	50.3%	15.6%	52.5%	52.5%	12.9%	21.3%	21.3%	12.9%	21.3%	
Maximum Green (s)	10.5	54.8	54.8	13.2	57.5	57.5	10.0	20.0	20.0	10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	10.4	50.6	50.6	11.3	47.9	47.9	10.1	19.0	19.0	10.1	12.0	102.6
Actuated g/C Ratio	0.10	0.49	0.49	0.11	0.47	0.47	0.10	0.19	0.19	0.10	0.12	1.00
v/c Ratio	0.57	0.32	0.51	0.46	0.88	0.07	0.52	0.13	0.06	0.19	0.50	0.26
Control Delay	53.3	17.4	3.6	54.5	32.8	0.2	53.0	41.8	0.3	49.7	48.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.3	17.4	3.6	54.5	32.8	0.2	53.0	41.8	0.3	49.7	48.6	0.4
LOS	D	B	A	D	C	A	D	D	A	D	D	A
Approach Delay		17.7			32.9			45.0			18.4	
Approach LOS		B			C			D			B	
Queue Length 50th (m)	19.5	32.2	0.0	15.8	121.5	0.0	15.6	8.2	0.0	6.2	20.6	0.0
Queue Length 95th (m)	34.2	48.4	16.9	33.3	161.2	0.0	28.6	16.4	0.0	16.9	34.6	0.0
Internal Link Dist (m)		224.8			1603.8			377.7			208.8	
Turn Bay Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Base Capacity (vph)	349	1743	1002	209	1829	936	302	771	410	171	686	1559
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.29	0.48	0.39	0.73	0.06	0.52	0.11	0.05	0.19	0.30	0.26

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 102.6			
Natural Cycle: 105			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 26.1		Intersection LOS: C	
Intersection Capacity Utilization 78.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	165	322	46	1175	10	133	0	18	10	0	60
Future Volume (vph)	20	165	322	46	1175	10	133	0	18	10	0	60
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	60.0		60.0	60.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1532	3064	1371	1709	3417	1529	1615	1445	0	1615	1445	0
Flt Permitted	0.170			0.641			0.715			0.745		
Satd. Flow (perm)	274	3064	1371	1153	3417	1529	1216	1445	0	1267	1445	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			343			45		685			45	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	21	176	343	49	1250	11	141	0	19	11	0	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	176	343	49	1250	11	141	19	0	11	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5		25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%		42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	28.0	28.0	28.0	28.0	28.0	28.0	12.3	12.3		12.3	12.3	
Actuated g/C Ratio	0.61	0.61	0.61	0.61	0.61	0.61	0.27	0.27		0.27	0.27	
v/c Ratio	0.12	0.09	0.35	0.07	0.60	0.01	0.43	0.02		0.03	0.15	
Control Delay	9.3	6.5	2.2	6.8	9.8	0.0	20.5	0.1		14.5	8.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	9.3	6.5	2.2	6.8	9.8	0.0	20.5	0.1		14.5	8.5	
LOS	A	A	A	A	A	A	C	A		B	A	
Approach Delay		3.9			9.6			18.1			9.4	
Approach LOS		A			A			B			A	
Queue Length 50th (m)	0.8	3.3	0.0	1.7	34.9	0.0	9.3	0.0		0.7	1.1	
Queue Length 95th (m)	4.6	8.5	9.9	6.6	68.7	0.2	24.5	0.0		3.7	8.3	
Internal Link Dist (m)		1603.8			321.5			164.3			100.6	
Turn Bay Length (m)	60.0		60.0	60.0		60.0	60.0			60.0		
Base Capacity (vph)	182	2039	1027	767	2274	1033	558	1034		581	688	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.09	0.33	0.06	0.55	0.01	0.25	0.02		0.02	0.09	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.6			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 8.8		Intersection LOS: A	
Intersection Capacity Utilization 62.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: RR 282 & Glenmore Tr



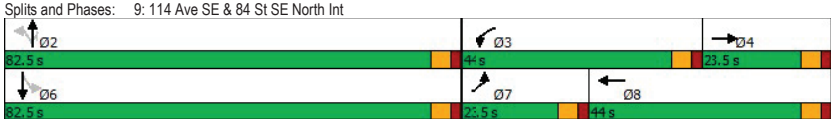
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	30	840	10	10	30	580	1633	10	150	10
Future Volume (vph)	10	10	30	840	10	10	30	580	1633	10	150	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.925				0.850		0.992	
Flt Protected		0.990		0.950				0.998			0.997	
Satd. Flow (prot)	0	1549	0	2780	1395	0	0	1778	1514	0	1350	0
Flt Permitted		0.939		0.950				0.977			0.957	
Satd. Flow (perm)	0	1469	0	2780	1395	0	0	1741	1514	0	1296	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			11				1049		3	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			3263.9			343.2			388.8	
Travel Time (s)		16.8			293.8			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	11	11	32	894	11	11	32	617	1737	11	160	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	894	22	0	0	649	1737	0	182	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		
Detector Phase	7	4		3	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5	23.5	25.5	25.5	
Total Split (s)	23.5	23.5		44.0	44.0		82.5	82.5	82.5	82.5	82.5	
Total Split (%)	15.7%	15.7%		29.3%	29.3%		55.0%	55.0%	55.0%	55.0%	55.0%	
Maximum Green (s)	18.0	18.0		38.5	38.5		77.0	77.0	77.0	77.0	77.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5	5.5		5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		0.0		38.7	56.9			77.4	77.4		77.4	
Actuated g/C Ratio		0.00		0.27	0.39			0.53	0.53		0.53	
v/c Ratio		1.69		1.21	0.04			0.70	1.34		0.26	
Control Delay		430.7		151.3	16.8			31.8	173.3		20.8	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		430.7		151.3	16.8			31.8	173.3		20.8	
LOS		F		F	B			C	F		C	
Approach Delay		430.7			148.0			134.8			20.8	
Approach LOS		F			F			F			C	
Queue Length 50th (m)		~13.6		~170.7	1.9			146.4	~516.2		29.4	
Queue Length 95th (m)		#43.2		#211.4	7.7			194.9	#596.8		45.9	
Internal Link Dist (m)		209.3			3239.9			319.2			364.8	
Turn Bay Length (m)				120.0								
Base Capacity (vph)		32		740	553			926	1296		691	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		1.69		1.21	0.04			0.70	1.34		0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 145.3			
Natural Cycle: 150			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.69			
Intersection Signal Delay: 136.9		Intersection LOS: F	
Intersection Capacity Utilization 135.2%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	2193	110	350	50	30	990
Future Volume (vph)	2193	110	350	50	30	990
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3283	1514	1506	1585	1406	2104
Flt Permitted	0.950		0.571			
Satd. Flow (perm)	3283	1514	905	1585	1406	2104
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		34				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	2333	117	372	53	32	1053
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2333	117	372	53	32	1053
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	2		3	8	4	4 2
Permitted Phases		2	8			
Detector Phase	2	2	3	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	15.5	24.5	24.5	
Total Split (s)	34.5	34.5	21.0	45.5	24.5	
Total Split (%)	43.1%	43.1%	26.3%	56.9%	30.6%	
Maximum Green (s)	29.0	29.0	15.5	40.0	19.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

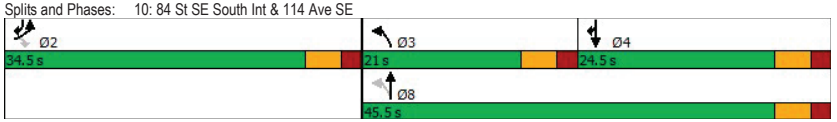
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	29.0	29.0	39.3	39.3	19.0	53.5
Actuated g/C Ratio	0.37	0.37	0.50	0.50	0.24	0.67
v/c Ratio	1.94	0.20	0.67	0.07	0.10	0.74
Control Delay	448.6	13.8	20.3	10.7	24.8	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	448.6	13.8	20.3	10.7	24.8	12.7
LOS	F	B	C	B	C	B
Approach Delay	427.8			19.1	13.1	
Approach LOS	F			B	B	
Queue Length 50th (m)	~287.6	8.4	35.5	3.9	3.8	51.9
Queue Length 95th (m)	#328.4	19.1	58.2	9.3	10.5	78.9
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)		30.0	120.0			120.0
Base Capacity (vph)	1201	575	565	800	336	1421
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.94	0.20	0.66	0.07	0.10	0.74

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79.3			
Natural Cycle: 150			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.94			
Intersection Signal Delay: 270.3		Intersection LOS: F	
Intersection Capacity Utilization 100.0%		ICU Level of Service G	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	1382	105	37	661	62	63	100	39	14	10	37
Future Volume (vph)	96	1382	105	37	661	62	63	100	39	14	10	37
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.958			0.883	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1692	3385	1514	1615	3231	1445	1692	1707	0	1692	1573	0
Flt Permitted	0.384			0.130			0.724			0.663		
Satd. Flow (perm)	684	3385	1514	221	3231	1445	1290	1707	0	1181	1573	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			112			66		23			39	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		3263.9			1481.6			351.5			364.6	
Travel Time (s)		146.9			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	102	1470	112	39	703	66	67	106	41	15	11	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	1470	112	39	703	66	67	147	0	15	50	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	54.4	54.4	54.4	54.4	54.4	54.4	25.6	25.6		25.6	25.6	
Total Split (%)	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%	32.0%	32.0%		32.0%	32.0%	
Maximum Green (s)	48.9	48.9	48.9	48.9	48.9	48.9	20.1	20.1		20.1	20.1	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	None	None	None	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	36.3	36.3	36.3	36.3	36.3	36.3	11.5	11.5		11.5	11.5	
Actuated g/C Ratio	0.68	0.68	0.68	0.68	0.68	0.68	0.21	0.21		0.21	0.21	
v/c Ratio	0.22	0.64	0.11	0.26	0.32	0.07	0.24	0.38		0.06	0.14	
Control Delay	6.9	8.8	1.4	11.1	5.7	1.7	23.6	21.8		21.9	11.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.9	8.8	1.4	11.1	5.7	1.7	23.6	21.8		21.9	11.4	
LOS	A	A	A	B	A	A	C	C		C	B	
Approach Delay		8.2			5.7			22.4			13.9	
Approach LOS		A			A			C			B	
Queue Length 50th (m)	3.8	43.5	0.0	1.5	15.0	0.0	5.1	9.5		1.1	0.8	
Queue Length 95th (m)	11.7	78.5	4.5	7.8	28.3	3.5	18.3	30.5		6.2	9.3	
Internal Link Dist (m)		3239.9			1457.6			327.5			340.6	
Turn Bay Length (m)	120.0		60.0	120.0		60.0	60.0			60.0		
Base Capacity (vph)	612	3032	1368	198	2895	1301	504	681		461	638	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.17	0.48	0.08	0.20	0.24	0.05	0.13	0.22		0.03	0.08	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 53.7			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 11: Range Road 284 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	278	676	222	38	419	71	116	19	13	71	25	170
Future Volume (vph)	278	676	222	38	419	71	116	19	13	71	25	170
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	120.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.938				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1692	3385	1514	1615	3231	1445	1692	1671	0	1692	1781	1514
Flt Permitted	0.432			0.378			0.740			0.735		
Satd. Flow (perm)	770	3385	1514	643	3231	1445	1318	1671	0	1309	1781	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			236			86		14				181
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			235.1			492.4			2828.0	
Travel Time (s)		6.0			10.6			22.2			127.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	296	719	236	40	446	76	123	20	14	76	27	181
Shared Lane Traffic (%)												
Lane Group Flow (vph)	296	719	236	40	446	76	123	34	0	76	27	181
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	10.0	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	25.5
Total Split (s)	14.0	44.0	44.0	30.0	30.0	30.0	26.0	26.0		26.0	26.0	26.0
Total Split (%)	20.0%	62.9%	62.9%	42.9%	42.9%	42.9%	37.1%	37.1%		37.1%	37.1%	37.1%
Maximum Green (s)	11.0	38.5	38.5	24.5	24.5	24.5	20.5	20.5		20.5	20.5	20.5
Yellow Time (s)	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min	Min	Min	Min	Min	None	None		None	None	None
Walk Time (s)		8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	36.7	35.7	35.7	20.6	20.6	20.6	11.7	11.7		11.7	11.7	11.7
Actuated g/C Ratio	0.70	0.68	0.68	0.39	0.39	0.39	0.22	0.22		0.22	0.22	0.22
v/c Ratio	0.41	0.31	0.21	0.16	0.35	0.12	0.42	0.09		0.26	0.07	0.38
Control Delay	6.4	6.0	1.6	15.6	14.4	4.0	24.6	13.7		21.4	18.3	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	6.4	6.0	1.6	15.6	14.4	4.0	24.6	13.7		21.4	18.3	6.3
LOS	A	A	A	B	B	A	C	B		C	B	A
Approach Delay		5.2			13.1			22.2			11.5	
Approach LOS		A			B			C			B	
Queue Length 50th (m)	9.7	15.5	0.0	2.6	16.8	0.0	11.2	1.7		6.6	2.3	0.0
Queue Length 95th (m)	24.0	29.8	7.2	9.4	30.5	6.3	24.0	7.2		15.9	7.3	12.3
Internal Link Dist (m)		109.5			211.1			468.4			2804.0	
Turn Bay Length (m)	90.0		60.0	120.0		60.0	60.0			60.0		60.0
Base Capacity (vph)	734	2516	1186	308	1549	738	528	679		525	714	715
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.40	0.29	0.20	0.13	0.29	0.10	0.23	0.05		0.14	0.04	0.25

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 52.7			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay: 9.2		Intersection LOS: A	
Intersection Capacity Utilization 62.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 12: RR 283 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	107	136	17	309	16	69	0	8	10	0	23
Future Volume (vph)	87	107	136	17	309	16	69	0	8	10	0	23
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.993			0.985			0.907	
Flt Protected	0.950			0.950				0.957			0.985	
Satd. Flow (prot)	1692	1781	1514	1615	1689	0	0	1679	0	0	1592	0
Flt Permitted	0.950			0.950				0.957			0.985	
Satd. Flow (perm)	1692	1781	1514	1615	1689	0	0	1679	0	0	1592	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1390.9			486.5			451.0			344.1	
Travel Time (s)		62.6			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	93	114	145	18	329	17	73	0	9	11	0	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	114	145	18	346	0	0	82	0	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	107	136	17	309	16	69	0	8	10	0	23
Future Volume (Veh/h)	87	107	136	17	309	16	69	0	8	10	0	23
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	93	114	145	18	329	17	73	0	9	11	0	24
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	346			259			689	682	114	682	818	338
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	346			259			689	682	114	682	818	338
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			99			77	100	99	97	100	97
cM capacity (veh/h)	1196			1260			320	335	931	331	279	698

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	93	114	145	18	346	82	35
Volume Left	93	0	0	18	0	73	11
Volume Right	0	0	145	0	17	9	24
cSH	1196	1700	1700	1260	1700	345	518
Volume to Capacity	0.08	0.07	0.09	0.01	0.20	0.24	0.07
Queue Length 95th (m)	1.9	0.0	0.0	0.3	0.0	6.9	1.6
Control Delay (s)	8.3	0.0	0.0	7.9	0.0	18.7	12.5
Lane LOS	A			A		C	B
Approach Delay (s)	2.2			0.4		18.7	12.5
Approach LOS						C	B

Intersection Summary				
Average Delay	3.5			
Intersection Capacity Utilization	43.7%	ICU Level of Service	A	
Analysis Period (min)	15			

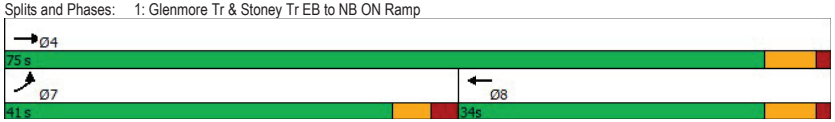
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1250	2049	1448	0	0	0
Future Volume (vph)	1250	2049	1448	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	4479	4519	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1559	4479	4519	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	1506.2		302.6	
Travel Time (s)		36.3	108.4		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1316	2157	1524	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1316	2157	1524	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Prot	NA	NA			
Protected Phases	7	4	8			
Permitted Phases						
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	41.0	75.0	34.0			
Total Split (%)	54.7%	100.0%	45.3%			
Maximum Green (s)	35.0	69.0	28.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	35.1	75.0	27.9			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.47	1.00	0.37			
v/c Ratio	1.80	0.48	0.91			
Control Delay	388.1	0.4	31.9			
Queue Delay	0.0	0.0	0.0			
Total Delay	388.1	0.4	31.9			
LOS	F	A	C			
Approach Delay		147.3	31.9			
Approach LOS		F	C			
Queue Length 50th (m)	~285.7	0.0	73.0			
Queue Length 95th (m)	#357.7	0.0	#102.0			
Internal Link Dist (m)		681.9	1482.2		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	730	4479	1687			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	1.80	0.48	0.90			

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.80
Intersection Signal Delay: 112.1 Intersection LOS: F
Intersection Capacity Utilization 109.9% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



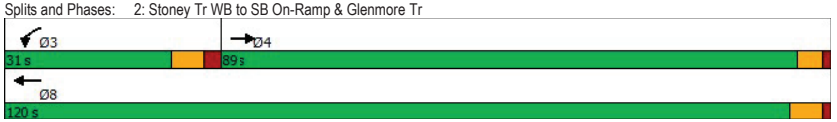
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	3052	0	602	1281	0	0
Future Volume (vph)	3052	0	602	1281	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	4479	0	1573	4519	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	4479	0	1573	4519	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	3213	0	634	1348	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3213	0	634	1348	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	89.0		31.0	120.0		
Total Split (%)	74.2%		25.8%	100.0%		
Maximum Green (s)	84.0		24.0	114.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	84.0		24.0	120.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.70		0.20	1.00		
v/c Ratio	1.02		2.02	0.30		
Control Delay	41.6		496.5	0.2		
Queue Delay	0.0		0.0	0.0		
Total Delay	41.6		496.5	0.2		
LOS	D		F	A		
Approach Delay	41.6			158.9		
Approach LOS	D			F		
Queue Length 50th (m)	~295.3		~233.6	0.0		
Queue Length 95th (m)	#320.2		#302.7	0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	3135		314	4519		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	1.02		2.02	0.30		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.02
Intersection Signal Delay: 86.4 Intersection LOS: F
Intersection Capacity Utilization 109.9% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



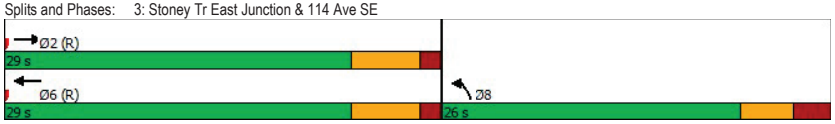
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1095	0	0	1671	80	0
Future Volume (vph)	1095	0	0	1671	80	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	1153	0	0	1759	84	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1153	0	0	1759	84	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	29.0			29.0	26.0	
Total Split (%)	52.7%			52.7%	47.3%	
Maximum Green (s)	23.0			23.0	20.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	41.8			41.8	10.0	
Actuated g/C Ratio	0.76			0.76	0.18	
v/c Ratio	0.47			0.74	0.14	
Control Delay	5.8			11.2	19.7	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	5.8			11.2	19.7	
LOS	A			B	B	
Approach Delay	5.8			11.2	19.7	
Approach LOS	A			B	B	
Queue Length 50th (m)	31.8			71.0	3.6	
Queue Length 95th (m)	46.3			#129.5	8.3	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2478			2390	1171	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.47			0.74	0.07	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 9.4 Intersection LOS: A
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE



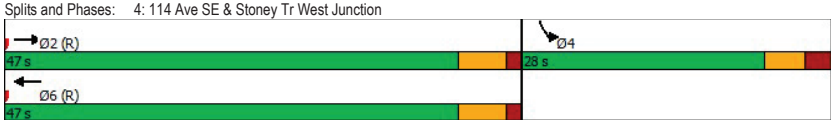
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1543	404	0	568	0
Future Volume (vph)	0	1543	404	0	568	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	1624	425	0	598	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1624	425	0	598	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		47.0	47.0		28.0	
Total Split (%)		62.7%	62.7%		37.3%	
Maximum Green (s)		41.0	41.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		44.4	44.4		18.6	
Actuated g/C Ratio		0.59	0.59		0.25	
v/c Ratio		0.84	0.23		0.75	
Control Delay		18.9	8.1		32.1	
Queue Delay		0.0	0.0		0.0	
Total Delay		18.9	8.1		32.1	
LOS		B	A		C	
Approach Delay		18.9	8.1		32.1	
Approach LOS		B	A		C	
Queue Length 50th (m)		89.9	13.6		40.0	
Queue Length 95th (m)		#155.3	22.7		53.4	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1930	1861		945	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.84	0.23		0.63	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 20.1 Intersection LOS: C
Intersection Capacity Utilization 70.4% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

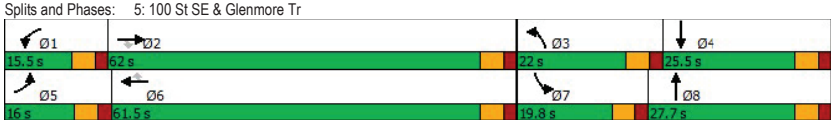


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	2024	170	30	1226	20	360	70	90	80	40	380
Future Volume (vph)	130	2024	170	30	1226	20	360	70	90	80	40	380
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	4642	1445	1692	4863	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	4642	1445	1692	4863	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179			118			166			342
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		292.3			195.2			437.5			411.5	
Travel Time (s)		13.2			8.8			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	137	2131	179	32	1291	21	379	74	95	84	42	400
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	2131	179	32	1291	21	379	74	95	84	42	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	16.0	62.0	62.0	15.5	61.5	61.5	22.0	27.7		19.8	25.5	
Total Split (%)	12.8%	49.6%	49.6%	12.4%	49.2%	49.2%	17.6%	22.2%		15.8%	20.4%	
Maximum Green (s)	10.5	56.5	56.5	10.0	56.0	56.0	16.5	22.2		14.3	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0			8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	9.4	56.6	56.6	8.1	49.2	49.2	18.6	14.2	102.9	10.9	10.7	102.9
Actuated g/C Ratio	0.09	0.55	0.55	0.08	0.48	0.48	0.18	0.14	1.00	0.11	0.10	1.00
v/c Ratio	0.48	0.84	0.20	0.24	0.56	0.03	0.71	0.34	0.07	0.52	0.25	0.29
Control Delay	53.6	25.9	3.1	54.1	20.8	0.1	51.3	50.2	0.1	59.0	51.5	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	25.9	3.1	54.1	20.8	0.1	51.3	50.2	0.1	59.0	51.5	0.6
LOS	D	C	A	D	C	A	D	D	A	E	D	A
Approach Delay		25.8			21.2			42.2			14.0	
Approach LOS		C			C			D			B	
Queue Length 50th (m)	15.0	152.5	0.0	6.8	71.7	0.0	42.5	15.0	0.0	17.9	8.8	0.0
Queue Length 95th (m)	25.9	#208.2	11.5	16.9	89.7	0.0	#72.7	30.6	0.0	34.3	20.2	0.0
Internal Link Dist (m)		268.3			171.2			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	327	2609	890	168	2709	895	535	353	1359	216	318	1359
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.82	0.20	0.19	0.48	0.02	0.71	0.21	0.07	0.39	0.13	0.29

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 102.9			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 25.1		Intersection LOS: C	
Intersection Capacity Utilization 77.0%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: 100 St SE & Glenmore Tr

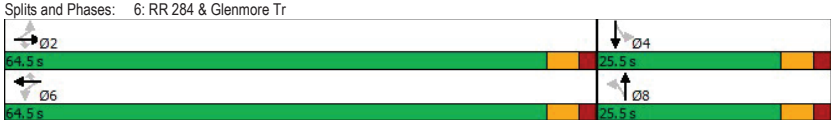


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	1974	50	7	1087	40	119	10	28	80	10	70
Future Volume (vph)	180	1974	50	7	1087	40	119	10	28	80	10	70
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	90.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.891				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1725	3451	1544	1661	3322	1486	1692	1587	0	1709	1799	1529
Flt Permitted	0.224			0.074			0.750			0.731		
Satd. Flow (perm)	407	3451	1544	129	3322	1486	1336	1587	0	1315	1799	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			50			42		14				97
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		168.0			146.5			198.3			199.1	
Travel Time (s)		7.6			6.6			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	189	2078	53	7	1144	42	125	11	29	84	11	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	2078	53	7	1144	42	125	40	0	84	11	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Free
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		Free
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	64.5	64.5	64.5	64.5	64.5	64.5	25.5	25.5		25.5	25.5	
Total Split (%)	71.7%	71.7%	71.7%	71.7%	71.7%	71.7%	28.3%	28.3%		28.3%	28.3%	
Maximum Green (s)	59.0	59.0	59.0	59.0	59.0	59.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	55.6	55.6	55.6	55.6	55.6	55.6	13.9	13.9		13.9	13.9	74.1
Actuated g/C Ratio	0.75	0.75	0.75	0.75	0.75	0.75	0.19	0.19		0.19	0.19	1.00
v/c Ratio	0.62	0.80	0.05	0.07	0.46	0.04	0.50	0.13		0.34	0.03	0.05
Control Delay	20.6	12.8	1.8	7.1	6.3	1.8	38.8	22.2		34.4	28.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	20.6	12.8	1.8	7.1	6.3	1.8	38.8	22.2		34.4	28.8	0.1
LOS	C	B	A	A	A	A	D	C		C	C	A
Approach Delay		13.2			6.2			34.8			19.0	
Approach LOS		B			A			C			B	
Queue Length 50th (m)	13.4	104.0	0.1	0.3	34.7	0.0	18.7	3.6		12.1	1.5	0.0
Queue Length 95th (m)	#59.8	#192.7	3.6	2.2	61.5	3.1	35.2	11.5		25.0	5.7	0.0
Internal Link Dist (m)		144.0			122.5			174.3			175.1	
Turn Bay Length (m)	90.0		60.0	90.0		60.0	60.0			60.0		60.0
Base Capacity (vph)	318	2699	1218	101	2598	1171	386	469		380	520	1529
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.59	0.77	0.04	0.07	0.44	0.04	0.32	0.09		0.22	0.02	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 74.1			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 12.2		Intersection LOS: B	
Intersection Capacity Utilization 99.9%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 6: RR 284 & Glenmore Tr



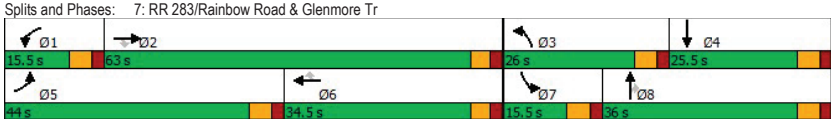
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	795	1125	203	17	578	75	363	287	59	47	113	203
Future Volume (vph)	795	1125	203	17	578	75	363	287	59	47	113	203
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	3231	1445	1630	3261	1459	2758	2843	1272	1742	3484	1559
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	3231	1445	1630	3261	1459	2758	2843	1272	1742	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			214			206			159			252
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			401.7			232.8	
Travel Time (s)		11.2			73.3			18.1			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	837	1184	214	18	608	79	382	302	62	49	119	214
Shared Lane Traffic (%)												
Lane Group Flow (vph)	837	1184	214	18	608	79	382	302	62	49	119	214
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	
Total Split (s)	44.0	63.0	63.0	15.5	34.5	34.5	26.0	36.0	36.0	15.5	25.5	
Total Split (%)	33.8%	48.5%	48.5%	11.9%	26.5%	26.5%	20.0%	27.7%	27.7%	11.9%	19.6%	
Maximum Green (s)	38.5	57.5	57.5	10.0	29.0	29.0	20.5	30.5	30.5	10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	34.8	60.5	60.5	10.1	25.9	25.9	19.5	23.8	23.8	10.1	10.7	113.0
Actuated g/C Ratio	0.31	0.54	0.54	0.09	0.23	0.23	0.17	0.21	0.21	0.09	0.09	1.00
v/c Ratio	0.87	0.69	0.25	0.12	0.82	0.16	0.80	0.51	0.16	0.32	0.36	0.14
Control Delay	48.0	23.4	3.2	53.5	51.8	0.7	60.1	45.9	0.9	57.7	53.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.0	23.4	3.2	53.5	51.8	0.7	60.1	45.9	0.9	57.7	53.5	0.2
LOS	D	C	A	D	D	A	E	D	A	E	D	A
Approach Delay		30.7			46.1			49.4			24.2	
Approach LOS		C			D			D			C	
Queue Length 50th (m)	91.9	85.1	0.0	4.0	70.5	0.0	44.3	34.5	0.0	10.9	14.0	0.0
Queue Length 95th (m)	#122.7	150.8	12.8	11.6	94.1	0.0	#69.5	49.9	0.0	23.9	23.7	0.0
Internal Link Dist (m)		224.8			1603.8			377.7			208.8	
Turn Bay Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Base Capacity (vph)	1077	1767	887	145	844	530	505	778	463	155	622	1559
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.67	0.24	0.12	0.72	0.15	0.76	0.39	0.13	0.32	0.19	0.14

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 113
Natural Cycle: 105
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 36.2 Intersection LOS: D
Intersection Capacity Utilization 77.6% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



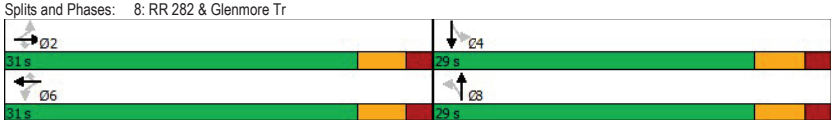
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	962	159	17	311	10	309	10	33	10	10	30
Future Volume (vph)	60	962	159	17	311	10	309	10	33	10	10	30
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	60.0		60.0	60.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.886			0.888	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	3484	1559	1676	3353	1500	1615	1507	0	1615	1510	0
Flt Permitted	0.554			0.201			0.729			0.727		
Satd. Flow (perm)	1016	3484	1559	355	3353	1500	1240	1507	0	1236	1510	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			167			45		35			32	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	63	1013	167	18	327	11	325	11	35	11	11	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	1013	167	18	327	11	325	46	0	11	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	29.0	29.0		29.0	29.0	
Total Split (%)	51.7%	51.7%	51.7%	51.7%	51.7%	51.7%	48.3%	48.3%		48.3%	48.3%	
Maximum Green (s)	25.5	25.5	25.5	25.5	25.5	25.5	23.5	23.5		23.5	23.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	22.8	22.8	22.8	22.8	22.8	22.8	17.7	17.7		17.7	17.7	
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.44	0.44	0.34	0.34		0.34	0.34	
v/c Ratio	0.14	0.66	0.21	0.12	0.22	0.02	0.77	0.09		0.03	0.08	
Control Delay	11.2	14.8	3.1	12.7	10.4	0.0	28.8	6.3		11.4	6.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	11.2	14.8	3.1	12.7	10.4	0.0	28.8	6.3		11.4	6.5	
LOS	B	B	A	B	B	A	C	A		B	A	
Approach Delay		13.1			10.2			26.0			7.5	
Approach LOS		B			B			C			A	
Queue Length 50th (m)	3.4	38.0	0.0	1.0	9.6	0.0	25.2	0.6		0.6	0.6	
Queue Length 95th (m)	10.4	63.9	8.7	4.8	18.6	0.2	#56.7	5.8		3.2	5.6	
Internal Link Dist (m)		1603.8			321.5			164.3			100.6	
Turn Bay Length (m)	60.0		60.0	60.0		60.0	60.0			60.0		
Base Capacity (vph)	512	1758	869	178	1692	779	576	719		575	719	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.58	0.19	0.10	0.19	0.01	0.56	0.06		0.02	0.06	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 51.7
Natural Cycle: 55
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 14.8 Intersection LOS: B
Intersection Capacity Utilization 82.0% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: RR 282 & Glenmore Tr



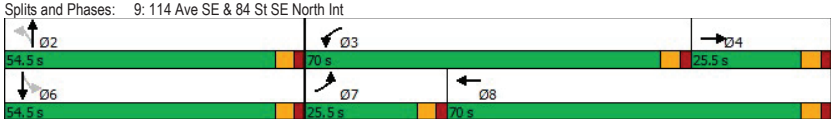
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	20	1721	10	10	20	150	1017	20	650	10
Future Volume (vph)	10	10	20	1721	10	10	20	150	1017	20	650	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934			0.925				0.850		0.998	
Flt Protected		0.987		0.950				0.994			0.999	
Satd. Flow (prot)	0	1568	0	3134	1573	0	0	1675	1432	0	1776	0
Flt Permitted		0.928		0.950				0.773			0.988	
Satd. Flow (perm)	0	1474	0	3134	1573	0	0	1303	1432	0	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			11				1041		1	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			3263.9			343.2			388.8	
Travel Time (s)		16.8			293.8			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	11	11	21	1812	11	11	21	158	1071	21	684	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	1812	22	0	0	179	1071	0	716	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA		Prot	NA		Perm	NA	Free	Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		Free	6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5		25.5	25.5		25.5	25.5		25.5	25.5	
Total Split (s)	25.5	25.5		70.0	70.0		54.5	54.5		54.5	54.5	
Total Split (%)	17.0%	17.0%		46.7%	46.7%		36.3%	36.3%		36.3%	36.3%	
Maximum Green (s)	20.0	20.0		64.5	64.5		49.0	49.0		49.0	49.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		0.0		64.9	84.6			49.3	144.9		49.3	
Actuated g/C Ratio		0.00		0.45	0.58			0.34	1.00		0.34	
v/c Ratio		2.05		1.29	0.02			0.40	0.75		1.20	
Control Delay		620.3		171.3	7.8			41.7	3.6		146.2	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		620.3		171.3	7.8			41.7	3.6		146.2	
LOS		F		F	A			D	A		F	
Approach Delay		620.3			169.3			9.1			146.2	
Approach LOS		F			F			A			F	
Queue Length 50th (m)		~13.6		~361.8	1.3			41.6	0.0		~265.3	
Queue Length 95th (m)		#40.1		#402.4	5.0			64.5	0.0		#342.2	
Internal Link Dist (m)		209.3			3239.9			319.2			364.8	
Turn Bay Length (m)				120.0								
Base Capacity (vph)		21		1402	922			442	1432		598	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		2.05		1.29	0.02			0.40	0.75		1.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 144.9			
Natural Cycle: 150			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 2.05			
Intersection Signal Delay: 117.9		Intersection LOS: F	
Intersection Capacity Utilization 117.0%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int

