

ADDITIONAL INFORMATION PROVIDED BY THE APPLICANT (PART 2 OF 3)

1. Traffic Impact Study
2. Servicing Report
3. Land Drainage Report
4. Housing and Demographics Report
5. School Capacity

Residential Development at the Former "The Meadows" Golf Course in East St. Paul, MB

Traffic Impact Study

Prepared for:
PFNRET 2021 – 1 Limited Partnership

Date:
March 24, 2026

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- Appendix A: The Meadows Site Plan**
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Acronyms / Abbreviations

Acronym / Abbreviation	Full Name
AADT	Average Annual Daily Traffic
HCM	Highway Capacity Manual
LOS	Level of Service
TIS	Traffic Impact Study
PR	Provincial Road
PTH	Provincial Trunk Highway
vph	Vehicles per hour
vpd	Vehicles per day



1 Study Purpose and Objectives

Stantec has been retained by PFNRET 2021 – 1 Limited Partnership to complete a traffic impact study (TIS) for a proposed residential development at the site of the former "The Meadows" Golf Course in the Rural Municipality of East St. Paul. The 74.3 hectares (183.6 acres) mixed-use development is to be accessed from McGregor Farm Road North (the east service road for PTH 59) and from Wenzel Street north of PTH 101.

A Traffic Impact Study (TIS) is required as part of the development agreement. According to the Manitoba Transportation and Infrastructure (MTI) *General Guidelines for the Preparation of Traffic Impact Studies* document, the purposes of a TIS are to:

- a) Determine what the impacts will be from a proposed development or redevelopment upon the adjacent highway network.
- b) Determine what measures may be required to mitigate adverse impacts and allow the highway network to provide a satisfactory level of service.

The objectives of the TIS are:

- Document the characteristics of the development and select an appropriate study area and scenarios for analysis.
 - Location
 - Land use and site plan
 - Adjacent sites and highway conditions
 - Study area
 - Horizon years
- Estimate traffic volumes for all analysis scenarios.
 - Existing (background) traffic
 - Future background traffic
 - Site generated traffic
- Complete transportation analyses for the analysis scenarios.
 - Peak hour traffic analysis
 - Traffic signal warrant analysis
 - Rural intersection warrant analysis
 - Consideration of average daily traffic volumes
- Create conceptual designs for any required infrastructure modifications.
 - Conceptual design sketches
 - Preliminary opinion of probable costs
- Record conclusions and make recommendations based on the results of the analyses.

The following sections describe the procedures used to complete these objectives.



2 Context

2.1 Location

The proposed development is located within the Rural Municipality of East St. Paul on the northeast corner of the PTH 59 / PTH 101 interchange. The project site is on the former "The Meadows" golf course, which opened in 2003 and permanently closed in fall of 2018.

Figure 1 shows the proposed development site in the regional context.



Figure 1: Regional Context

Surrounding the proposed development is McGregor Farm Road to the south and west, Wenzel Street to the east, a Manitoba Transportation and Infrastructure Maintenance Yard on the northwest corner, and The Beach Volleyball Centre on the northeast corner. Wenzel Street is the border between the Rural Municipality of East St. Paul and the Rural Municipality of Springfield.

Figure 2 shows the development in the local context.



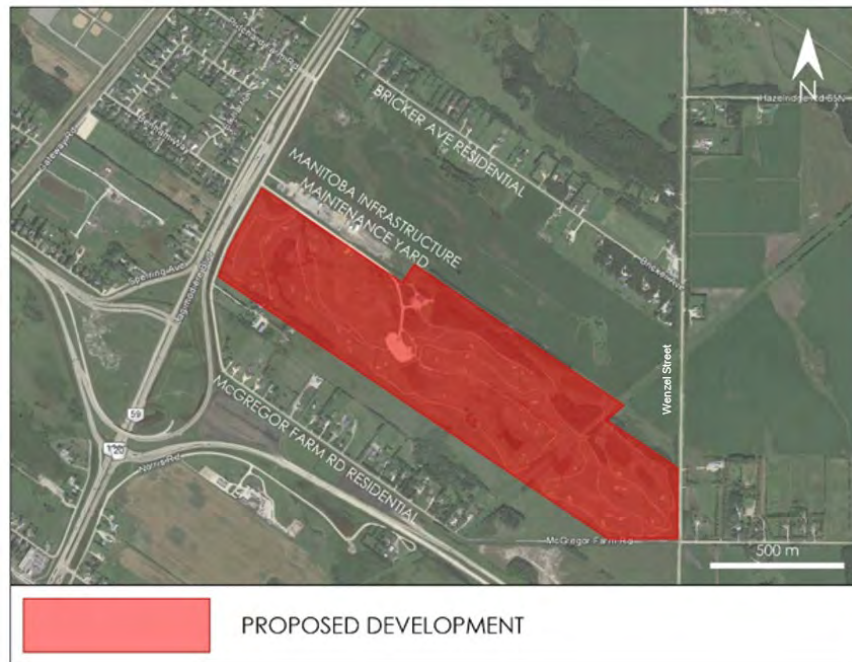


Figure 2: Local Context

2.2 Proposed Land Use

The site covers approximately 74.3 hectares (183.6 acres) in total area and is targeted to include a mix of residential development with a minor component of commercial retail space. The maximum east-west dimension of the subdivision is 2000 metres and the maximum north-south dimension is approximately 442 metres.

A site development plan from February 2026 is provided below for an overview of the site layout. This same site plan is provided in **Appendix A** with an enhanced and more legible scale.

Residential Development at the Former "The Meadows" Golf Course in East St. Paul, MB
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Figure 3: Site Plan – February 2026 (V6)

General features within The Meadows development includes the following:

- *East West Roads* - An east-west four-lane divided collector that serves the entire east-west length of the subdivision and provides connectivity from McGregor Farm Road to Wenzel Road. The western portion of the subdivision includes the use of single-lane and multi-lane roundabouts.
- *North South Roads* – Beyond use of the outside border roads of McGregor Farm Road and Wenzel Street, there is provision within The Meadows development for two north-south connections at the centre of site and two additional south roads on the eastern part of the site to long-term future area development.
- *3rd Party Overhead Utilities* – At the eastern end of the subdivision is a Manitoba Hydro overhead transmission line corridor running northeast-southwest. This is undevelopable and will remain as MB Hydro property. One road crossing will be required through the Manitoba Hydro corridor.
- *Park Space* – There is an abundance of park space within the subdivision, with each phase containing public reserves with both active and passive spaces as well as some naturalized drainage ponds. At the western section of the subdivision, there is a proposed north-south greenway connection for future connectivity in consideration of walking, cycling, multi-use paths, or other interests.
- *Walkable Community* – There are inclusions of on-street cycling and walking and off-street walkable community amenities throughout the neighborhood. The central east-west spine will also have an active transportation (AT) path to provide additional cycling and jogging opportunities and connects to each of the neighbourhood park spaces.
- *Stormwater Retention* – Several stormwater retention ponds are included both for aesthetic neighborhood features and for stormwater management.
- *Residential Development* – There are various formats of residential land use within the development, including multi-family apartments and condominiums, townhouses, row houses, side-by-side homes, single-family homes, and senior citizen housing.



- *Commercial Development* – The southwest corner of the proposed development includes a local community grocery store and a gas station to service the proposed development. There will also be retail opportunities on the main floor of the mixed-use buildings in the village centre.

2.3 Off-Site Development Access

Access to the development is to be provided via two primary connections within the 20-year projected traffic scope of this study. These intersections include:

- To/from McGregor Farm Road North (the east service road for PTH 59) heading north to the at-grade, all-directional signalized intersection of Provincial Trunk Highway 59 (PTH 59) and Provincial Road 202 (PR 202). PTH 59 is also known as Lagimodiere Boulevard and PR 202 is also known as Bird's Hill Road. Within this report, PTH 59 and PR 202 will be used.
- To/from Wenzel Street to the at-grade, all-directional signalized intersection of PTH 101 and Wenzel Street. PTH 101 is also known as the North Perimeter Highway.

Although The Meadows site plan identifies several north-south internal roads for future connectivity, the timelines for when these long-term north-south connections are developed with other properties are not known and are not included in the scope of this traffic impact study.

2.4 Adjacent Sites and Highway Conditions

2.4.1 Adjacent Land Use Characteristics

Generally, there are undeveloped lands immediately north of the proposed development and intermittent developed lands extending to the east-west portion of PTH 59.

North of The Meadows subdivision by 480 metres is a local residential road called Bricker Avenue. Bricker Avenue has approximately 27 single family residential homes. Closer to the PTH 59 at PR 202 intersection is an existing greenhouse (i.e., Schriemers Market Centre) and there are a few smaller commercial properties and agricultural lands. Much of the land north of The Meadows is owned by Brokenhead Ojibway First Nations. From discussions with MTI and the Rural Municipality of East St. Paul, the study team was not made aware of any plans or potential development on these lands or other nearby undeveloped lands.

As identified previously, there are also no known planning documents by the Rural Municipality of East St. Paul for any additional roads in the area defined by PTH 59, PTH 101 and Wenzel Street. As such, no new road networks or road alignments are considered for analysis within this Traffic Impact Study.

2.4.2 Existing Road Systems and Study Intersections

2.4.2.1 PTH 59

Within the local context, PTH 59 is an expressway connecting northeast Winnipeg to the Rural Municipalities of East St. Paul and St. Clements, and to communities along the southeast shore of Lake



Winnipeg. Major connections along PTH 59 include PTH 101 (Winnipeg), PR 202 (Birds Hill), PR 213 (RM of Springfield), the Birds Hill Park Access, PTH 44 (Beausejour & Lockport), PR 509 (Selkirk), PR 212 (East Selkirk), PTH 4 (Selkirk), and PR 317 (Lac Du Bonnet).

Within the immediate study area, PTH 59 includes a six-lane highway section that extends from the PTH 59 and PTH 101 interchange and terminates as a six-lane highway approximately 300 metres north of PR 202, transitioning down to a four-lane highway. Within the study area, PTH 59 has a posted speed of 90 km/h.

2.4.2.2 PTH 101

PTH 101 is a four-lane expressway outlining the north part of Winnipeg and is known as the North Perimeter Highway. It extends from PTH 1 west of Winnipeg in the Rural Municipality of Headingley to PTH 1 east of Winnipeg in the Rural Municipality of Springfield. PTH 101 connects to PTH 15 (Dugald), PTH 59, PTH 9 (St Andrews, Selkirk), PTH 8 (RM of West St Paul), PTH 7 (Stonewall), PTH 6 (Grosse Isle), PR 221 (Rosser), and PTH 190 (Centreport Canada). The posted speed of PTH 101 within the study area is 100 km/h.

2.4.2.3 PR 202

PR 202 is a four-lane divided highway that serves as a primary access to East St. Paul. Known locally as Birds Hill Road, the road is four-lanes from PTH 59 heading northwesterly for 1.2 kilometres. The posted speed within the study area is 50 km/h.

2.4.2.4 McGregor Farm Road

McGregor Farm Road is a two-lane rural road with an asphalt surface and 0.3 metre gravel shoulders. The road is posted at 50 km/h and provides access to the existing local residential and commercial development in the area. McGregor Farm Road carries <1,000 vehicles per day.

2.4.2.5 Wenzel Street

Wenzel Street is a border road between the Rural Municipality of East St. Paul to the Rural Municipality of Springfield. Wenzel Street is a two-lane chip-sealed road that serves as a primary north-south road in the local area. Wenzel Street used to connect directly to PTH 59 and this connection was closed in 2018 during regional re improvements by MTI. Wenzel Street carries <1,000 vehicles per day and the posted speed is 50 km/h.

2.4.3 MTI Intersection and Road Network Planning

A search for online publications was performed for consideration of long-term planning by MTI for the intersections of PTH 59 at PR 202 and at PTH 101 at Wenzel Road. These planning documents identified a long-range conceptual design of diamond interchanges at both intersections but the timelines for design and construction of these diamond interchanges are unknown. For purposes of the Traffic Impact Study, MTI advised not to consider the long-term interchanges for traffic analysis and to maintain the existing signalized intersections as current, intermediate, and 20-year projected conditions.