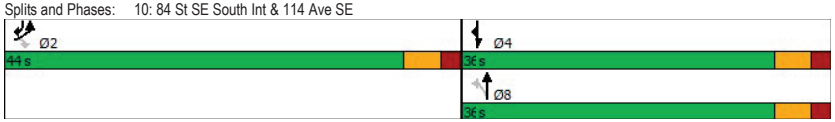


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1167	390	110	20	130	2261
Future Volume (vph)	1167	390	110	20	130	2261
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3106	1432	1725	1816	1799	2691
Flt Permitted	0.950		0.669			
Satd. Flow (perm)	3106	1432	1215	1816	1799	2691
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		279				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	1228	411	116	21	137	2380
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1228	411	116	21	137	2380
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	Perm	NA	NA	pt+ov
Protected Phases	2			8	4	4 2
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	7.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	44.0	44.0	36.0	36.0	36.0	
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%	
Maximum Green (s)	38.5	38.5	30.5	30.5	30.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	38.5	38.5	30.5	30.5	30.5	80.0
Actuated g/C Ratio	0.48	0.48	0.38	0.38	0.38	1.00
v/c Ratio	0.82	0.49	0.25	0.03	0.20	0.88
Control Delay	23.7	6.7	18.8	15.8	17.6	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	6.7	18.8	15.8	17.6	5.2
LOS	C	A	B	B	B	A
Approach Delay	19.4			18.3	5.9	
Approach LOS	B			B	A	
Queue Length 50th (m)	78.5	10.9	11.8	2.0	13.6	0.0
Queue Length 95th (m)	105.7	30.8	23.6	6.2	25.3	0.0
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)		30.0	120.0			120.0
Base Capacity (vph)	1494	833	463	692	685	2691
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.49	0.25	0.03	0.20	0.88

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 96.7%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



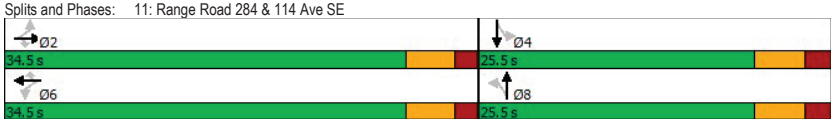
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	780	66	76	1457	12	83	10	49	52	80	91
Future Volume (vph)	42	780	66	76	1457	12	83	10	49	52	80	91
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.876			0.920	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1645	3291	1472	1709	3417	1529	1692	1561	0	1692	1639	0
Flt Permitted	0.131			0.333			0.644			0.716		
Satd. Flow (perm)	227	3291	1472	599	3417	1529	1147	1561	0	1276	1639	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			69			45		52			14	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		3263.9			1481.6			351.5			364.6	
Travel Time (s)		146.9			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	44	821	69	80	1534	13	87	11	52	55	84	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	821	69	80	1534	13	87	63	0	55	180	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5		25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%		42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	32.0	32.0	32.0	32.0	32.0	32.0	11.5	11.5		11.5	11.5	
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65	0.65	0.23	0.23		0.23	0.23	
v/c Ratio	0.30	0.39	0.07	0.21	0.69	0.01	0.33	0.16		0.19	0.46	
Control Delay	14.4	6.9	2.2	8.1	11.3	0.3	20.4	7.9		17.7	20.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	14.4	6.9	2.2	8.1	11.3	0.3	20.4	7.9		17.7	20.1	
LOS	B	A	A	A	B	A	C	A		B	C	
Approach Delay		6.9			11.0			15.2			19.6	
Approach LOS		A			B			B			B	
Queue Length 50th (m)	1.8	18.6	0.0	3.0	47.3	0.0	6.8	0.8		4.1	13.3	
Queue Length 95th (m)	10.6	35.8	4.2	10.8	#95.2	0.4	16.4	7.7		11.2	27.4	
Internal Link Dist (m)		3239.9			1457.6			327.5			340.6	
Turn Bay Length (m)	120.0		60.0	120.0		60.0	60.0			60.0		
Base Capacity (vph)	147	2138	980	389	2220	1009	469	669		521	678	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.30	0.38	0.07	0.21	0.69	0.01	0.19	0.09		0.11	0.27	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 49.4
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 10.6 Intersection LOS: B
Intersection Capacity Utilization 94.7% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Range Road 284 & 114 Ave SE

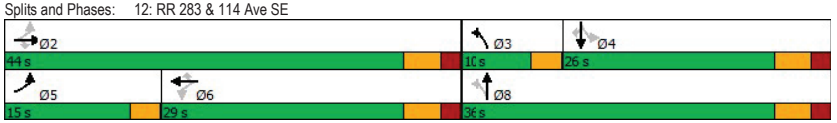


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	236	428	114	18	642	106	217	36	33	54	17	399
Future Volume (vph)	236	428	114	18	642	106	217	36	33	54	17	399
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	120.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.928				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1645	3291	1472	1709	3417	1529	1692	1653	0	1692	1781	1514
Flt Permitted	0.245			0.491			0.596			0.709		
Satd. Flow (perm)	424	3291	1472	883	3417	1529	1062	1653	0	1263	1781	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			120			116		35				401
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			235.1			492.4			2828.0	
Travel Time (s)		6.0			10.6			22.2			127.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	248	451	120	19	676	112	228	38	35	57	18	420
Shared Lane Traffic (%)												
Lane Group Flow (vph)	248	451	120	19	676	112	228	73	0	57	18	420
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	20.0	20.0	20.0	7.0	10.0		10.0	10.0	10.0
Minimum Split (s)	10.0	25.5	25.5	25.5	25.5	25.5	10.0	25.5		25.5	25.5	25.5
Total Split (s)	15.0	44.0	44.0	29.0	29.0	29.0	10.0	36.0		26.0	26.0	26.0
Total Split (%)	18.8%	55.0%	55.0%	36.3%	36.3%	36.3%	12.5%	45.0%		32.5%	32.5%	32.5%
Maximum Green (s)	12.0	38.5	38.5	23.5	23.5	23.5	7.0	30.5		20.5	20.5	20.5
Yellow Time (s)	2.9	3.5	3.5	3.5	3.5	3.5	2.9	3.5		3.5	3.5	3.5
All-Red Time (s)	0.1	2.0	2.0	2.0	2.0	2.0	0.1	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	5.5	5.5	5.5	5.5	5.5	3.0	5.5		5.5	5.5	5.5
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min	Min	Min	Min	Min	None	None		None	None	None
Walk Time (s)		8.0	8.0	8.0	8.0	8.0		8.0		8.0	8.0	8.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0	12.0	12.0	12.0		12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)		0	0	0	0	0		0		0	0	0
Act Effct Green (s)	37.5	35.0	35.0	20.9	20.9	20.9	24.4	21.9		11.8	11.8	11.8
Actuated g/C Ratio	0.55	0.52	0.52	0.31	0.31	0.31	0.36	0.32		0.17	0.17	0.17
v/c Ratio	0.57	0.27	0.15	0.07	0.64	0.20	0.51	0.13		0.26	0.06	0.71
Control Delay	14.2	10.1	2.7	19.2	24.3	5.3	21.2	10.8		27.8	24.0	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	14.2	10.1	2.7	19.2	24.3	5.3	21.2	10.8		27.8	24.0	11.0
LOS	B	B	A	B	C	A	C	B		C	C	B
Approach Delay		10.3			21.5			18.7			13.4	
Approach LOS		B			C			B			B	
Queue Length 50th (m)	13.9	14.5	0.0	1.7	37.4	0.0	20.9	3.3		6.3	1.9	2.1
Queue Length 95th (m)	33.3	29.0	7.6	6.7	63.8	10.1	39.1	11.5		15.9	6.9	25.3
Internal Link Dist (m)		109.5			211.1			468.4			2804.0	
Turn Bay Length (m)	90.0		60.0	120.0		60.0	60.0			60.0		60.0
Base Capacity (vph)	451	1877	891	307	1189	608	446	766		383	541	739
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.55	0.24	0.13	0.06	0.57	0.18	0.51	0.10		0.15	0.03	0.57

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 67.9			
Natural Cycle: 75			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 15.7		Intersection LOS: B	
Intersection Capacity Utilization 68.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 12: RR 283 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	231	73	5	126	4	139	0	14	25	0	92
Future Volume (vph)	35	231	73	5	126	4	139	0	14	25	0	92
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.996			0.987			0.894	
Flt Protected	0.950			0.950				0.957			0.990	
Satd. Flow (prot)	1645	1732	1472	1709	1791	0	0	1683	0	0	1577	0
Flt Permitted	0.950			0.950				0.957			0.990	
Satd. Flow (perm)	1645	1732	1472	1709	1791	0	0	1683	0	0	1577	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1390.9			486.5			451.0			344.1	
Travel Time (s)		62.6			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	37	243	77	5	133	4	146	0	15	26	0	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	243	77	5	137	0	0	161	0	0	123	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	231	73	5	126	4	139	0	14	25	0	92
Future Volume (Veh/h)	35	231	73	5	126	4	139	0	14	25	0	92
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	37	243	77	5	133	4	146	0	15	26	0	97
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	137			320			557	464	243	477	539	135
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	137			320			557	464	243	477	539	135
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			62	100	98	95	100	89
cM capacity (veh/h)	1411			1229			381	476	788	473	432	906

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	37	243	77	5	137	161	123
Volume Left	37	0	0	5	0	146	26
Volume Right	0	0	77	0	4	15	97
cSH	1411	1700	1700	1229	1700	400	759
Volume to Capacity	0.03	0.14	0.05	0.00	0.08	0.40	0.16
Queue Length 95th (m)	0.6	0.0	0.0	0.1	0.0	14.4	4.4
Control Delay (s)	7.6	0.0	0.0	7.9	0.0	19.9	10.7
Lane LOS	A			A		C	B
Approach Delay (s)	0.8			0.3		19.9	10.7
Approach LOS						C	B

Intersection Summary					
Average Delay	6.2				
Intersection Capacity Utilization	41.3%	ICU Level of Service		A	
Analysis Period (min)	15				

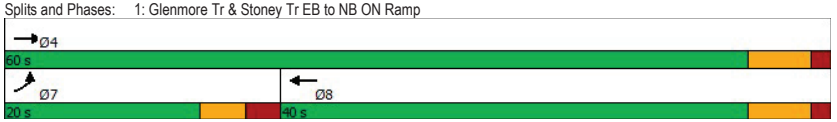
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	580	1419	2069	0	0	0
Future Volume (vph)	580	1419	2069	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	4365	4328	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1519	4365	4328	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	1506.2		302.6	
Travel Time (s)		36.3	108.4		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	617	1510	2201	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	617	1510	2201	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Prot	NA	NA			
Protected Phases	7	4	8			
Permitted Phases						
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	20.0	60.0	40.0			
Total Split (%)	33.3%	100.0%	66.7%			
Maximum Green (s)	14.0	54.0	34.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	14.1	60.0	33.9			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.24	1.00	0.56			
v/c Ratio	1.73	0.35	0.90			
Control Delay	363.7	0.2	18.4			
Queue Delay	0.0	0.0	0.0			
Total Delay	363.7	0.2	18.4			
LOS	F	A	B			
Approach Delay		105.7	18.4			
Approach LOS		F	B			
Queue Length 50th (m)	~104.1	0.0	69.5			
Queue Length 95th (m)	#157.1	0.0	#99.4			
Internal Link Dist (m)		681.9	1482.2		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	356	4365	2452			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	1.73	0.35	0.90			

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.73
Intersection Signal Delay: 61.3 Intersection LOS: E
Intersection Capacity Utilization 84.1% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



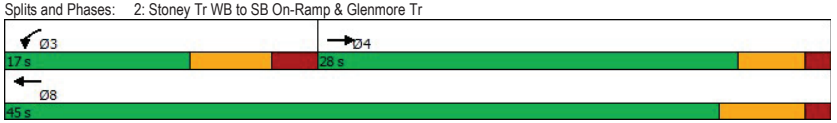
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1558	0	256	3443	0	0
Future Volume (vph)	1558	0	256	3443	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	4365	0	1506	4328	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	4365	0	1506	4328	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	1657	0	272	3663	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1657	0	272	3663	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	28.0		17.0	45.0		
Total Split (%)	62.2%		37.8%	100.0%		
Maximum Green (s)	23.0		10.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	23.0		10.0	45.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.51		0.22	1.00		
v/c Ratio	0.74		0.81	0.85		
Control Delay	11.3		40.5	2.3		
Queue Delay	0.0		0.0	0.0		
Total Delay	11.3		40.5	2.3		
LOS	B		D	A		
Approach Delay	11.3			5.0		
Approach LOS	B			A		
Queue Length 50th (m)	33.1		20.4	0.0		
Queue Length 95th (m)	47.0		#51.4	0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	2231		334	4328		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	0.74		0.81	0.85		

Intersection Summary

Area Type: Other
Cycle Length: 45
Actuated Cycle Length: 45
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 6.8 Intersection LOS: A
Intersection Capacity Utilization 84.1% 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: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



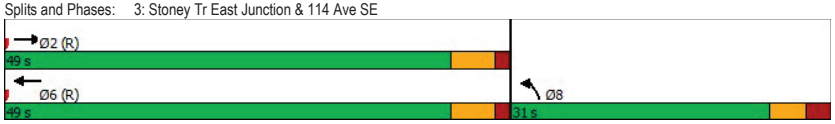
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1431	0	0	871	790	0
Future Volume (vph)	1431	0	0	871	790	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	1522	0	0	927	840	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1522	0	0	927	840	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	49.0			49.0	31.0	
Total Split (%)	61.3%			61.3%	38.8%	
Maximum Green (s)	43.0			43.0	25.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	43.9			43.9	24.1	
Actuated g/C Ratio	0.55			0.55	0.30	
v/c Ratio	0.87			0.54	0.88	
Control Delay	23.4			13.3	38.8	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	23.4			13.3	38.8	
LOS	C			B	D	
Approach Delay	23.4			13.3	38.8	
Approach LOS	C			B	D	
Queue Length 50th (m)	100.8			45.4	61.0	
Queue Length 95th (m)	#153.0			61.7	#90.9	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	1741			1710	988	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.87			0.54	0.85	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 24.5 Intersection LOS: C
Intersection Capacity Utilization 77.9% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE



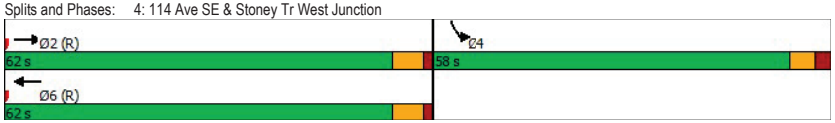
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	772	1292	0	1067	0
Future Volume (vph)	0	772	1292	0	1067	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	821	1374	0	1135	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	821	1374	0	1135	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		62.0	62.0		58.0	
Total Split (%)		51.7%	51.7%		48.3%	
Maximum Green (s)		56.0	56.0		52.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		59.6	59.6		48.4	
Actuated g/C Ratio		0.50	0.50		0.40	
v/c Ratio		0.52	0.89		0.89	
Control Delay		22.6	36.4		42.8	
Queue Delay		0.0	0.0		0.0	
Total Delay		22.6	36.4		42.8	
LOS		C	D		D	
Approach Delay		22.6	36.4		42.8	
Approach LOS		C	D		D	
Queue Length 50th (m)		68.6	152.2		123.7	
Queue Length 95th (m)		90.2	#208.7		148.0	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1575	1548		1370	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.52	0.89		0.83	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 35.2 Intersection LOS: D
Intersection Capacity Utilization 77.9% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction



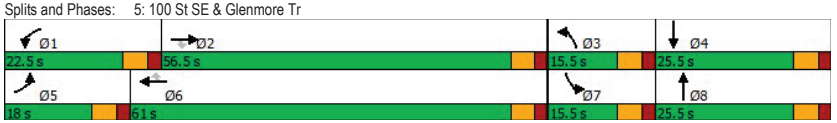
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	1354	360	110	1872	70	170	50	20	20	70	260
Future Volume (vph)	270	1354	360	110	1872	70	170	50	20	20	70	260
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	4479	1395	1601	4601	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	4479	1395	1601	4601	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			383			123			173			277
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		292.3			195.2			437.5			411.5	
Travel Time (s)		13.2			8.8			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	287	1440	383	117	1991	74	181	53	21	21	74	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	1440	383	117	1991	74	181	53	21	21	74	277
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	18.0	56.5	56.5	22.5	61.0	61.0	15.5	25.5		15.5	25.5	
Total Split (%)	15.0%	47.1%	47.1%	18.8%	50.8%	50.8%	12.9%	21.3%		12.9%	21.3%	
Maximum Green (s)	12.5	51.0	51.0	17.0	55.5	55.5	10.0	20.0		10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0			8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	12.7	51.3	51.3	12.8	51.4	51.4	10.3	18.1	104.3	7.8	11.7	104.3
Actuated g/C Ratio	0.12	0.49	0.49	0.12	0.49	0.49	0.10	0.17	1.00	0.07	0.11	1.00
v/c Ratio	0.78	0.65	0.44	0.60	0.88	0.10	0.63	0.19	0.02	0.19	0.42	0.21
Control Delay	62.9	23.0	3.6	58.8	29.9	0.8	58.9	43.1	0.0	53.5	54.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.9	23.0	3.6	58.8	29.9	0.8	58.9	43.1	0.0	53.5	54.6	0.4
LOS	E	C	A	E	C	A	E	D	A	D	D	A
Approach Delay		24.9			30.5			50.8			14.2	
Approach LOS		C			C			D			B	
Queue Length 50th (m)	31.8	81.9	0.0	24.3	133.2	0.0	19.8	9.1	0.0	4.4	15.4	0.0
Queue Length 95th (m)	#56.8	113.0	16.7	43.2	169.1	1.7	#35.8	22.9	0.0	12.5	30.1	0.0
Internal Link Dist (m)		268.3			171.2			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	372	2322	907	267	2512	837	287	345	1347	145	306	1325
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.62	0.42	0.44	0.79	0.09	0.63	0.15	0.02	0.14	0.24	0.21

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 104.3
Natural Cycle: 105
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 27.9 Intersection LOS: C
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	1167	147	30	1647	90	35	10	7	20	10	360
Future Volume (vph)	70	1167	147	30	1647	90	35	10	7	20	10	360
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	90.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.942				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1573	3145	1407	1692	3385	1514	1692	1678	0	1388	1461	1242
Flt Permitted	0.114			0.214			0.750			0.746		
Satd. Flow (perm)	189	3145	1407	381	3385	1514	1336	1678	0	1090	1461	1242
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			156			77		7				292
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		168.0			146.5			198.3			199.1	
Travel Time (s)		7.6			6.6			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	74	1241	156	32	1752	96	37	11	7	21	11	383
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	1241	156	32	1752	96	37	18	0	21	11	383
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Free
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		Free
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	82.0	82.0	82.0	82.0	82.0	82.0	38.0	38.0		38.0	38.0	
Total Split (%)	68.3%	68.3%	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%		31.7%	31.7%	
Maximum Green (s)	76.5	76.5	76.5	76.5	76.5	76.5	32.5	32.5		32.5	32.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	85.3	85.3	85.3	85.3	85.3	85.3	10.2	10.2		10.2	10.2	98.1
Actuated g/C Ratio	0.87	0.87	0.87	0.87	0.87	0.87	0.10	0.10		0.10	0.10	1.00
v/c Ratio	0.45	0.45	0.13	0.10	0.59	0.07	0.27	0.10		0.19	0.07	0.31
Control Delay	14.5	3.3	0.7	3.2	4.4	1.0	45.8	31.5		44.4	40.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	14.5	3.3	0.7	3.2	4.4	1.0	45.8	31.5		44.4	40.9	0.6
LOS	B	A	A	A	A	A	D	C		D	D	A
Approach Delay		3.6			4.2			41.1			3.9	
Approach LOS		A			A			D			A	
Queue Length 50th (m)	3.9	34.1	0.0	1.1	60.6	0.6	6.8	2.0		3.8	2.0	0.0
Queue Length 95th (m)	20.2	47.3	3.6	3.4	82.9	3.6	16.0	8.3		10.9	7.1	0.0
Internal Link Dist (m)		144.0			122.5			174.3			175.1	
Turn Bay Length (m)	90.0		60.0	90.0		60.0	60.0			60.0		60.0
Base Capacity (vph)	164	2736	1244	331	2945	1327	442	560		361	484	1242
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.45	0.45	0.13	0.10	0.59	0.07	0.08	0.03		0.06	0.02	0.31

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 98.1			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 4.5		Intersection LOS: A	
Intersection Capacity Utilization 77.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr

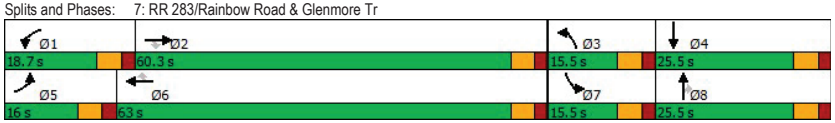


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	511	511	84	1246	49	140	75	17	35	240	381
Future Volume (vph)	183	511	511	84	1246	49	140	75	17	35	240	381
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3380	3231	1445	1615	3231	1559	3078	3484	1420	1742	3484	1559
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3380	3231	1445	1615	3231	1559	3078	3484	1420	1742	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			440			123			123			374
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			401.7			232.8	
Travel Time (s)		11.2			73.3			18.1			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	195	544	544	89	1326	52	149	80	18	37	255	405
Shared Lane Traffic (%)												
Lane Group Flow (vph)	195	544	544	89	1326	52	149	80	18	37	255	405
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	
Total Split (s)	16.0	60.3	60.3	18.7	63.0	63.0	15.5	25.5	25.5	15.5	25.5	
Total Split (%)	13.3%	50.3%	50.3%	15.6%	52.5%	52.5%	12.9%	21.3%	21.3%	12.9%	21.3%	
Maximum Green (s)	10.5	54.8	54.8	13.2	57.5	57.5	10.0	20.0	20.0	10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	10.4	50.9	50.9	11.5	48.3	48.3	10.1	20.4	20.4	10.1	13.3	104.4
Actuated g/C Ratio	0.10	0.49	0.49	0.11	0.46	0.46	0.10	0.20	0.20	0.10	0.13	1.00
v/c Ratio	0.58	0.35	0.59	0.50	0.89	0.07	0.50	0.12	0.05	0.22	0.57	0.26
Control Delay	54.7	18.5	7.0	56.9	34.0	0.2	53.8	41.3	0.2	51.3	49.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	18.5	7.0	56.9	34.0	0.2	53.8	41.3	0.2	51.3	49.6	0.4
LOS	D	B	A	E	C	A	D	D	A	D	D	A
Approach Delay		19.2			34.2			45.9			21.1	
Approach LOS		B			C			D			C	
Queue Length 50th (m)	20.0	36.7	12.0	17.5	124.5	0.0	15.2	7.8	0.0	7.2	26.3	0.0
Queue Length 95th (m)	34.8	54.3	43.9	36.4	166.3	0.0	27.9	15.7	0.0	18.7	41.9	0.0
Internal Link Dist (m)		224.8			1603.8			377.7			208.8	
Turn Bay Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Base Capacity (vph)	344	1717	974	206	1801	923	298	769	409	169	675	1559
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.32	0.56	0.43	0.74	0.06	0.50	0.10	0.04	0.22	0.38	0.26

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 104.4			
Natural Cycle: 105			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 27.3		Intersection LOS: C	
Intersection Capacity Utilization 78.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	161	362	49	1183	10	126	0	16	10	0	60
Future Volume (vph)	20	161	362	49	1183	10	126	0	16	10	0	60
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	60.0		60.0	60.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1532	3064	1371	1709	3417	1529	1615	1445	0	1615	1445	0
Flt Permitted	0.170			0.644			0.715			0.746		
Satd. Flow (perm)	274	3064	1371	1158	3417	1529	1216	1445	0	1269	1445	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			385			45		694			45	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	21	171	385	52	1259	11	134	0	17	11	0	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	171	385	52	1259	11	134	17	0	11	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5		25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%		42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	28.2	28.2	28.2	28.2	28.2	28.2	12.1	12.1		12.1	12.1	
Actuated g/C Ratio	0.62	0.62	0.62	0.62	0.62	0.62	0.27	0.27		0.27	0.27	
v/c Ratio	0.12	0.09	0.39	0.07	0.59	0.01	0.41	0.02		0.03	0.15	
Control Delay	9.1	6.3	2.3	6.7	9.6	0.0	20.4	0.1		14.7	8.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	9.1	6.3	2.3	6.7	9.6	0.0	20.4	0.1		14.7	8.6	
LOS	A	A	A	A	A	A	C	A		B	A	
Approach Delay		3.7			9.4			18.1			9.5	
Approach LOS		A			A			B			A	
Queue Length 50th (m)	0.8	3.1	0.0	1.8	34.6	0.0	8.8	0.0		0.7	1.1	
Queue Length 95th (m)	4.5	8.1	10.2	6.7	67.7	0.3	23.4	0.0		3.8	8.3	
Internal Link Dist (m)		1603.8			321.5			164.3			100.6	
Turn Bay Length (m)	60.0		60.0	60.0		60.0	60.0			60.0		
Base Capacity (vph)	182	2038	1040	770	2273	1032	558	1038		582	687	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.08	0.37	0.07	0.55	0.01	0.24	0.02		0.02	0.09	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.6			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 8.5		Intersection LOS: A	
Intersection Capacity Utilization 64.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: RR 282 & Glenmore Tr



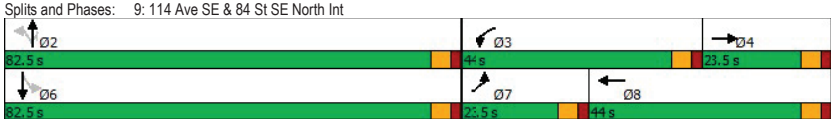
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	30	810	10	10	30	580	2211	10	150	10
Future Volume (vph)	10	10	30	810	10	10	30	580	2211	10	150	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.925				0.850		0.992	
Flt Protected		0.990		0.950				0.998			0.997	
Satd. Flow (prot)	0	1549	0	2780	1395	0	0	1778	1514	0	1350	0
Flt Permitted		0.939		0.950				0.977			0.957	
Satd. Flow (perm)	0	1469	0	2780	1395	0	0	1741	1514	0	1296	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			11				1049		3	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			3263.9			343.2			388.8	
Travel Time (s)		16.8			293.8			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	11	11	32	862	11	11	32	617	2352	11	160	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	862	22	0	0	649	2352	0	182	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		
Detector Phase	7	4		3	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5	23.5	25.5	25.5	
Total Split (s)	23.5	23.5		44.0	44.0		82.5	82.5	82.5	82.5	82.5	
Total Split (%)	15.7%	15.7%		29.3%	29.3%		55.0%	55.0%	55.0%	55.0%	55.0%	
Maximum Green (s)	18.0	18.0		38.5	38.5		77.0	77.0	77.0	77.0	77.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5	5.5		5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		0.0		38.7	56.9			77.4	77.4		77.4	
Actuated g/C Ratio		0.00		0.27	0.39			0.53	0.53		0.53	
v/c Ratio		1.69		1.16	0.04			0.70	1.81		0.26	
Control Delay		430.7		135.3	16.8			31.8	386.5		20.8	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		430.7		135.3	16.8			31.8	386.5		20.8	
LOS		F		F	B			C	F		C	
Approach Delay		430.7			132.3			309.8			20.8	
Approach LOS		F			F			F			C	
Queue Length 50th (m)		~13.6		~160.6	1.9			146.4	~900.6		29.4	
Queue Length 95th (m)		#43.2		#200.9	7.7			194.9	#973.7		45.9	
Internal Link Dist (m)		209.3			3239.9			319.2			364.8	
Turn Bay Length (m)				120.0								
Base Capacity (vph)		32		740	553			926	1296		691	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		1.69		1.16	0.04			0.70	1.81		0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 145.3			
Natural Cycle: 140			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.81			
Intersection Signal Delay: 260.5		Intersection LOS: F	
Intersection Capacity Utilization 172.0%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



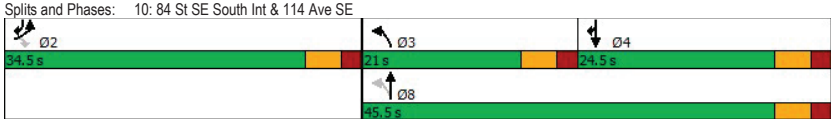
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	2771	110	350	50	30	960
Future Volume (vph)	2771	110	350	50	30	960
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3283	1514	1506	1585	1406	2104
Flt Permitted	0.950		0.571			
Satd. Flow (perm)	3283	1514	905	1585	1406	2104
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		27				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	2948	117	372	53	32	1021
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2948	117	372	53	32	1021
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	2		3	8	4	4 2
Permitted Phases		2	8			
Detector Phase	2	2	3	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	15.5	24.5	24.5	
Total Split (s)	34.5	34.5	21.0	45.5	24.5	
Total Split (%)	43.1%	43.1%	26.3%	56.9%	30.6%	
Maximum Green (s)	29.0	29.0	15.5	40.0	19.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	29.0	29.0	39.3	39.3	19.0	53.5
Actuated g/C Ratio	0.37	0.37	0.50	0.50	0.24	0.67
v/c Ratio	2.45	0.20	0.67	0.07	0.10	0.72
Control Delay	675.4	14.7	20.3	10.7	24.8	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	675.4	14.7	20.3	10.7	24.8	12.0
LOS	F	B	C	B	C	B
Approach Delay	650.2			19.1	12.4	
Approach LOS	F			B	B	
Queue Length 50th (m)	~389.4	9.1	35.5	3.9	3.8	48.8
Queue Length 95th (m)	#429.8	20.0	58.2	9.3	10.5	73.9
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)		30.0	120.0			120.0
Base Capacity (vph)	1201	571	565	800	336	1421
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	2.45	0.20	0.66	0.07	0.10	0.72

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.3
Natural Cycle: 150
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 2.45
Intersection Signal Delay: 443.3 Intersection LOS: F
Intersection Capacity Utilization 116.9% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE



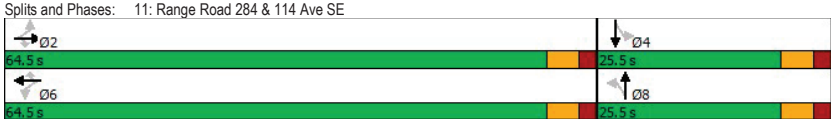
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	1908	143	46	636	65	58	100	37	14	10	36
Future Volume (vph)	111	1908	143	46	636	65	58	100	37	14	10	36
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.960			0.884	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1692	3385	1514	1615	3231	1445	1692	1710	0	1692	1575	0
Flt Permitted	0.393			0.073			0.725			0.651		
Satd. Flow (perm)	700	3385	1514	124	3231	1445	1292	1710	0	1160	1575	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			147			69		16			38	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		3263.9			1481.6			351.5			364.6	
Travel Time (s)		146.9			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	118	2030	152	49	677	69	62	106	39	15	11	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	2030	152	49	677	69	62	145	0	15	49	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	64.5	64.5	64.5	64.5	64.5	64.5	25.5	25.5		25.5	25.5	
Total Split (%)	71.7%	71.7%	71.7%	71.7%	71.7%	71.7%	28.3%	28.3%		28.3%	28.3%	
Maximum Green (s)	59.0	59.0	59.0	59.0	59.0	59.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	None	None	None	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	54.6	54.6	54.6	54.6	54.6	54.6	12.2	12.2		12.2	12.2	
Actuated g/C Ratio	0.70	0.70	0.70	0.70	0.70	0.70	0.16	0.16		0.16	0.16	
v/c Ratio	0.24	0.86	0.14	0.57	0.30	0.07	0.31	0.52		0.08	0.18	
Control Delay	6.0	14.0	1.2	38.3	5.0	1.4	34.5	34.4		30.5	15.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.0	14.0	1.2	38.3	5.0	1.4	34.5	34.4		30.5	15.0	
LOS	A	B	A	D	A	A	C	C		C	B	
Approach Delay		12.8			6.7			34.4			18.6	
Approach LOS		B			A			C			B	
Queue Length 50th (m)	4.9	92.5	0.2	2.8	15.6	0.0	8.5	18.2		2.0	1.5	
Queue Length 95th (m)	13.8	163.6	5.3	#24.0	28.2	3.5	19.7	36.1		7.1	10.3	
Internal Link Dist (m)		3239.9			1457.6			327.5			340.6	
Turn Bay Length (m)	120.0		60.0	120.0		60.0	60.0			60.0		
Base Capacity (vph)	534	2585	1190	94	2467	1120	334	454		300	436	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.22	0.79	0.13	0.52	0.27	0.06	0.19	0.32		0.05	0.11	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 77.9
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 96.5% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Range Road 284 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	347	908	317	51	420	78	103	18	11	93	33	192
Future Volume (vph)	347	908	317	51	420	78	103	18	11	93	33	192
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	120.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.942				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1692	3385	1514	1615	3231	1445	1692	1678	0	1692	1781	1514
Flt Permitted	0.429			0.296			0.734			0.737		
Satd. Flow (perm)	764	3385	1514	503	3231	1445	1308	1678	0	1313	1781	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			337			92		12				204
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			235.1			492.4			2828.0	
Travel Time (s)		6.0			10.6			22.2			127.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	369	966	337	54	447	83	110	19	12	99	35	204
Shared Lane Traffic (%)												
Lane Group Flow (vph)	369	966	337	54	447	83	110	31	0	99	35	204
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	10.0	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	25.5
Total Split (s)	13.0	39.5	39.5	26.5	26.5	26.5	25.5	25.5		25.5	25.5	25.5
Total Split (%)	20.0%	60.8%	60.8%	40.8%	40.8%	40.8%	39.2%	39.2%		39.2%	39.2%	39.2%
Maximum Green (s)	10.0	34.0	34.0	21.0	21.0	21.0	20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	5.5
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min	Min	Min	Min	Min	None	None		None	None	None
Walk Time (s)		8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	35.3	32.8	32.8	20.0	20.0	20.0	11.1	11.1		11.1	11.1	11.1
Actuated g/C Ratio	0.64	0.60	0.60	0.36	0.36	0.36	0.20	0.20		0.20	0.20	0.20
v/c Ratio	0.56	0.48	0.32	0.30	0.38	0.14	0.42	0.09		0.37	0.10	0.43
Control Delay	8.5	7.5	1.8	18.7	14.5	4.0	24.4	13.9		23.3	18.3	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	8.5	7.5	1.8	18.7	14.5	4.0	24.4	13.9		23.3	18.3	6.6
LOS	A	A	A	B	B	A	C	B		C	B	A
Approach Delay		6.6			13.4			22.1			12.7	
Approach LOS		A			B			C			B	
Queue Length 50th (m)	12.5	22.5	0.0	3.6	16.1	0.0	9.7	1.5		8.6	2.9	0.0
Queue Length 95th (m)	29.7	41.8	8.4	12.6	29.2	6.5	21.3	6.8		19.4	8.5	12.9
Internal Link Dist (m)		109.5			211.1			468.4			2804.0	
Turn Bay Length (m)	90.0		60.0	120.0		60.0	60.0			60.0		60.0
Base Capacity (vph)	659	2093	1065	192	1234	608	475	618		477	647	680
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.56	0.46	0.32	0.28	0.36	0.14	0.23	0.05		0.21	0.05	0.30

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 55			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 9.6		Intersection LOS: A	
Intersection Capacity Utilization 68.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 12: RR 283 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	102	198	25	380	20	60	0	7	8	0	23
Future Volume (vph)	107	102	198	25	380	20	60	0	7	8	0	23
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.993			0.987			0.902	
Flt Protected	0.950			0.950				0.957			0.987	
Satd. Flow (prot)	1692	1781	1514	1615	1689	0	0	1683	0	0	1586	0
Flt Permitted	0.950			0.950				0.957			0.987	
Satd. Flow (perm)	1692	1781	1514	1615	1689	0	0	1683	0	0	1586	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1390.9			486.5			451.0			344.1	
Travel Time (s)		62.6			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	114	109	211	27	404	21	64	0	7	9	0	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	109	211	27	425	0	0	71	0	0	33	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	102	198	25	380	20	60	0	7	8	0	23
Future Volume (Veh/h)	107	102	198	25	380	20	60	0	7	8	0	23
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	114	109	211	27	404	21	64	0	7	9	0	24
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	425			320			819	816	109	812	1016	414
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	425			320			819	816	109	812	1016	414
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			98			75	100	99	97	100	96
cM capacity (veh/h)	1118			1196			254	270	937	264	206	631

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	114	109	211	27	425	71	33
Volume Left	114	0	0	27	0	64	9
Volume Right	0	0	211	0	21	7	24
cSH	1118	1700	1700	1196	1700	273	458
Volume to Capacity	0.10	0.06	0.12	0.02	0.25	0.26	0.07
Queue Length 95th (m)	2.6	0.0	0.0	0.5	0.0	7.7	1.8
Control Delay (s)	8.6	0.0	0.0	8.1	0.0	22.7	13.5
Lane LOS	A			A		C	B
Approach Delay (s)	2.3			0.5		22.7	13.5
Approach LOS						C	B

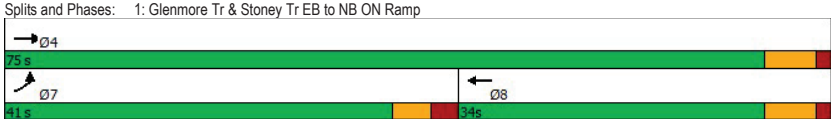
Intersection Summary				
Average Delay	3.3			
Intersection Capacity Utilization	48.4%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1250	2021	1485	0	0	0
Future Volume (vph)	1250	2021	1485	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	4479	4519	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1559	4479	4519	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	1506.2		302.6	
Travel Time (s)		36.3	108.4		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1316	2127	1563	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1316	2127	1563	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Prot	NA	NA			
Protected Phases	7	4	8			
Permitted Phases						
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	41.0	75.0	34.0			
Total Split (%)	54.7%	100.0%	45.3%			
Maximum Green (s)	35.0	69.0	28.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	35.0	75.0	28.0			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Actuated g/C Ratio	0.47	1.00	0.37			
v/c Ratio	1.81	0.47	0.93			
Control Delay	391.0	0.4	33.8			
Queue Delay	0.0	0.0	0.0			
Total Delay	391.0	0.4	33.8			
LOS	F	A	C			
Approach Delay		149.7	33.8			
Approach LOS		F	C			
Queue Length 50th (m)	~285.7	0.0	75.8			
Queue Length 95th (m)	#357.7	0.0	#106.5			
Internal Link Dist (m)		681.9	1482.2		278.6	
Turn Bay Length (m)	248.0					
Base Capacity (vph)	727	4479	1687			
Starvation Cap Reductn	0	0	0			
Spillback Cap Reductn	0	0	0			
Storage Cap Reductn	0	0	0			
Reduced v/c Ratio	1.81	0.47	0.93			

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.81			
Intersection Signal Delay: 113.5		Intersection LOS: F	
Intersection Capacity Utilization 110.6%		ICU Level of Service H	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp



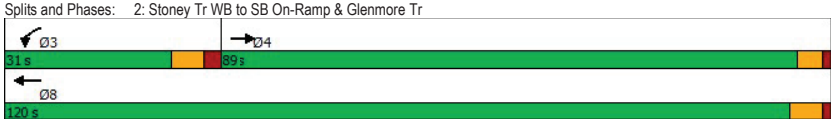
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	3041	0	622	1385	0	0
Future Volume (vph)	3041	0	622	1385	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	4479	0	1573	4519	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	4479	0	1573	4519	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	3201	0	655	1458	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3201	0	655	1458	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	89.0		31.0	120.0		
Total Split (%)	74.2%		25.8%	100.0%		
Maximum Green (s)	84.0		24.0	114.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	84.0		24.0	120.0		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Actuated g/C Ratio	0.70		0.20	1.00		
v/c Ratio	1.02		2.09	0.32		
Control Delay	40.4		525.5	0.2		
Queue Delay	0.0		0.0	0.0		
Total Delay	40.4		525.5	0.2		
LOS	D		F	A		
Approach Delay	40.4			163.0		
Approach LOS	D			F		
Queue Length 50th (m)	~293.1		~243.9	0.0		
Queue Length 95th (m)	#318.0		#313.5	0.0		
Internal Link Dist (m)	559.7			681.9	316.9	
Turn Bay Length (m)			190.0			
Base Capacity (vph)	3135		314	4519		
Starvation Cap Reductn	0		0	0		
Spillback Cap Reductn	0		0	0		
Storage Cap Reductn	0		0	0		
Reduced v/c Ratio	1.02		2.09	0.32		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.09
Intersection Signal Delay: 89.1 Intersection LOS: F
Intersection Capacity Utilization 110.6% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr



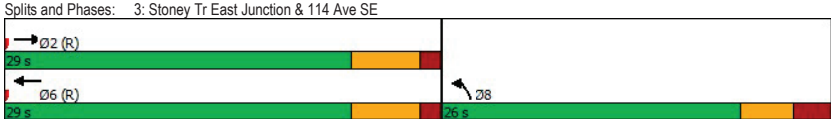
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1155	0	0	1980	80	0
Future Volume (vph)	1155	0	0	1980	80	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	1216	0	0	2084	84	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1216	0	0	2084	84	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	29.0			29.0	26.0	
Total Split (%)	52.7%			52.7%	47.3%	
Maximum Green (s)	23.0			23.0	20.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	41.8			41.8	10.0	
Actuated g/C Ratio	0.76			0.76	0.18	
v/c Ratio	0.49			0.87	0.14	
Control Delay	6.0			18.0	19.7	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Delay	0.0			0.0	0.0	
Total Delay	6.0			18.0	19.7	
LOS	A			B	B	
Approach Delay	6.0			18.0	19.7	
Approach LOS	A			B	B	
Queue Length 50th (m)	34.5			~129.3	3.6	
Queue Length 95th (m)	50.3			#167.8	8.3	
Internal Link Dist (m)	470.8			333.0	369.2	
Turn Bay Length (m)						
Base Capacity (vph)	2478			2390	1171	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.49			0.87	0.07	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 13.7 Intersection LOS: B
Intersection Capacity Utilization 74.5% ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE



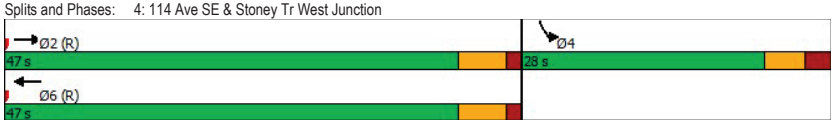
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1543	429	0	625	0
Future Volume (vph)	0	1543	429	0	625	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	1624	452	0	658	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1624	452	0	658	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		47.0	47.0		28.0	
Total Split (%)		62.7%	62.7%		37.3%	
Maximum Green (s)		41.0	41.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		43.4	43.4		19.6	
Actuated g/C Ratio		0.58	0.58		0.26	
v/c Ratio		0.86	0.25		0.78	
Control Delay		20.3	8.6		32.8	
Queue Delay		0.0	0.0		0.0	
Total Delay		20.3	8.6		32.8	
LOS		C	A		C	
Approach Delay		20.3	8.6		32.8	
Approach LOS		C	A		C	
Queue Length 50th (m)		94.6	15.4		43.8	
Queue Length 95th (m)		#155.3	24.2		59.5	
Internal Link Dist (m)		198.7	470.8		459.0	
Turn Bay Length (m)						
Base Capacity (vph)		1888	1821		945	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		0	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.86	0.25		0.70	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 21.4 Intersection LOS: C
Intersection Capacity Utilization 74.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

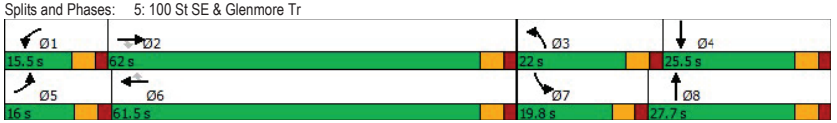


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	1977	170	30	1286	20	360	70	90	80	40	380
Future Volume (vph)	130	1977	170	30	1286	20	360	70	90	80	40	380
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	4642	1445	1692	4863	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	4642	1445	1692	4863	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179			118			166			339
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		292.3			195.2			437.5			411.5	
Travel Time (s)		13.2			8.8			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	137	2081	179	32	1354	21	379	74	95	84	42	400
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	2081	179	32	1354	21	379	74	95	84	42	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	16.0	62.0	62.0	15.5	61.5	61.5	22.0	27.7		19.8	25.5	
Total Split (%)	12.8%	49.6%	49.6%	12.4%	49.2%	49.2%	17.6%	22.2%		15.8%	20.4%	
Maximum Green (s)	10.5	56.5	56.5	10.0	56.0	56.0	16.5	22.2		14.3	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)		8.0	8.0		8.0	8.0		8.0			8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	9.4	54.4	54.4	8.2	46.8	46.8	18.8	14.5	100.9	10.9	10.9	100.9
Actuated g/C Ratio	0.09	0.54	0.54	0.08	0.46	0.46	0.19	0.14	1.00	0.11	0.11	1.00
v/c Ratio	0.47	0.83	0.21	0.23	0.60	0.03	0.69	0.32	0.07	0.51	0.24	0.29
Control Delay	53.1	25.6	3.1	53.8	21.7	0.1	49.8	49.8	0.1	58.4	51.2	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	25.6	3.1	53.8	21.7	0.1	49.8	49.8	0.1	58.4	51.2	0.6
LOS	D	C	A	D	C	A	D	D	A	E	D	A
Approach Delay		25.5			22.1			41.2			13.8	
Approach LOS		C			C			D			B	
Queue Length 50th (m)	15.0	146.0	0.0	6.8	76.4	0.0	42.5	15.0	0.0	17.9	8.8	0.0
Queue Length 95th (m)	25.9	#189.4	11.5	16.9	95.3	0.0	#72.7	30.6	0.0	34.3	20.2	0.0
Internal Link Dist (m)		268.3			171.2			413.5			387.5	
Turn Bay Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Base Capacity (vph)	339	2706	917	174	2810	924	553	366	1359	224	330	1359
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.77	0.20	0.18	0.48	0.02	0.69	0.20	0.07	0.38	0.13	0.29

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 100.9			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.0		Intersection LOS: C	
Intersection Capacity Utilization 76.0%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: 100 St SE & Glenmore Tr

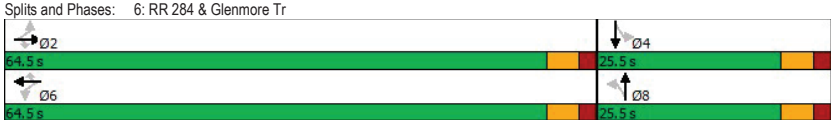


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	1934	43	4	1139	40	127	10	30	80	10	70
Future Volume (vph)	180	1934	43	4	1139	40	127	10	30	80	10	70
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	90.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.888				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1725	3451	1544	1661	3322	1486	1692	1582	0	1709	1799	1529
Flt Permitted	0.201			0.073			0.750			0.729		
Satd. Flow (perm)	365	3451	1544	128	3322	1486	1336	1582	0	1311	1799	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			43			42		16				97
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		168.0			146.5			198.3			199.1	
Travel Time (s)		7.6			6.6			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	189	2036	45	4	1199	42	134	11	32	84	11	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	2036	45	4	1199	42	134	43	0	84	11	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Free
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		Free
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	64.5	64.5	64.5	64.5	64.5	64.5	25.5	25.5		25.5	25.5	
Total Split (%)	71.7%	71.7%	71.7%	71.7%	71.7%	71.7%	28.3%	28.3%		28.3%	28.3%	
Maximum Green (s)	59.0	59.0	59.0	59.0	59.0	59.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	54.5	54.5	54.5	54.5	54.5	54.5	13.9	13.9		13.9	13.9	79.6
Actuated g/C Ratio	0.68	0.68	0.68	0.68	0.68	0.68	0.17	0.17		0.17	0.17	1.00
v/c Ratio	0.76	0.86	0.04	0.05	0.53	0.04	0.58	0.15		0.37	0.04	0.05
Control Delay	32.8	15.4	1.9	6.5	7.5	1.9	41.4	21.7		34.8	28.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	32.8	15.4	1.9	6.5	7.5	1.9	41.4	21.7		34.8	28.6	0.1
LOS	C	B	A	A	A	A	D	C		C	C	A
Approach Delay		16.5			7.3			36.6			19.2	
Approach LOS		B			A			D			B	
Queue Length 50th (m)	15.3	102.1	0.1	0.2	38.5	0.0	20.1	3.7		12.1	1.5	0.0
Queue Length 95th (m)	#65.2	181.0	3.4	1.5	67.5	3.1	37.4	12.0		24.8	5.7	0.0
Internal Link Dist (m)		144.0			122.5			174.3			175.1	
Turn Bay Length (m)	90.0		60.0	90.0		60.0	60.0			60.0		60.0
Base Capacity (vph)	274	2592	1170	95	2495	1126	340	415		333	457	1529
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.69	0.79	0.04	0.04	0.48	0.04	0.39	0.10		0.25	0.02	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 79.6			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 99.2%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 6: RR 284 & Glenmore Tr



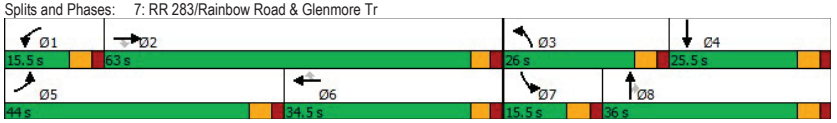
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	796	1110	179	17	596	80	395	350	59	46	115	202
Future Volume (vph)	796	1110	179	17	596	80	395	350	59	46	115	202
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	3231	1445	1630	3261	1459	2758	2843	1272	1742	3484	1559
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	3231	1445	1630	3261	1459	2758	2843	1272	1742	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			188			206			159			252
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			1627.8			401.7			232.8	
Travel Time (s)		11.2			73.3			18.1			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	838	1168	188	18	627	84	416	368	62	48	121	213
Shared Lane Traffic (%)												
Lane Group Flow (vph)	838	1168	188	18	627	84	416	368	62	48	121	213
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	
Total Split (s)	44.0	63.0	63.0	15.5	34.5	34.5	26.0	36.0	36.0	15.5	25.5	
Total Split (%)	33.8%	48.5%	48.5%	11.9%	26.5%	26.5%	20.0%	27.7%	27.7%	11.9%	19.6%	
Maximum Green (s)	38.5	57.5	57.5	10.0	29.0	29.0	20.5	30.5	30.5	10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	35.1	61.4	61.4	10.1	26.4	26.4	20.3	25.7	25.7	10.1	11.8	115.9
Actuated g/C Ratio	0.30	0.53	0.53	0.09	0.23	0.23	0.18	0.22	0.22	0.09	0.10	1.00
v/c Ratio	0.88	0.68	0.22	0.13	0.84	0.17	0.86	0.58	0.15	0.32	0.34	0.14
Control Delay	50.8	24.4	3.4	55.1	54.9	0.8	66.0	47.3	0.8	59.3	52.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	24.4	3.4	55.1	54.9	0.8	66.0	47.3	0.8	59.3	52.7	0.2
LOS	D	C	A	E	D	A	E	D	A	E	D	A
Approach Delay		32.7			48.7			53.1			24.2	
Approach LOS		C			D			D			C	
Queue Length 50th (m)	94.0	83.5	0.0	4.0	73.4	0.0	49.8	43.8	0.0	10.9	14.4	0.0
Queue Length 95th (m)	#135.2	156.6	12.6	12.1	#105.8	0.0	#83.4	60.3	0.0	24.2	23.8	0.0
Internal Link Dist (m)		224.8			1603.8			377.7			208.8	
Turn Bay Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Base Capacity (vph)	1049	1738	864	141	822	522	491	777	463	151	606	1559
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.67	0.22	0.13	0.76	0.16	0.85	0.47	0.13	0.32	0.20	0.14

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 115.9
Natural Cycle: 105
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 38.9 Intersection LOS: D
Intersection Capacity Utilization 78.5% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr

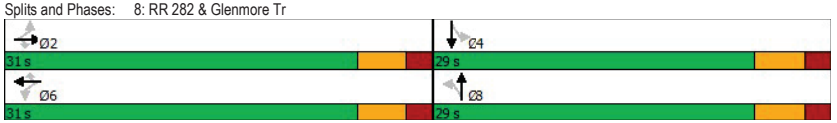


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	963	142	15	309	10	333	10	34	10	10	30
Future Volume (vph)	60	963	142	15	309	10	333	10	34	10	10	30
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	60.0		60.0	60.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.885			0.888	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	3484	1559	1676	3353	1500	1615	1505	0	1615	1510	0
Flt Permitted	0.555			0.196			0.729			0.726		
Satd. Flow (perm)	1018	3484	1559	346	3353	1500	1240	1505	0	1235	1510	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			149			45		36			32	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1627.8			345.5			188.3			124.6	
Travel Time (s)		73.3			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	63	1014	149	16	325	11	351	11	36	11	11	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	1014	149	16	325	11	351	47	0	11	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	29.0	29.0		29.0	29.0	
Total Split (%)	51.7%	51.7%	51.7%	51.7%	51.7%	51.7%	48.3%	48.3%		48.3%	48.3%	
Maximum Green (s)	25.5	25.5	25.5	25.5	25.5	25.5	23.5	23.5		23.5	23.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	22.9	22.9	22.9	22.9	22.9	22.9	18.7	18.7		18.7	18.7	
Actuated g/C Ratio	0.43	0.43	0.43	0.43	0.43	0.43	0.35	0.35		0.35	0.35	
v/c Ratio	0.14	0.67	0.20	0.11	0.22	0.02	0.80	0.08		0.03	0.08	
Control Delay	11.4	15.4	3.1	12.7	10.7	0.0	31.4	6.2		11.4	6.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	11.4	15.4	3.1	12.7	10.7	0.0	31.4	6.2		11.4	6.4	
LOS	B	B	A	B	B	A	C	A		B	A	
Approach Delay		13.7			10.5			28.4			7.4	
Approach LOS		B			B			C			A	
Queue Length 50th (m)	3.7	41.4	0.0	0.9	10.4	0.0	28.9	0.7		0.7	0.7	
Queue Length 95th (m)	10.4	64.0	8.3	4.4	18.6	0.2	#68.2	5.8		3.2	5.6	
Internal Link Dist (m)		1603.8			321.5			164.3			100.6	
Turn Bay Length (m)	60.0		60.0	60.0		60.0	60.0			60.0		
Base Capacity (vph)	501	1715	843	170	1651	761	562	702		560	702	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.13	0.59	0.18	0.09	0.20	0.01	0.62	0.07		0.02	0.06	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 52.8			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 15.9		Intersection LOS: B	
Intersection Capacity Utilization 83.4%		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: 8: RR 282 & Glenmore Tr



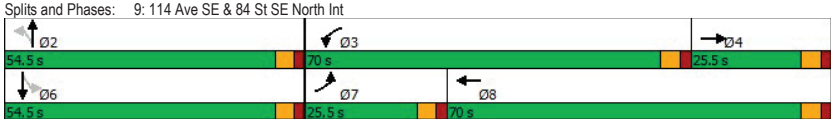
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	20	2216	10	10	20	150	1121	20	650	10
Future Volume (vph)	10	10	20	2216	10	10	20	150	1121	20	650	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934			0.925				0.850		0.998	
Flt Protected		0.987		0.950				0.994			0.999	
Satd. Flow (prot)	0	1568	0	3134	1573	0	0	1675	1432	0	1776	0
Flt Permitted		0.928		0.950				0.773			0.988	
Satd. Flow (perm)	0	1474	0	3134	1573	0	0	1303	1432	0	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			11				1041		1	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			3263.9			343.2			388.8	
Travel Time (s)		16.8			293.8			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	11	11	21	2333	11	11	21	158	1180	21	684	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	2333	22	0	0	179	1180	0	716	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Turn Type	Prot	NA		Prot	NA		Perm	NA	Free	Perm	NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		Free	6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5		25.5	25.5		25.5	25.5		25.5	25.5	
Total Split (s)	25.5	25.5		70.0	70.0		54.5	54.5		54.5	54.5	
Total Split (%)	17.0%	17.0%		46.7%	46.7%		36.3%	36.3%		36.3%	36.3%	
Maximum Green (s)	20.0	20.0		64.5	64.5		49.0	49.0		49.0	49.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		0.0		64.9	84.6			49.3	144.9		49.3	
Actuated g/C Ratio		0.00		0.45	0.58			0.34	1.00		0.34	
v/c Ratio		2.05		1.66	0.02			0.40	0.82		1.20	
Control Delay		620.3		330.6	7.8			41.7	5.5		146.2	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		620.3		330.6	7.8			41.7	5.5		146.2	
LOS		F		F	A			D	A		F	
Approach Delay		620.3			327.6			10.3			146.2	
Approach LOS		F			F			B			F	
Queue Length 50th (m)		~13.6		~527.4	1.3			41.6	0.0		~265.3	
Queue Length 95th (m)		#40.1		#564.5	5.0			64.5	0.0		#342.2	
Internal Link Dist (m)		209.3			3239.9			319.2			364.8	
Turn Bay Length (m)				120.0								
Base Capacity (vph)		21		1402	922			442	1432		598	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		2.05		1.66	0.02			0.40	0.82		1.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 144.9			
Natural Cycle: 150			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 2.05			
Intersection Signal Delay: 205.0		Intersection LOS: F	
Intersection Capacity Utilization 131.5%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1271	390	110	20	130	2756
Future Volume (vph)	1271	390	110	20	130	2756
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3106	1432	1725	1816	1799	2691
Flt Permitted	0.950		0.669			
Satd. Flow (perm)	3106	1432	1215	1816	1799	2691
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		256				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	1338	411	116	21	137	2901
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1338	411	116	21	137	2901
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Turn Type	Prot	Perm	Perm	NA	NA	pt+ov
Protected Phases	2			8	4	4 2
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	7.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	44.0	44.0	36.0	36.0	36.0	
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%	
Maximum Green (s)	38.5	38.5	30.5	30.5	30.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Act Effct Green (s)	38.5	38.5	30.5	30.5	30.5	80.0
Actuated g/C Ratio	0.48	0.48	0.38	0.38	0.38	1.00
v/c Ratio	0.90	0.50	0.25	0.03	0.20	1.08
Control Delay	28.7	7.4	18.8	15.8	17.6	47.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.7	7.4	18.8	15.8	17.6	47.7
LOS	C	A	B	B	B	D
Approach Delay	23.7			18.3	46.4	
Approach LOS	C			B	D	
Queue Length 50th (m)	90.9	13.0	11.8	2.0	13.6	~38.2
Queue Length 95th (m)	#135.8	34.2	23.6	6.2	25.3	#83.0
Internal Link Dist (m)	333.0			156.9	319.2	
Turn Bay Length (m)		30.0	120.0			120.0
Base Capacity (vph)	1494	821	463	692	685	2691
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.50	0.25	0.03	0.20	1.08

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 55
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 37.5 Intersection LOS: D
Intersection Capacity Utilization 114.4% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE

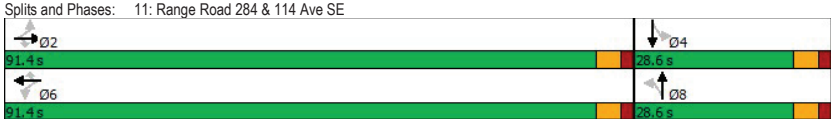


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	883	69	76	1912	12	113	10	57	55	80	102
Future Volume (vph)	40	883	69	76	1912	12	113	10	57	55	80	102
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.873			0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1645	3291	1472	1709	3417	1529	1692	1555	0	1692	1632	0
Flt Permitted	0.062			0.282			0.517			0.711		
Satd. Flow (perm)	107	3291	1472	507	3417	1529	921	1555	0	1267	1632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73			23		60			24	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		3263.9			1481.6			351.5			364.6	
Travel Time (s)		146.9			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	42	929	73	80	2013	13	119	11	60	58	84	107
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	929	73	80	2013	13	119	71	0	58	191	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	91.4	91.4	91.4	91.4	91.4	91.4	28.6	28.6		28.6	28.6	
Total Split (%)	76.2%	76.2%	76.2%	76.2%	76.2%	76.2%	23.8%	23.8%		23.8%	23.8%	
Maximum Green (s)	85.9	85.9	85.9	85.9	85.9	85.9	23.1	23.1		23.1	23.1	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	64.4	64.4	64.4	64.4	64.4	64.4	18.2	18.2		18.2	18.2	
Actuated g/C Ratio	0.68	0.68	0.68	0.68	0.68	0.68	0.19	0.19		0.19	0.19	
v/c Ratio	0.58	0.41	0.07	0.23	0.86	0.01	0.67	0.20		0.24	0.57	
Control Delay	44.5	7.1	1.4	7.7	16.3	1.0	60.9	15.0		40.8	41.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	44.5	7.1	1.4	7.7	16.3	1.0	60.9	15.0		40.8	41.5	
LOS	D	A	A	A	B	A	E	B		D	D	
Approach Delay		8.2			15.9			43.7			41.4	
Approach LOS		A			B			D			D	
Queue Length 50th (m)	3.7	36.2	0.0	5.1	137.4	0.0	20.7	1.7		9.2	28.4	
Queue Length 95th (m)	#25.4	50.5	3.9	12.0	187.1	1.1	#52.1	14.5		24.0	60.0	
Internal Link Dist (m)		3239.9			1457.6			327.5			340.6	
Turn Bay Length (m)	120.0		60.0	120.0		60.0	60.0			60.0		
Base Capacity (vph)	92	2835	1278	436	2944	1320	244	456		335	450	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.46	0.33	0.06	0.18	0.68	0.01	0.49	0.16		0.17	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 94.5			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 16.9		Intersection LOS: B	
Intersection Capacity Utilization 97.7%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 11: Range Road 284 & 114 Ave SE



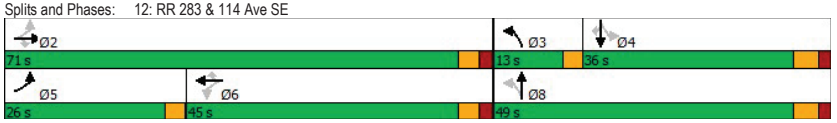
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	297	450	122	18	815	134	291	45	42	59	17	485
Future Volume (vph)	297	450	122	18	815	134	291	45	42	59	17	485
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	120.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.927				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1645	3291	1472	1709	3417	1529	1692	1651	0	1692	1781	1514
Flt Permitted	0.136			0.481			0.633			0.698		
Satd. Flow (perm)	236	3291	1472	865	3417	1529	1128	1651	0	1243	1781	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			128			124		44				400
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			235.1			492.4			2828.0	
Travel Time (s)		6.0			10.6			22.2			127.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	313	474	128	19	858	141	306	47	44	62	18	511
Shared Lane Traffic (%)												
Lane Group Flow (vph)	313	474	128	19	858	141	306	91	0	62	18	511
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	20.0	20.0	20.0	7.0	10.0		10.0	10.0	10.0
Minimum Split (s)	10.0	25.5	25.5	25.5	25.5	25.5	10.0	25.5		25.5	25.5	25.5
Total Split (s)	26.0	71.0	71.0	45.0	45.0	45.0	13.0	49.0		36.0	36.0	36.0
Total Split (%)	21.7%	59.2%	59.2%	37.5%	37.5%	37.5%	10.8%	40.8%		30.0%	30.0%	30.0%
Maximum Green (s)	23.0	65.5	65.5	39.5	39.5	39.5	10.0	43.5		30.5	30.5	30.5
Yellow Time (s)	2.9	3.5	3.5	3.5	3.5	3.5	2.9	3.5		3.5	3.5	3.5
All-Red Time (s)	0.1	2.0	2.0	2.0	2.0	2.0	0.1	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.0	5.5	5.5	5.5	5.5	5.5	3.0	5.5		5.5	5.5	5.5
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min	Min	Min	Min	Min	None	None		None	None	None
Walk Time (s)		8.0	8.0	8.0	8.0	8.0		8.0		8.0	8.0	8.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)		12.0	12.0	12.0	12.0	12.0		12.0		12.0	12.0	12.0
Pedestrian Calls (#/hr)		0	0	0	0	0		0		0	0	0
Act Effct Green (s)	55.0	52.4	52.4	29.3	29.3	29.3	32.8	30.2		16.7	16.7	16.7
Actuated g/C Ratio	0.58	0.56	0.56	0.31	0.31	0.31	0.35	0.32		0.18	0.18	0.18
v/c Ratio	0.71	0.26	0.15	0.07	0.81	0.25	0.67	0.16		0.28	0.06	0.86
Control Delay	29.3	11.7	2.6	26.7	37.5	7.9	34.9	15.4		38.9	34.5	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	29.3	11.7	2.6	26.7	37.5	7.9	34.9	15.4		38.9	34.5	24.3
LOS	C	B	A	C	D	A	C	B		D	C	C
Approach Delay		16.4			33.2			30.4			26.1	
Approach LOS		B			C			C			C	
Queue Length 50th (m)	31.7	20.1	0.0	2.4	74.6	2.1	45.8	6.2		10.1	2.8	18.6
Queue Length 95th (m)	#87.1	39.8	8.6	8.7	118.6	16.7	79.7	18.4		23.4	9.1	66.2
Internal Link Dist (m)		109.5			211.1			468.4			2804.0	
Turn Bay Length (m)	90.0		60.0	120.0		60.0	60.0			60.0		60.0
Base Capacity (vph)	496	2384	1101	377	1492	737	455	817		419	600	775
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.63	0.20	0.12	0.05	0.58	0.19	0.67	0.11		0.15	0.03	0.66