The existing field geometry was implemented into the traffic analysis for all analysis periods, including 2036 and 2046, with general lengths of turn lanes and site features taken from Google Earth measurements.

2.5 Study Area

Figure 4 shows the study area. The study area includes the two intersections under traffic analysis within this report:

- PTH 59 at PR 202/McGregor Farm Road
- PTH 101 at Wenzel Street

The study area also includes the site of the proposed development, and the sections of Wenzel Street and McGregor Farm Road that provide access to the proposed development.



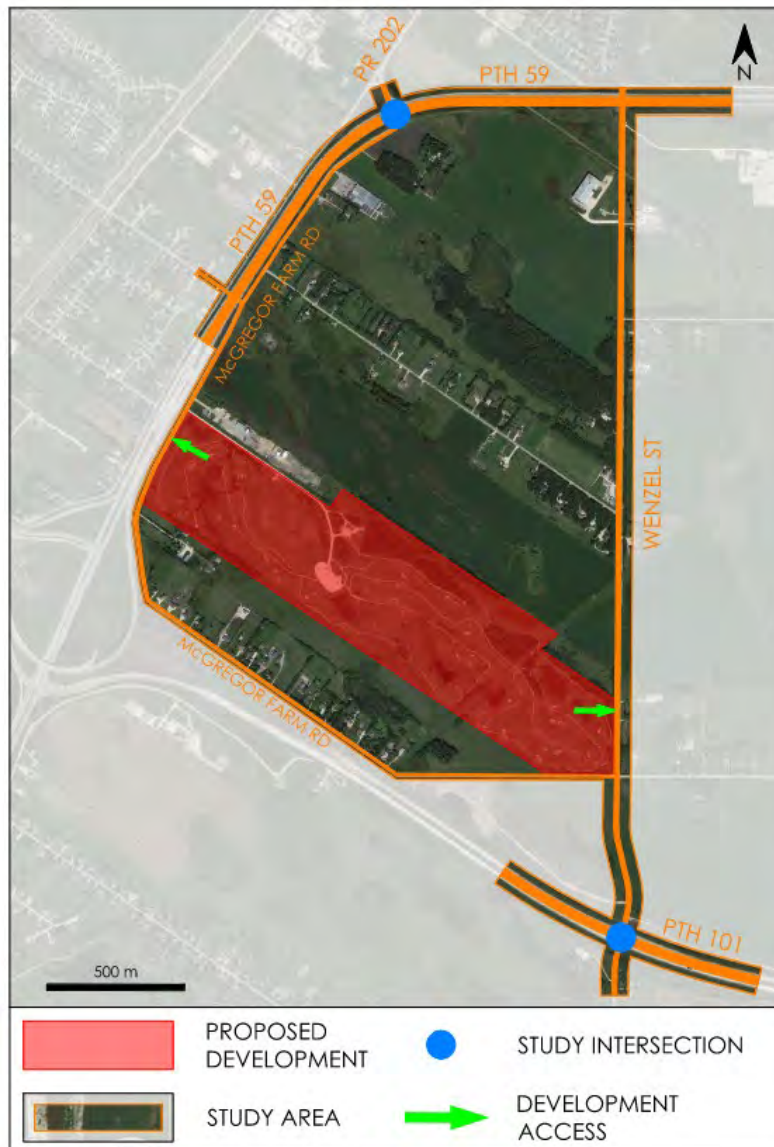


Figure 4: Study Area

2.6 Horizon Years and Time Periods for Analysis

The proposed development is estimated to be 50% completed in 10 years (2036 horizon) and 100% constructed in 20 years (2046 horizon). Typical procedures for Traffic Impact Studies include analysis at full build out and at 10 years beyond full build out. However, given that full build out is 20 years into the future, the study team considered an additional analysis at 10 years past full build out (i.e. 30 years into the future) to be excessive.

In agreement with all parties involved, the study team elected to use the following analysis scenarios:

- **2036 Pre-Development Conditions** - background traffic conditions and no traffic from The Meadows subdivision.
- **2046 Pre-Development Conditions** - background traffic conditions and no traffic from The Meadows subdivision.
- **2036 Post-Development Conditions** - background traffic conditions and 50% buildout of The Meadows subdivision.
- **2046 Post-Development Conditions** - background traffic conditions and 100% buildout of The Meadows Subdivision.

In all scenarios, analyses were conducted for typical weekday conditions. Peak hour traffic operations considered the weekday AM and PM peak hour of adjacent street traffic.



3 Traffic Volumes

3.1 Existing Traffic Volumes

MTI conducted traffic counts in the fall of 2025 on the study intersections. These counts were supplied for use in this traffic study. The traffic counts are described as follows:

- PTH 59 at PR 202
 - Tuesday, April 29, 2025, for a 24-hour intersection traffic count
 - Wednesday, April 30, 2025, for a 24-hour intersection traffic count
 - Traffic count data was supplied in 15-minute intervals
 - The AM Peak Hour was identified from 7:15 AM to 8:15 AM and PM Peak Hour was identified as 4:00 PM to 5:00 PM
- PTH 101 at Wenzel Street
 - Tuesday, November 25, 2025, for a 14-hour intersection traffic count
 - Wednesday, November 26, 2025, for a 14-hour intersection traffic count
 - Traffic count data was supplied in 15-minute intervals
 - The AM Peak Hour was identified from 7:15 AM to 8:15 AM and PM Peak Hour was identified as 4:30 PM to 5:30 PM

As identified above, the on-site intersection count data was completed at the end of in April and the end of November in 2025. Based on Permanent Count Stations in the area, an analysis of the percentage of the Average Annual Daily Traffic (AADT) for each month, the following was identified:

- April represents 95% of the AADT while May represents 105% of the AADT,
- November represents 95% of the AADT and December represents 90% of the AADT.

The end result is the April intersection traffic count at PTH 59 and PR 202 was not adjusted for the seasonal/monthly factor and was identified as 100% of the AADT. The PTH 101 at Wenzel Street intersection traffic count was identified as 90% of the AADT and was adjusted with a 10% increase to achieve a 100% AADT.

3.1.1 Compound Annual Growth Rate

To establish a historical background growth rate, various Permanent Count Stations and Short Duration Traffic Count Stations were reviewed in the general area. The data sets used on this study include:

- *PTH 59 Background:* Four (4) traffic count stations were analyzed along PTH 59 for historical traffic data. Regression analysis was completed to best fit the data and assist in developing the historical compound annual growth rate. Traffic count stations along PTH 59 include:
 - *Permanent Count Station 78* – located on PTH 59 approximately 5.4 kilometres south of PTH 44. Historical traffic count data from 1989-2024.
 - *Short Duration Traffic Count Station 1878* – located on PTH 59 south of PR 213. Historical traffic count data from 1989-2017.



- *Short Duration Traffic Count Station 551* – located on PTH 59 south of PR 202. Historical traffic count data from 1989-2014.
- *Short Duration Traffic Count Station 662* – traffic data was not used due to influence of PTH 101 and historical count data only ranging from 1989-2011.
- *PTH 101 Background:* Two (2) traffic count stations were analyzed along PTH 59 for historical traffic data. Regression analysis was completed to best fit the data and assist in developing the historical compound annual growth rate. Traffic count stations along PTH 101 include:
 - *Permanent Count Station 86* – located on PTH 101 approximately 0.5 kilometres east of Wenzel Street. Historical traffic count data from 1997-2024. There is recognition of the PTH 59 at PTH 101 interchange completion in September 2019.
 - *Short Duration Traffic Count Station 2561* – located on PTH 101 between Wenzel Street and PTH 59. Historical traffic count data from 1997-2014. Count data not used due to age of data.

The raw data was reviewed for consistency and thoroughness. It was noted that some data points within the historical data had inconsistencies or anomalies and is attributed to local area historical construction on PTH 101, PTH 59, or other external influences. Regression analysis was completed with and without these various anomalies to identify the net impact. It was found through the resultant regression analysis that the anomalies did not substantially change the results of backchecking the historical years and volumes, nor did the anomalies substantially impact the growth rate estimates.

As such, the historical compound annual growth rates implemented for this traffic study are identified as follows:

- PTH 59 – compound annual growth rate of 1.5%
- PTH 101 – compound annual growth rate of 1.07%

3.1.2 Peak Hour Factor and Percentage Heavy Vehicles

The peak hour factor (PHF) represents the fluctuation of traffic flow within the peak hour. PHF is defined as:

$$PHF = \frac{Peak\ Hour\ Volume}{Peak\ 15\ Minute\ Volume \times 4}$$

The lower PHFs indicate that more of the peak hour volume occurs within the peak 15 minutes, while higher PHFs indicate a more consistent flow within the peak hour. Volume fluctuation within the peak hour depends on many factors and thus is difficult to predict into the future. Historically, PHFs typically range from 0.85 to 0.92 for urban and sub-urban regions.

For this traffic study, PHFs identified within the 2025 intersection traffic counts were used for analysis of the 2036 and 2046 pre-development and post-development conditions.

The observed PHF for the major movements through the two intersections were analyzed and the following were identified:

- PTH 59 at PR 202



- Along PTH 59, the northbound and southbound through movements yield an average PHF of 0.88.
- Other movements through the intersection ranged from 0.44 to 0.81.
- For the traffic analysis, a PHF of 0.90 was used for the entire intersection.
- PTH 101 at Wenzel Street
 - Along PTH 101, the eastbound and westbound through movements yield an average PHF of 0.88.
 - Other movements through the intersection ranged from 0.50 to 0.91.
 - For the traffic analysis, a PHF of 0.88 was used for the entire intersection.

Heavy vehicle percentages for PTH 59 through movements at PR 202 were 3% in both directions in the PM peak hour, but historically this percentage is elevated due to summer activity related to construction activities in the overall region. Heavy vehicle percentages for turning movements were between 1% and 6%. For the traffic analysis, a percentage of 8% was used for truck movements for the northbound and southbound thru movements along PTH 59 and all other intersection movements were set at 5%.

From the PTH 101 and Wenzel Street intersection count, heavy vehicle volumes were identified as 11.5% eastbound and 8.6% westbound, and the range of the remaining movements were under 2%. However, the Permanent Count Stations identify an average annual daily traffic heavy truck percentage of 21%.

The truck percentages used for this traffic analysis are identified as follows:

- PTH 59 at PR 202
 - Northbound and southbound movements along PTH 59 were set at 8%
 - All remaining movements were set at 5%
- PTH 101 at Wenzel Street
 - Eastbound and westbound movements along PTH 101 were set at 21%
 - All remaining movements were set at 5%

3.1.3 Future Background Traffic Projections

Future background traffic was projected to 2026, 2036, and 2046 growth years using the growth rates listed above. The weekday AM and PM peak hour volumes are identified in **Figures 5 to 7** below.



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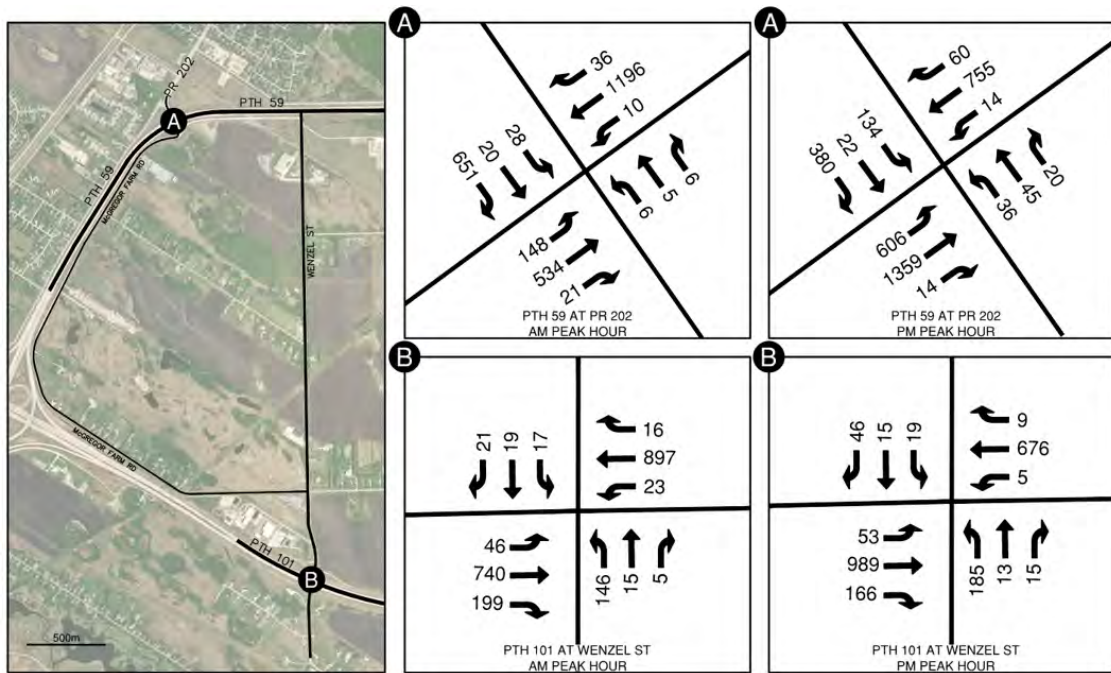


Figure 5: Pre-Development Volumes – 2026 AM and PM Peak Hours

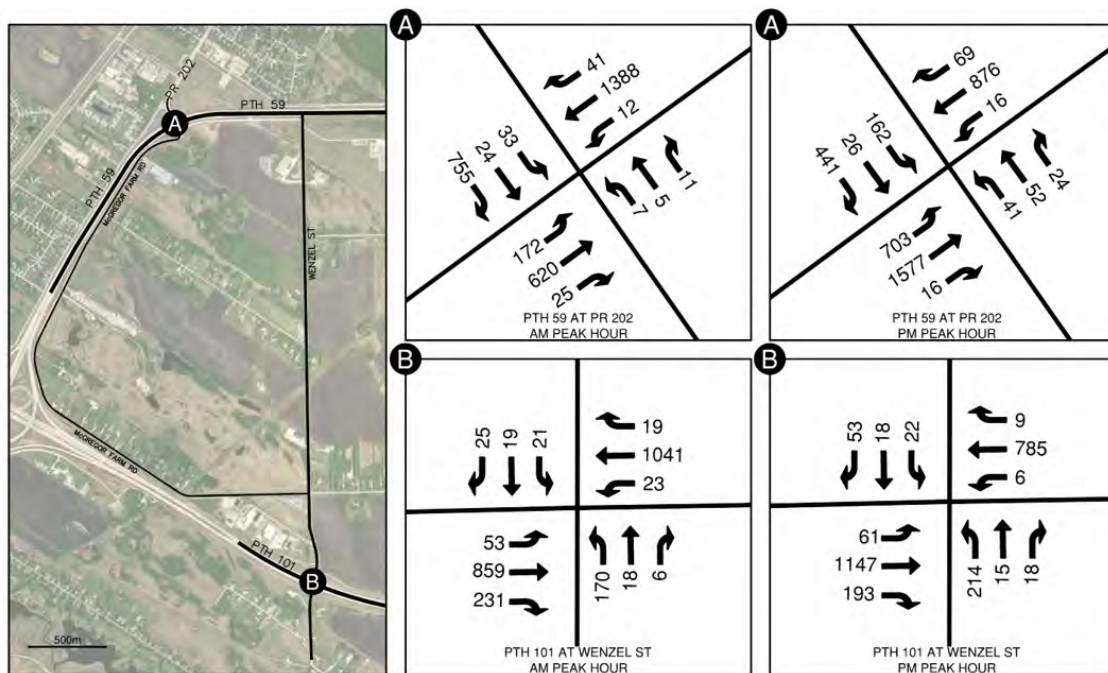


Figure 6: Pre-Development Volumes – 2036 AM and PM Peak Hours



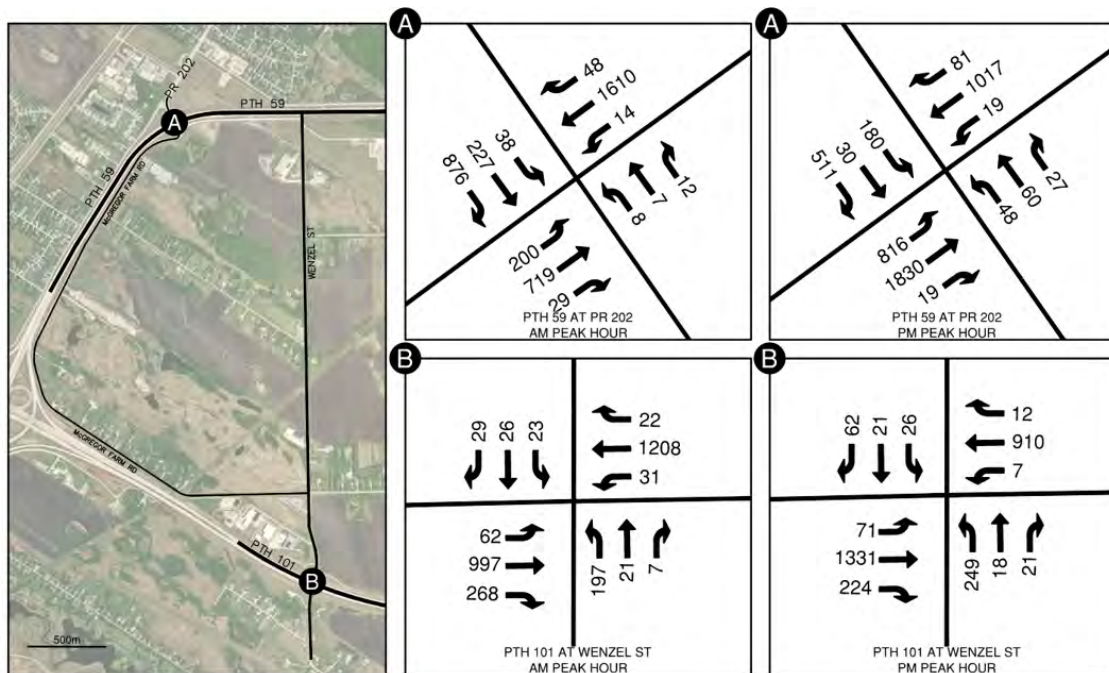


Figure 7: Pre-Development Volumes – 2046 AM and PM Peak Hours

3.2 Development Related Volumes

3.2.1 Development Related Traffic

The Institute of Transportation Engineers (ITE) *Trip Generation Manual, 12th Edition* provides trip generation data for many land uses and is used by jurisdictions across Canada and the USA. Trip generation for the proposed subdivision was based on The Meadows site plan dated February 2026, which identifies the proposed development layout, the projected type of units (residential, commercial), and other various features of the submission. For reference, the site plan is included as **Figure 3** above or as **Appendix A**. Overall the proposed development is projected to include 2,393 residential units and 4.39 acres of commercial (i.e., grocery store, gas station) and 24 units of light commercial (approx. 48,000 sq ft) via mixed-use commercial/residential units for local activities of flowers, crafts stores, fitness studio, medical/dental offices, restaurants, small office spaces, etc. In general terms, the following development types apply.

- 607 units of Single-Family Homes
- 823 units of Multi-Family Homes (up to 5 storeys)
- 617 units of Townhouses
- 62 units of Side-by-Side Homes
- 184 units of Senior Housing
- 100 units of Assisted Living
- Commercial Space – 10,000 ft² (assumed a Liquor Store)
- Commercial Space (small mixed-use) – 24 units of up to 1,320 ft² to 3,000 ft²



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- 1.35 Acre Day Care Facility (45 children)
- 4.39 Acre Light Commercial Area
 - Grocery Store (50,000 ft² gross floor area)
 - Gas Station (4 pumps)

Trip generation data is provided in Table 1 below.

Table 1: ITE Land Use and Development Trip Generation

Description	ITE Land Use	No. of Units	AM Peak Hour (Total, Inbound / Outbound)	PM Peak Hour (Total, Inbound / Outbound)	Weekday
RESIDENTIAL UNITS					
Single Family Houses	210 – Single Family Detached Housing	607	412 total (111 in / 301 out)	506 total (314 inbound / 192 outbound)	5,164 vpd
Townhomes	220 – Multi-Family Housing (Low Rise)	617	229 total (55 in / 174 out)	304 total (188 in / 118 out)	3,594 vpd
Apartments	221 – Multi-Family Housing (Mid Rise)	823	338 total (78 in / 260 out)	299 total (192 in / 107 out)	3,727 vpd
Senior Housing	251 Senior Adult Housing – Single Family	138	49 total (17 in / 32 out)	57 total (35 in / 22 out)	774 vpd
Senior Housing	252 – Senior Adult Housing – Multi-Family	46	9 total (3 in / 6 out)	12 total (6 in / 6 out)	150 vpd
Senior Housing	254 – Assisted Living	100	19 total (11 in / 8 out)	24 total (9 in / 15 out)	414 vpd
COMMERCIAL UNITS					
Commercial	932 - High Turnover (Sit Down) Restaurant	4 ea. x 3,000 s.f.	108 total (59 in / 49 out)	112 total (68 in / 44 out)	1,244 vpd
Commercial	720 - Medical-Dental Office Building	3 ea. x 2,500 s.f.	9 total (6 in / 3 out)	7 total (3 in / 4 out)	78 vpd
Commercial	712 - Small Office Building	13 ea. x 1,320 s.f.	26 total (21 in / 5 out)	39 total (13 in / 26 out)	247 vpd
Commercial	494 - Boutique Fitness Studio	3 ea. x 1,500 s.f.	54 total (27 in / 27 out)	36 total (30 in / 6 out)	186 vpd
Commercial	899 - Liquor Store	1 ea. at 10,000 s.f.	7 total (5 in / 2 out)	150 total (75 in / 75 out)	1,040 vpd
Commercial	945 - C-Store / Gas Station	4 fueling stations	55 total (27 in / 28 out)	63 total (32 in / 31 out)	1,048 vpd
Commercial	850 - Supermarket	50,000 s.f.	148 total (88 in / 60 out)	436 total (218 in / 218 out)	4,634 vpd
Commercial	565 - Day Care Centre	45 children	38 total (20 in / 18 out)	40 total (19 in / 21 out)	166 vpd



The result of the gross trip generation for The Meadows development is as follows:

- AM Peak Hour
 - Total Hourly Volume is 1,519 vehicles per hour; further summarized as 543 vehicles inbound and 976 vehicles outbound.
- PM Peak Hour
 - Total Hourly Volume is 1,922 vehicles per hour; further summarized as 1,203 vehicles inbound and 889 vehicles outbound.
- Daily Traffic Volumes was identified as 22,466 vehicles per day.

3.2.2 Internal Capture

Consideration for internal capture must be made for The Meadows. An internal capture rate can generally be defined as the percentage of total person trips generated by a site that are made entirely within the site, or in other words, the people that live, stay, work, and play within the subdivision without creating external trips from the subdivision.

Typically, the internal capture rate applies to the PM peak hour due to the time of day for activities, shopping, retail activity, and other factors. As such, the internal capture rate was estimated and implemented for the PM peak hour only.

Advancing on the relationships of the commercial, retail, and residential activities proposed for The Meadows during the PM peak hour, the assessment for internal capture rate was completed as outlined in the *ITE Trip Generation Handbook*, 3rd Edition. The total capture rate specific to this development layout was identified to be 8.0%, resulting in a total development related traffic generation identified as follows:

- AM Peak Hour is 1,519 vehicles per hour
- PM Peak Hour is 1,768 vehicles per hour
- Daily Traffic Volume was identified as 20,668 vehicles per day

3.2.3 Public Transit and Modal Splits

No allowance has been made for the servicing of the development with transit by the City of Winnipeg transit authority (Winnipeg Transit), nor is there transit service supplied by the RM of East St. Paul. Therefore, no reduction was applied to trip generation for transit for The Meadows. At this time, it is unknown whether transit service could be extended to service The Meadows however it is unlikely within the 20-year time frame of development.

Regarding modal splits, the proposed development is located in an area with mostly undeveloped land and scattered rural residential development and there are few complimentary land use origins or destinations within convenient walking or cycling distance. Outside of The Meadows development, there are no dedicated active transportation facilities in the area or planned for future development that would connect the development to north Winnipeg or East St. Paul. As such, the trip generation estimates were not reduced for public transit and modal split activities.