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 94.1
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 26.2 — Intersection LOS: C
Intersection Capacity Utilization 83.0% — 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: 12: RR 283 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	280	77	5	132	4	190	0	19	28	0	105
Future Volume (vph)	31	280	77	5	132	4	190	0	19	28	0	105
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.996			0.988			0.893	
Flt Protected	0.950			0.950				0.957			0.990	
Satd. Flow (prot)	1645	1732	1472	1709	1791	0	0	1684	0	0	1575	0
Flt Permitted	0.950			0.950				0.957			0.990	
Satd. Flow (perm)	1645	1732	1472	1709	1791	0	0	1684	0	0	1575	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1390.9			486.5			451.0			344.1	
Travel Time (s)		62.6			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	33	295	81	5	139	4	200	0	20	29	0	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	295	81	5	143	0	0	220	0	0	140	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	280	77	5	132	4	190	0	19	28	0	105
Future Volume (Veh/h)	31	280	77	5	132	4	190	0	19	28	0	105
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	33	295	81	5	139	4	200	0	20	29	0	111
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	143			376			621	514	295	532	593	141
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	143			376			621	514	295	532	593	141
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			41	100	97	93	100	88
cM capacity (veh/h)	1404			1172			339	447	737	432	403	899

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	33	295	81	5	143	220	140
Volume Left	33	0	0	5	0	200	29
Volume Right	0	0	81	0	4	20	111
cSH	1404	1700	1700	1172	1700	357	734
Volume to Capacity	0.02	0.17	0.05	0.00	0.08	0.62	0.19
Queue Length 95th (m)	0.5	0.0	0.0	0.1	0.0	29.8	5.3
Control Delay (s)	7.6	0.0	0.0	8.1	0.0	30.0	11.1
Lane LOS	A			A		D	B
Approach Delay (s)	0.6			0.3		30.0	11.1
Approach LOS						D	B

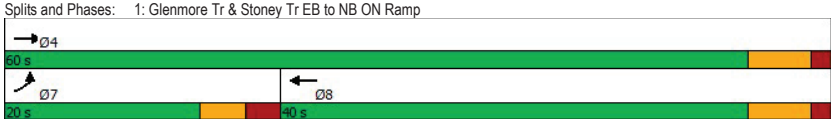
Intersection Summary					
Average Delay	9.2				
Intersection Capacity Utilization	47.1%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	580	1710	2090	0	0	0
Future Volume (vph)	580	1710	2090	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	4365	4328	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1519	4365	4328	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	1506.2		302.6	
Travel Time (s)		36.3	108.4		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	617	1819	2223	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	617	1819	2223	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	2			
Detector Template	Left	Thru	Thru			
Leading Detector (m)	2.0	10.0	10.0			
Trailing Detector (m)	0.0	0.0	0.0			
Detector 1 Position(m)	0.0	0.0	0.0			
Detector 1 Size(m)	2.0	0.6	0.6			
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0			
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Prot	NA	NA			
Protected Phases	7	4	8			
Permitted Phases						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	20.0	60.0	40.0			
Total Split (%)	33.3%	100.0%	66.7%			
Maximum Green (s)	14.0	54.0	34.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	14.0	60.0	34.0			
Actuated g/C Ratio	0.23	1.00	0.57			
v/c Ratio	1.74	0.42	0.91			
Control Delay	365.9	0.3	19.0			
Queue Delay	0.0	0.0	0.0			
Total Delay	365.9	0.3	19.0			
LOS	F	A	B			
Approach Delay		92.9	19.0			
Approach LOS		F	B			

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.74			
Intersection Signal Delay: 57.6		Intersection LOS: E	
Intersection Capacity Utilization 84.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp

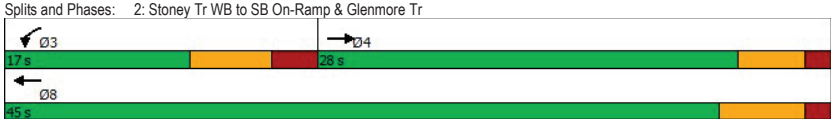


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1688	0	267	3402	0	0
Future Volume (vph)	1688	0	267	3402	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	4365	0	1506	4328	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	4365	0	1506	4328	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	1796	0	284	3619	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1796	0	284	3619	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	2		1	2		
Detector Template	Thru		Left	Thru		
Leading Detector (m)	10.0		2.0	10.0		
Trailing Detector (m)	0.0		0.0	0.0		
Detector 1 Position(m)	0.0		0.0	0.0		
Detector 1 Size(m)	0.6		2.0	0.6		
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0		0.0	0.0		
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	28.0		17.0	45.0		
Total Split (%)	62.2%		37.8%	100.0%		
Maximum Green (s)	23.0		10.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	23.0		10.0	45.0		
Actuated g/C Ratio	0.51		0.22	1.00		
v/c Ratio	0.81		0.85	0.84		
Control Delay	12.9		44.9	2.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	12.9		44.9	2.1		
LOS	B		D	A		
Approach Delay	12.9			5.2		
Approach LOS	B			A		

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 7.6		Intersection LOS: A	
Intersection Capacity Utilization 84.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr

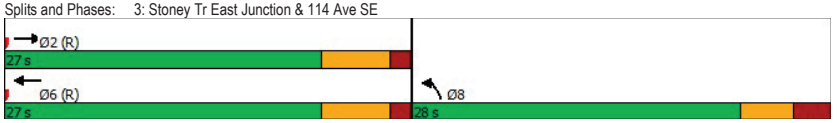


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	487	0	0	783	790	0
Future Volume (vph)	487	0	0	783	790	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	518	0	0	833	840	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	518	0	0	833	840	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	2			2	1	
Detector Template	Thru			Thru	Left	
Leading Detector (m)	30.5			30.5	6.1	
Trailing Detector (m)	0.0			0.0	0.0	
Detector 1 Position(m)	0.0			0.0	0.0	
Detector 1 Size(m)	1.8			1.8	6.1	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	
Detector 2 Position(m)	28.7			28.7		
Detector 2 Size(m)	1.8			1.8		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	23.7			23.7	19.3	
Actuated g/C Ratio	0.43			0.43	0.35	
v/c Ratio	0.38			0.62	0.76	
Control Delay	12.4			15.5	20.3	
Queue Delay	0.0			0.0	0.0	
Total Delay	12.4			15.5	20.3	
LOS	B			B	C	
Approach Delay	12.4			15.5	20.3	
Approach LOS	B			B	C	

Intersection Summary		
Area Type:	Other	
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green		
Natural Cycle: 55		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.76		
Intersection Signal Delay: 16.6		Intersection LOS: B
Intersection Capacity Utilization 55.4%		ICU Level of Service B
Analysis Period (min) 15		

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

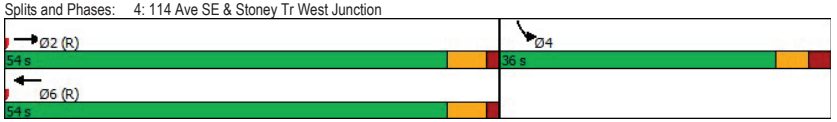


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	695	1278	0	200	0
Future Volume (vph)	0	695	1278	0	200	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	739	1360	0	213	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	739	1360	0	213	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors		2	2		1	
Detector Template		Thru	Thru		Left	
Leading Detector (m)		30.5	30.5		6.1	
Trailing Detector (m)		0.0	0.0		0.0	
Detector 1 Position(m)		0.0	0.0		0.0	
Detector 1 Size(m)		1.8	1.8		6.1	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		54.0	54.0		36.0	
Total Split (%)		60.0%	60.0%		40.0%	
Maximum Green (s)		48.0	48.0		30.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		66.2	66.2		11.8	
Actuated g/C Ratio		0.74	0.74		0.13	
v/c Ratio		0.32	0.59		0.51	
Control Delay		4.7	7.2		40.7	
Queue Delay		0.0	0.0		0.0	
Total Delay		4.7	7.2		40.7	
LOS		A	A		D	
Approach Delay		4.7	7.2		40.7	
Approach LOS		A	A		D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 9.5		Intersection LOS: A	
Intersection Capacity Utilization 55.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

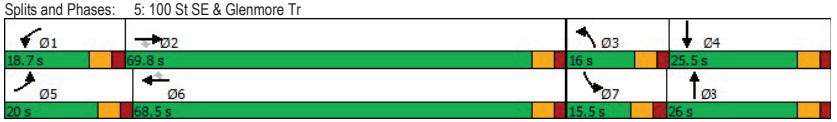


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	1622	360	110	1899	70	170	50	20	20	70	260
Future Volume (vph)	270	1622	360	110	1899	70	170	50	20	20	70	260
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	4479	1395	1601	4601	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	4479	1395	1601	4601	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			383			113			159			277
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		292.3			195.2			437.5			411.5	
Travel Time (s)		13.2			8.8			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	287	1726	383	117	2020	74	181	53	21	21	74	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	1726	383	117	2020	74	181	53	21	21	74	277
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			2			6			Free			Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	20.0	69.8	69.8	18.7	68.5	68.5	16.0	26.0		15.5	25.5	
Total Split (%)	15.4%	53.7%	53.7%	14.4%	52.7%	52.7%	12.3%	20.0%		11.9%	19.6%	
Maximum Green (s)	14.5	64.3	64.3	13.2	63.0	63.0	10.5	20.5		10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0			8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	14.1	58.3	58.3	12.1	56.3	56.3	10.7	18.8	111.6	8.0	12.2	111.6
Actuated g/C Ratio	0.13	0.52	0.52	0.11	0.50	0.50	0.10	0.17	1.00	0.07	0.11	1.00
v/c Ratio	0.75	0.74	0.42	0.68	0.87	0.09	0.64	0.20	0.02	0.20	0.44	0.21
Control Delay	63.1	23.8	3.1	71.7	30.1	1.1	63.8	47.4	0.0	58.9	59.9	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	23.8	3.1	71.7	30.1	1.1	63.8	47.4	0.0	58.9	59.9	0.4
LOS	E	C	A	E	C	A	E	D	A	E	E	A
Approach Delay		25.2			31.3			55.2			15.5	
Approach LOS		C			C			E			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 111.6			
Natural Cycle: 115			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 28.6		Intersection LOS: C	
Intersection Capacity Utilization 71.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 5: 100 St SE & Glenmore Tr

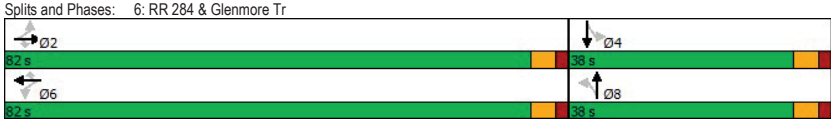


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	1275	308	20	1653	90	56	0	6	20	0	360
Future Volume (vph)	70	1275	308	20	1653	90	56	0	6	20	0	360
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	90.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	2		1	1		1	2		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3051	4519	1407	1692	4863	1514	3283	1514	0	1388	1461	1242
Flt Permitted	0.120			0.184			0.757			0.754		
Satd. Flow (perm)	385	4519	1407	328	4863	1514	2616	1514	0	1102	1461	1242
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			328			96		64				263
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		168.0			251.7			198.3			199.1	
Travel Time (s)		7.6			11.3			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	74	1356	328	21	1759	96	60	0	6	21	0	383
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	1356	328	21	1759	96	60	6	0	21	0	383
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm		Free
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6		6	8			4		Free
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	82.0	82.0	82.0	82.0	82.0	82.0	38.0	38.0		38.0	38.0	
Total Split (%)	68.3%	68.3%	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%		31.7%	31.7%	
Maximum Green (s)	76.5	76.5	76.5	76.5	76.5	76.5	32.5	32.5		32.5	32.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	35.9	35.9	35.9	35.9	35.9	35.9	10.1	10.1		10.1		47.6
Actuated g/C Ratio	0.75	0.75	0.75	0.75	0.75	0.75	0.21	0.21		0.21		1.00
v/c Ratio	0.26	0.40	0.29	0.09	0.48	0.08	0.11	0.02		0.09		0.31
Control Delay	8.0	4.8	1.4	5.7	5.3	1.5	17.9	0.0		18.9		0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	8.0	4.8	1.4	5.7	5.3	1.5	17.9	0.0		18.9		0.6
LOS	A	A	A	A	A	A	B	A		B		A
Approach Delay		4.3			5.1			16.3			1.6	
Approach LOS		A			A			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 47.6			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 4.6		Intersection LOS: A	
Intersection Capacity Utilization 55.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr

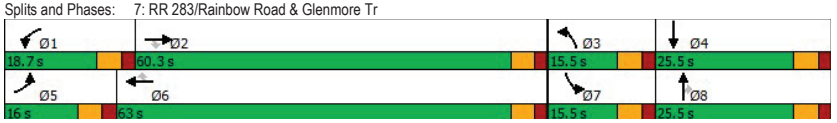


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	484	645	65	1225	48	161	65	16	27	161	377
Future Volume (vph)	182	484	645	65	1225	48	161	65	16	27	161	377
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3380	4642	1445	1615	4642	1559	3078	3484	1420	1742	3484	1559
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3380	4642	1445	1615	4642	1559	3078	3484	1420	1742	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			537			123			123			372
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			613.5			401.7			232.8	
Travel Time (s)		11.2			27.6			18.1			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	194	515	686	69	1303	51	171	69	17	29	171	401
Shared Lane Traffic (%)												
Lane Group Flow (vph)	194	515	686	69	1303	51	171	69	17	29	171	401
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	
Total Split (s)	16.0	60.3	60.3	18.7	63.0	63.0	15.5	25.5	25.5	15.5	25.5	
Total Split (%)	13.3%	50.3%	50.3%	15.6%	52.5%	52.5%	12.9%	21.3%	21.3%	12.9%	21.3%	
Maximum Green (s)	10.5	54.8	54.8	13.2	57.5	57.5	10.0	20.0	20.0	10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	10.4	35.3	35.3	10.7	32.2	32.2	10.1	20.9	20.9	10.1	10.8	85.7
Actuated g/C Ratio	0.12	0.41	0.41	0.12	0.38	0.38	0.12	0.24	0.24	0.12	0.13	1.00
v/c Ratio	0.48	0.27	0.75	0.34	0.75	0.08	0.47	0.08	0.04	0.14	0.39	0.26
Control Delay	41.5	18.0	11.2	42.1	25.9	0.2	42.3	32.4	0.2	39.8	39.0	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	18.0	11.2	42.1	25.9	0.2	42.3	32.4	0.2	39.8	39.0	0.4
LOS	D	B	B	D	C	A	D	C	A	D	D	A
Approach Delay		17.9			25.8			36.9			13.3	
Approach LOS		B			C			D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 85.7			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 21.5		Intersection LOS: C	
Intersection Capacity Utilization 71.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	160	327	36	1158	10	110	0	16	10	0	60
Future Volume (vph)	20	160	327	36	1158	10	110	0	16	10	0	60
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	60.0		60.0	60.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1532	3064	1371	1709	3417	1529	3134	1445	0	1615	1445	0
Flt Permitted	0.184			0.644			0.715			0.746		
Satd. Flow (perm)	297	3064	1371	1158	3417	1529	2359	1445	0	1269	1445	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			348			45		696			45	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1014.3			345.5			188.3			124.6	
Travel Time (s)		45.6			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	21	170	348	38	1232	11	117	0	17	11	0	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	170	348	38	1232	11	117	17	0	11	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5		25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%		42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	27.7	27.7	27.7	27.7	27.7	27.7	10.3	10.3		10.3	10.3	
Actuated g/C Ratio	0.64	0.64	0.64	0.64	0.64	0.64	0.24	0.24		0.24	0.24	
v/c Ratio	0.11	0.09	0.35	0.05	0.56	0.01	0.21	0.02		0.04	0.17	
Control Delay	6.8	5.1	1.9	5.1	7.9	0.1	16.7	0.1		15.7	9.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.8	5.1	1.9	5.1	7.9	0.1	16.7	0.1		15.7	9.4	
LOS	A	A	A	A	A	A	B	A		B	A	
Approach Delay		3.1			7.8			14.6			10.4	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 43.4
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 7.1 — Intersection LOS: A
Intersection Capacity Utilization 51.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: RR 282 & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	30	620	10	10	30	580	680	10	150	10
Future Volume (vph)	10	10	30	620	10	10	30	580	680	10	150	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	2		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.925				0.850		0.992	
Flt Protected		0.990		0.950				0.998			0.997	
Satd. Flow (prot)	0	1549	0	2780	1395	0	0	1778	1514	0	1350	0
Flt Permitted		0.940		0.950				0.978			0.922	
Satd. Flow (perm)	0	1471	0	2780	1395	0	0	1742	1514	0	1249	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			11				604		3	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			3263.9			343.2			388.8	
Travel Time (s)		16.8			293.8			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	11	11	32	660	11	11	32	617	723	11	160	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	660	22	0	0	649	723	0	182	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							2		2	6		
Detector Phase	7	4		3	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5	23.5	25.5	25.5	
Total Split (s)	23.5	23.5		44.0	44.0		82.5	82.5	82.5	82.5	82.5	
Total Split (%)	15.7%	15.7%		29.3%	29.3%		55.0%	55.0%	55.0%	55.0%	55.0%	
Maximum Green (s)	18.0	18.0		38.5	38.5		77.0	77.0	77.0	77.0	77.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5	5.5		5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		0.0		33.2	50.1			52.0	52.0		52.0	
Actuated g/C Ratio		0.00		0.29	0.44			0.45	0.45		0.45	
v/c Ratio		1.69		0.82	0.04			0.82	0.71		0.32	
Control Delay		431.0		51.3	15.1			38.6	8.7		23.2	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		431.0		51.3	15.1			38.6	8.7		23.2	
LOS		F		D	B			D	A		C	
Approach Delay		431.0			50.1			22.9			23.2	
Approach LOS		F			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 114.6			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.69			
Intersection Signal Delay: 40.6		Intersection LOS: D	
Intersection Capacity Utilization 74.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int

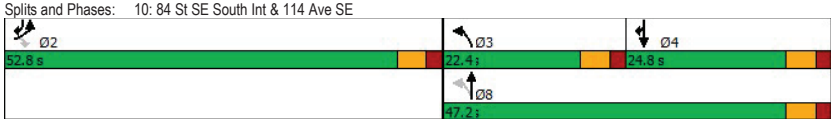


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1240	110	350	50	30	770
Future Volume (vph)	1240	110	350	50	30	770
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3283	1514	1506	1585	1406	2104
Flt Permitted	0.950		0.568			
Satd. Flow (perm)	3283	1514	900	1585	1406	2104
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		58				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	1319	117	372	53	32	819
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1319	117	372	53	32	819
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	2.0	2.0	2.0	10.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	2.0	2.0	0.6	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)				9.4	9.4	
Detector 2 Size(m)				0.6	0.6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	2		3	8	4	4 2

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases		2	8			
Detector Phase	2	2	3	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	15.5	24.5	24.5	
Total Split (s)	52.8	52.8	22.4	47.2	24.8	
Total Split (%)	52.8%	52.8%	22.4%	47.2%	24.8%	
Maximum Green (s)	47.3	47.3	16.9	41.7	19.3	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	
Act Effct Green (s)	43.0	43.0	40.3	40.3	18.5	67.1
Actuated g/C Ratio	0.46	0.46	0.43	0.43	0.20	0.71
v/c Ratio	0.88	0.16	0.76	0.08	0.12	0.55
Control Delay	31.7	8.8	34.2	18.0	34.6	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	8.8	34.2	18.0	34.6	8.1
LOS	C	A	C	B	C	A
Approach Delay	29.9			32.2	9.1	
Approach LOS	C			C	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 94.5			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 72.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE

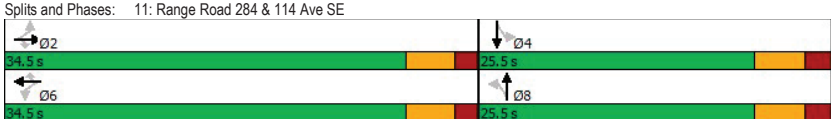


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	517	51	33	464	73	52	100	37	112	63	24
Future Volume (vph)	63	517	51	33	464	73	52	100	37	112	63	24
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.960			0.958	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1692	1781	1514	1615	1701	1445	1692	1710	0	1692	1707	0
Flt Permitted	0.442			0.397			0.697			0.665		
Satd. Flow (perm)	787	1781	1514	675	1701	1445	1242	1710	0	1185	1707	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			54			78		33			26	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		3263.9			1481.6			351.5			364.6	
Travel Time (s)		146.9			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	67	550	54	35	494	78	55	106	39	119	67	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	550	54	35	494	78	55	145	0	119	93	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5		25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%		42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	None	None	None	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	26.4	26.4	26.4	26.4	26.4	26.4	11.4	11.4		11.4	11.4	
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.60	0.60	0.26	0.26		0.26	0.26	
v/c Ratio	0.14	0.52	0.06	0.09	0.49	0.09	0.17	0.31		0.39	0.20	
Control Delay	7.6	10.2	2.6	7.2	9.8	2.4	15.2	13.4		18.8	11.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	7.6	10.2	2.6	7.2	9.8	2.4	15.2	13.4		18.8	11.9	
LOS	A	B	A	A	A	A	B	B		B	B	
Approach Delay		9.3			8.7			13.9			15.8	
Approach LOS		A			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 44.3			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 79.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 11: Range Road 284 & 114 Ave SE

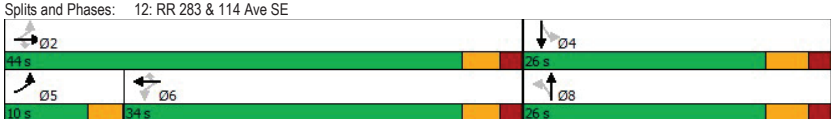


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	272	113	31	339	56	90	17	10	132	116	110
Future Volume (vph)	141	272	113	31	339	56	90	17	10	132	116	110
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.943			0.927	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1692	1781	1514	1615	1701	1445	1692	1680	0	1692	1651	0
Flt Permitted	0.424			0.583			0.572			0.738		
Satd. Flow (perm)	755	1781	1514	991	1701	1445	1019	1680	0	1315	1651	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			120			86		11			69	
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			235.1			492.4			2828.0	
Travel Time (s)		6.0			10.6			22.2			127.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	150	289	120	33	361	60	96	18	11	140	123	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	150	289	120	33	361	60	96	29	0	140	240	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	10.0	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	10.0	44.0	44.0	34.0	34.0	34.0	26.0	26.0		26.0	26.0	
Total Split (%)	14.3%	62.9%	62.9%	48.6%	48.6%	48.6%	37.1%	37.1%		37.1%	37.1%	
Maximum Green (s)	7.0	38.5	38.5	28.5	28.5	28.5	20.5	20.5		20.5	20.5	
Yellow Time (s)	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	0.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)		8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	31.5	29.0	29.0	21.3	21.3	21.3	12.2	12.2		12.2	12.2	
Actuated g/C Ratio	0.60	0.55	0.55	0.41	0.41	0.41	0.23	0.23		0.23	0.23	
v/c Ratio	0.26	0.29	0.13	0.08	0.52	0.09	0.41	0.07		0.46	0.55	
Control Delay	6.1	7.5	2.0	12.1	16.5	2.4	24.1	13.4		24.1	18.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.1	7.5	2.0	12.1	16.5	2.4	24.1	13.4		24.1	18.7	
LOS	A	A	A	B	B	A	C	B		C	B	
Approach Delay		5.9			14.3			21.7			20.7	
Approach LOS		A			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 52.4			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 73.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 12: RR 283 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	90	13	13	269	12	52	0	6	6	21	18
Future Volume (vph)	22	90	13	13	269	12	52	0	6	6	21	18
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.994			0.987			0.945	
Flt Protected		0.991			0.998			0.957			0.994	
Satd. Flow (prot)	0	1741	0	0	1687	0	0	1683	0	0	1673	0
Flt Permitted		0.991			0.998			0.957			0.994	
Satd. Flow (perm)	0	1741	0	0	1687	0	0	1683	0	0	1673	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1390.9			486.5			451.0			344.1	
Travel Time (s)		62.6			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	23	96	14	14	286	13	55	0	6	6	22	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	313	0	0	61	0	0	47	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	90	13	13	269	12	52	0	6	6	21	18
Future Volume (Veh/h)	22	90	13	13	269	12	52	0	6	6	21	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	23	96	14	14	286	13	55	0	6	6	22	19
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	299			110			500	476	103	476	476	292
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	299			110			500	476	103	476	476	292
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			87	100	99	99	95	97
cM capacity (veh/h)	1245			1432			438	470	944	481	469	740

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	133	313	61	47
Volume Left	23	14	55	6
Volume Right	14	13	6	19
cSH	1245	1432	463	553
Volume to Capacity	0.02	0.01	0.13	0.09
Queue Length 95th (m)	0.4	0.2	3.4	2.1
Control Delay (s)	1.5	0.4	14.0	12.1
Lane LOS	A	A	B	B
Approach Delay (s)	1.5	0.4	14.0	12.1
Approach LOS			B	B

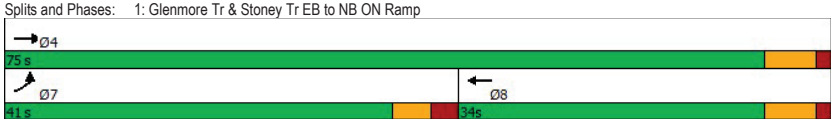
Intersection Summary					
Average Delay	3.2				
Intersection Capacity Utilization	33.8%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1250	2072	1793	0	0	0
Future Volume (vph)	1250	2072	1793	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	4479	4519	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1559	4479	4519	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	1506.2		302.6	
Travel Time (s)		36.3	108.4		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1316	2181	1887	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1316	2181	1887	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	2			
Detector Template	Left	Thru	Thru			
Leading Detector (m)	2.0	10.0	10.0			
Trailing Detector (m)	0.0	0.0	0.0			
Detector 1 Position(m)	0.0	0.0	0.0			
Detector 1 Size(m)	2.0	0.6	0.6			
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0			
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Prot	NA	NA			
Protected Phases	7	4	8			
Permitted Phases						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	41.0	75.0	34.0			
Total Split (%)	54.7%	100.0%	45.3%			
Maximum Green (s)	35.0	69.0	28.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	35.0	75.0	28.0			
Actuated g/C Ratio	0.47	1.00	0.37			
v/c Ratio	1.81	0.49	1.12			
Control Delay	391.0	0.4	86.9			
Queue Delay	0.0	0.0	0.0			
Total Delay	391.0	0.4	86.9			
LOS	F	A	F			
Approach Delay		147.4	86.9			
Approach LOS		F	F			

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.81			
Intersection Signal Delay: 126.2		Intersection LOS: F	
Intersection Capacity Utilization 124.6%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp

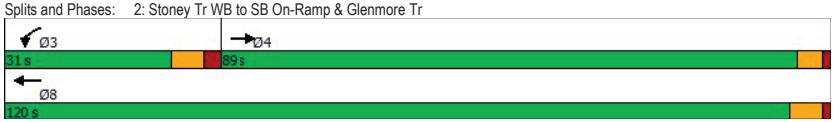


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	3038	0	955	1176	0	0
Future Volume (vph)	3038	0	955	1176	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	4479	0	1573	4519	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	4479	0	1573	4519	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	3198	0	1005	1238	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3198	0	1005	1238	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	2		1	2		
Detector Template	Thru		Left	Thru		
Leading Detector (m)	10.0		2.0	10.0		
Trailing Detector (m)	0.0		0.0	0.0		
Detector 1 Position(m)	0.0		0.0	0.0		
Detector 1 Size(m)	0.6		2.0	0.6		
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0		0.0	0.0		
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	89.0		31.0	120.0		
Total Split (%)	74.2%		25.8%	100.0%		
Maximum Green (s)	84.0		24.0	114.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	84.0		24.0	120.0		
Actuated g/C Ratio	0.70		0.20	1.00		
v/c Ratio	1.02		3.20	0.27		
Control Delay	40.1		1016.1	0.2		
Queue Delay	0.0		0.0	0.0		
Total Delay	40.1		1016.1	0.2		
LOS	D		F	A		
Approach Delay	40.1			455.4		
Approach LOS	D			F		

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 3.20			
Intersection Signal Delay: 211.3		Intersection LOS: F	
Intersection Capacity Utilization 124.6%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr

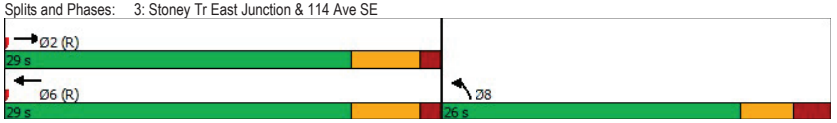


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	919	0	0	996	80	0
Future Volume (vph)	919	0	0	996	80	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	967	0	0	1048	84	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	967	0	0	1048	84	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	2			2	1	
Detector Template	Thru			Thru	Left	
Leading Detector (m)	30.5			30.5	6.1	
Trailing Detector (m)	0.0			0.0	0.0	
Detector 1 Position(m)	0.0			0.0	0.0	
Detector 1 Size(m)	1.8			1.8	6.1	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	
Detector 2 Position(m)	28.7			28.7		
Detector 2 Size(m)	1.8			1.8		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	29.0			29.0	26.0	
Total Split (%)	52.7%			52.7%	47.3%	
Maximum Green (s)	23.0			23.0	20.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	41.8			41.8	10.0	
Actuated g/C Ratio	0.76			0.76	0.18	
v/c Ratio	0.39			0.44	0.14	
Control Delay	5.2			5.6	19.7	
Queue Delay	0.0			0.0	0.0	
Total Delay	5.2			5.6	19.7	
LOS	A			A	B	
Approach Delay	5.2			5.6	19.7	
Approach LOS	A			A	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 5.9		Intersection LOS: A	
Intersection Capacity Utilization 65.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1525	377	0	404	0
Future Volume (vph)	0	1525	377	0	404	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	1605	397	0	425	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1605	397	0	425	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors		2	2		1	
Detector Template		Thru	Thru		Left	
Leading Detector (m)		30.5	30.5		6.1	
Trailing Detector (m)		0.0	0.0		0.0	
Detector 1 Position(m)		0.0	0.0		0.0	
Detector 1 Size(m)		1.8	1.8		6.1	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		47.0	47.0		28.0	
Total Split (%)		62.7%	62.7%		37.3%	
Maximum Green (s)		41.0	41.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		47.9	47.9		15.1	
Actuated g/C Ratio		0.64	0.64		0.20	
v/c Ratio		0.77	0.20		0.66	
Control Delay		13.8	6.4		32.3	
Queue Delay		0.0	0.0		0.0	
Total Delay		13.8	6.4		32.3	
LOS		B	A		C	
Approach Delay		13.8	6.4		32.3	
Approach LOS		B	A		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 15.8		Intersection LOS: B	
Intersection Capacity Utilization 65.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

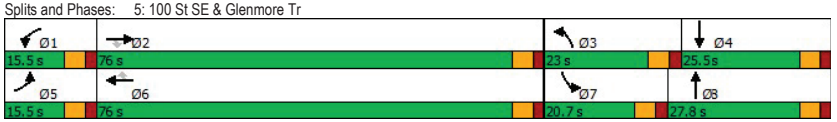


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	2141	170	30	1573	20	360	70	90	80	40	380
Future Volume (vph)	130	2141	170	30	1573	20	360	70	90	80	40	380
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	4642	1445	1692	4863	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	4642	1445	1692	4863	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179			105			148			292
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		292.3			195.2			437.5			411.5	
Travel Time (s)		13.2			8.8			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	137	2254	179	32	1656	21	379	74	95	84	42	400
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	2254	179	32	1656	21	379	74	95	84	42	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			2			6			Free			Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	15.5	76.0	76.0	15.5	76.0	76.0	23.0	27.8		20.7	25.5	
Total Split (%)	11.1%	54.3%	54.3%	11.1%	54.3%	54.3%	16.4%	19.9%		14.8%	18.2%	
Maximum Green (s)	10.0	70.5	70.5	10.0	70.5	70.5	17.5	22.3		15.2	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0			8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	9.6	63.1	63.1	8.4	55.2	55.2	18.6	17.3	113.0	11.7	11.3	113.0
Actuated g/C Ratio	0.08	0.56	0.56	0.07	0.49	0.49	0.16	0.15	1.00	0.10	0.10	1.00
v/c Ratio	0.52	0.87	0.20	0.25	0.70	0.03	0.78	0.30	0.07	0.54	0.26	0.29
Control Delay	62.6	27.6	2.8	62.2	23.6	0.1	61.9	55.8	0.1	67.3	59.2	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	27.6	2.8	62.2	23.6	0.1	61.9	55.8	0.1	67.3	59.2	0.6
LOS	E	C	A	E	C	A	E	E	A	E	E	A
Approach Delay		27.7			24.1			50.3			15.9	
Approach LOS		C			C			D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 113			
Natural Cycle: 135			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 27.7		Intersection LOS: C	
Intersection Capacity Utilization 79.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 5: 100 St SE & Glenmore Tr