3.2.4 Pass-By Traffic

Pass-by trip percentages are applicable only to trips that enter or exit the adjacent street or road system. Pass-by trips are relevant to commercial entities such as coffee shops or gas stations. Effectively, these trips are intercepted from the adjacent road system, passed through the gas station / coffee shop establishment, then re-applied to the adjacent road system in the same direction of travel. For The Meadows development, no Pass-By trip reductions were implemented due to the format, location, and style of commercial activity within the development.

3.2.5 Development Related Distributions

There are a few points to consider when assessing the distribution of development volumes and to what intersection traffic would consider. Discussed in **Section 2.4.1**, there is unknown and unlikely development to the north of the Meadows for the longer-term future and, as such, additional development in the area is unlikely and was agreed upon by all parties that no further development is to be considered for this traffic study analysis.

As such, The Meadows development can be considered as a standalone entity with two points of access and egress. Looking at both local and regional contexts, the following items need to be considered:

- *First Large-Scale Development* – The Meadows development is the first large-scale residential development bounded within PTH 59, PTH 101 and the Red River Floodway. On the interim, The Meadows development will be “isolated” from the lack of adjacent developments for the foreseeable future. Without additional internal north-south roads within the larger land mass bounded by PTH 59/PTH 101/Red River Floodway nor adjacent neighborhood characteristics of residential and commercial development, quick access in and out of the development will be the preferred option for local residents within the 20-year time frame of this TIS.
- *General Mass of the Development* – In general terms, The Meadows is fronting PTH 101 and has easy access to Wenzel Street and the signalized intersection on PTH 101. The use of Wenzel Street and PTH 101 also leads to quick access westerly to the PTH 59 at PTH 101 interchange or continued movement to the south on PTH 59. The use of the PTH 59 at PR 202 signalized intersection increases the drivetime and length of access to/from The Meadows considering it is generally 2.0 kilometres away in one direction, then generally 2.0 kilometres back to the PTH 59 at PTH 101 interchange. For the Wenzel Street access, the PTH 101 signalized intersection is 1.3 kilometres away then 2.3 kilometres to the interchange.

With an overview of the development and adjacent long-term development, the development related volume distribution at the study intersections is as follows:

- PTH 59 at PR 202
 - 65% of the total development related volumes will use the at-grade signalized intersection of PTH 59 at PR 202.
- PTH 101 at Wenzel Street
 - 35% of the total development related volumes will use the at-grade signalized intersection at PTH 101 at Wenzel Street.



Figure 8 provides a pictorial of the development-related volume distributions specific to each study intersection.

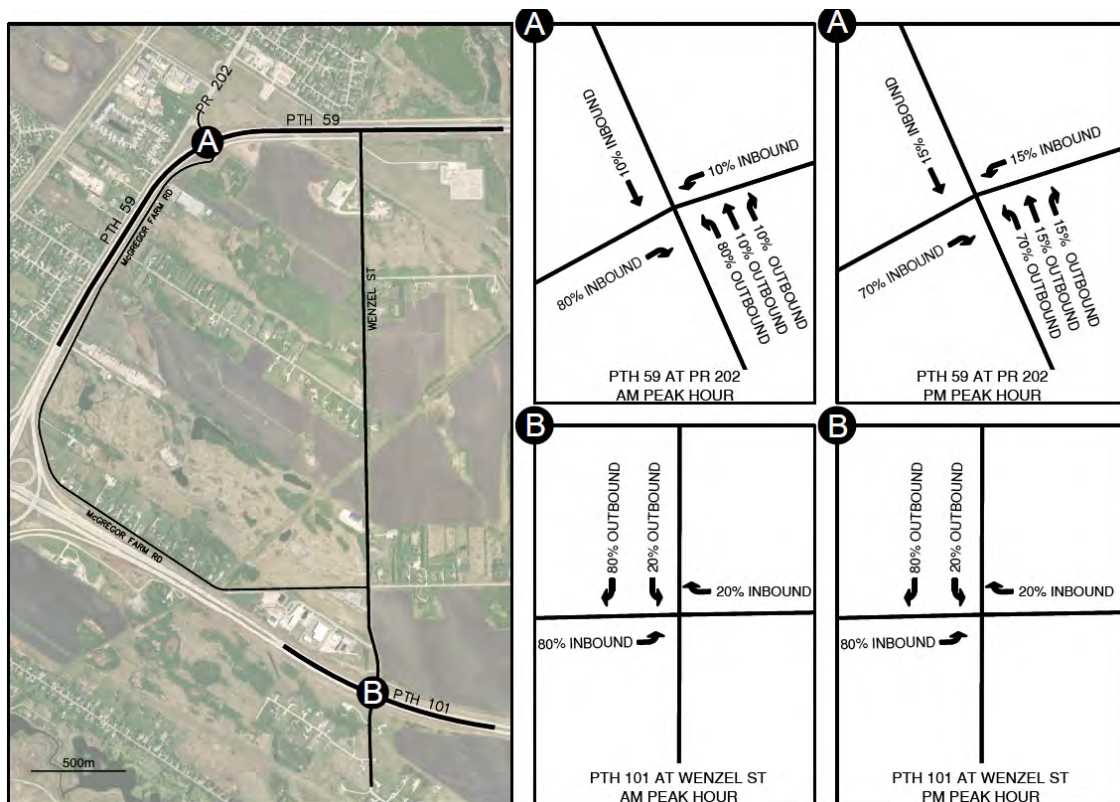


Figure 8: AM and PM Peak Hour Distribution for PTH 59 at PR 202 and PTH 101 at Wenzel Street

3.2.6 Post-Development Traffic Volumes

With the background traffic, development traffic and distribution of trips identified, the post development traffic volumes were developed and forms the basis for pre- and post-development analysis.

Figures 9 and 10 identify the 2036 and 2046 Post-Development volumes implemented for purposes of the detailed traffic analysis.



Residential Development at the Former "The Meadows" Golf Course in East St. Paul, MB
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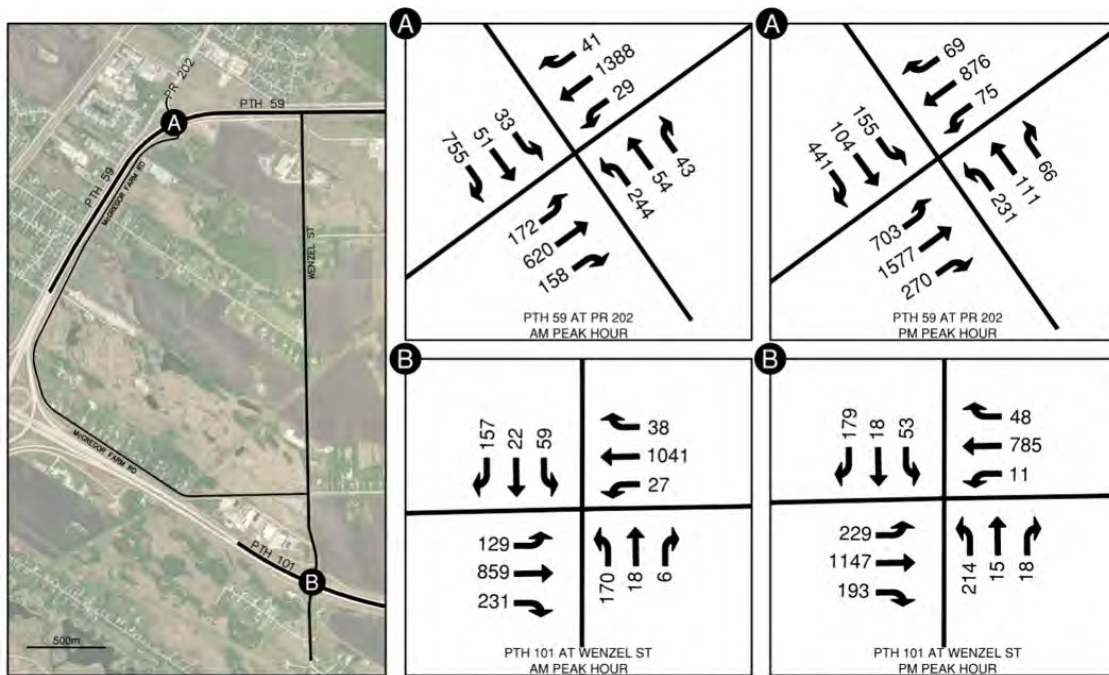


Figure 9: Post-Development Volumes at 50% Buildout - 2036 AM and PM Peak Hours

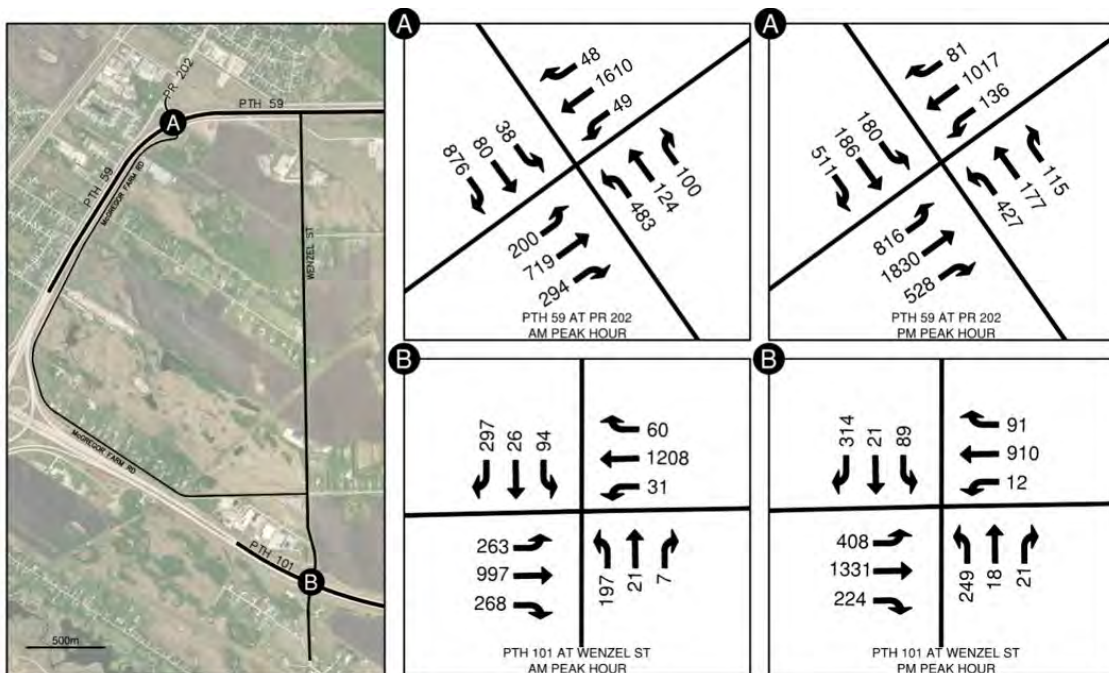


Figure 10: Post-Development Volumes at 100% Buildout - 2046 AM and PM Peak Hours



4 Traffic Analysis

The purpose of the traffic analysis is to determine the performance of the study intersections under various traffic scenarios and—if required—to develop traffic control and/or geometric modifications to improve performance. Recall from **Section 2.6** that the four (4) traffic scenarios are:

- **2036 Pre-Development Conditions** – background traffic conditions and no traffic from the proposed subdivision during the AM and PM peak hours.
- **2046 Pre-Development Conditions** – background traffic conditions and no traffic from the proposed subdivision during the AM and PM peak hours.
- **2036 Post-Development Conditions** – background traffic conditions and 50% buildout of The Meadows Subdivision during the AM and PM peak hours.
- **2046 Post-Development Conditions** – background traffic conditions and 100% buildout of The Meadows Subdivision during the AM and PM peak hours.

4.1 Existing Intersection Configurations

The existing at-grade signalized intersection geometry and lane assignment were used as a starting basis for the traffic analysis, including thru lanes, turn lanes, acceleration lanes, deceleration lanes, right-turn cut-offs and other lane features. Acceleration and deceleration lanes are measured from the stop bar on the lane to halfway through the taper length.

For clarification and simplification, PTH 59 is considered as northbound and southbound, with PR 202 and McGregor Farm Road considered as the east-west directions.

The site geometry is identified in the following bullets and accompanied by conceptual sketches in **Figure 11** and **12** below.

- PTH 59 at PR 202 – this is an at-grade signalized intersection.
 - Northbound approach on PTH 59
 - Three thru lanes. It is recognized that 225 north of the intersection, the northbound lanes reduce to two thru lanes.
 - Dual left-turn lanes; length of 280 metres.
 - One northbound to eastbound deceleration lane; length of 185 metres. No right-turn cut-off.
 - Southbound approach on PTH 59
 - Two thru lanes. It is recognized that immediately south of the intersection, the eastbound-to-southbound right from PR 202 to PTH 59 extends as a third southbound lane.
 - One southbound-to-westbound right turn with a right-turn cut-off using a 60 metre radius.



- Eastbound Approach on PR 202
 - One thru lane.
 - One eastbound-to-northbound left-turn lane; length of 60 metres.
 - One eastbound-to-southbound right-turn lane with a right-turn cut-off with a radius of 60 metres. It is recognized that this lane changes to a continuous southbound thru lane to beyond the PTH 59 at PTH 101 interchange.
- Westbound Approach on McGregor Farm Road
 - One combined thru + right-turn lane. There is no right-turn cut-off.
 - One westbound-to-southbound left-turn lane with a storage length of 50 metres.
- PTH 101 at Wenzel Street – this is an at-grade signalized intersection.
 - Eastbound approach on PTH 101
 - Two thru lanes.
 - One eastbound-to-southbound right-turn deceleration lane with a length of 280 metres. There is no right-turn cut-off.
 - One eastbound-to-northbound left-turn lane with a length of 200 metres. It is noted the left-turn lane is a slot left.
 - Westbound approach on PTH 101
 - Two thru lanes.
 - One westbound-to-northbound right-turn lane with a length of 180 metres. There is no right-turn cut-off.
 - One westbound-to-southbound left-turn lane with a length of 180 metres. It is noted the left-turn lane is a slot left.
 - Northbound approach on Wenzel Street
 - One combined left + thru + right lane.
 - Southbound approach on Wenzel Street
 - One combined thru + left-turn lane.
 - One southbound-to-westbound right-turn lane with a length of 50 metres. No right-turn cut-off.

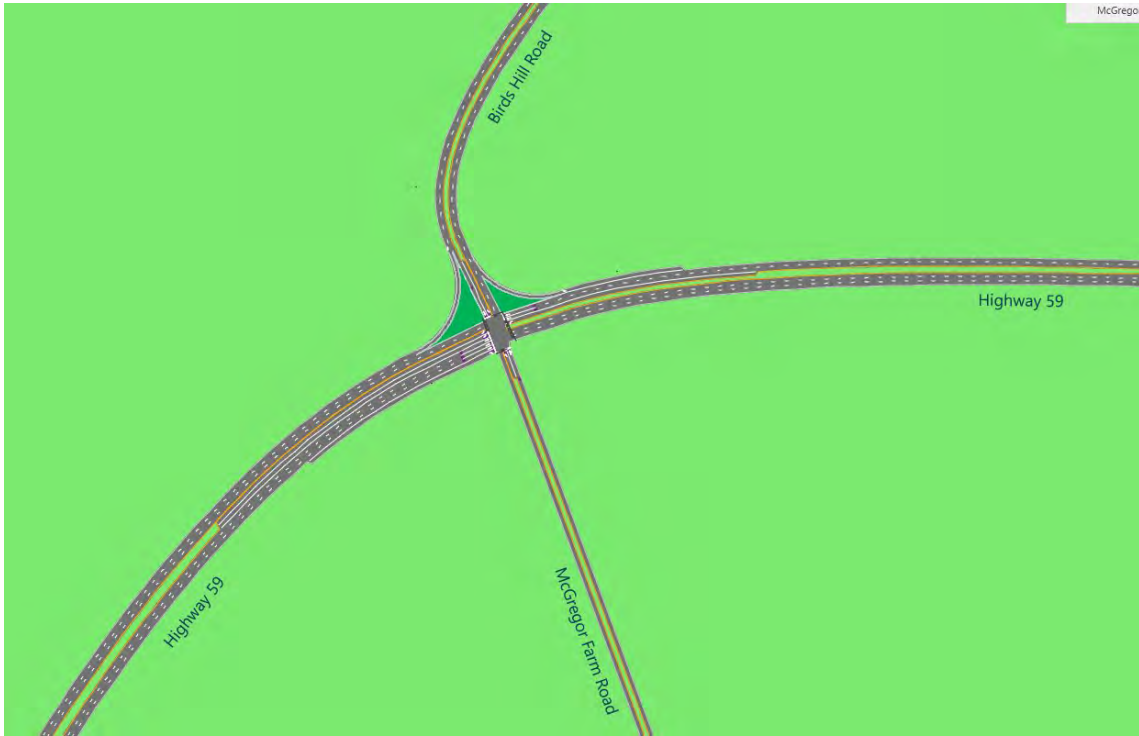


Figure 11: Lane Geometry at PTH 59 and PR 202 – Distant View

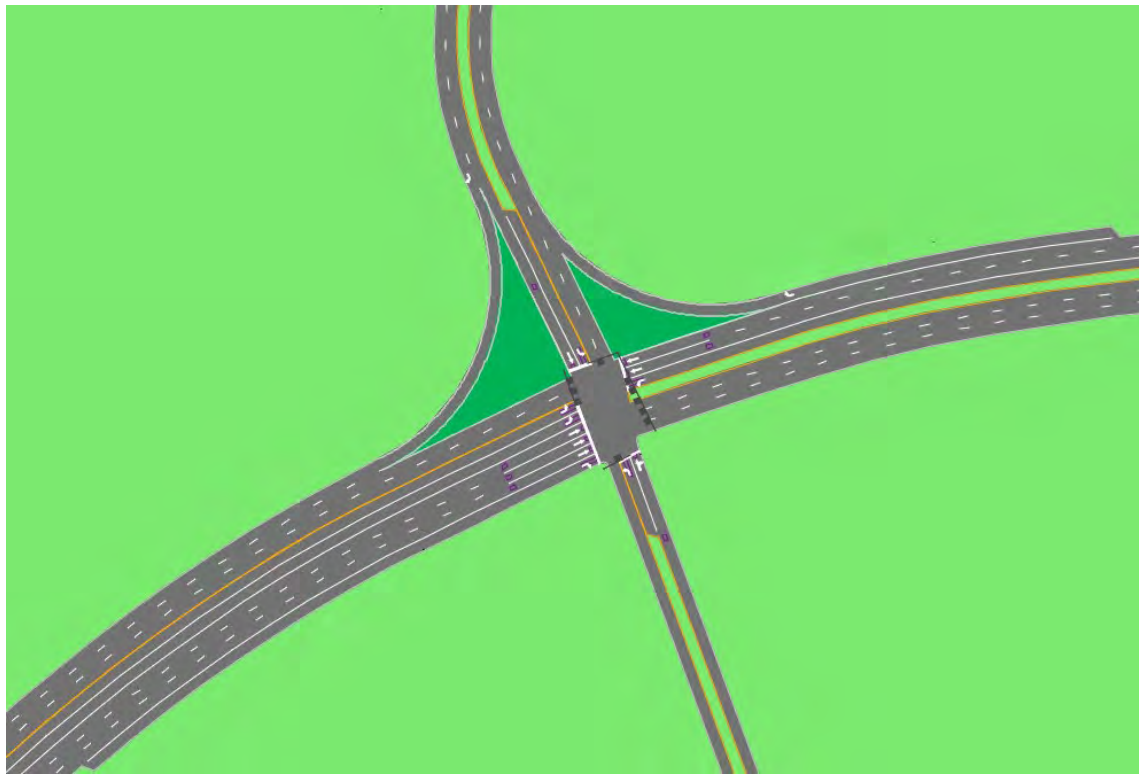


Figure 12: Lane Geometry at PTH 59 and PR 202 – Near View



Figure 13: Lane Geometry at PTH 101 and Wenzel Street – Distant View

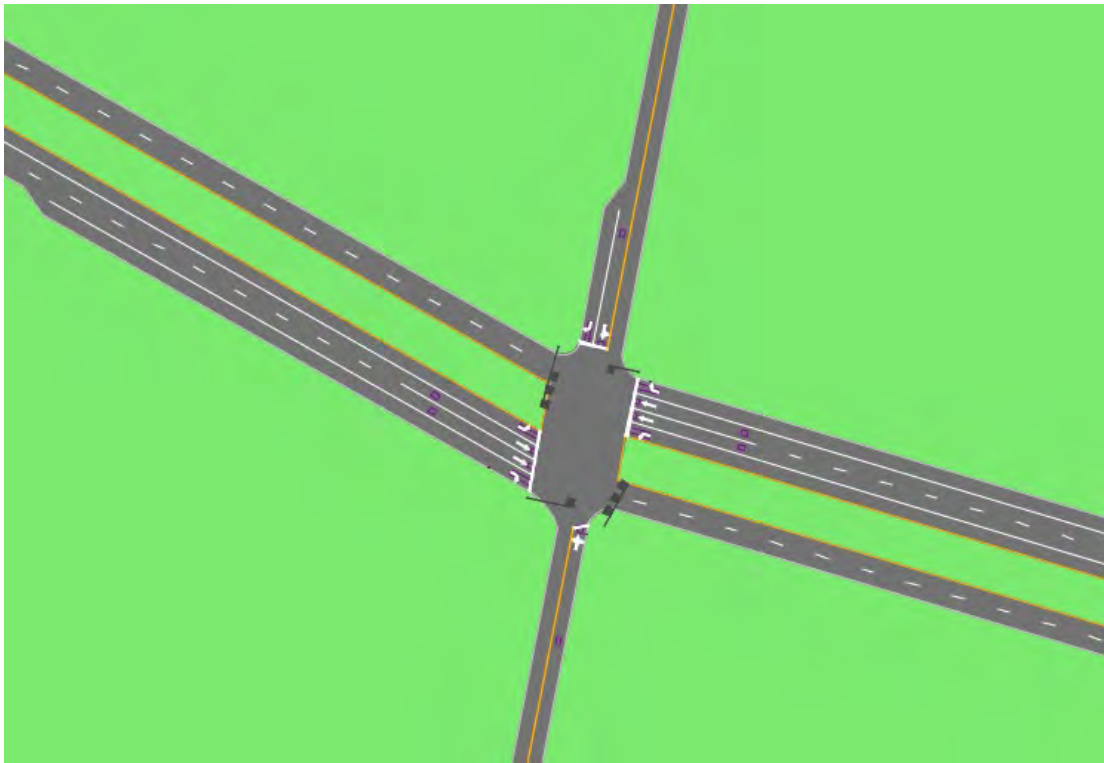


Figure 14: Lane Geometry at PTH 101 and Wenzel Street – Near View

4.2 Peak Hour Traffic Operations Analysis

4.2.1 Vehicle Delay Based Intersection Analysis (Highway Capacity Manual Methodology)

Traffic analyses for signalized and unsignalized intersections are typically conducted using methodology developed by the Transportation Research Board (TRB) and published in the *Highway Capacity Manual* (HCM). Most of the analyses are based on vehicle delay under various traffic volumes, roadway configurations, and traffic control strategies. The delay estimates are used as the basis for evaluating intersection performance. According to the HCM, the relative performance of an intersection can be measured using several different factors including:

- **Level of Service (LOS)** – Based on the average vehicle delay during a 15-minute analysis period. Levels of Service range from A (minimal delay) to F (unacceptable delay) and may be measured on an intersection, approach, or movement basis.
- **Degree of Saturation** – The ratio of demand flow rate (v) to maximum capacity (c). Where the v/c ratio is 1.0 or greater, the intersection is operating at full capacity and experiencing major congestion.
- **Vehicle Delay** – The average time that vehicles are delayed on an intersection, approach, or movement basis. Measured in seconds of delay per vehicle or total hours of delay during the peak hour being analyzed.

For design and planning purposes, an intersection LOS D or better under peak hour conditions is considered acceptable. **Table 2** describes the characteristics of the LOS for signalized intersections as listed in the HCM.