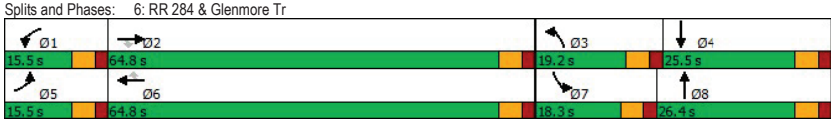


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	2043	98	4	1324	40	229	0	26	80	0	70
Future Volume (vph)	180	2043	98	4	1324	40	229	0	26	80	0	70
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	90.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	2		1	1		1	2		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3347	4958	1544	1661	4773	1486	3283	1514	0	1709	1799	1529
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3347	4958	1544	1661	4773	1486	3283	1514	0	1709	1799	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			118			118		193				339
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		168.0			251.7			198.3			199.1	
Travel Time (s)		7.6			11.3			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	189	2151	103	4	1394	42	241	0	27	84	0	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	2151	103	4	1394	42	241	27	0	84	0	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			2			6						Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	15.5	64.8	64.8	15.5	64.8	64.8	19.2	26.4		18.3	25.5	
Total Split (%)	12.4%	51.8%	51.8%	12.4%	51.8%	51.8%	15.4%	21.1%		14.6%	20.4%	
Maximum Green (s)	10.0	59.3	59.3	10.0	59.3	59.3	13.7	20.9		12.8	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0			8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	10.7	48.7	48.7	10.7	34.2	34.2	16.4	10.7		11.7		79.1
Actuated g/C Ratio	0.14	0.62	0.62	0.14	0.43	0.43	0.21	0.14		0.15		1.00
v/c Ratio	0.42	0.70	0.10	0.02	0.67	0.06	0.35	0.07		0.33		0.05
Control Delay	40.3	14.0	2.2	42.0	19.5	0.1	29.7	0.4		41.5		0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	40.3	14.0	2.2	42.0	19.5	0.1	29.7	0.4		41.5		0.1
LOS	D	B	A	D	B	A	C	A		D		A
Approach Delay		15.6			19.0			26.8			22.1	
Approach LOS		B			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 79.1			
Natural Cycle: 105			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 17.7		Intersection LOS: B	
Intersection Capacity Utilization 76.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr

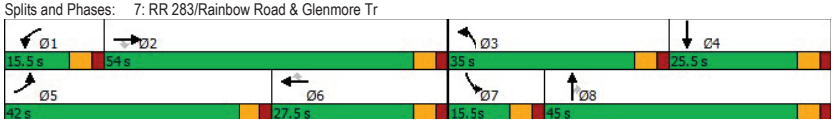


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	796	1133	260	17	628	62	548	225	52	44	99	202
Future Volume (vph)	796	1133	260	17	628	62	548	225	52	44	99	202
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	4642	1445	1630	4685	1459	2758	2843	1272	1742	3484	1559
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	4642	1445	1630	4685	1459	2758	2843	1272	1742	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			274			206			159			252
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			613.5			401.7			232.8	
Travel Time (s)		11.2			27.6			18.1			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	838	1193	274	18	661	65	577	237	55	46	104	213
Shared Lane Traffic (%)												
Lane Group Flow (vph)	838	1193	274	18	661	65	577	237	55	46	104	213
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	
Total Split (s)	42.0	54.0	54.0	15.5	27.5	27.5	35.0	45.0	45.0	15.5	25.5	
Total Split (%)	32.3%	41.5%	41.5%	11.9%	21.2%	21.2%	26.9%	34.6%	34.6%	11.9%	19.6%	
Maximum Green (s)	36.5	48.5	48.5	10.0	22.0	22.0	29.5	39.5	39.5	10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	35.2	56.0	56.0	10.0	21.3	21.3	28.2	31.9	31.9	10.0	10.3	117.0
Actuated g/C Ratio	0.30	0.48	0.48	0.09	0.18	0.18	0.24	0.27	0.27	0.09	0.09	1.00
v/c Ratio	0.89	0.54	0.33	0.13	0.78	0.15	0.87	0.31	0.12	0.31	0.34	0.14
Control Delay	52.0	24.0	3.9	53.6	53.2	0.7	57.8	36.9	0.5	57.9	54.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	24.0	3.9	53.6	53.2	0.7	57.8	36.9	0.5	57.9	54.6	0.2
LOS	D	C	A	D	D	A	E	D	A	E	D	A
Approach Delay		31.8			48.6			48.5			23.1	
Approach LOS		C			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 117			
Natural Cycle: 115			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 37.3		Intersection LOS: D	
Intersection Capacity Utilization 82.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr

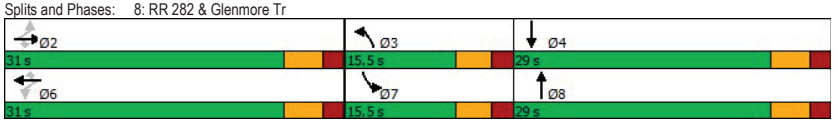


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	952	167	15	309	10	348	10	28	10	10	30
Future Volume (vph)	60	952	167	15	309	10	348	10	28	10	10	30
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	60.0		60.0	60.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.891			0.888	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	3484	1559	1676	3353	1500	3134	1515	0	1615	1510	0
Flt Permitted	0.555			0.193			0.950			0.950		
Satd. Flow (perm)	1018	3484	1559	341	3353	1500	3134	1515	0	1615	1510	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			176			116		29			32	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1014.3			345.5			188.3			124.6	
Travel Time (s)		45.6			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	63	1002	176	16	325	11	366	11	29	11	11	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	1002	176	16	325	11	366	40	0	11	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6		6						
Detector Phase	2	2	2	6	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	15.5	29.0		15.5	29.0	
Total Split (%)	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	20.5%	38.4%		20.5%	38.4%	
Maximum Green (s)	25.5	25.5	25.5	25.5	25.5	25.5	10.0	23.5		10.0	23.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0		8.0			8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0			0	
Act Effct Green (s)	22.6	22.6	22.6	22.6	22.6	22.6	10.4	12.9		10.4	10.4	
Actuated g/C Ratio	0.46	0.46	0.46	0.46	0.46	0.46	0.21	0.26		0.21	0.21	
v/c Ratio	0.14	0.63	0.22	0.10	0.21	0.01	0.55	0.10		0.03	0.13	
Control Delay	11.1	13.7	3.2	12.7	9.9	0.0	24.4	10.6		21.0	12.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	11.1	13.7	3.2	12.7	9.9	0.0	24.4	10.6		21.0	12.4	
LOS	B	B	A	B	A	A	C	B		C	B	
Approach Delay		12.1			9.7			23.0			14.1	
Approach LOS		B			A			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75.5			
Actuated Cycle Length: 49.4			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 74.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: RR 282 & Glenmore Tr

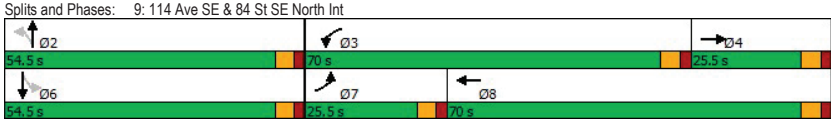


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	20	823	10	10	20	150	617	20	650	10
Future Volume (vph)	10	10	20	823	10	10	20	150	617	20	650	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	2		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934			0.925				0.850		0.998	
Flt Protected		0.987		0.950				0.994			0.999	
Satd. Flow (prot)	0	1568	0	3134	1573	0	0	1675	1432	0	1776	0
Flt Permitted		0.930		0.950				0.893			0.988	
Satd. Flow (perm)	0	1477	0	3134	1573	0	0	1505	1432	0	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			11				649		1	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			3263.9			343.2			388.8	
Travel Time (s)		16.8			293.8			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	11	11	21	866	11	11	21	158	649	21	684	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	866	22	0	0	179	649	0	716	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	Free	Perm	NA	
Protected Phases	7	4		3	8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							2		Free	6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5		25.5	25.5		25.5	25.5		25.5	25.5	
Total Split (s)	25.5	25.5		70.0	70.0		54.5	54.5		54.5	54.5	
Total Split (%)	17.0%	17.0%		46.7%	46.7%		36.3%	36.3%		36.3%	36.3%	
Maximum Green (s)	20.0	20.0		64.5	64.5		49.0	49.0		49.0	49.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		0.0		38.3	57.3			50.6	119.2		50.6	
Actuated g/C Ratio		0.00		0.32	0.48			0.42	1.00		0.42	
v/c Ratio		2.05		0.86	0.03			0.28	0.45		0.96	
Control Delay		620.3		48.0	9.0			28.7	1.0		62.0	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		620.3		48.0	9.0			28.7	1.0		62.0	
LOS		F		D	A			C	A		E	
Approach Delay		620.3			47.0			7.0			62.0	
Approach LOS		F			D			A			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 119.2			
Natural Cycle: 120			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 2.05			
Intersection Signal Delay: 47.9		Intersection LOS: D	
Intersection Capacity Utilization 90.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	767	390	110	20	130	1363
Future Volume (vph)	767	390	110	20	130	1363
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3106	1432	1725	1816	1799	2691
Flt Permitted	0.950		0.669			
Satd. Flow (perm)	3106	1432	1215	1816	1799	2691
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		411				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	807	411	116	21	137	1435
Shared Lane Traffic (%)						
Lane Group Flow (vph)	807	411	116	21	137	1435
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	2.0	2.0	2.0	10.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	2.0	2.0	0.6	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)				9.4	9.4	
Detector 2 Size(m)				0.6	0.6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Perm	Perm	NA	NA	pt+ov
Protected Phases	2			8	4	4 2

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	7.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	44.0	44.0	36.0	36.0	36.0	
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%	
Maximum Green (s)	38.5	38.5	30.5	30.5	30.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	
Act Effct Green (s)	28.1	28.1	17.6	17.6	17.6	57.2
Actuated g/C Ratio	0.49	0.49	0.31	0.31	0.31	1.00
v/c Ratio	0.53	0.45	0.31	0.04	0.25	0.53
Control Delay	11.6	2.9	19.6	16.4	17.8	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.6	2.9	19.6	16.4	17.8	0.8
LOS	B	A	B	B	B	A
Approach Delay	8.7			19.1	2.2	
Approach LOS	A			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 57.2			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 5.7		Intersection LOS: A	
Intersection Capacity Utilization 64.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE

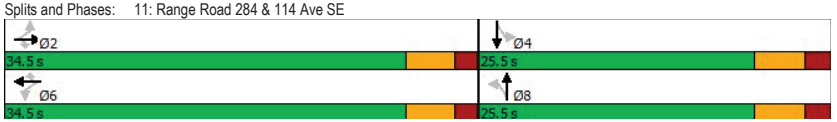


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	409	47	74	603	86	62	44	45	85	88	68
Future Volume (vph)	32	409	47	74	603	86	62	44	45	85	88	68
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.924			0.935	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1645	1732	1472	1709	1799	1529	1692	1646	0	1692	1666	0
Flt Permitted	0.339			0.499			0.653			0.697		
Satd. Flow (perm)	587	1732	1472	898	1799	1529	1163	1646	0	1242	1666	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			49			91		47			70	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		3263.9			1481.6			351.5			364.6	
Travel Time (s)		146.9			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	34	431	49	78	635	91	65	46	47	89	93	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	431	49	78	635	91	65	93	0	89	165	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5		25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%		42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	26.8	26.8	26.8	26.8	26.8	26.8	10.6	10.6		10.6	10.6	
Actuated g/C Ratio	0.61	0.61	0.61	0.61	0.61	0.61	0.24	0.24		0.24	0.24	
v/c Ratio	0.10	0.41	0.05	0.14	0.58	0.09	0.23	0.21		0.30	0.36	
Control Delay	6.6	8.1	2.3	6.7	10.3	2.0	17.1	10.2		17.9	12.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.6	8.1	2.3	6.7	10.3	2.0	17.1	10.2		17.9	12.1	
LOS	A	A	A	A	B	A	B	B		B	B	
Approach Delay		7.5			9.0			13.0			14.1	
Approach LOS		A			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 44			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 9.7		Intersection LOS: A	
Intersection Capacity Utilization 85.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 11: Range Road 284 & 114 Ave SE

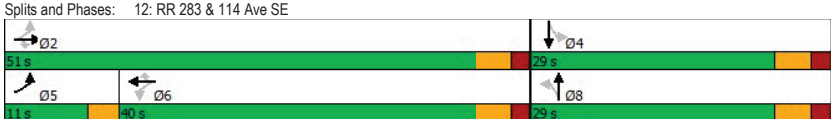


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	231	86	15	353	83	81	114	27	70	38	171
Future Volume (vph)	145	231	86	15	353	83	81	114	27	70	38	171
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.972			0.877	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1645	1732	1472	1709	1799	1529	1692	1732	0	1692	1562	0
Flt Permitted	0.413			0.608			0.609			0.663		
Satd. Flow (perm)	715	1732	1472	1094	1799	1529	1085	1732	0	1181	1562	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			87		15			180	
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			235.1			492.4			2828.0	
Travel Time (s)		6.0			10.6			22.2			127.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	153	243	91	16	372	87	85	120	28	74	40	180
Shared Lane Traffic (%)												
Lane Group Flow (vph)	153	243	91	16	372	87	85	148	0	74	220	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	10.0	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	11.0	51.0	51.0	40.0	40.0	40.0	29.0	29.0		29.0	29.0	
Total Split (%)	13.8%	63.8%	63.8%	50.0%	50.0%	50.0%	36.3%	36.3%		36.3%	36.3%	
Maximum Green (s)	8.0	45.5	45.5	34.5	34.5	34.5	23.5	23.5		23.5	23.5	
Yellow Time (s)	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	0.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)		8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	31.9	29.4	29.4	21.1	21.1	21.1	11.4	11.4		11.4	11.4	
Actuated g/C Ratio	0.61	0.57	0.57	0.41	0.41	0.41	0.22	0.22		0.22	0.22	
v/c Ratio	0.26	0.25	0.10	0.04	0.51	0.13	0.36	0.38		0.29	0.46	
Control Delay	5.7	6.6	1.9	11.5	16.0	3.9	23.4	20.1		21.6	8.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.7	6.6	1.9	11.5	16.0	3.9	23.4	20.1		21.6	8.9	
LOS	A	A	A	B	B	A	C	C		C	A	
Approach Delay		5.4			13.6			21.3			12.1	
Approach LOS		A			B			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 52			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 11.8		Intersection LOS: B	
Intersection Capacity Utilization 72.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 12: RR 283 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	197	32	3	114	4	54	51	10	19	23	37
Future Volume (vph)	8	197	32	3	114	4	54	51	10	19	23	37
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.996			0.988			0.937	
Flt Protected		0.998			0.999			0.977			0.988	
Satd. Flow (prot)	0	1697	0	0	1790	0	0	1720	0	0	1649	0
Flt Permitted		0.998			0.999			0.977			0.988	
Satd. Flow (perm)	0	1697	0	0	1790	0	0	1720	0	0	1649	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1390.9			486.5			451.0			344.1	
Travel Time (s)		62.6			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	8	207	34	3	120	4	57	54	11	20	24	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	249	0	0	127	0	0	122	0	0	83	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	197	32	3	114	4	54	51	10	19	23	37
Future Volume (Veh/h)	8	197	32	3	114	4	54	51	10	19	23	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	8	207	34	3	120	4	57	54	11	20	24	39
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	124			241			419	370	224	406	385	122
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	124			241			419	370	224	406	385	122
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			89	90	99	96	96	96
cM capacity (veh/h)	1426			1314			496	550	808	499	540	921

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	249	127	122	83
Volume Left	8	3	57	20
Volume Right	34	4	11	39
cSH	1426	1314	538	654
Volume to Capacity	0.01	0.00	0.23	0.13
Queue Length 95th (m)	0.1	0.1	6.6	3.3
Control Delay (s)	0.3	0.2	13.6	11.3
Lane LOS	A	A	B	B
Approach Delay (s)	0.3	0.2	13.6	11.3
Approach LOS			B	B

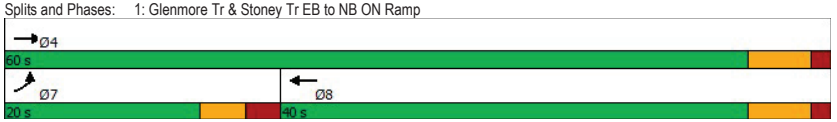
Intersection Summary				
Average Delay	4.6			
Intersection Capacity Utilization	35.1%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	580	1741	2056	0	0	0
Future Volume (vph)	580	1741	2056	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1519	4365	4328	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1519	4365	4328	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	1506.2		302.6	
Travel Time (s)		36.3	108.4		21.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	17%	18%	18%	2%	2%
Adj. Flow (vph)	617	1852	2187	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	617	1852	2187	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	2			
Detector Template	Left	Thru	Thru			
Leading Detector (m)	2.0	10.0	10.0			
Trailing Detector (m)	0.0	0.0	0.0			
Detector 1 Position(m)	0.0	0.0	0.0			
Detector 1 Size(m)	2.0	0.6	0.6			
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0			
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Prot	NA	NA			
Protected Phases	7	4	8			
Permitted Phases						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	20.0	60.0	40.0			
Total Split (%)	33.3%	100.0%	66.7%			
Maximum Green (s)	14.0	54.0	34.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	14.2	60.0	33.8			
Actuated g/C Ratio	0.24	1.00	0.56			
v/c Ratio	1.72	0.42	0.90			
Control Delay	359.5	0.3	18.1			
Queue Delay	0.0	0.0	0.0			
Total Delay	359.5	0.3	18.1			
LOS	F	A	B			
Approach Delay		90.1	18.1			
Approach LOS		F	B			

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.72			
Intersection Signal Delay: 56.3		Intersection LOS: E	
Intersection Capacity Utilization 83.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp

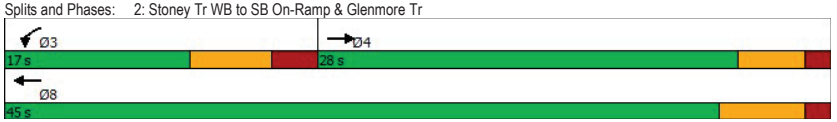


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1701	0	248	3362	0	0
Future Volume (vph)	1701	0	248	3362	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	4365	0	1506	4328	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	4365	0	1506	4328	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	17%	2%	18%	18%	2%	2%
Adj. Flow (vph)	1810	0	264	3577	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1810	0	264	3577	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	2		1	2		
Detector Template	Thru		Left	Thru		
Leading Detector (m)	10.0		2.0	10.0		
Trailing Detector (m)	0.0		0.0	0.0		
Detector 1 Position(m)	0.0		0.0	0.0		
Detector 1 Size(m)	0.6		2.0	0.6		
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0		0.0	0.0		
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	28.0		17.0	45.0		
Total Split (%)	62.2%		37.8%	100.0%		
Maximum Green (s)	23.0		10.0	39.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	23.0		10.0	45.0		
Actuated g/C Ratio	0.51		0.22	1.00		
v/c Ratio	0.81		0.79	0.83		
Control Delay	13.2		37.9	1.9		
Queue Delay	0.0		0.0	0.0		
Total Delay	13.2		37.9	1.9		
LOS	B		D	A		
Approach Delay	13.2			4.4		
Approach LOS	B			A		

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 7.2		Intersection LOS: A	
Intersection Capacity Utilization 83.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr

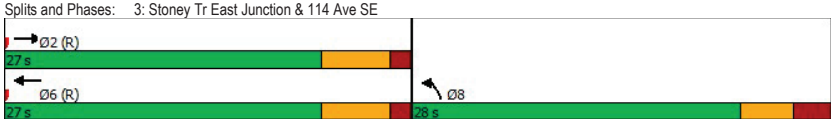


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	493	0	0	718	790	0
Future Volume (vph)	493	0	0	718	790	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3173	0	0	3118	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	3173	0	0	3118	3163	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	12%	12%	14%	14%	9%	9%
Adj. Flow (vph)	524	0	0	764	840	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	524	0	0	764	840	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	2			2	1	
Detector Template	Thru			Thru	Left	
Leading Detector (m)	30.5			30.5	6.1	
Trailing Detector (m)	0.0			0.0	0.0	
Detector 1 Position(m)	0.0			0.0	0.0	
Detector 1 Size(m)	1.8			1.8	6.1	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	
Detector 2 Position(m)	28.7			28.7		
Detector 2 Size(m)	1.8			1.8		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	27.0			27.0	28.0	
Total Split (%)	49.1%			49.1%	50.9%	
Maximum Green (s)	21.0			21.0	22.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	23.7			23.7	19.3	
Actuated g/C Ratio	0.43			0.43	0.35	
v/c Ratio	0.38			0.57	0.76	
Control Delay	12.5			14.6	20.3	
Queue Delay	0.0			0.0	0.0	
Total Delay	12.5			14.6	20.3	
LOS	B			B	C	
Approach Delay	12.5			14.6	20.3	
Approach LOS	B			B	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 54.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE

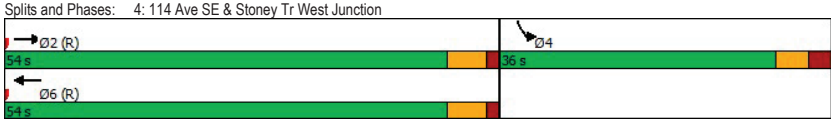


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	700	1272	0	200	0
Future Volume (vph)	0	700	1272	0	200	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3173	3118	0	3163	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3173	3118	0	3163	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	12%	14%	14%	9%	9%
Adj. Flow (vph)	0	745	1353	0	213	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	745	1353	0	213	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors		2	2		1	
Detector Template		Thru	Thru		Left	
Leading Detector (m)		30.5	30.5		6.1	
Trailing Detector (m)		0.0	0.0		0.0	
Detector 1 Position(m)		0.0	0.0		0.0	
Detector 1 Size(m)		1.8	1.8		6.1	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		54.0	54.0		36.0	
Total Split (%)		60.0%	60.0%		40.0%	
Maximum Green (s)		48.0	48.0		30.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		66.2	66.2		11.8	
Actuated g/C Ratio		0.74	0.74		0.13	
v/c Ratio		0.32	0.59		0.51	
Control Delay		4.7	7.1		40.7	
Queue Delay		0.0	0.0		0.0	
Total Delay		4.7	7.1		40.7	
LOS		A	A		D	
Approach Delay		4.7	7.1		40.7	
Approach LOS		A	A		D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 9.4		Intersection LOS: A	
Intersection Capacity Utilization 54.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

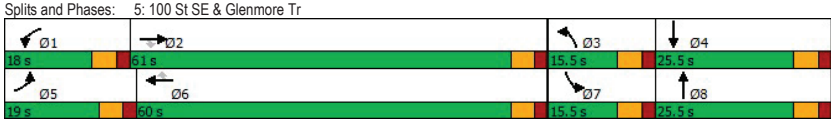


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	1636	360	110	1850	70	170	50	20	20	70	260
Future Volume (vph)	270	1636	360	110	1850	70	170	50	20	20	70	260
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3024	4479	1395	1601	4601	1432	2922	1585	1347	1481	1559	1325
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3024	4479	1395	1601	4601	1432	2922	1585	1347	1481	1559	1325
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			383			123			173			277
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		292.3			195.2			437.5			411.5	
Travel Time (s)		13.2			8.8			31.5			29.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	14%	14%	14%	11%	11%	11%	18%	18%	18%	20%	20%	20%
Adj. Flow (vph)	287	1740	383	117	1968	74	181	53	21	21	74	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	1740	383	117	1968	74	181	53	21	21	74	277
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			2			6			Free			Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	19.0	61.0	61.0	18.0	60.0	60.0	15.5	25.5		15.5	25.5	
Total Split (%)	15.8%	50.8%	50.8%	15.0%	50.0%	50.0%	12.9%	21.3%		12.9%	21.3%	
Maximum Green (s)	13.5	55.5	55.5	12.5	54.5	54.5	10.0	20.0		10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0			8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	13.2	52.5	52.5	11.5	50.9	50.9	10.3	18.1	104.3	7.8	11.8	104.3
Actuated g/C Ratio	0.13	0.50	0.50	0.11	0.49	0.49	0.10	0.17	1.00	0.07	0.11	1.00
v/c Ratio	0.75	0.77	0.43	0.66	0.88	0.10	0.63	0.19	0.02	0.19	0.42	0.21
Control Delay	59.8	24.9	3.3	66.7	30.3	0.8	59.0	43.2	0.0	53.5	54.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	24.9	3.3	66.7	30.3	0.8	59.0	43.2	0.0	53.5	54.7	0.4
LOS	E	C	A	E	C	A	E	D	A	D	D	A
Approach Delay		25.6			31.3			50.9			14.2	
Approach LOS		C			C			D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 104.3			
Natural Cycle: 105			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 28.4		Intersection LOS: C	
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 5: 100 St SE & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	1274	323	17	1615	90	45	0	4	20	0	360
Future Volume (vph)	70	1274	323	17	1615	90	45	0	4	20	0	360
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	90.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	2		1	1		1	2		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3051	4519	1407	1692	4863	1514	3283	1514	0	1388	1461	1242
Flt Permitted	0.121			0.189								
Satd. Flow (perm)	389	4519	1407	337	4863	1514	3456	1514	0	1461	1461	1242
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			344			96		45				376
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		168.0			251.7			198.3			199.1	
Travel Time (s)		7.6			11.3			14.3			14.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	13%	13%	13%	5%	5%	5%	5%	5%	5%	28%	28%	28%
Adj. Flow (vph)	74	1355	344	18	1718	96	48	0	4	21	0	383
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	1355	344	18	1718	96	48	4	0	21	0	383
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm		Free
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6		6	8			4		Free
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5		25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%		42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	36.7	36.7	36.7	36.7	36.7	36.7	10.1	10.1		10.1		44.1
Actuated g/C Ratio	0.83	0.83	0.83	0.83	0.83	0.83	0.23	0.23		0.23		1.00
v/c Ratio	0.23	0.36	0.28	0.06	0.42	0.08	0.06	0.01		0.06		0.31
Control Delay	6.8	3.7	1.5	4.9	4.0	1.6	15.4	0.0		16.1		0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	6.8	3.7	1.5	4.9	4.0	1.6	15.4	0.0		16.1		0.6
LOS	A	A	A	A	A	A	B	A		B		A
Approach Delay		3.4			3.9			14.2			1.5	
Approach LOS		A			A			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 44.1			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay: 3.5		Intersection LOS: A	
Intersection Capacity Utilization 55.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr

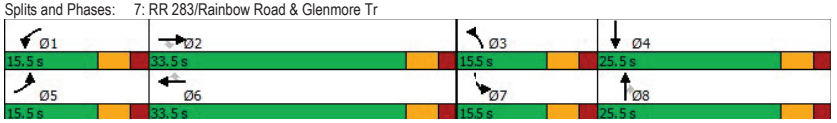


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	466	660	63	1207	45	139	54	16	24	167	376
Future Volume (vph)	182	466	660	63	1207	45	139	54	16	24	167	376
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3380	4642	1445	1615	4642	1559	3078	3484	1420	1742	3484	1559
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3380	4642	1445	1615	4642	1559	3078	3484	1420	1742	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			592			164			164			400
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			313.2			401.7			232.8	
Travel Time (s)		11.2			14.1			18.1			16.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	12%	2%	12%	2%	2%	2%
Adj. Flow (vph)	194	496	702	67	1284	48	148	57	17	26	178	400
Shared Lane Traffic (%)												
Lane Group Flow (vph)	194	496	702	67	1284	48	148	57	17	26	178	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	
Total Split (s)	15.5	33.5	33.5	15.5	33.5	33.5	15.5	25.5	25.5	15.5	25.5	
Total Split (%)	17.2%	37.2%	37.2%	17.2%	37.2%	37.2%	17.2%	28.3%	28.3%	17.2%	28.3%	
Maximum Green (s)	10.0	28.0	28.0	10.0	28.0	28.0	10.0	20.0	20.0	10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	10.0	30.0	30.0	10.0	26.7	26.7	10.0	19.9	19.9	10.0	10.5	79.2
Actuated g/C Ratio	0.13	0.38	0.38	0.13	0.34	0.34	0.13	0.25	0.25	0.13	0.13	1.00
v/c Ratio	0.45	0.28	0.77	0.33	0.82	0.08	0.38	0.07	0.04	0.12	0.39	0.26
Control Delay	36.4	18.8	11.1	37.3	29.3	0.2	35.5	27.5	0.1	33.1	34.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	18.8	11.1	37.3	29.3	0.2	35.5	27.5	0.1	33.1	34.5	0.4
LOS	D	B	B	D	C	A	D	C	A	C	C	A
Approach Delay		17.4			28.7			30.8			11.9	
Approach LOS		B			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 79.2			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 21.6		Intersection LOS: C	
Intersection Capacity Utilization 72.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	158	308	34	1154	10	91	0	14	10	0	60
Future Volume (vph)	20	158	308	34	1154	10	91	0	14	10	0	60
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	60.0		60.0	60.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1532	3064	1371	1709	3417	1529	3134	1445	0	1615	1445	0
Flt Permitted	0.197			0.646			0.769			0.769		
Satd. Flow (perm)	318	3064	1371	1162	3417	1529	2537	1445	0	1308	1445	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			328			45		700			45	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1314.6			345.5			188.3			124.6	
Travel Time (s)		59.2			15.5			13.6			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	16%	16%	16%	4%	4%	4%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	21	168	328	36	1228	11	97	0	15	11	0	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	168	328	36	1228	11	97	15	0	11	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5		25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%		42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	29.3	29.3	29.3	29.3	29.3	29.3	10.4	10.4		10.4	10.4	
Actuated g/C Ratio	0.73	0.73	0.73	0.73	0.73	0.73	0.26	0.26		0.26	0.26	
v/c Ratio	0.09	0.08	0.30	0.04	0.49	0.01	0.15	0.02		0.03	0.16	
Control Delay	6.3	4.5	1.6	4.9	6.4	0.1	15.3	0.0		15.6	9.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.3	4.5	1.6	4.9	6.4	0.1	15.3	0.0		15.6	9.3	
LOS	A	A	A	A	A	A	B	A		B	A	
Approach Delay		2.8			6.3			13.3			10.3	
Approach LOS		A			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 40.3			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 5.9		Intersection LOS: A	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: RR 282 & Glenmore Tr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	30	502	10	10	30	580	738	10	150	10
Future Volume (vph)	10	10	30	502	10	10	30	580	738	10	150	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	2		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.925				0.850		0.992	
Flt Protected		0.990		0.950				0.998			0.997	
Satd. Flow (prot)	0	1549	0	2780	1395	0	0	1778	1514	0	1350	0
Flt Permitted		0.942		0.950				0.979			0.958	
Satd. Flow (perm)	0	1474	0	2780	1395	0	0	1744	1514	0	1298	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			11				656		3	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			3263.9			343.2			388.8	
Travel Time (s)		16.8			293.8			24.7			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	10%	10%	24%	24%	24%	5%	5%	5%	37%	37%	37%
Adj. Flow (vph)	11	11	32	534	11	11	32	617	785	11	160	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	534	22	0	0	649	785	0	182	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	7	4		3	8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							2		2	6		
Detector Phase	7	4		3	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	23.5	23.5		25.5	25.5		23.5	23.5	23.5	25.5	25.5	
Total Split (s)	23.5	23.5		44.0	44.0		82.5	82.5	82.5	82.5	82.5	
Total Split (%)	15.7%	15.7%		29.3%	29.3%		55.0%	55.0%	55.0%	55.0%	55.0%	
Maximum Green (s)	18.0	18.0		38.5	38.5		77.0	77.0	77.0	77.0	77.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5	5.5		5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		Min	Min	Min	Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		0.0		26.6	43.6			48.3	48.3		48.3	
Actuated g/C Ratio		0.00		0.25	0.42			0.46	0.46		0.46	
v/c Ratio		1.69		0.76	0.04			0.81	0.75		0.30	
Control Delay		431.0		48.3	15.2			35.1	9.2		21.1	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		431.0		48.3	15.2			35.1	9.2		21.1	
LOS		F		D	B			D	A		C	
Approach Delay		431.0			47.0			20.9			21.1	
Approach LOS		F			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 104.9			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.69			
Intersection Signal Delay: 37.4		Intersection LOS: D	
Intersection Capacity Utilization 78.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int

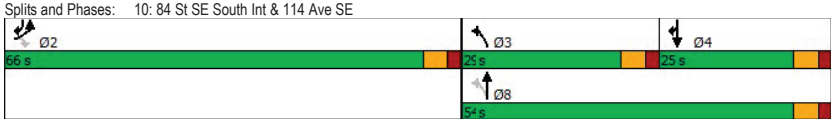


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1298	110	350	50	30	652
Future Volume (vph)	1298	110	350	50	30	652
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3283	1514	1506	1585	1406	2104
Flt Permitted	0.950		0.567			
Satd. Flow (perm)	3283	1514	899	1585	1406	2104
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		49				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	18%	18%	33%	33%
Adj. Flow (vph)	1381	117	372	53	32	694
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1381	117	372	53	32	694
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	2.0	2.0	2.0	10.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	2.0	2.0	0.6	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)				9.4	9.4	
Detector 2 Size(m)				0.6	0.6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	2		3	8	4	4 2

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases		2	8			
Detector Phase	2	2	3	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	10.0	10.0	
Minimum Split (s)	25.5	25.5	15.5	24.5	24.5	
Total Split (s)	66.0	66.0	29.0	54.0	25.0	
Total Split (%)	55.0%	55.0%	24.2%	45.0%	20.8%	
Maximum Green (s)	60.5	60.5	23.5	48.5	19.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	
Act Effct Green (s)	51.2	51.2	45.1	45.1	18.3	75.2
Actuated g/C Ratio	0.48	0.48	0.42	0.42	0.17	0.70
v/c Ratio	0.88	0.16	0.75	0.08	0.13	0.47
Control Delay	33.5	10.3	37.1	21.8	43.9	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	10.3	37.1	21.8	43.9	8.6
LOS	C	B	D	C	D	A
Approach Delay	31.7			35.2	10.1	
Approach LOS	C			D	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 107.7			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 26.3		Intersection LOS: C	
Intersection Capacity Utilization 73.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE

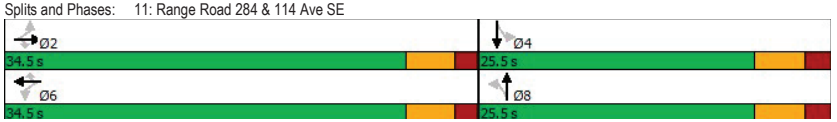


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	570	56	35	356	73	42	100	35	128	71	24
Future Volume (vph)	63	570	56	35	356	73	42	100	35	128	71	24
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.961			0.962	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1692	1781	1514	1615	1701	1445	1692	1712	0	1692	1714	0
Flt Permitted	0.536			0.351			0.691			0.666		
Satd. Flow (perm)	955	1781	1514	597	1701	1445	1231	1712	0	1186	1714	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			60			78		31			26	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		3263.9			1481.6			351.5			364.6	
Travel Time (s)		146.9			66.7			25.3			26.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	67	606	60	37	379	78	45	106	37	136	76	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	606	60	37	379	78	45	143	0	136	102	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5		25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%		42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	None	None	None	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	27.2	27.2	27.2	27.2	27.2	27.2	11.9	11.9		11.9	11.9	
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.60	0.60	0.26	0.26		0.26	0.26	
v/c Ratio	0.12	0.57	0.06	0.10	0.37	0.09	0.14	0.30		0.44	0.22	
Control Delay	7.5	11.4	2.6	7.8	8.8	2.5	15.0	13.6		19.9	12.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	7.5	11.4	2.6	7.8	8.8	2.5	15.0	13.6		19.9	12.4	
LOS	A	B	A	A	A	A	B	B		B	B	
Approach Delay		10.3			7.7			13.9			16.7	
Approach LOS		B			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.6			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 82.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 11: Range Road 284 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	293	130	34	291	51	65	15	7	148	133	111
Future Volume (vph)	137	293	130	34	291	51	65	15	7	148	133	111
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.954			0.932	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1692	1781	1514	1615	1701	1445	1692	1700	0	1692	1660	0
Flt Permitted	0.472			0.571			0.542			0.742		
Satd. Flow (perm)	841	1781	1514	971	1701	1445	966	1700	0	1322	1660	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			138			86		7			63	
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			235.1			492.4			2828.0	
Travel Time (s)		6.0			10.6			22.2			127.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	146	312	138	36	310	54	69	16	7	157	141	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	312	138	36	310	54	69	23	0	157	259	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	10.0	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	10.0	42.0	42.0	32.0	32.0	32.0	28.0	28.0		28.0	28.0	
Total Split (%)	14.3%	60.0%	60.0%	45.7%	45.7%	45.7%	40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	7.0	36.5	36.5	26.5	26.5	26.5	22.5	22.5		22.5	22.5	
Yellow Time (s)	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	0.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)		8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	30.8	28.3	28.3	20.7	20.7	20.7	12.6	12.6		12.6	12.6	
Actuated g/C Ratio	0.59	0.54	0.54	0.40	0.40	0.40	0.24	0.24		0.24	0.24	
v/c Ratio	0.24	0.32	0.16	0.09	0.46	0.09	0.30	0.06		0.49	0.58	
Control Delay	6.3	8.1	2.1	12.9	16.1	2.1	20.6	13.3		23.8	19.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.3	8.1	2.1	12.9	16.1	2.1	20.6	13.3		23.8	19.3	
LOS	A	A	A	B	B	A	C	B		C	B	
Approach Delay		6.3			13.9			18.8			20.9	
Approach LOS		A			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 52.1			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 12: RR 283 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	80	15	15	281	12	36	0	4	6	24	13
Future Volume (vph)	20	80	15	15	281	12	36	0	4	6	24	13
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.982			0.995			0.987			0.959	
Flt Protected		0.991			0.998			0.957			0.994	
Satd. Flow (prot)	0	1734	0	0	1689	0	0	1683	0	0	1698	0
Flt Permitted		0.991			0.998			0.957			0.994	
Satd. Flow (perm)	0	1734	0	0	1689	0	0	1683	0	0	1698	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1390.9			486.5			451.0			344.1	
Travel Time (s)		62.6			21.9			32.5			24.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	5%	5%	10%	10%	10%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	21	85	16	16	299	13	38	0	4	6	26	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	0	0	328	0	0	42	0	0	46	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	80	15	15	281	12	36	0	4	6	24	13
Future Volume (Veh/h)	20	80	15	15	281	12	36	0	4	6	24	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	21	85	16	16	299	13	38	0	4	6	26	14
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	312			101			500	479	93	476	480	306
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	312			101			500	479	93	476	480	306
tC, single (s)	4.1			4.2			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			91	100	100	99	94	98
cM capacity (veh/h)	1232			1443			438	468	956	481	467	727

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	122	328	42	46
Volume Left	21	16	38	6
Volume Right	16	13	4	14
cSH	1232	1443	462	526
Volume to Capacity	0.02	0.01	0.09	0.09
Queue Length 95th (m)	0.4	0.3	2.3	2.2
Control Delay (s)	1.5	0.5	13.6	12.5
Lane LOS	A	A	B	B
Approach Delay (s)	1.5	0.5	13.6	12.5
Approach LOS			B	B

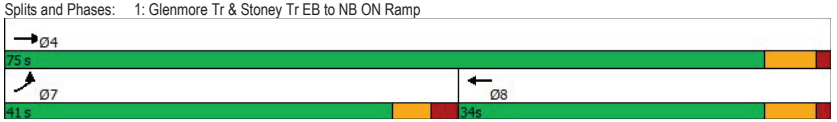
Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	33.7%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1250	2028	1758	0	0	0
Future Volume (vph)	1250	2028	1758	0	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	248.0			200.0	0.0	0.0
Storage Lanes	1			0	0	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1559	4479	4519	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1559	4479	4519	0	0	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	50		50	
Link Distance (m)		705.9	1506.2		302.6	
Travel Time (s)		36.3	108.4		21.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	1316	2135	1851	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1316	2135	1851	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.7	3.7		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	2			
Detector Template	Left	Thru	Thru			
Leading Detector (m)	2.0	10.0	10.0			
Trailing Detector (m)	0.0	0.0	0.0			
Detector 1 Position(m)	0.0	0.0	0.0			
Detector 1 Size(m)	2.0	0.6	0.6			
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0	0.0			
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Prot	NA	NA			
Protected Phases	7	4	8			
Permitted Phases						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	7	4	8			
Switch Phase						
Minimum Initial (s)	10.0	20.0	20.0			
Minimum Split (s)	16.0	26.0	26.0			
Total Split (s)	41.0	75.0	34.0			
Total Split (%)	54.7%	100.0%	45.3%			
Maximum Green (s)	35.0	69.0	28.0			
Yellow Time (s)	3.5	4.5	4.5			
All-Red Time (s)	2.5	1.5	1.5			
Lost Time Adjust (s)	0.0	0.0	0.0			
Total Lost Time (s)	6.0	6.0	6.0			
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0			
Recall Mode	None	None	None			
Act Effct Green (s)	35.0	75.0	28.0			
Actuated g/C Ratio	0.47	1.00	0.37			
v/c Ratio	1.81	0.48	1.10			
Control Delay	391.0	0.4	78.5			
Queue Delay	0.0	0.0	0.0			
Total Delay	391.0	0.4	78.5			
LOS	F	A	E			
Approach Delay		149.3	78.5			
Approach LOS		F	E			

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.81			
Intersection Signal Delay: 124.6		Intersection LOS: F	
Intersection Capacity Utilization 122.8%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 1: Glenmore Tr & Stoney Tr EB to NB ON Ramp

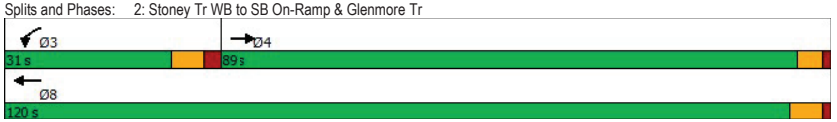


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	3015	0	931	1177	0	0
Future Volume (vph)	3015	0	931	1177	0	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)		0.0	190.0		0.0	0.0
Storage Lanes		0	1		0	0
Taper Length (m)			25.0		25.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	4479	0	1573	4519	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	4479	0	1573	4519	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			70	50	
Link Distance (m)	583.7			705.9	340.9	
Travel Time (s)	30.0			36.3	24.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	14%	14%	13%	13%	2%	2%
Adj. Flow (vph)	3174	0	980	1239	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3174	0	980	1239	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	2		1	2		
Detector Template	Thru		Left	Thru		
Leading Detector (m)	10.0		2.0	10.0		
Trailing Detector (m)	0.0		0.0	0.0		
Detector 1 Position(m)	0.0		0.0	0.0		
Detector 1 Size(m)	0.6		2.0	0.6		
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0		0.0	0.0		
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		Prot	NA		
Protected Phases	4		3	8		
Permitted Phases						

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	4		3	8		
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0		
Minimum Split (s)	25.0		17.0	26.0		
Total Split (s)	89.0		31.0	120.0		
Total Split (%)	74.2%		25.8%	100.0%		
Maximum Green (s)	84.0		24.0	114.0		
Yellow Time (s)	3.5		4.5	4.5		
All-Red Time (s)	1.5		2.5	1.5		
Lost Time Adjust (s)	0.0		0.0	0.0		
Total Lost Time (s)	5.0		7.0	6.0		
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0		
Recall Mode	None		None	None		
Act Effct Green (s)	84.0		24.0	120.0		
Actuated g/C Ratio	0.70		0.20	1.00		
v/c Ratio	1.01		3.12	0.27		
Control Delay	37.8		980.8	0.2		
Queue Delay	0.0		0.0	0.0		
Total Delay	37.8		980.8	0.2		
LOS	D		F	A		
Approach Delay	37.8			433.2		
Approach LOS	D			F		

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2: and 6:, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 3.12			
Intersection Signal Delay: 200.5		Intersection LOS: F	
Intersection Capacity Utilization 122.8%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 2: Stoney Tr WB to SB On-Ramp & Glenmore Tr

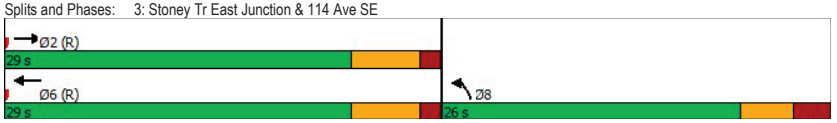


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	895	0	0	1019	80	0
Future Volume (vph)	895	0	0	1019	80	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	3261	0	0	3145	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	3261	0	0	3145	3222	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (k/h)	70			60	60	
Link Distance (m)	494.8			357.0	393.2	
Travel Time (s)	25.4			21.4	23.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	942	0	0	1073	84	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	942	0	0	1073	84	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.4	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	2			2	1	
Detector Template	Thru			Thru	Left	
Leading Detector (m)	30.5			30.5	6.1	
Trailing Detector (m)	0.0			0.0	0.0	
Detector 1 Position(m)	0.0			0.0	0.0	
Detector 1 Size(m)	1.8			1.8	6.1	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	
Detector 2 Position(m)	28.7			28.7		
Detector 2 Size(m)	1.8			1.8		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	
Protected Phases	2			6	8	
Permitted Phases						
Detector Phase	2			6	8	
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	26.0			26.0	26.0	
Total Split (s)	29.0			29.0	26.0	
Total Split (%)	52.7%			52.7%	47.3%	
Maximum Green (s)	23.0			23.0	20.0	
Yellow Time (s)	4.5			4.5	3.5	
All-Red Time (s)	1.5			1.5	2.5	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	6.0			6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	C-Min			C-Min	None	
Act Effct Green (s)	41.8			41.8	10.0	
Actuated g/C Ratio	0.76			0.76	0.18	
v/c Ratio	0.38			0.45	0.14	
Control Delay	5.1			5.7	19.7	
Queue Delay	0.0			0.0	0.0	
Total Delay	5.1			5.7	19.7	
LOS	A			A	B	
Approach Delay	5.1			5.7	19.7	
Approach LOS	A			A	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay: 6.0		Intersection LOS: A	
Intersection Capacity Utilization 64.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Stoney Tr East Junction & 114 Ave SE



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1517	380	0	385	0
Future Volume (vph)	0	1517	380	0	385	0
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	0
Taper Length (m)	25.0				25.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3261	3145	0	3222	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3261	3145	0	3222	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (k/h)		70	70		60	
Link Distance (m)		222.7	494.8		483.0	
Travel Time (s)		11.5	25.4		29.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	13%	13%	7%	7%
Adj. Flow (vph)	0	1597	400	0	405	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1597	400	0	405	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.4	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors		2	2		1	
Detector Template		Thru	Thru		Left	
Leading Detector (m)		30.5	30.5		6.1	
Trailing Detector (m)		0.0	0.0		0.0	
Detector 1 Position(m)		0.0	0.0		0.0	
Detector 1 Size(m)		1.8	1.8		6.1	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(m)		28.7	28.7			
Detector 2 Size(m)		1.8	1.8			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	
Minimum Split (s)		26.5	26.5		28.0	
Total Split (s)		47.0	47.0		28.0	
Total Split (%)		62.7%	62.7%		37.3%	
Maximum Green (s)		41.0	41.0		22.0	
Yellow Time (s)		4.5	4.5		3.5	
All-Red Time (s)		1.5	1.5		2.5	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		8.0	8.0		8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		48.4	48.4		14.6	
Actuated g/C Ratio		0.65	0.65		0.19	
v/c Ratio		0.76	0.20		0.64	
Control Delay		13.1	6.2		32.4	
Queue Delay		0.0	0.0		0.0	
Total Delay		13.1	6.2		32.4	
LOS		B	A		C	
Approach Delay		13.1	6.2		32.4	
Approach LOS		B	A		C	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 64.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: 114 Ave SE & Stoney Tr West Junction

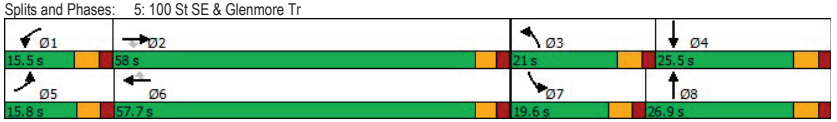


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	2006	170	30	1525	20	360	70	90	80	40	380
Future Volume (vph)	130	2006	170	30	1525	20	360	70	90	80	40	380
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	160.0		160.0	120.0		150.0	100.0		20.0	80.0		80.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	4642	1445	1692	4863	1514	2947	1599	1359	1519	1599	1359
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	4642	1445	1692	4863	1514	2947	1599	1359	1519	1599	1359
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179			123			173			346
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		292.3			195.2			437.5			411.5	
Travel Time (s)		13.2			8.8			31.5			29.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	5%	5%	5%	17%	17%	17%	17%	17%	17%
Adj. Flow (vph)	137	2112	179	32	1605	21	379	74	95	84	42	400
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	2112	179	32	1605	21	379	74	95	84	42	400
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			2			6			Free			Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	15.8	58.0	58.0	15.5	57.7	57.7	21.0	26.9		19.6	25.5	
Total Split (%)	13.2%	48.3%	48.3%	12.9%	48.1%	48.1%	17.5%	22.4%		16.3%	21.3%	
Maximum Green (s)	10.3	52.5	52.5	10.0	52.2	52.2	15.5	21.4		14.1	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0			8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	9.2	53.5	53.5	8.0	46.4	46.4	17.8	13.6	99.2	10.7	10.8	99.2
Actuated g/C Ratio	0.09	0.54	0.54	0.08	0.47	0.47	0.18	0.14	1.00	0.11	0.11	1.00
v/c Ratio	0.47	0.84	0.21	0.24	0.71	0.03	0.72	0.34	0.07	0.52	0.24	0.29
Control Delay	51.2	26.2	3.2	51.5	23.8	0.1	50.1	48.2	0.1	56.3	48.5	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.2	26.2	3.2	51.5	23.8	0.1	50.1	48.2	0.1	56.3	48.5	0.6
LOS	D	C	A	D	C	A	D	D	A	E	D	A
Approach Delay		26.0			24.0			41.2			13.3	
Approach LOS		C			C			D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 99.2			
Natural Cycle: 125			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 25.7		Intersection LOS: C	
Intersection Capacity Utilization 76.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 5: 100 St SE & Glenmore Tr

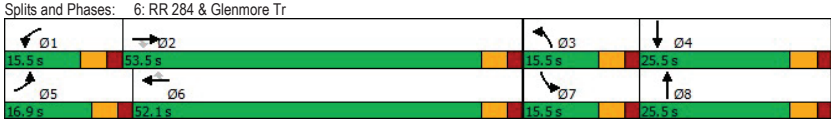


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	1933	73	3	1269	40	236	0	23	80	0	70
Future Volume (vph)	180	1933	73	3	1269	40	236	0	23	80	0	70
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	90.0		60.0	60.0		0.0	60.0		60.0
Storage Lanes	2		1	1		1	2		0	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3347	4958	1544	1661	4773	1486	3283	1514	0	1709	1799	1529
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3347	4958	1544	1661	4773	1486	3283	1514	0	1709	1799	1529
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			134			134		214				389
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		168.0			251.7			198.3			199.1	
Travel Time (s)		7.6			11.3			14.3			14.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	7%	7%	7%	5%	5%	5%	4%	4%	4%
Adj. Flow (vph)	189	2035	77	3	1336	42	248	0	24	84	0	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	2035	77	3	1336	42	248	24	0	84	0	74
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			2			6						Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	16.9	53.5	53.5	15.5	52.1	52.1	15.5	25.5		15.5	25.5	
Total Split (%)	15.4%	48.6%	48.6%	14.1%	47.4%	47.4%	14.1%	23.2%		14.1%	23.2%	
Maximum Green (s)	11.4	48.0	48.0	10.0	46.6	46.6	10.0	20.0		10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0			8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	11.0	43.3	43.3	10.6	28.8	28.8	15.4	10.6		10.6		72.6
Actuated g/C Ratio	0.15	0.60	0.60	0.15	0.40	0.40	0.21	0.15		0.15		1.00
v/c Ratio	0.37	0.69	0.08	0.01	0.71	0.06	0.36	0.06		0.34		0.05
Control Delay	34.3	13.7	0.5	36.7	20.8	0.2	26.7	0.3		38.5		0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	34.3	13.7	0.5	36.7	20.8	0.2	26.7	0.3		38.5		0.1
LOS	C	B	A	D	C	A	C	A		D		A
Approach Delay		15.0			20.2			24.4			20.5	
Approach LOS		B			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 72.6			
Natural Cycle: 105			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 17.6		Intersection LOS: B	
Intersection Capacity Utilization 74.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: RR 284 & Glenmore Tr

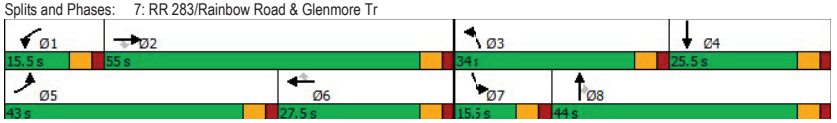


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	794	1098	184	16	601	58	520	233	48	43	93	201
Future Volume (vph)	794	1098	184	16	601	58	520	233	48	43	93	201
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		120.0	120.0		120.0	60.0		30.0	60.0		60.0
Storage Lanes	2		1	1		1	2		1	1		1
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3134	4642	1445	1630	4685	1459	2758	2843	1272	1742	3484	1559
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3134	4642	1445	1630	4685	1459	2758	2843	1272	1742	3484	1559
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			194			206			159			252
Link Speed (k/h)		80			80			80			50	
Link Distance (m)		248.8			313.2			401.7			232.8	
Travel Time (s)		11.2			14.1			18.1			16.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	25%	25%	25%	2%	2%	2%
Adj. Flow (vph)	836	1156	194	17	633	61	547	245	51	45	98	212
Shared Lane Traffic (%)												
Lane Group Flow (vph)	836	1156	194	17	633	61	547	245	51	45	98	212
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	25.5	15.5	25.5	
Total Split (s)	43.0	55.0	55.0	15.5	27.5	27.5	34.0	44.0	44.0	15.5	25.5	
Total Split (%)	33.1%	42.3%	42.3%	11.9%	21.2%	21.2%	26.2%	33.8%	33.8%	11.9%	19.6%	
Maximum Green (s)	37.5	49.5	49.5	10.0	22.0	22.0	28.5	38.5	38.5	10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	
Walk Time (s)		8.0	8.0		8.0	8.0		8.0	8.0		8.0	
Flash Dont Walk (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	
Act Effct Green (s)	35.0	55.7	55.7	10.0	21.1	21.1	26.8	30.5	30.5	10.0	10.2	115.2
Actuated g/C Ratio	0.30	0.48	0.48	0.09	0.18	0.18	0.23	0.26	0.26	0.09	0.09	1.00
v/c Ratio	0.88	0.52	0.24	0.12	0.74	0.14	0.85	0.33	0.11	0.30	0.32	0.14
Control Delay	50.1	22.9	3.9	53.2	51.0	0.7	56.6	37.6	0.5	57.1	53.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	22.9	3.9	53.2	51.0	0.7	56.6	37.6	0.5	57.1	53.8	0.2
LOS	D	C	A	D	D	A	E	D	A	E	D	A
Approach Delay		31.6			46.8			47.7			22.2	
Approach LOS		C			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 115.2			
Natural Cycle: 115			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 36.7		Intersection LOS: D	
Intersection Capacity Utilization 81.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 7: RR 283/Rainbow Road & Glenmore Tr

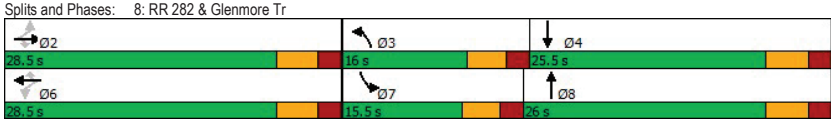


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	947	132	15	308	10	317	10	25	10	10	30
Future Volume (vph)	60	947	132	15	308	10	317	10	25	10	10	30
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	60.0		60.0	60.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.895			0.888	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1742	3484	1559	1676	3353	1500	3134	1522	0	1615	1510	0
Flt Permitted	0.556			0.191			0.950			0.950		
Satd. Flow (perm)	1020	3484	1559	337	3353	1500	3134	1522	0	1615	1510	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			139			125		26			32	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1314.6			345.5			188.3			124.6	
Travel Time (s)		59.2			15.5			13.6			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	63	997	139	16	324	11	334	11	26	11	11	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	997	139	16	324	11	334	37	0	11	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			7.4			7.4	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6		6						
Detector Phase	2	2	2	6	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	15.5	25.5		15.5	25.5	
Total Split (s)	28.5	28.5	28.5	28.5	28.5	28.5	16.0	26.0		15.5	25.5	
Total Split (%)	40.7%	40.7%	40.7%	40.7%	40.7%	40.7%	22.9%	37.1%		22.1%	36.4%	
Maximum Green (s)	23.0	23.0	23.0	23.0	23.0	23.0	10.5	20.5		10.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0		8.0			8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0			0	
Act Effct Green (s)	21.7	21.7	21.7	21.7	21.7	21.7	10.5	13.0		10.4	10.4	
Actuated g/C Ratio	0.45	0.45	0.45	0.45	0.45	0.45	0.22	0.27		0.21	0.21	
v/c Ratio	0.14	0.64	0.18	0.11	0.22	0.01	0.49	0.09		0.03	0.12	
Control Delay	11.6	14.4	3.6	13.5	10.4	0.0	21.8	10.3		20.2	12.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	11.6	14.4	3.6	13.5	10.4	0.0	21.8	10.3		20.2	12.0	
LOS	B	B	A	B	B	A	C	B		C	B	
Approach Delay		13.0			10.2			20.6			13.7	
Approach LOS		B			B			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 48.6			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: RR 282 & Glenmore Tr

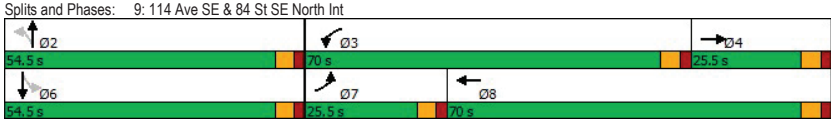


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	20	870	10	10	20	150	628	20	650	10
Future Volume (vph)	10	10	20	870	10	10	20	150	628	20	650	10
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0		0.0	120.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	2		0	0		1	0		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934			0.925				0.850		0.998	
Flt Protected		0.987		0.950				0.994			0.999	
Satd. Flow (prot)	0	1568	0	3134	1573	0	0	1675	1432	0	1776	0
Flt Permitted		0.930		0.950				0.886			0.988	
Satd. Flow (perm)	0	1477	0	3134	1573	0	0	1493	1432	0	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			11				661		1	
Link Speed (k/h)		50			40			50			50	
Link Distance (m)		233.3			3263.9			343.2			388.8	
Travel Time (s)		16.8			293.8			24.7			28.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	5%	5%	5%
Adj. Flow (vph)	11	11	21	916	11	11	21	158	661	21	684	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	916	22	0	0	179	661	0	716	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30		25	30		25	30		25	30		25
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	Free	Perm	NA	
Protected Phases	7	4		3	8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							2		Free	6		
Detector Phase	7	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5		25.5	25.5		25.5	25.5		25.5	25.5	
Total Split (s)	25.5	25.5		70.0	70.0		54.5	54.5		54.5	54.5	
Total Split (%)	17.0%	17.0%		46.7%	46.7%		36.3%	36.3%		36.3%	36.3%	
Maximum Green (s)	20.0	20.0		64.5	64.5		49.0	49.0		49.0	49.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.5		5.5	5.5			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				8.0	8.0					8.0	8.0	
Flash Dont Walk (s)				12.0	12.0					12.0	12.0	
Pedestrian Calls (#/hr)				0	0					0	0	
Act Effct Green (s)		0.0		41.1	60.1			50.7	122.1		50.7	
Actuated g/C Ratio		0.00		0.34	0.49			0.42	1.00		0.42	
v/c Ratio		2.05		0.87	0.03			0.29	0.46		0.98	
Control Delay		620.3		48.0	8.7			30.4	1.1		68.2	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		620.3		48.0	8.7			30.4	1.1		68.2	
LOS		F		D	A			C	A		E	
Approach Delay		620.3			47.1			7.3			68.2	
Approach LOS		F			D			A			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 122.1			
Natural Cycle: 120			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 2.05			
Intersection Signal Delay: 49.6		Intersection LOS: D	
Intersection Capacity Utilization 92.0%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 9: 114 Ave SE & 84 St SE North Int



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	778	390	110	20	130	1410
Future Volume (vph)	778	390	110	20	130	1410
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850
Storage Length (m)	0.0	30.0	120.0			120.0
Storage Lanes	2	1	1			1
Taper Length (m)	25.0		25.0			
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3106	1432	1725	1816	1799	2691
Flt Permitted	0.950		0.669			
Satd. Flow (perm)	3106	1432	1215	1816	1799	2691
Right Turn on Red		Yes				No
Satd. Flow (RTOR)		411				
Link Speed (k/h)	60			50	50	
Link Distance (m)	357.0			180.9	343.2	
Travel Time (s)	21.4			13.0	24.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	11%	3%	3%	4%	4%
Adj. Flow (vph)	819	411	116	21	137	1484
Shared Lane Traffic (%)						
Lane Group Flow (vph)	819	411	116	21	137	1484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	7.4			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02
Turning Speed (k/h)	30	25	30			25
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	2.0	2.0	2.0	10.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	2.0	2.0	0.6	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)				9.4	9.4	
Detector 2 Size(m)				0.6	0.6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	Perm	Perm	NA	NA	pt+ov
Protected Phases	2			8	4	4 2

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Permitted Phases		2	8			
Detector Phase	2	2	8	8	4	4 2
Switch Phase						
Minimum Initial (s)	20.0	20.0	7.0	7.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	
Total Split (s)	44.0	44.0	36.0	36.0	36.0	
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%	
Maximum Green (s)	38.5	38.5	30.5	30.5	30.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min	None	None	None	
Act Effct Green (s)	28.8	28.8	18.5	18.5	18.5	58.8
Actuated g/C Ratio	0.49	0.49	0.31	0.31	0.31	1.00
v/c Ratio	0.54	0.45	0.30	0.04	0.24	0.55
Control Delay	12.2	2.9	19.5	16.3	17.8	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	2.9	19.5	16.3	17.8	0.8
LOS	B	A	B	B	B	A
Approach Delay	9.1			19.0	2.3	
Approach LOS	A			B	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 58.8			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 5.8		Intersection LOS: A	
Intersection Capacity Utilization 66.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 10: 84 St SE South Int & 114 Ave SE

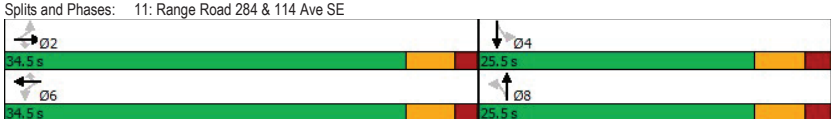


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	427	42	74	646	103	68	47	46	77	87	67
Future Volume (vph)	29	427	42	74	646	103	68	47	46	77	87	67
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	120.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.926			0.935	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1645	1732	1472	1709	1799	1529	1692	1650	0	1692	1666	0
Flt Permitted	0.312			0.486			0.654			0.694		
Satd. Flow (perm)	540	1732	1472	874	1799	1529	1165	1650	0	1236	1666	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45			108		48			69	
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		3263.9			1481.6			351.5			364.6	
Travel Time (s)		146.9			66.7			25.3			26.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	31	449	44	78	680	108	72	49	48	81	92	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	31	449	44	78	680	108	72	97	0	81	163	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.4			7.4			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5		25.5	25.5	
Total Split (s)	34.5	34.5	34.5	34.5	34.5	34.5	25.5	25.5		25.5	25.5	
Total Split (%)	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%		42.5%	42.5%	
Maximum Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	27.9	27.9	27.9	27.9	27.9	27.9	10.5	10.5		10.5	10.5	
Actuated g/C Ratio	0.62	0.62	0.62	0.62	0.62	0.62	0.23	0.23		0.23	0.23	
v/c Ratio	0.09	0.42	0.05	0.14	0.61	0.11	0.26	0.23		0.28	0.37	
Control Delay	6.3	7.9	2.2	6.4	10.6	1.8	18.4	10.9		18.5	12.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.3	7.9	2.2	6.4	10.6	1.8	18.4	10.9		18.5	12.7	
LOS	A	A	A	A	B	A	B	B		B	B	
Approach Delay		7.3			9.1			14.1			14.6	
Approach LOS		A			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 44.8			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 9.8		Intersection LOS: A	
Intersection Capacity Utilization 87.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 11: Range Road 284 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	146	235	92	15	372	85	88	122	29	42	14	177
Future Volume (vph)	146	235	92	15	372	85	88	122	29	42	14	177
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Storage Length (m)	90.0		60.0	120.0		60.0	60.0		0.0	60.0		0.0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (m)	25.0			25.0			25.0			25.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.971			0.861	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1645	1732	1472	1709	1799	1529	1692	1730	0	1692	1534	0
Flt Permitted	0.358			0.606			0.462			0.656		
Satd. Flow (perm)	620	1732	1472	1090	1799	1529	823	1730	0	1169	1534	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			116		17			186	
Link Speed (k/h)		80			80			80			80	
Link Distance (m)		133.5			235.1			492.4			2828.0	
Travel Time (s)		6.0			10.6			22.2			127.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	154	247	97	16	392	89	93	128	31	44	15	186
Shared Lane Traffic (%)												
Lane Group Flow (vph)	154	247	97	16	392	89	93	159	0	44	201	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	6	6	6	3	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	20.0	20.0	20.0	7.0	10.0		10.0	10.0	
Minimum Split (s)	10.0	25.5	25.5	25.5	25.5	25.5	10.0	25.5		25.5	25.5	
Total Split (s)	10.0	44.5	44.5	34.5	34.5	34.5	10.0	35.5		25.5	25.5	
Total Split (%)	12.5%	55.6%	55.6%	43.1%	43.1%	43.1%	12.5%	44.4%		31.9%	31.9%	
Maximum Green (s)	7.0	39.0	39.0	29.0	29.0	29.0	7.0	30.0		20.0	20.0	
Yellow Time (s)	2.9	3.5	3.5	3.5	3.5	3.5	2.9	3.5		3.5	3.5	
All-Red Time (s)	0.1	2.0	2.0	2.0	2.0	2.0	0.1	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	5.5	5.5	5.5	5.5	5.5	3.0	5.5		5.5	5.5	
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	Min	Min	Min	None	None		None	None	
Walk Time (s)		8.0	8.0	8.0	8.0	8.0		8.0		8.0	8.0	
Flash Dont Walk (s)		12.0	12.0	12.0	12.0	12.0		12.0		12.0	12.0	
Pedestrian Calls (#/hr)		0	0	0	0	0		0		0	0	
Act Effct Green (s)	32.1	29.5	29.5	22.0	22.0	22.0	20.8	18.2		10.8	10.8	
Actuated g/C Ratio	0.54	0.50	0.50	0.37	0.37	0.37	0.35	0.31		0.18	0.18	
v/c Ratio	0.33	0.29	0.12	0.04	0.59	0.14	0.23	0.29		0.21	0.47	
Control Delay	9.6	10.2	2.6	14.2	21.1	2.6	15.8	16.5		26.4	9.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	9.6	10.2	2.6	14.2	21.1	2.6	15.8	16.5		26.4	9.7	
LOS	A	B	A	B	C	A	B	B		C	A	
Approach Delay		8.5			17.5			16.2			12.7	
Approach LOS		A			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 59.1			
Natural Cycle: 75			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 13.5		Intersection LOS: B	
Intersection Capacity Utilization 68.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 12: RR 283 & 114 Ave SE