Table 2: Signalized Intersections - HCM Level of Service Characteristics

HCM Level of Service	Average Signal Delay per Vehicle (sec/veh)	Characteristics
A	≤ 10	Free flow, low volumes and high speeds, most drivers can select own speed
B	> 10 and ≤ 20	Stable flow, speed restricted slightly by traffic
C	> 20 and ≤ 35	Stable flow, speed controlled by traffic
D	> 35 and ≤ 55	Approaching unstable flow, low speed
E	> 55 and ≤ 80	Unstable flow and speeds, volumes at/near capacity
F	> 80	Forced flow, low speed, volume above capacity

4.2.2 Intersection Capacity Utilization

Intersection Capacity Utilization (ICU) is another measure used to evaluate intersection performance. It is expressed as a ratio or percentage of intersection capacity used by the demand flow. ICU can be expressed using Level of Service (ICU LOS), which is not equivalent to the HCM LOS described earlier. The characteristics of each ICU LOS are described in



Table 3.

Table 3: ICU Level of Service

Level of Service	Intersection Capacity Utilization (%)	Characteristics
A	≤ 60%	The intersection has no congestion. A cycle length of 80 sec. or less will move traffic efficiently. All traffic should be served on the first cycle. Traffic fluctuations, accidents, and lane closures can be handled with minimal congestion. This intersection can accommodate up to 40% more traffic on all movements.
B	> 60% and ≤ 70%	The intersection has very little congestion. Almost all traffic will be served on the first cycle. A cycle length of 90 sec. or less will move traffic efficiently. Traffic fluctuations, accidents, and lane closures can be handled with minimal congestion. This intersection can accommodate up to 30% more traffic on all movements.
C	> 70% and ≤ 80%	The intersection has no major congestion. Most traffic should be served on the first cycle. A cycle length of 100 sec. or less will move traffic efficiently. Traffic fluctuations, accidents, and lane closures may cause some congestion. This intersection can accommodate up to 20% more traffic on all movements.
D	> 80% and ≤ 90%	The intersection normally has no congestion. The majority of traffic should be served on the first cycle. A cycle length of 110 sec. or less will move traffic efficiently. Traffic fluctuations, accidents, lane closures and sub-optimal timing can cause congestion. This intersection can accommodate up to 10% more traffic on all movements.
E	>90% and ≤ 100%	The intersection is on the verge of congested conditions. Many vehicles are not served on the first cycle. A cycle length of 120 sec. is required to move all traffic. Minor traffic fluctuations, accidents, lane closures and sub-optimal timing can cause significant congestion. This intersection has less than 10% reserve capacity available.
F	> 100% and ≤ 110%	The intersection is over capacity and likely experiences congestion periods of 15 to 60 min. per day. Residual queues at the end of green are common. A cycle length over 120 sec. is required to move all traffic. Minor traffic fluctuations, accidents, and lane closures can cause increased congestion. Sub optimal signal timings can cause increased congestion.
G	> 110% and ≤ 120%	The intersection is 10% to 20% over capacity and likely experiences congestion periods of 60 to 120 min. per day. Long queues are common. A cycle length over 120 sec. is required to move all traffic. Motorists may be choosing alternate routes, if they exist, or making fewer trips during the Peak Hour. Signal timings can be used to "ration" capacity to the priority movements.
H	> 120%	The intersection is 20% over capacity and could experience congestion periods of over 120 min. per day. Long queues are common. A cycle length over 120 sec. is required to move all traffic. Motorists may be choosing alternate routes, if they exist, or make fewer trips during the Peak Hour. Signal timings can be used to "ration" capacity to the priority movements.

Highway Capacity Manual Level of Service (HCM LOS) and Intersection Capacity Utilization Level of Service (ICU LOS) are different performance measures and cannot be directly compared. HCM LOS is delay-based, while ICU LOS is capacity-based. At times the two (2) measures will give very different evaluations of overall traffic operations. In these situations, the HCM LOS can be used to determine average delays experienced by traffic while the ICU LOS can be used to determine how much reserve capacity is available at each intersection and how frequently each intersection experiences congestion.

4.3 Peak Hour Traffic Operations Analysis

The peak hour traffic operations analysis was completed using *Synchro Studio 12* (Synchro) software. Synchro allows users to model traffic operations for street networks including signalized and unsignalized intersections. Traffic operations performance is returned in the form of volume to capacity (v/c) ratios, intersection capacity utilization (ICU), delays, level of service (LOS), and queue lengths.



In each of the analyses, reported performance includes delay, LOS, and ICU at the overall intersection level, and performance for critical movements. A critical movement is a movement that meets at least one these criteria:

- Operating at LOS D or worse
- Volume to capacity (v/c) ratio of 0.85 or greater
- 95% percentile queue lengths exceed available queue storage lengths

Synchro traffic analysis reports are included in **Appendix C**.

4.3.1 Assumptions

The peak hour traffic operations analysis was based on the following assumptions:

- All legal intersection movements were assumed to have a volume of at least 5 vehicles per hour (vph) during the AM and PM peak hours.
- Ideal saturated flow rate for the HCM analysis was 1,900 veh/hr (equivalent to 1,800 pcu/hr in the *Canadian Capacity Guide*).
- Operating speed was assumed to be equal to the posted speed limit.
- Peak hour factors (PHFs) for existing scenarios were set to observed field values, provided those values were at least 0.80. Observed values lower than 0.80 were changed to 0.80. PHFs for future scenarios were set to a default value of 0.92.
- The traffic signal at PTH 59 and PR 202 was set to operate under semi-actuated uncoordinated control, resting on PTH 59 through movements. Modifications would be applied as required.
- Traffic signal clearance intervals were set to 4 second amber intervals and 2 second all-red intervals.
- At PTH 59, the northbound and southbound left-turn movements operate under a protected signal phase; no free-left turns (i.e., permitted turns) are permitted due to high travel speeds and public safety.
- At PTH 101, the eastbound and westbound left-turn movements operate under a protected signal phase; no free-left turns (i.e., permitted turns) are permitted due to high travel speeds and public safety.
- Where present, pedestrian crossings at signalized intersections were analyzed with at least five pedestrian crossing calls per hour.

The following sections provide discussion and analysis results from each of the analysis scenarios.

4.3.2 Pre-Development Traffic Scenarios

As mentioned above within this report, PTH 59 is considered as the northbound and southbound directions, with PR 202 and McGregor Farm Road considered as the east-west directions. This allows for 90-degree



cardinal directions (i.e. northbound, westbound) as opposed to using 45-degree directional call-outs (i.e., northwest bound, southeast bound).

4.3.2.1 2036 Pre-Development Scenario

For the 2036 Pre-Development conditions, the original signal cycle length was maintained and only the signal timing splits were optimized. The analysis reviewed any pre-development operational concerns and the effective mitigative efforts to satisfy the required LOS D or better operational requirements.

The 2036 and 2046 Pre-Development results of the Synchro traffic analysis are described in **Table 4** below. The table identifies some of more critical individual movements within the intersection operations.

Table 4: 2036 Pre-Development Traffic Operations Analysis

Intersection	Overall Intersection (LOS / Delay / ICU)	Approach (Movement / LOS / Delay / 95% Queue)	Critical Movements (Movement / LOS / Delay / v/c / 95% queue)
2036 AM (PM) Peak Hour Pre-Development Scenario			
PTH 59 at PR 202/McGregor Farm Road (Traffic Signal)	B / 13 / 72.4% (C / 26 / 73%)	<p>AM</p> <p>NB - B / 11 / 23 SB - B / 19 / 150 EB - A / 4 / 11 WB - C / 35 / 9</p> <p>PM</p> <p>NB - C / 21 / 87 SB - C / 26 / 125 EB - D / 37 / 28 WB - C / 20 / 19</p>	<p>AM Peak</p> <p>NBL (PTH 59) - D / 37 / 0.43 / 26 SBL (PTH 59) - D / 44 / 0.14 / 8 EBL (PR202) - D / 37 / 0.20 / 15</p> <p>PM Peak</p> <p>EBL (PR 202) - D / 46 / 0.88 / 95 SBL (PTH 59) - E / 65 / 0.35 / 11 WBL (PR 202) - E / 71 / 0.84 / 69</p>
PTH 101 at Wenzel St (Traffic Signal)	C / 25 / 67% (C / 26 / 73%)	<p>AM</p> <p>NB - E / 56 / 89 SB - C / 24 / 21 EB - B / 17 / 117 WB - C / 28 / 170</p> <p>PM</p> <p>NB - D / 50 / 113 SB - B / 19 / 19 EB - C / 26 / 32 WB - C / 26 / 106</p>	<p>AM Peak</p> <p>EBL - E / 63 / 0.36 / 34 WBL - E / 66 / 0.25 / 21 NB Combined - E / 56 / 0.72 / 89</p> <p>PM Peak</p> <p>EBL - E / 59 / 0.40 / 32 WBL - E / 58 / 0.07 / 7 NB Combined - D / 50 / 0.72 / 113</p>

PTH 59 at PR 202

The AM and PM movements with LOS D or E are listed above. The AM peak hour southbound-to-eastbound left movement yields a LOS E is due to the 162 vpd which is difficult to accommodate due to high thru volumes on PTH 59. The southbound-to-eastbound movement has a LOS E as this is a very minor movement and is prescribed a low green interval during the signal cycle length. This southbound-to-eastbound movement is a low volume movement to the overall intersection and is not considered for mitigation measures.

PTH 101 at Wenzel Street

During the AM and PM peak hour, the northbound approach on PTH 101 at Wenzel Street includes only a single lane of traffic to support the high-volume northbound left with 170 vph in the AM and 214 vph in the PM), thru movements (<25 vph) and right-turn movement (<25 vph). This results in the LOS D with 50 seconds of delay.



Noted from on-site conditions, the shoulder on the northbound approach is being used by the public to accommodate the northbound-to-eastbound right-turn movement and the occasional northbound thru movement. Under 2036 Pre-Development conditions, it is recommended to reconfigure the northbound approach to yield a dedicated left-turn lane and a separate combined thru + right-turn lane and consider a northbound left-turn protected movement to support the high turn volumes. The northbound left-turn during the AM peak hour is 185 vehicles per hour and during the PM peak hour the movement is 214 vehicles per hour.

4.3.2.2 2046 Pre-Development Scenario

Similar to the 2036 conditions, the 2046 Pre-Development conditions implemented the original signal cycle length and only the signal timing splits were optimized. The analysis reviewed any pre-development operational concerns and the effective mitigative efforts to satisfy the required v/c <1.0 objective and an approach LOS D or better for operational requirements.

The results are presented in **Table 5** below.

Table 5: 2046 Pre-Development Traffic Operations Analysis

Intersection	Overall Intersection (LOS / Delay / ICU)	Approach (Movement / LOS / Delay / 95% Queue)	Critical Movements (Movement / LOS / Delay / v/c / 95% queue)
2046 AM (PM) Peak Hour Pre-Development Scenario			
PTH 59 at PR 202/McGregor Farm Road (Traffic Signal)	B / 13 / 72.4% (C / 33 / 86.4%)	<p>AM</p> <p>NB - B / 11 / 28 SB - C / 28 / 213 EB - A / 5 / 0.13 / 12 WB - C / 34 / 9</p> <p>PM</p> <p>NB - C / 27 / 108 SB - D / 42 / 150 EB - D / 37 / 14 WB - D / 42 / 32</p>	<p>AM Peak</p> <p>NBL (PTH 59) - D / 39 / 0.54 / 29 SBL (PTH 59) - D / 44 / 0.19 / 9 SBL (PR 202) - D / 37 / 0.24 / 16</p> <p>PM Peak</p> <p>NBL (PTH 59) - E / 65 / 0.99 / 129 SBL (PTH 59) - D / 52 / 0.25 / 12 EBL (PR 202) - F / 140 / 1.11 / 86 EBT - D / 37 / 0.12 / 14 WBL (McGregor) - D / 41 / 0.28 / 20 WBT (McGregor) - D / 43 / 0.39 / 32</p>
PTH 101 at Wenzel St (Traffic Signal)	C / 25 / 67% (C / 30 / 73.7%)	<p>AM</p> <p>NB - E / 71 / 112 SB - C / 28 / 24 EB - C / 20 / 145 WB - C / 34 / 221</p> <p>PM</p> <p>NB - E / 71 / 143 SB - C / 21 / 22 EB - C / 25 / 134 WB - C / 31 / 134</p>	<p>AM Peak</p> <p>EBL - E / 69 / 0.45 / 34 WBL - E / 68 / 0.29 / 20 NB Combined - E / 71 / 0.83 / 112</p> <p>PM Peak</p> <p>EBL - E / 62 / 0.47 / 35 WBL - E / 59 / 0.08 / 8 NB Combined - E / 71 / 0.89 / 143</p>

As noted above, there are operational issues at the intersection of PTH 59 and PR 202 during the PM peak hour for 2046 Pre-Development traffic volumes based on the use of the existing signal cycle length and optimizing the signal cycle splits. In the PM peak hour, the northbound left-turn movement yields a v/c = 0.99 and the eastbound-to-northbound left-turn movement yields a LOS F with a v/c of 1.11 due to the 180 vehicles per hour. Effectively, the northbound left and the eastbound left are at, or are over, their maximum capacity to support traffic. Minor changes in traffic conditions will develop into high delays, queue lengths and continue operational issues.