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	207	28	3	112	3	59	55	12	18	19	36
Future Volume (vph)	14	207	28	3	112	3	59	55	12	18	19	36
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.997			0.987			0.933	
Flt Protected		0.997			0.999			0.977			0.988	
Satd. Flow (prot)	0	1701	0	0	1791	0	0	1718	0	0	1642	0
Flt Permitted		0.997			0.999			0.977			0.988	
Satd. Flow (perm)	0	1701	0	0	1791	0	0	1718	0	0	1642	0
Link Speed (k/h)		80			80			50			50	
Link Distance (m)		1390.9			486.5			451.0			344.1	
Travel Time (s)		62.6			21.9			32.5			24.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	15	218	29	3	118	3	62	58	13	19	20	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	262	0	0	124	0	0	133	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			1.6			4.8	
Two way Left Turn Lane												
Headway Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	207	28	3	112	3	59	55	12	18	19	36
Future Volume (Veh/h)	14	207	28	3	112	3	59	55	12	18	19	36
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	15	218	29	3	118	3	62	58	13	19	20	38
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	121			247			436	390	232	430	402	120
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	121			247			436	390	232	430	402	120
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			87	89	98	96	96	96
cM capacity (veh/h)	1430			1307			484	534	799	474	525	924

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	262	124	133	77
Volume Left	15	3	62	19
Volume Right	29	3	13	38
cSH	1430	1307	526	645
Volume to Capacity	0.01	0.00	0.25	0.12
Queue Length 95th (m)	0.2	0.1	7.6	3.1
Control Delay (s)	0.5	0.2	14.1	11.3
Lane LOS	A	A	B	B
Approach Delay (s)	0.5	0.2	14.1	11.3
Approach LOS			B	B

Intersection Summary				
Average Delay	4.9			
Intersection Capacity Utilization	39.4%	ICU Level of Service		A
Analysis Period (min)	15			

APPENDIX D
Warrant Results

Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	Highway 560	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 284	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2026 Background Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2024 Jan 24, Wed
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
Highway 560	WB		1				1	n		1			
Highway 560	EB		1				1	n	1,600	1			
Range Road 284	NB				1					1			
Range Road 284	SB				1					1			

Are the Range Road 284 NB right turns significantly impeded by through movements? (y/n)	y
Are the Range Road 284 SB right turns significantly impeded by through movements? (y/n)	y
	n
	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

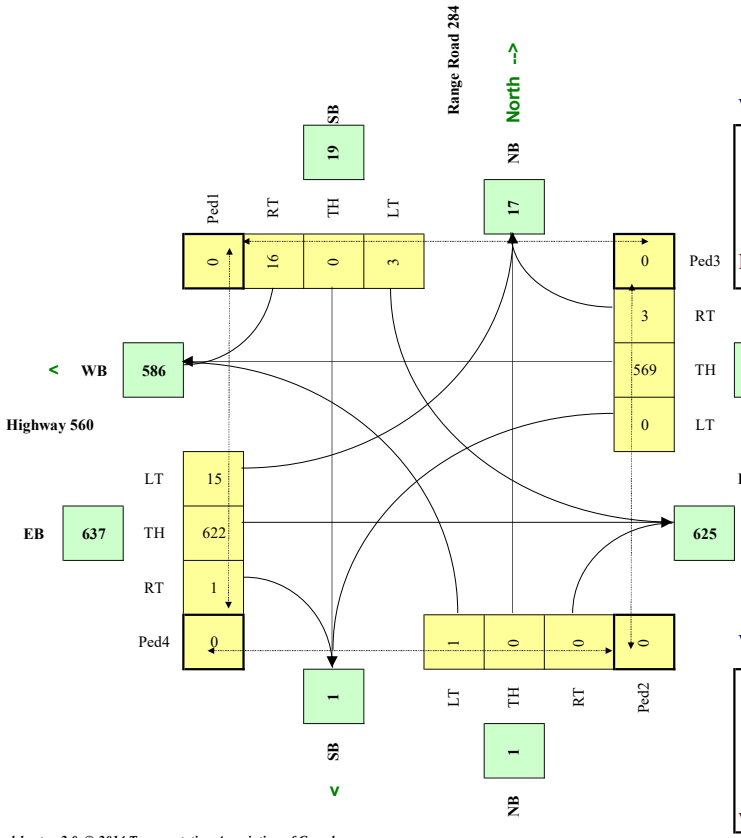
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Highway 560	EW	80	10.0%	n	0.0
Range Road 284	NS	80	15.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	5	0	3	16	0	95	0	3415	16	87	3732	5				
Total (6-hour peak)	5	0	3	16	0	95	0	3,415	16	87	3,732	5	0	0	0	0
Average (6-hour peak)	1	0	0	3	0	16	0	569	3	15	622	1	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W = 17 17 0

Veh *Ped*

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	Highway 560	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 283	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2026 Background Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2024 Jan 24, Wed
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
Highway 560	WB	1				1		n		1			
Highway 560	EB		1				1	n	3,200	1			
Range Road 283	NB				1					1			
Range Road 283	SB				1					1			

Are the Range Road 283 NB right turns significantly impeded by through movements? (y/n)	y
Are the Range Road 283 SB right turns significantly impeded by through movements? (y/n)	y
Are the Highway 560 WB right turns significantly impeded by through movements? (y/n)	n
Are the Highway 560 WB right turns significantly impeded by through movements? (y/n)	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

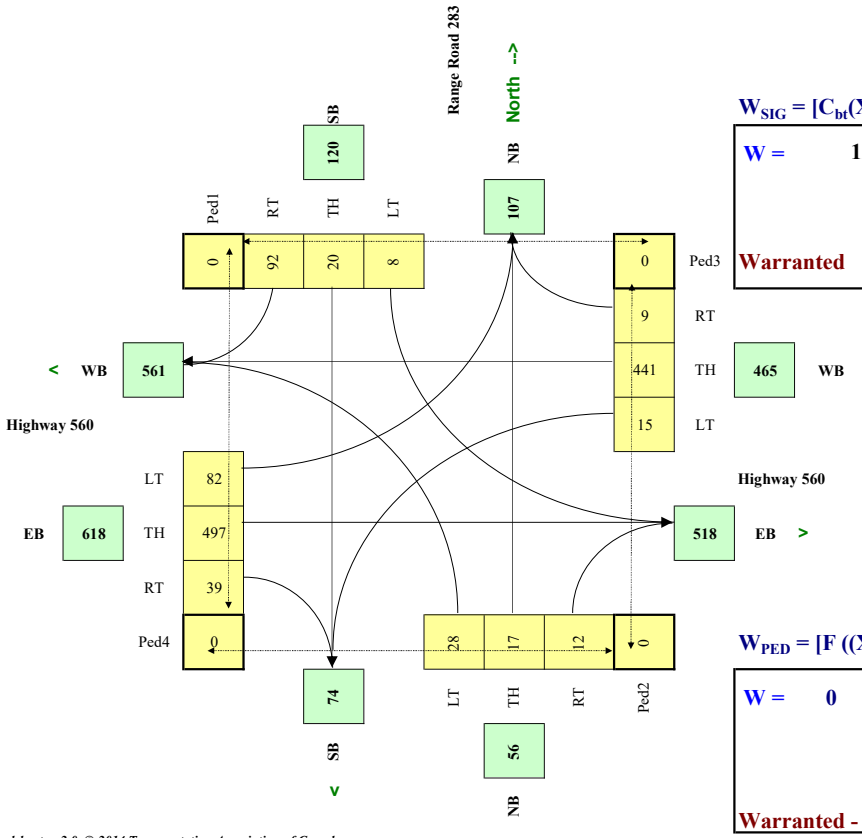
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Highway 560	EW	80	10.0%	n	0.0
Range Road 283	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	166	99	73	48	121	551	87	2647	54	491	2984	233				
Total (6-hour peak)	166	99	73	48	121	551	87	2,647	54	491	2,984	233	0	0	0	0
Average (6-hour peak)	28	17	12	8	20	92	15	441	9	82	497	39	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	125	125	0
		Veh	Ped

Warranted

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	Highway 560	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 282	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2026 Background Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2024 Jan 24, Wed
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
Highway 560	WB				1			n		1			
Highway 560	EB				1			n		1			
Range Road 282	NB				1					1			
Range Road 282	SB				1					1			

Are the Range Road 282 NB right turns significantly impeded by through movements?	(y/n)	n
Are the Range Road 282 SB right turns significantly impeded by through movements?	(y/n)	n
Are the Highway 560 WB right turns significantly impeded by through movements?	(y/n)	n
Are the Highway 560 EB right turns significantly impeded by through movements?	(y/n)	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

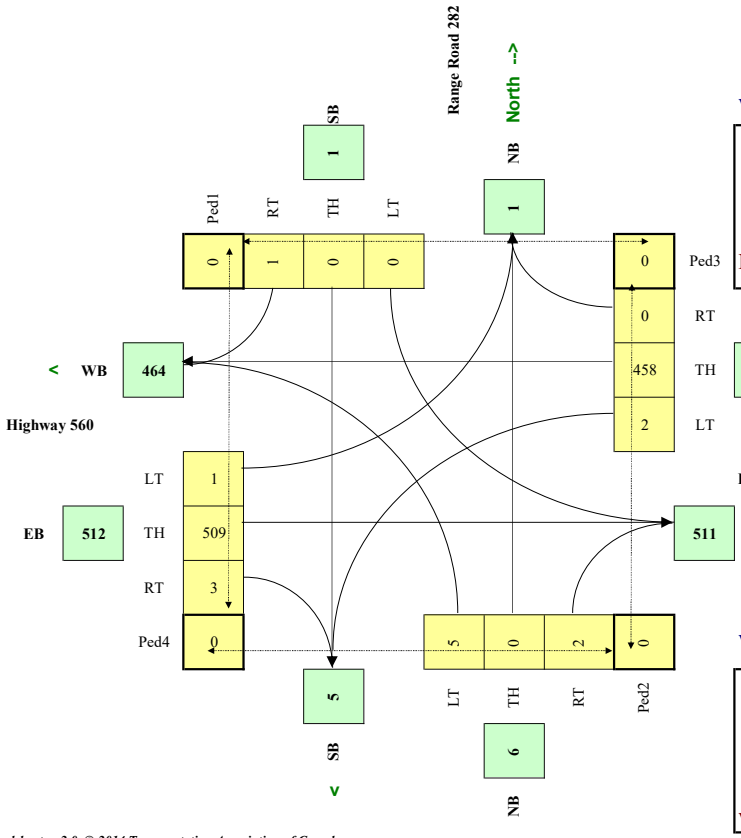
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Highway 560	EW	80	10.0%	n	0.0
Range Road 282	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	27	0	11	0	0	8	14	2751	0	3	3054	16				
Total (6-hour peak)	27	0	11	0	0	8	14	2,751	0	3	3,054	16	0	0	0	0
Average (6-hour peak)	5	0	2	0	0	1	2	458	0	1	509	3	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W = 5 5 0

Veh *Ped*

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 284	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2026 Background + Development Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2026 Horizon
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB				1					1			
114 Ave	EB				1					1			
Range Road 284	NB				1					1			
Range Road 284	SB				1					1			

Are the Range Road 284 NB right turns significantly impeded by through movements?	(y/n)	n
Are the Range Road 284 SB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave WB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave EB right turns significantly impeded by through movements?	(y/n)	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

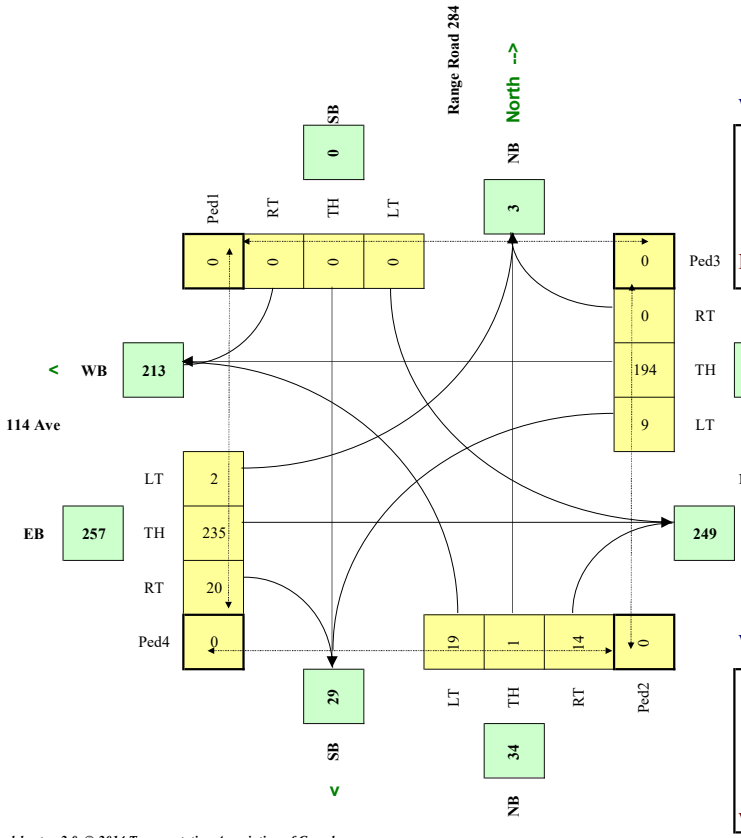
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 284	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	115	6	83	0	0	0	53	1165	0	9	1411	123				
Total (6-hour peak)	115	6	83	0	0	0	53	1,165	0	9	1,411	123	0	0	0	0
Average (6-hour peak)	19	1	14	0	0	0	9	194	0	2	235	20	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W = 10 10 0

Veh *Ped*

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 283	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2026 Background + Development Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2026 Horizon
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB		1				1	n		1			
114 Ave	EB		1				1	n		1			
Range Road 283	NB				1					1			
Range Road 283	SB				1					1			
Are the Range Road 283 NB right turns significantly impeded by through movements? (y/n)							n						
Are the Range Road 283 SB right turns significantly impeded by through movements? (y/n)							n						
							n						
							n						

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

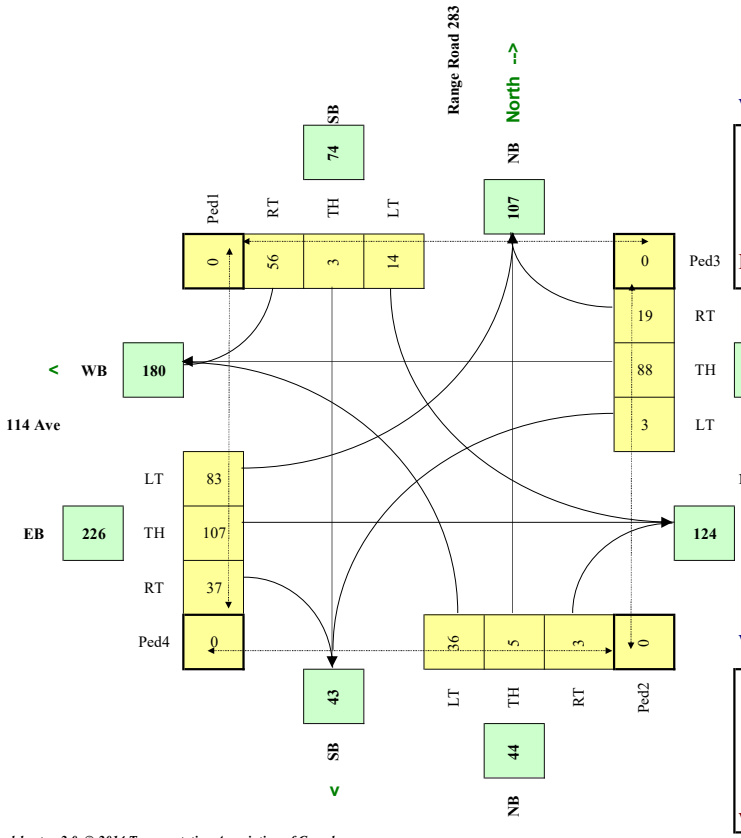
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 283	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	215	29	21	85	18	338	18	529	115	498	639	219				
Total (6-hour peak)	215	29	21	85	18	338	18	529	115	498	639	219	0	0	0	0
Average (6-hour peak)	36	5	3	14	3	56	3	88	19	83	107	37	0	0	0	0
													Actual Pedestrian Crossing Distance (m)			

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	23	23	0
		Veh	Ped

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 282	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2026 Background + Development Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2026 Horizon
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB				1					1			
114 Ave	EB				1					1			
Range Road 282	NB				1					1			
Range Road 282	SB				1					1			

Are the Range Road 282 NB right turns significantly impeded by through movements?	(y/n)	n
Are the Range Road 282 SB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave WB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave EB right turns significantly impeded by through movements?	(y/n)	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

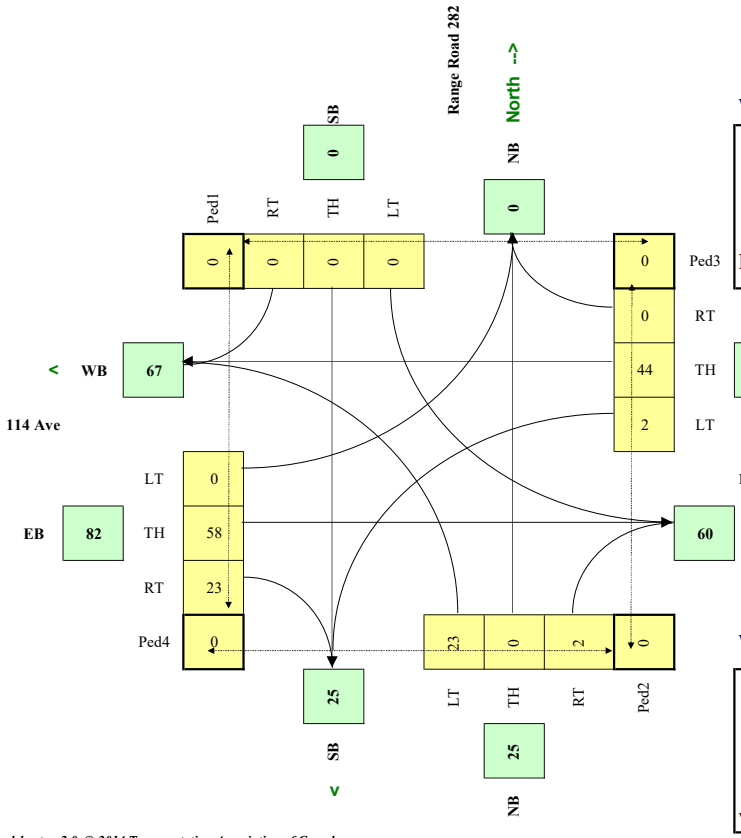
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 282	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	138	0	10	0	0	0	10	266	0	0	348	141				
Total (6-hour peak)	138	0	10	0	0	0	10	266	0	0	348	141	0	0	0	0
Average (6-hour peak)	23	0	2	0	0	0	2	44	0	0	58	23	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	2	2	0
		Veh	*Ped*

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	Highway 560	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 284	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2028 Background Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
for Warrant Calculation Results, please hit 'Page Down'	CHECK SHEET			Count Date:	2028 Horizon
				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
Highway 560	WB		1				1	n		1			
Highway 560	EB		1				1	n	1,600	1			
Range Road 284	NB				1					1			
Range Road 284	SB				1					1			

Are the Range Road 284 NB right turns significantly impeded by through movements? (y/n)	y
Are the Range Road 284 SB right turns significantly impeded by through movements? (y/n)	y
	n
	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

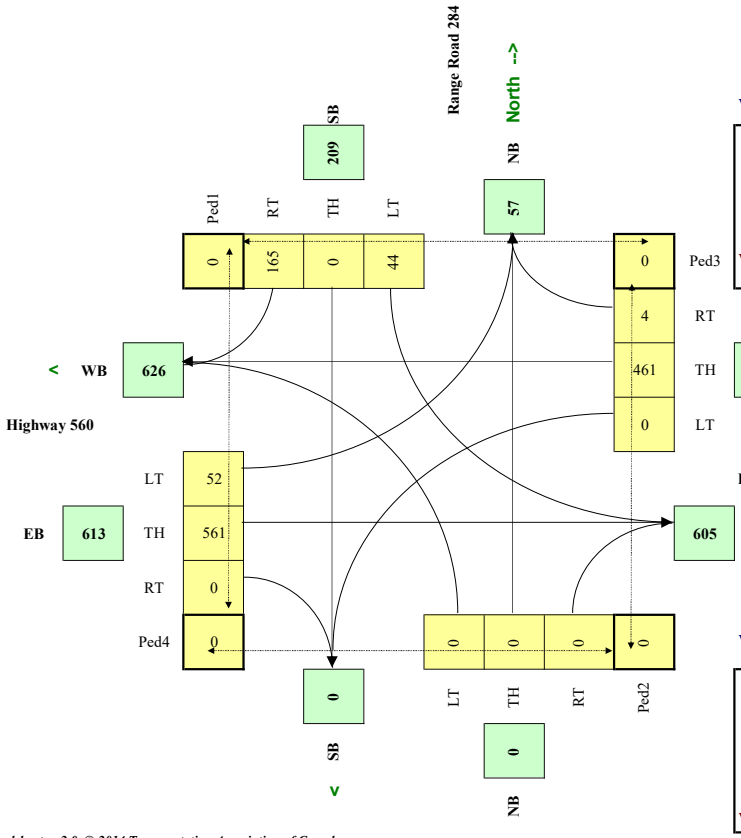
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Highway 560	EW	80	10.0%	n	0.0
Range Road 284	NS	80	15.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	0	0	0	261	0	992	0	2767	26.1	313	3367	0				
Total (6-hour peak)	0	0	0	261	0	992	0	2,767	26	313	3,367	0	0	0	0	0
Average (6-hour peak)	0	0	0	44	0	165	0	461	4	52	561	0	0	0	0	0
													Actual Pedestrian Crossing Distance (m)			

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	117	117	0
		Veh	*Ped*

Warranted

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	Highway 560	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 282	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2028 Background Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2028 Horizon
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
Highway 560	WB				1			n		1			
Highway 560	EB				1			n		1			
Range Road 282	NB				1					1			
Range Road 282	SB				1					1			

Are the Range Road 282 NB right turns significantly impeded by through movements?	(y/n)	n
Are the Range Road 282 SB right turns significantly impeded by through movements?	(y/n)	n
Are the Highway 560 WB right turns significantly impeded by through movements?	(y/n)	n
Are the Highway 560 EB right turns significantly impeded by through movements?	(y/n)	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

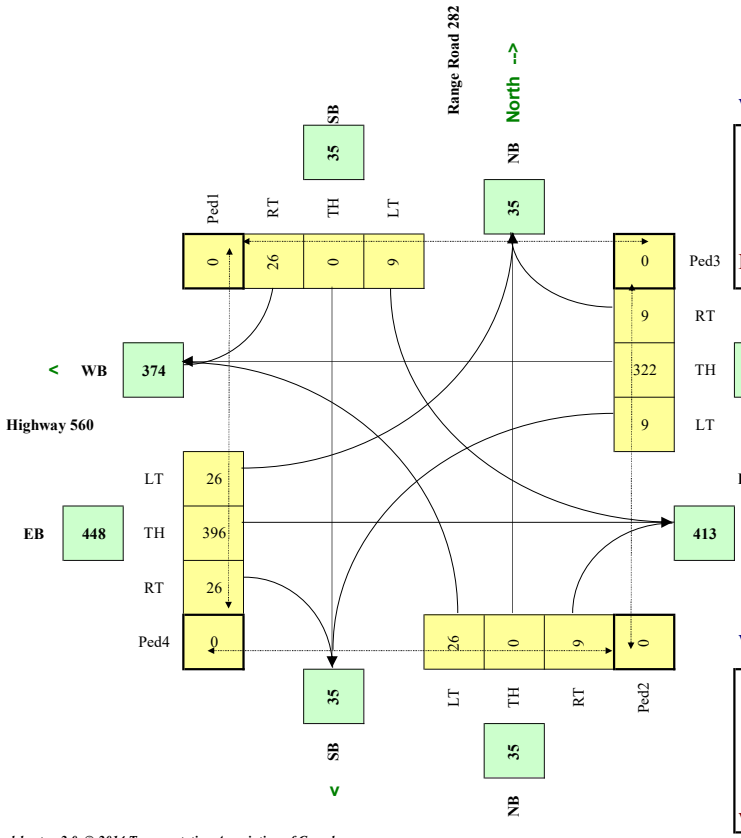
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Highway 560	EW	80	10.0%	n	0.0
Range Road 282	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	157	0	52	52	0	157	52	1931	52	157	2375	157				
Total (6-hour peak)	**157**	**0**	**52**	**52**	**0**	**157**	**52**	**1,931**	**52**	**157**	**2,375**	**157**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**26**	**0**	**9**	**9**	**0**	**26**	**9**	**322**	**9**	**26**	**396**	**26**	**0**	**0**	**0**	**0**
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	34	34	0
		Veh	*Ped*

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	Highway 560	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 282	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2028 Background + Development Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
for Warrant Calculation Results, please hit 'Page Down'	CHECK SHEET			Count Date:	2028 Horizon
				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
Highway 560	WB	1		1			1	n		1			
Highway 560	EB	1				1		n		1			
Range Road 282	NB				1					1			
Range Road 282	SB				1					1			

Are the Range Road 282 NB right turns significantly impeded by through movements? (y/n)		n
Are the Range Road 282 SB right turns significantly impeded by through movements? (y/n)		n
		n
Are the Highway 560 EB right turns significantly impeded by through movements? (y/n)		n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

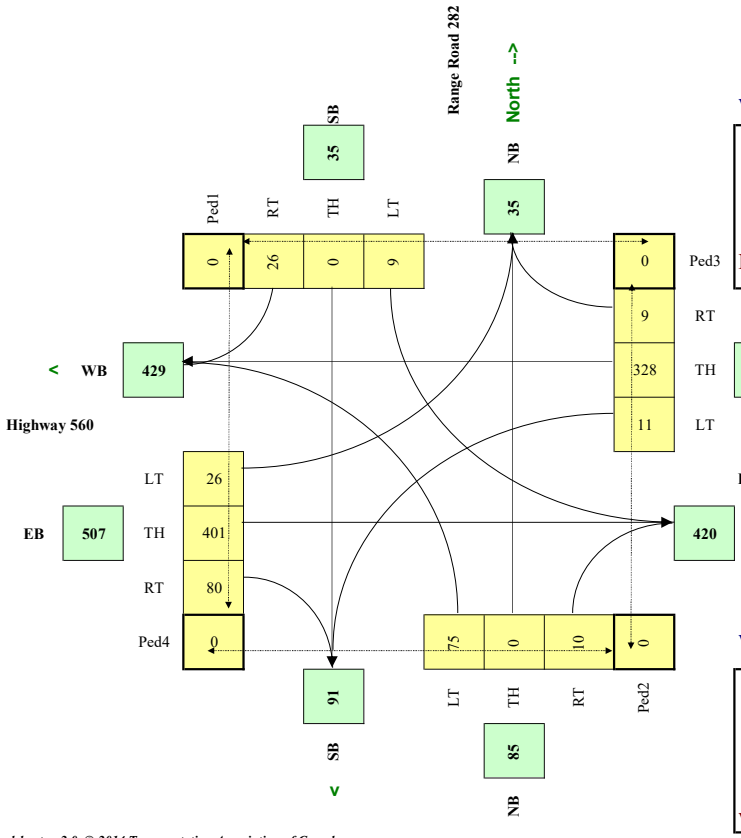
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Highway 560	EW	80	10.0%	n	0.0
Range Road 282	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	449	0	63	52	0	157	68	1971	52	157	2406	480				
Total (6-hour peak)	449	0	63	52	0	157	68	1,971	52	157	2,406	480	0	0	0	0
Average (6-hour peak)	75	0	10	9	0	26	11	328	9	26	401	80	0	0	0	0
													Actual Pedestrian Crossing Distance (m)			

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	62	62	0
		Veh	*Ped*

NOT Warranted

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 284	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2028 Background + Development Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
				Count Date:	2028 Horizon
for Warrant Calculation Results, please hit 'Page Down'	CHECK SHEET			Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB				1					1			
114 Ave	EB				1					1			
Range Road 284	NB				1					1			
Range Road 284	SB				1					1			

Are the Range Road 284 NB right turns significantly impeded by through movements? (y/n)		n
Are the Range Road 284 SB right turns significantly impeded by through movements? (y/n)		n
Are the 114 Ave WB right turns significantly impeded by through movements? (y/n)		n
Are the 114 Ave EB right turns significantly impeded by through movements? (y/n)		n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

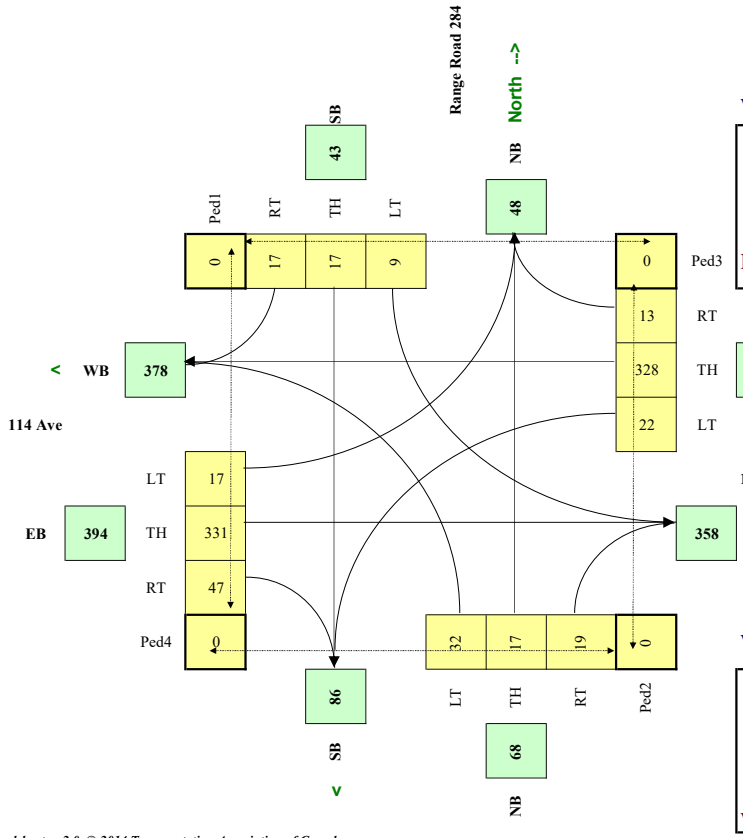
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 284	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	191	104	115	52	104	104	133	1971	78	104	1984	279				
Total (6-hour peak)	191	104	115	52	104	104	133	1,971	78	104	1,984	279	0	0	0	0
Average (6-hour peak)	32	17	19	9	17	17	22	328	13	17	331	47	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W = 58 58 0

Veh *Ped*

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 283	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2028 Background + Development Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2028 Horizon
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB	1		1			1	n		1			
114 Ave	EB		1				1	n		1			
Range Road 283	NB				1					1			
Range Road 283	SB				1					1			

Are the Range Road 283 NB right turns significantly impeded by through movements? (y/n)	n
Are the Range Road 283 SB right turns significantly impeded by through movements? (y/n)	n
	n
	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

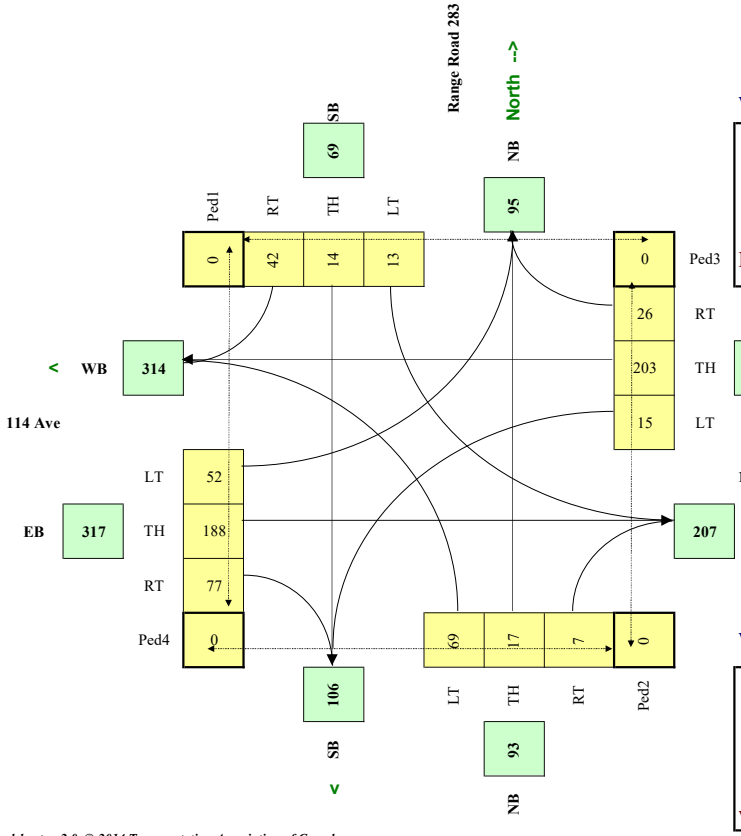
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 283	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	415	104	39	78	86	251	89	1219	154	311	1128	462				
Total (6-hour peak)	415	104	39	78	86	251	89	1,219	154	311	1,128	462	0	0	0	0
Average (6-hour peak)	69	17	7	13	14	42	15	203	26	52	188	77	0	0	0	0
													Actual Pedestrian Crossing Distance (m)			

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	56	56	0
		Veh	*Ped*

NOT Warranted

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 282	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2028 Background + Development Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
for Warrant Calculation Results, please hit 'Page Down'	CHECK SHEET			Count Date:	2028 Horizon
				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB				1					1			
114 Ave	EB				1					1			
Range Road 282	NB				1					1			
Range Road 282	SB				1					1			

Are the Range Road 282 NB right turns significantly impeded by through movements?	(y/n)	n
Are the Range Road 282 SB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave WB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave EB right turns significantly impeded by through movements?	(y/n)	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

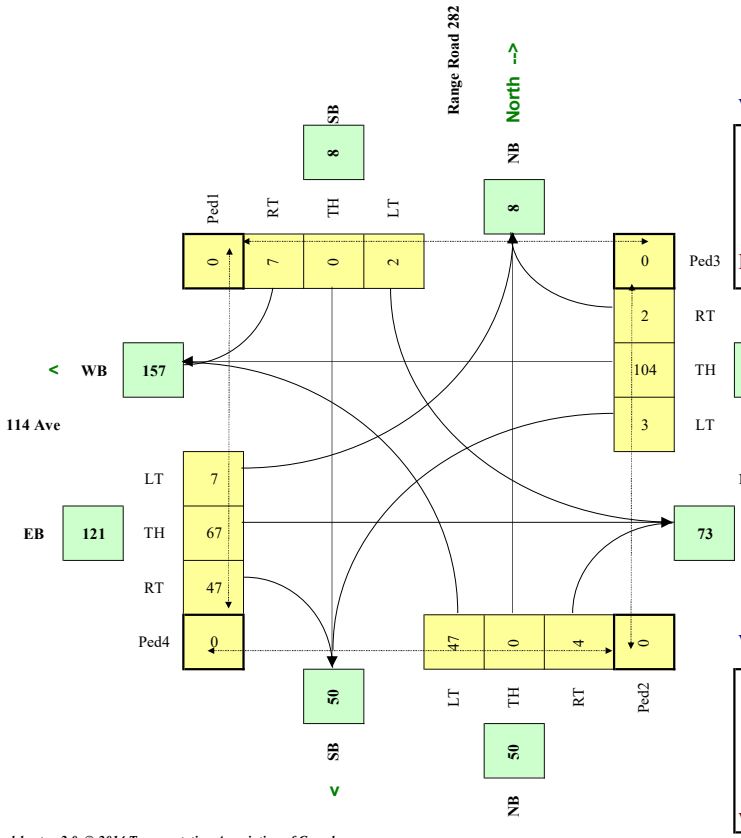
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 282	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	279	0	23	10	0	39	21	626	10	39	405	282				
Total (6-hour peak)	279	0	23	10	0	39	21	626	10	39	405	282	0	0	0	0
Average (6-hour peak)	47	0	4	2	0	7	3	104	2	7	67	47	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v\text{-}v}) / K_1 + (F (X_{v\text{-}p}) L) / K_2] \times C_i$

W =	8	8	0
		Veh	*Ped*

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	Highway 560	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 282	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2048 Background Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2048 Horizon
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
Highway 560	WB	1		2			1	n		2			
Highway 560	EB	1		2			1	n		2			
Range Road 282	NB				1					1			
Range Road 282	SB				1					1			
Are the Range Road 282 NB right turns significantly impeded by through movements? (y/n)							n						
Are the Range Road 282 SB right turns significantly impeded by through movements? (y/n)							n						
							n						
							n						

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

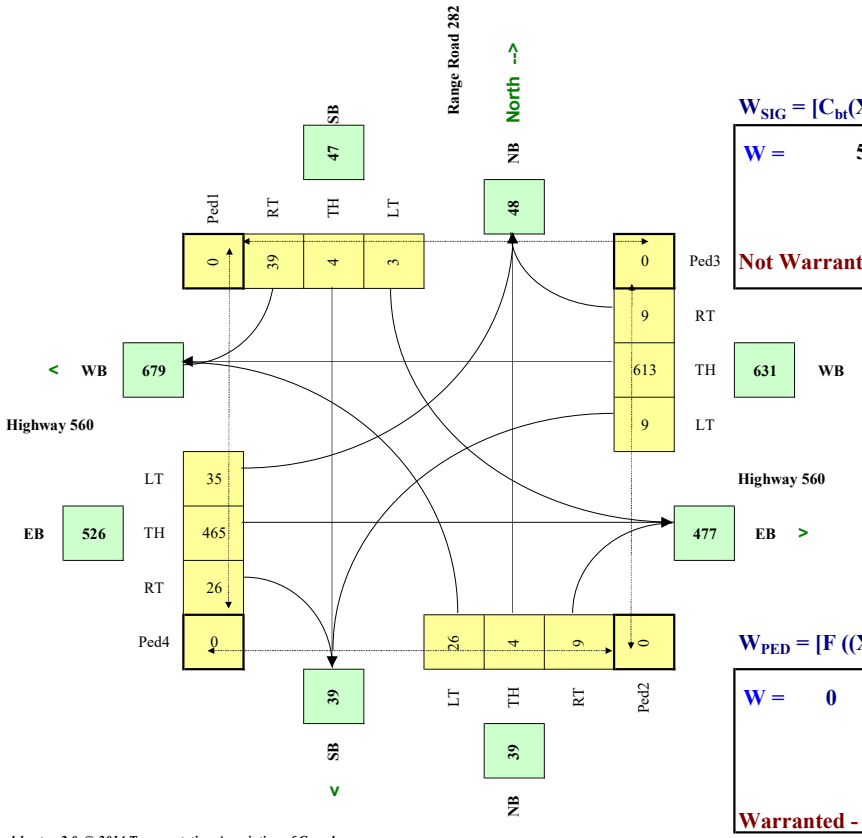
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Highway 560	EW	80	10.0%	n	0.0
Range Road 282	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	157	26	52	20	26	235	52	3680	52	209	2793	157				
Total (6-hour peak)	157	26	52	20	26	235	52	3,680	52	209	2,793	157	0	0	0	0
Average (6-hour peak)	26	4	9	3	4	39	9	613	9	35	465	26	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	51	51	0
		Veh	Ped

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 284	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2048 Background Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
for Warrant Calculation Results, please hit 'Page Down'	CHECK SHEET			Count Date:	2048 Horizon
				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB				1					1			
114 Ave	EB				1					1			
Range Road 284	NB				1					1			
Range Road 284	SB				1					1			

Are the Range Road 284 NB right turns significantly impeded by through movements?	(y/n)	n
Are the Range Road 284 SB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave WB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave EB right turns significantly impeded by through movements?	(y/n)	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

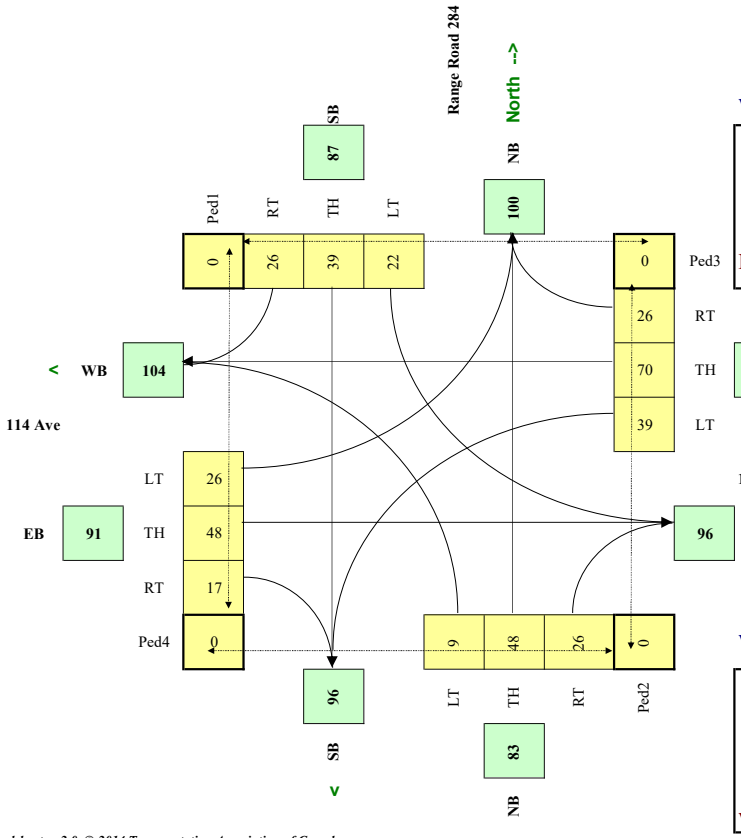
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 284	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	52	287	157	131	235	157	235	418	157	157	287	104				
Total (6-hour peak)	52	287	157	131	235	157	235	418	157	157	287	104	0	0	0	0
Average (6-hour peak)	9	48	26	22	39	26	39	70	26	26	48	17	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	25	25	0
		Veh	*Ped*

NOT Warranted

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 283	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2048 Background Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
for Warrant Calculation Results, please hit 'Page Down'	CHECK SHEET			Count Date:	2048 Horizon
				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB	1		1			1	n		1			
114 Ave	EB		1				1	n		1			
Range Road 283	NB				1					1			
Range Road 283	SB				1					1			
Are the Range Road 283 NB right turns significantly impeded by through movements? (y/n)							n						
Are the Range Road 283 SB right turns significantly impeded by through movements? (y/n)							n						
							n						
							n						

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

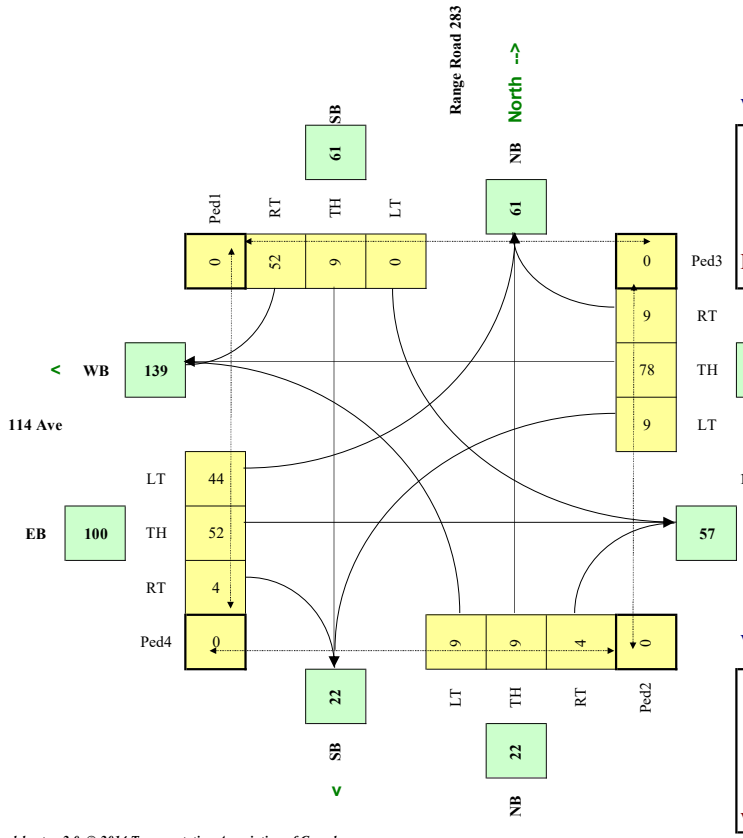
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 283	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	52	52	26	0	52	313	52	470	52	261	313	26				
Total (6-hour peak)	52	52	26	0	52	313	52	470	52	261	313	26	0	0	0	0
Average (6-hour peak)	9	9	4	0	9	52	9	78	9	44	52	4	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W = 7 7 0

Veh *Ped*

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 282	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2048 Background Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2048 Horizon
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB				1					1			
114 Ave	EB				1					1			
Range Road 282	NB				1					1			
Range Road 282	SB				1					1			

Are the Range Road 282 NB right turns significantly impeded by through movements?	(y/n)	n
Are the Range Road 282 SB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave WB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave EB right turns significantly impeded by through movements?	(y/n)	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

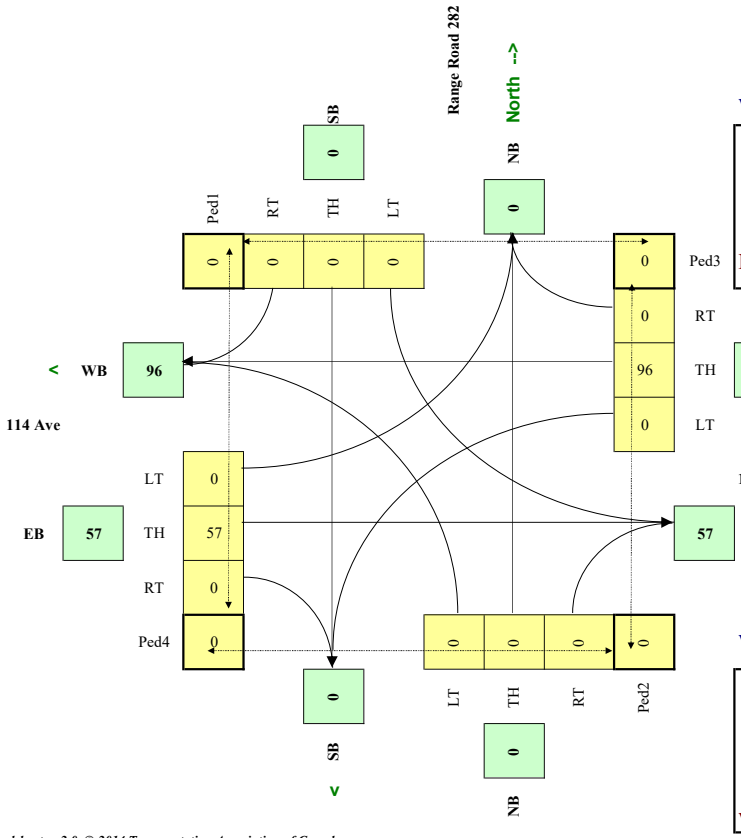
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 282	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	0	0	0	0	0	0	0	574	0	0	339	0				
Total (6-hour peak)	0	0	0	0	0	0	0	574	0	0	339	0	0	0	0	0
Average (6-hour peak)	0	0	0	0	0	0	0	96	0	0	57	0	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W = 0 0 0

Veh Ped

Not Warranted - Vs<75

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	Highway 560	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 282	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2048 Background + Dev Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
for Warrant Calculation Results, please hit 'Page Down'	CHECK SHEET			Count Date:	2048 Horizon
				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
Highway 560	WB	1		2			1	n		2			
Highway 560	EB	1		2			1	n		2			
Range Road 282	NB				1					1			
Range Road 282	SB				1					1			
Are the Range Road 282 NB right turns significantly impeded by through movements? (y/n)							n						
Are the Range Road 282 SB right turns significantly impeded by through movements? (y/n)							n						
							n						
							n						

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

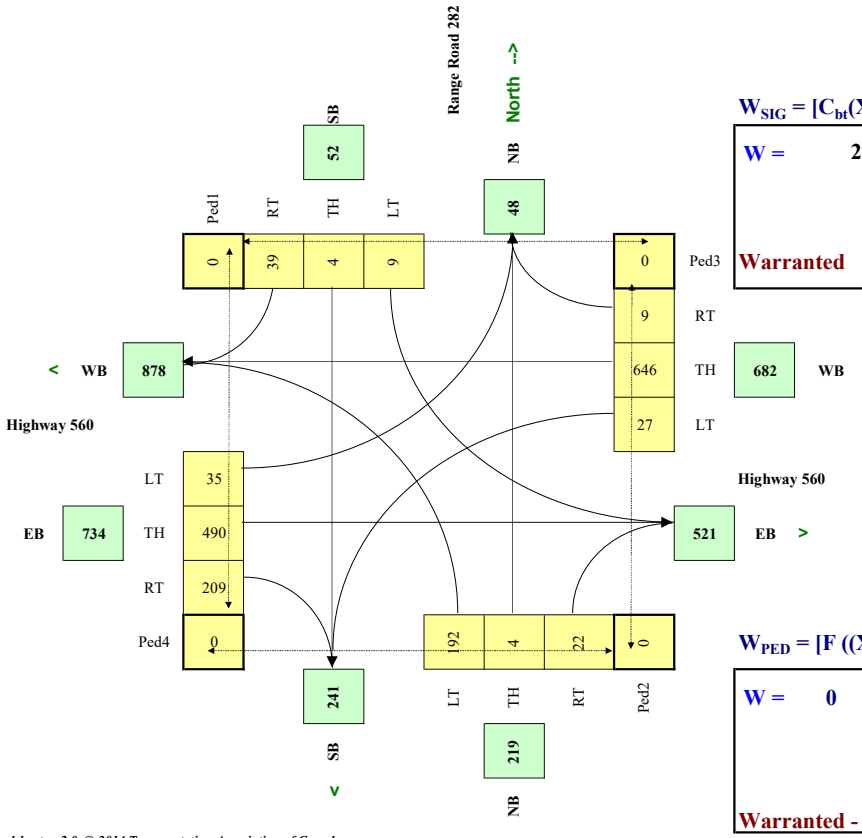
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Highway 560	EW	80	10.0%	n	0.0
Range Road 282	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	1154	26	133	52	26	235	164	3878	52	209	2941	1255				
Total (6-hour peak)	1,154	26	133	52	26	235	164	3,878	52	209	2,941	1,255	0	0	0	0
Average (6-hour peak)	192	4	22	9	4	39	27	646	9	35	490	209	0	0	0	0
													Actual Pedestrian Crossing Distance (m)			

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	204	204	0
		Veh	Ped

Warranted

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 284	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2048 Background + Development Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
	CHECK SHEET			Count Date:	2048 Horizon
for Warrant Calculation Results, please hit 'Page Down'				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB	1		2			1			2			
114 Ave	EB	1		2			1			2			
Range Road 284	NB				1					1			
Range Road 284	SB				1					1			

Are the Range Road 284 NB right turns significantly impeded by through movements? (y/n)		n
Are the Range Road 284 SB right turns significantly impeded by through movements? (y/n)		n
		n
		n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

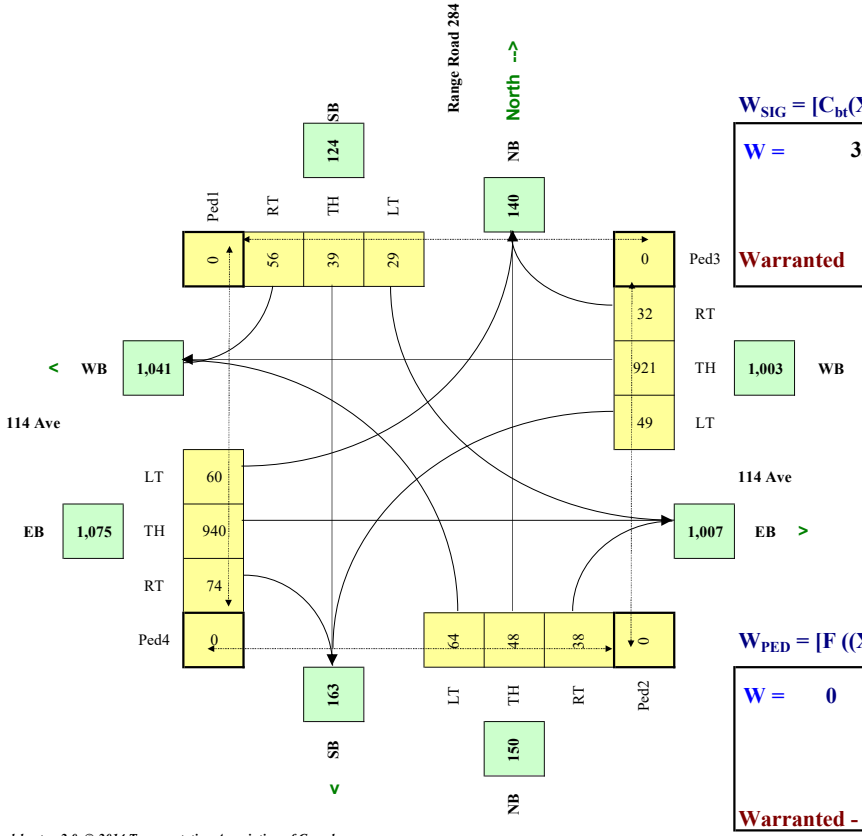
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 284	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	381	287	230	172	235	334	295	5528	193	360	5643	446				
Total (6-hour peak)	381	287	230	172	235	334	295	5,528	193	360	5,643	446	0	0	0	0
Average (6-hour peak)	64	48	38	29	39	56	49	921	32	60	940	74	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	335	335	0
		Veh	Ped

Warranted

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 283	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2048 Background + Development Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
for Warrant Calculation Results, please hit 'Page Down'	CHECK SHEET			Count Date:	2048 Horizon
				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB	1		2			1	n		2			
114 Ave	EB	1		2			1	n		2			
Range Road 283	NB				1					1			
Range Road 283	SB				1					1			

Are the Range Road 283 NB right turns significantly impeded by through movements? (y/n)		n
Are the Range Road 283 SB right turns significantly impeded by through movements? (y/n)		n
		n
		n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

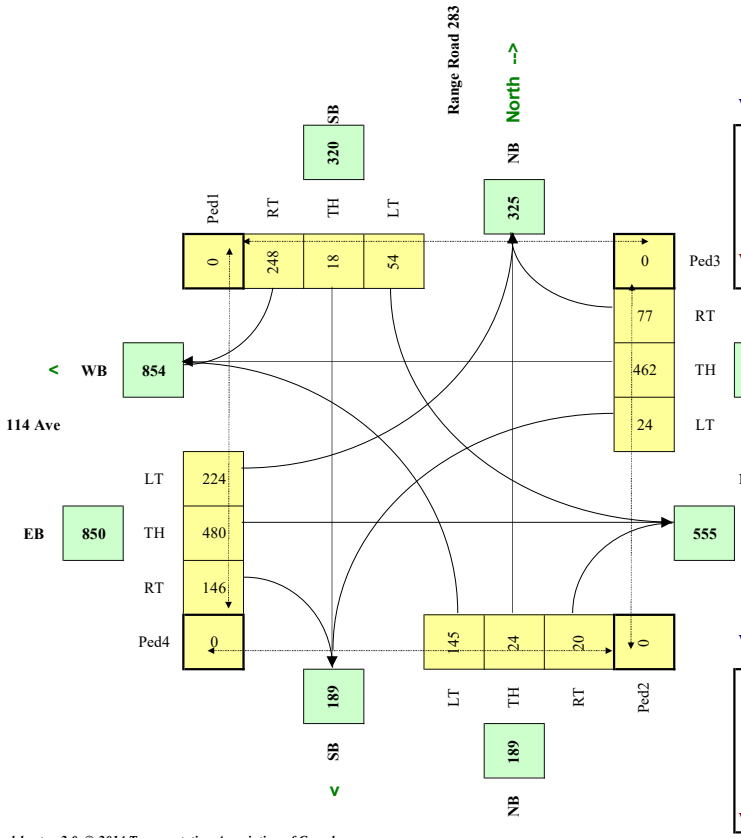
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 283	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	869	144	120	326	109	1485	146	2769	462	1341	2881	877				
Total (6-hour peak)	869	144	120	326	109	1,485	146	2,769	462	1,341	2,881	877	0	0	0	0
Average (6-hour peak)	145	24	20	54	18	248	24	462	77	224	480	146	0	0	0	0
													Actual Pedestrian Crossing Distance (m)			

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	339	339	0
		Veh	Ped

Warranted

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

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Alberta Transportation - Traffic Signal & Pedestrian Signal Head Warrant Analysis

Main Street (name)	114 Ave	Direction (EW or NS)	EW	Road Authority:	Alberta Transportation
Side Street (name)	Range Road 282	Direction (EW or NS)	NS	City:	Rocky View County
Quadrant / Int #		Comments	2048 Background + Development Note: The 6-hour traffic is calculated by (AM+PM) x 2.61	Analysis Date:	2024 Feb 12, Mon
for Warrant Calculation Results, please hit 'Page Down'	CHECK SHEET			Count Date:	2048 Horizon
				Date Entry Format:	(yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	RT Channelization (y/n)	UpStream Signal (m)	# of Thru Lanes	LT Phase Type	RTOR Allowed (y/n)	Actuated Thru Phase
114 Ave	WB				1					1			
114 Ave	EB				1					1			
Range Road 282	NB				1					1			
Range Road 282	SB				1					1			

Are the Range Road 282 NB right turns significantly impeded by through movements?	(y/n)	n
Are the Range Road 282 SB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave WB right turns significantly impeded by through movements?	(y/n)	n
Are the 114 Ave EB right turns significantly impeded by through movements?	(y/n)	n

Saturation Flow Rates (if not default) (vphpl)		Default Saturation Flow Rates (vphpl)
Left Turn		1,650
Through		1,800
Right Turn		1,500

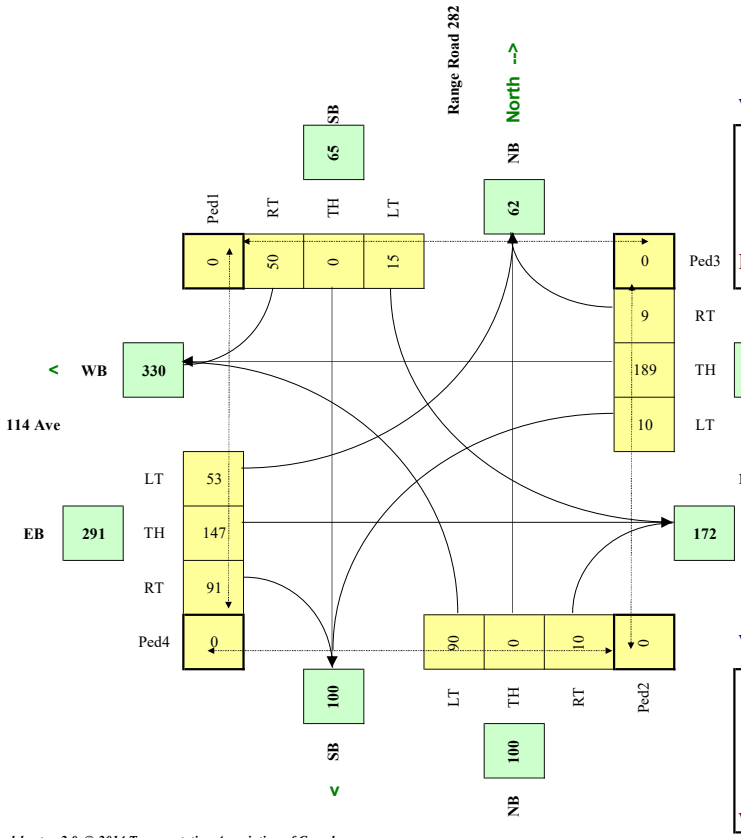
Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	45,000
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
114 Ave	EW	80	10.0%	n	0.0
Range Road 282	NS	80	10.0%	n	0.0

Set Peak Hours

Traffic Input	NB			SB			WB			EB			Ped1 NS	Ped2 NS	Ped3 EW	Ped4 EW
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT	W Side	E Side	N Side	S Side
6 Hour Average																
	543	0	57	91	0	300	57	1135	52	318	882	545				
Total (6-hour peak)	543	0	57	91	0	300	57	1,135	52	318	882	545	0	0	0	0
Average (6-hour peak)	90	0	10	15	0	50	10	189	9	53	147	91	0	0	0	0
Actual Pedestrian Crossing Distance (m)																

Average 6-hour Peak Turning Movements



$W_{SIG} = [C_{bt}(X_{v-v}) / K_1 + (F (X_{v-p}) L) / K_2] \times C_i$

W =	49	49	0
		Veh	*Ped*

NOT Warranted

RESET SHEET

$W_{PED} = [F ((Xped_m)d_m/K_2) + (Xped_s)d_s/K_3)]$

W = 0

Warranted - Complex Intersection

Traffic Signal Warrant Spreadsheet - v2.0 © 2014 Transportation Association of Canada

Left Turn Warrant

Horizon	Movement	% LT	Speed (kph)	Figure	Advancing Volume	Opposing Volume	Intersection Treatment	Warrant	Left-Turn Volume
2026	TR 232 EB at RR 284	5%	80	D-7.6-4A	370	188	Type II	No	1
2026	TR 232 WB at RR 284	5%	80	D-7.6-4A	188	370	Type II	No	8
2026	TR 232 EB at RR 283	40%	80	D-7.6-4D	316	115	Type IV	Yes	133
2026	TR 232 WB at RR 283	5%	80	D-7.6-4A	115	316	Type II	No	4
2026	TR 232 EB at RR 282	0%	80	D-7.6-4A	76	67	Type II	No	0
2026	TR 232 WB at RR 282	5%	80	D-7.6-4A	67	76	Type II	No	2
2028 (Background)	Hwy 560 EB at RR 282	5%	80	D-7.6-4A	800	200	Type IV	Yes	40
2028 (Background)	Hwy 560 WB at RR 282	5%	80	D-7.6-4A	580	230	Type IV	Yes	10
2028	TR 232 EB at RR 284	5%	80	D-7.6-4A	578	339	Type IV	Yes	30
2028	TR 232 WB at RR 284	5%	80	D-7.6-4A	497	329	Type IV	Yes	24
2028	TR 232 EB at RR 282	5%	80	D-7.6-4A	140	104	Type II	No	4
2028	TR 232 WB at RR 282	5%	80	D-7.6-4A	104	140	Type II	No	3
2048	TR 232 EB at RR 282	25%	80	D-7.6-4C	330	342	Type IV	Yes	87
2048	TR 232 WB at RR 282	5%	80	D-7.6-4A	342	330	Type III	Yes	17

Right Turn Warrant

Horizon	Movement	Main Road AADT	Minor Road AADT	RT Daily Volume	Warrant
2026	TR 232 EB at RR 284	5,133	736	182	No
2026	TR 232 WB at RR 284	5,133	736	0	No
2026	TR 232 EB at RR 283	4,430	1,746	280	Already Built
2026	TR 232 WB at RR 283	4,430	1,746	215	No
2026	TR 232 EB at RR 282	1,824	580	180	No
2026	TR 232 WB at RR 282	1,824	580	0	No
2028	Hwy 560 EB at RR 282	11,530	1,570	730	Yes
2028	Hwy 560 WB at RR 282	11,530	1,570	100	No
2028	TR 232 EB at RR 284	8,540	970	430	Yes
2028	TR 232 WB at RR 284	8,540	970	100	No
2028	TR 232 EB at RR 283	7,090	1,910	560	Already Built
2028	TR 232 WB at RR 283	7,090	1,910	340	No
2028	TR 232 EB at RR 282	3,200	390	360	No
2028	TR 232 WB at RR 282	3,200	390	10	No
2048	TR 232 EB at RR 282	7,000	2,300	1360	Yes
2048	TR 232 WB at RR 282	7,000	2,300	160	No



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