Several options were considered for mitigating the poor 2024 PM Peak Pre-Development operational results. These include:

- *Signal Cycle Lengths* - using the current intersection geometry, the natural cycle length was found to be 90 seconds. Changing the signal cycle length from 70 to 120 seconds did not result in adequate operational improvement.
- *Geometry Change: Adding a 2nd Eastbound-to-Northbound Left-Turn Lane* – for 2046 PM peak conditions, the movement is projected at 180 vehicles per hour under the existing one-lane configuration. Adding the 2nd eastbound-to-northbound left-turn lane requires fully protected left-turn operation and coupled with optimization of the cycle length and signal splits did not achieve all movements under a v/c of < 1.0. The northbound-to-westbound movement and the eastbound-to-northbound movement remained at a v/c >1.0.
- *Geometry Change: Adding a 3rd Northbound-to-Westbound Left-Turn Lane* – For the 2046 PM peak hour conditions, the northbound-to-westbound left-turn is projected to be 816 vehicles per hour. Adding a 3rd left-turn lane should provide enhanced traffic operations at the intersection. However, with this change, there were minor operational improvements but not all approaches achieved the LOS better than F and two movements maintained a v/c of over 1.0; meaning the movements are over the capacity of what the intersection can accommodate.
- *Geometry Change: Adding a 3rd Northbound-to-Westbound Left-Turn Lane AND Adding a 2nd Eastbound-to-Northbound Left-Turn Lane* – the combination of adding the 2nd eastbound-to-northbound left-turn lane (fully protected) and the 3rd northbound-to-westbound left-turn lane (fully protected) achieved adequate intersection performance where all traffic movement have a LOS E or better and yield a v/c of 0.95 or less. The 2046 PM peak hour Pre-Development results are provided in **Table 6** below.

Table 6: 2046 PM Peak Hour Pre-Development Traffic Operations Analysis – Inclusion of a 3rd NBL and a 2nd WBL Lane at PTH 59 and PR 202

Intersection	Overall Intersection (LOS / Delay / ICU)	Approach (Movement / LOS / Delay / 95% Queue)	Critical Movements (Movement / LOS / Delay / v/c / 95% queue)
2046 AM (PM) Peak Hour Pre-Development Scenario			
PTH 59 at PR 202/McGregor Farm Road (Traffic Signal)	(C / 29 / 73.1%)	PM NB - C / 27 / 119 SB - D / 36 / 139 EB - E / 59 / 39 WB - B / 18 / 12	PM Peak NBL (PTH 59) - E / 56 / 0.95 / 82 SBL (PTH 59) - E / 62 / 0.38 / 13 EBL (PR 202) - E / 66 / 0.80 / 39 WBL (McGregor) - E / 59 / 0.66 / 39

An alternative method to enhance traffic operations was the implementation of a northbound-to-westbound flyover. In other words, removing the high-volume northbound-to-westbound left-turn movements from the signalized intersection and using the above grade (or below grade) uninterrupted interchange fly-over to add significant improvements to the overall intersection improvements. Initial Synchro modelling with the northbound fly-over ramp identifies substantial improvements in overall intersection operations and for individual turning movements throughout the intersection of PTH 59 at PR 202.



4.3.2.3 Pre-Development Scenario Summary

A summary of the 2036 and 2046 Pre-Development traffic analysis is as follows:

- PTH 59 at PR 202
 - Include a 3rd northbound-to-westbound left-turn lane on PTH 59 coupled with a 2nd eastbound-to-northbound left-turn lane on PR 202 to provide adequate capacity at the signalized at-grade intersection for the projected future background traffic conditions.
- PTH 101 at Wenzel Road
 - For the northbound approach, it is recommended to redevelop the single lane left+thru+right lane and install a dedicated left turn lane operating under permitted + protected traffic signal operation.

The above at-grade geometry changes are considered as part of the base geometric conditions for the future analysis for both the 2036 and 2046 Post-Development conditions.

4.3.3 Post-Development Traffic Scenarios

For the 2036 Post-Development conditions, it is fully understood that the intersection of PTH 59 at PR 202 has little to no remaining capacity at the future 2036 and 2046 pre-development time frames. For the purposes of the post-development analysis, the signal cycle length was reviewed for natural cycles, considered changes in cycle length changes (i.e., shorter or longer cycle lengths) and the signal timing splits were optimized. The improved geometry identified during the pre-development conditions were used for the initial assessment of post-development conditions. Further modifications were implemented based on the traffic analysis findings.

As outlined above, the 2046 Pre-Development conditions required the inclusion of a 3rd northbound-to-westbound left-turn lane and the 2nd eastbound-to-northbound left-turn lane to achieve satisfactory intersection operations. These additional lanes will form a partial basis for improvements required before The Meadows advanced to development.

Similar to the pre-development conditions, the post-development analysis will identify operational concerns and the effective mitigative efforts to satisfy the required $v/c < 1.0$ and an approach LOS D or better requirements.

4.3.3.1 2036 Post-Development Scenario

Under the 2036 Post-Development scenario, it is recognized that the post-development volumes on the westbound-to-southbound movement is estimated at 244 vph in the AM peak hour and 231 vph in the PM peak hour. Based on the demonstrated limited remaining intersection capacity, this movement required a dual left-turn lane and a fully protected movement under the signal timing plans.

In summary, the geometric features included for traffic analysis include:

- PTH 59 at PR 202



Residential Development at the Former "The Meadows" Golf Course in East St. Paul, MB
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- Inclusion of two westbound-to-southbound left-turn lanes on McGregor Farm Road; operating under fully protected signal phase
 - Inclusion of a westbound-to-northbound right-turn lane on McGregor Farm Road
 - Inclusion of two eastbound-to-northbound left-turn lanes on PR 202; operating under fully protected signal phase
 - Modification to the traffic signal cycle length; optimization of the signal splits
- PTH 101 at Wenzel Street
 - Northbound lane change from a combined left+thru+right lane to a left-turn lane and a combined thru+right.

The 2036 Post-Development results of the Synchro traffic analysis are described in **Table 7** below.

Table 7: 2036 Post-Development Traffic Operations Analysis

Intersection	Overall Intersection (LOS / Delay / ICU)	Approach (Movement / LOS / Delay / 95% Queue)	Critical Movements (Movement / LOS / Delay / v/c / 95% queue)
2036 AM (PM) Peak Hour Post-Development Scenario			
PTH 59 at PR 202/McGregor Farm Road (Traffic Signal)	C / 32 / 77.8% (D / 48 / 77.3%)	AM NB - B / 17 / 34 SB - D / 49 / 200 EB - E / 73 / 22 WB - A / 6 / 21	AM Peak NBL (PTH 59) - D / 46 / 0.53 / 28 SBT (PTH 59) - D / 50 / 1.00 / 200 WB (McGregor) - F / 86 / 0.95 / 50
		PM NB - D / 49 / 120 SB - D / 45 / 129 EB - C / 20 / 43 WB - E / 63 / 47	PM Peak NBL (PTH 59) - F / 102 / 1.11 / 120 SBL (PTH 59) - E / 56 / 0.56 / 30 EBT (PR 202) - E / 59 / 0.65 / 46 EBL (PR 202) - E / 68 / 0.85 / 45 WBL (McGregor) - E / 58 / 0.64 / 43
PTH 101 at Wenzel St (Traffic Signal)	C / 28 / 69.5% (C / 33 / 73.0%)	AM NB - E / 63 / 81 SB - C / 22 / 40 EB - B / 19 / 63 WB - C / 34 / 190	AM Peak EBL - E / 63 / 0.59 / 63 WBL - E / 66 / 0.24 / 20 NBL - E / 66 / 0.74 / 81 SBL+R - D / 48 / 0.32 / 40
		PM NB - E / 60 / 127 SB - B / 17 / 33 EB - C / 27 / 168 WB - D / 48 / 129	PM Peak EBL - E / 64 / 0.76 / 97 WBL - E / 63 / 0.12 / 10 NBT+R - E / 60 / 0.78 / 127

As identified, there are marginal and substandard traffic operations at the intersection of PTH 59 and PR 202. During the AM peak hour, the southbound thru movement is 1,388 vph on two lanes and yields a v/c = 1.00 with a 200 metre queue. Minor changes in through traffic can result in large operational changes for this approach with higher approach delays. This southbound thru movement is considered marginal for traffic operations and future conditions analysis, but is considered acceptable for this traffic study. Further, the westbound-to-southbound left-turn movement operates under LOS F with 86 seconds of delay.

Advancing to review of the PM peak hour at PTH 59 and PR 202, the northbound approach operates at a LOS E with 63 seconds of delay and the northbound-to-westbound left-turn movement operates poorly with a LOS F, a v/c = 1.11, and a queue length of 120 metres. There are also four other individual movements



that operate at a LOS E. This is not considered acceptable for intersection operations or individual approach operations.

The PTH 59 at PTH 101 intersection has no remaining capacity and requires mitigation measures to enhance traffic operations.

4.3.3.1.1 Consideration of a Third Northbound-to-Westbound Left Turn Lane

In attempts to find solutions to improve the overall intersection operations and approach operations, a partial Synchro analysis of the 2035 Post-Development scenario included the addition of a 3rd northbound-to-westbound left-turn lane in combination with the 2nd eastbound-to-northbound left-turn lane (fully protected signal phase). With this additional geometric change, the 2036 PM peak hour Post-Development results are provided in **Table 8** below.

Table 8: 2036 PM Peak Hour Post-Development Traffic Operations Analysis – Inclusion of a 3rd NBL and a 2nd WBL Lane at PTH 59 and PR 202

Intersection	Overall Intersection (LOS / Delay / ICU)	Approach (Movement / LOS / Delay / 95% Queue)	Critical Movements (Movement / LOS / Delay / v/c / 95% queue)
2036 AM (PM) Peak Hour Pre-Development Scenario			
PTH 59 at PR 202/McGregor Farm Road (Traffic Signal)	(B / 20 / 65.7%)	PM NB - D / 41 / 108 SB - C / 29 / 95 EB - C / 21 / 35 WB - E / 63 / 43	PM Peak NBL (PTH 59) - F / 99 / 1.10 / 75 SBL (PTH 59) - E / 59 / 0.61 / 33 WBT (McGregor) – E / 57 / 0.68 / 43 WBL (McGregor) - E / 70 / 0.85 / 52

It should be noted that due to the at-capacity intersection at PTH 59 and PR 202, any minor adjustments within Synchro provides highly variable results in the analysis results. However, with the application of the 3rd northbound-to-westbound left-turn lane assignment, there is a minor improvement in overall intersection and approach performance, but the lane assignment is still inadequate to support the minimum LOS and v/c results. The northbound left-turn movement yields a LOS F with 99 seconds if delay and a v/c = 1.10. Further mitigation measures are yet required.

4.3.3.1.2 Consideration of a Third Southbound Thru Lane on PTH 59

In the current conditions, there are two southbound thru lanes on PTH 59 through the signalized intersection. South of the intersection, there are three lanes but the 3rd lane is developed as part of the eastbound-to-southbound on-ramp from PR 202 to PTH 59. This analysis assumes the 3rd southbound lane through the intersection, maintaining the 2nd eastbound-to-northbound lane and the 3rd northbound-to-westbound lane, with results shown in **Table 9**.



Table 9: 2036 PM Peak Hour Post-Development Traffic Operations Analysis – Inclusion of a 3rd NBL and a 2nd WBL, Three Southbound Lanes at PTH 59 and PR 202

Intersection	Overall Intersection (LOS / Delay / ICU)	Approach (Movement / LOS / Delay / 95% Queue)	Critical Movements (Movement / LOS / Delay / v/c / 95% queue)
2036 AM (PM) Peak Hour Pre-Development Scenario			
PTH 59 at PR 202/McGregor Farm Road (Traffic Signal)	B / 20 / 65.7% (D / 36 / 70.2%)	<p style="text-align: center;">AM</p> NB – B / 15 / 34 SB - C / 24 / 99 EB – D / 51 / 19 WB - A / 5 / 19	<p style="text-align: center;">AM Peak</p> NBL (PTH 59) - D / 37 / 0.46 / 25 SBT (PTH 59) - C / 24 / 0.77 / 99 WBL (McGregor) - E / 57 / 0.81 / 43
		<p style="text-align: center;">PM</p> NB - D / 41 / 108 SB - C / 22 / 56 EB - E / 65 / 47 WB - B / 19 / 35	<p style="text-align: center;">PM Peak</p> NBL (PTH 59) - F / 99 / 1.10 / 75 SBL (PTH 59) - E / 59 / 0.61 / 33 WBT (PR 202) – E / 63 / 0.57 / 43 WBL (McGregor) - E / 70 / 0.85 / 52

With application of many additional lanes through the intersection, the northbound-to-westbound left-turn lane remains problematic from a traffic operations perspective. The 703 vehicles per hour movement operates at a LOS F with 99 seconds of delay and a v/v of 1.10. This is still not considered acceptable from a traffic operations and planning perspective.

4.3.3.1.3 Consideration of a Northbound-to-Westbound Flyover Lane

An alternative method to enhance traffic operations was the implementation of a northbound-to-westbound flyover. In other words, removing the high-volume left-turn movements from the signalized intersection and using the above grade (or below grade) uninterrupted interchange fly-over to add significant improvements to the overall intersection improvements. Initial Synchro modelling with the northbound fly-over ramp identifies substantial improvements in overall intersection operations and for individual turning movements throughout the intersection of PTH 59 at PR 202.

4.3.3.1.4 2036 Post-Development Scenario Conclusion

To best satisfy the 2036 AM and PM peak hour Post-Development volumes with an approach LOS E or better and all intersection movements operating at a v/c <1.0, then the following additional intersection geometry is required:

- PTH 59 at PR 202
 - Inclusion of two westbound-to-southbound left-turn lanes on McGregor Farm Road; operating under fully protected signal phase
 - Inclusion of a westbound-to-northbound right-turn lane on McGregor Farm Road
 - Inclusion of two eastbound-to-northbound left-turn lanes on PR 202; operating under fully protected signal phase
 - Inclusion of a 3rd southbound thru lane on PTH 59
 - Inclusion of a 3rd northbound-to-westbound left-turn lane on PTH 59 to PR 202
 - Modification to the traffic signal cycle length; optimization of the signal splits



- PTH 101 at Wenzel Street
 - Northbound lane change from a combined left+thru+right lane to a left-turn lane and a combined thru+right.

With these lane assignment changes implemented, the PM peak hour still has operational challenge regarding volumes and capacity for the northbound-to-westbound left-turn with the projected 703 vph. The anticipated result for the northbound-to-westbound left is LOS F, delay of 99 seconds, and a v/c of 1.10. The v/c of 1.1 identifies the movement is still over capacity.

4.3.3.2 2046 Post-Development Scenario

Based on the results of the 2036 Pre-Development and 2036 Post-Development analysis, additional improvements are identified as required to obtain reasonable operational requirements even during the pre-development analysis conditions; specifically to the PTH 59 at PR 202 at-grade signalized intersection. The 2046 Post-Development analysis includes the following changes to the base Synchro geometry:

- PTH 59 at PR 202
 - Inclusion of two westbound-to-southbound left-turn lanes on PR 202; operating under fully protected signal phase
 - Inclusion of a 3rd northbound-to-westbound left-turn lane on PTH 59 (pre-development requirement)
 - Inclusion of two eastbound-to-northbound left-turn lane on PR 202
 - Inclusion of a west-to-northbound right-turn lane on McGregor Farm Road
 - Modification to the traffic signal cycle length; optimization of the traffic signal splits
- PTH 101 at Wenzel Street
 - Northbound lane modification from a combined left+thru+right lane to a left-turn lane and a combined thru+right as a pre-development requirement. Use a northbound permitted + protected left-turn phase
 - Inclusion of a 2nd eastbound-to-northbound left-turn lane on PTH 101 to assist with the 408 vph left-turns. Maintain the fully protected left-turn phase due to posted speeds and public safety.
 - Reconfiguration of the southbound approach with to accommodate a separate right-turn lane, a thru lane and a left-turn lane. Use a southbound permitted+protected left-turn phase

As evidenced in **Table 10**, there remain intersection operational issues with the projected 2046 AM and PM Post-Development scenario at both PTH 59 at PR 202 and at PTH 101 and Wenzel Street. Additional scenarios are considered below to obtain a minimum operational requirement.



Table 10: 2046 Post-Development Traffic Operations Analysis

Intersection	Overall Intersection (LOS / Delay / ICU)	Approach (Movement / LOS / Delay / 95% Queue)	Critical Movements (Movement / LOS / Delay / v/c / 95% queue)
2046 AM (PM) Peak Hour Post-Development Scenario			
PTH 59 at PR 202/McGregor Farm Road (Traffic Signal)	C / 34 / 77.4% (E / 61 / 87.1%)	<p>AM</p> <p>NB - B / 19 / 42 SB - D / 46 / 158 EB - E / 69 / 39 WB - A / 8 / 31</p> <p>PM</p> <p>NB - E / 60 / 162 SB - C / 33 / 78 EB - D / 48 / 87 WB - F / 131 / 68</p>	<p>AM Peak</p> <p>NBL (PTH 59) - D / 42 / 0.44 / 21 SBT (PTH 59) - D / 46 / 0.99 / 158 WBL (McGregor) - F / 86 / 1.02 / 88 EBL (PR 202) - D / 47 / 0.24 / 9 EBT (PR 202) - D / 49 / 0.47 / 31</p> <p>PM Peak</p> <p>NBL (PTH 59) - F / 154 / 1.24 / 99 SBL (PTH 59) - C / 33 / 0.67 / 78 WBT (McGregor) - E / 60 / 0.77 / 68 WBL (McGregor) - F / 183 / 1.28 / 87</p>
PTH 101 at Wenzel St (Traffic Signal)	D / 49 / 81.2% (D / 37 / 78.4%)	<p>AM</p> <p>NB - E / 64 / 52 SB - E / 62 / 81 EB - C / 23 / 105 WB - E / 74 / 178</p> <p>PM</p> <p>NB - E / 69 / 107 SB - C / 30 / 56 EB - C / 34 / 207 WB - D / 38 / 136</p>	<p>AM Peak</p> <p>EBL - E / 59 / 0.82 / 46 WBL - E / 63 / 0.47 / 18 WBT - E / 78 / 1.08 / 178 NBL - E / 69 / 0.88 / 52</p> <p>PM Peak</p> <p>EBL - E / 72 / 0.94 / 77 WBL - D / 53 / 0.19 / 9 WBT - D / 42 / 0.91 / 136</p>

4.3.3.2.1 Consideration of a Northbound-to-Westbound Flyover Lane at PTH 59 and PR 202

An alternative method to enhance traffic operations at PTH 59 and PR 202 was the implementation of a northbound-to-westbound flyover. In other words, removing the high-volume left-turn movements from the signalized intersection and using the above grade (or below grade) uninterrupted interchange fly-over to add significant improvements to the overall intersection improvements. As noted in the analysis above, the inclusion of a 3rd northbound left-turn lane, adding a 3rd southbound lane and other geometric additional could not develop a condition that met all traffic operational parameters.

The inclusion of the northbound-to-westbound flyover eliminates the movements from the traffic signal and adds considerable capacity to the overall intersection. The base geometric features of the signalized intersection were reduced to:

- Maintain the three southbound thru lanes on PTH 59 through the intersection
- Eliminate the dual northbound-to-westbound left-turn lanes on PTH 59
- Eliminate the dual eastbound-to-northbound left-turn lane from PR 202

The results with the PTH 59 flyover are provided in **Table 11** below.



Table 11: 2046 Post-Development Traffic Operations Analysis – PTH 59 Flyover

Intersection	Overall Intersection (LOS / Delay / ICU)	Approach (Movement / LOS / Delay / 95% Queue)	Critical Movements (Movement / LOS / Delay / v/c / 95% queue)
2046 AM (PM) Peak Hour Post-Development Scenario			
PTH 59 at PR 202/McGregor Farm Road (Traffic Signal)	C / 20 / 70.7% (D / 46 / 84.6%)	<p style="text-align: center;">AM</p> NB – B / 16 / 45 SB - C / 22 / 100 EB – A / 6 / 25 WB - D / 45 / 32 <p style="text-align: center;">PM</p> NB - E / 57 / 174 SB - C / 27 / 54 EB - D / 37 / 82 WB - D / 53 / 60	<p style="text-align: center;">AM Peak</p> SBL – E / 62 / 0.59 / 24 <p style="text-align: center;">PM Peak</p> NBT (PTH 59) – E / 71 / 1.07 / 174 SBL (PTH 59) – F / 137 / 1.06 / 34 WBT (McGregor) – D / 47 / 0.66 / 60 WBL (McGregor) – E / 58 / 0.89 / 68 SBT (PR 202) – F / 128 / 1.08 / 82

As listed in **Table 11** above, the elimination of the northbound-to-westbound left-turn lane from PTH 59 to PRP 202 still does not satisfy the minimum requirements of levels of service, v/c ratios, or queue lengths.

For the signalized intersection of PTH 59 at PR 202, the projected 2046 Pre-Development and Post-Development traffic volumes and the subsequent traffic analysis strongly suggest that maintaining an at-grade, signalized intersection will not work under 2046 conditions.

With all the additional lanes considered for improving the operational analysis, it appears an interchange at PTH 59 and PR 202 would be the only solution.

4.3.3.2.2 Consideration of an Interchange at PTH 59 and PR 202

Analysis of various interchanges for the intersection of PTH 59 at PR 202 is outside the scope of this traffic study. Development of an interchange configuration, the traffic analysis and subsequent concept design would fall under the responsibility of MTI for consideration of long-range planning for regional improvement along PTH 59 and on PR 202.

At the time of this report, there is no known concept interchange developed for PTH 59 at PR 202.

It is also documented above that the background volumes along northbound and southbound approaches to PTH 59 and subsequent projection to 2036 and 2046 conditions are the lead concerns from traffic analysis and operational challenges. Traffic generated from The Meadows is a contributor to the at-grade traffic volumes, however they are not a significant contributor to the more regional attributes for the deficient intersection operations.

As such, it is recommended that MTI develop the long-range planning options of an interchange at PTH 59 and PR 202 to satisfy long-term traffic operational needs and to accommodate future development.



5 Summary, Conclusions and Recommendations

5.1 Summary

The following points provide a summary of the traffic impact study (TIS) assumptions and analysis results:

- The proposed development is to have two points of access: one access is via McGregor Farm Road to the signalized intersection of PTH 59 at PR 202 intersection and the second access point is via Wenzel Street to the signalized intersection of PTH 101 at Wenzel Street.
- Traffic analysis included the intersections of PTH 59 at PR 202 and PTH 101 / Wenzel Street intersection.
- Projections and analyses were completed for the following scenarios:
 - 2036 Pre-Development Conditions
 - 2046 Pre-Development Conditions
 - 2036 Post-Development Conditions to 50% Meadows Development
 - 2046 Post-Development Conditions to 100% Meadows Development
- At full build out, the proposed development is estimated to generate 1,397 vehicles per hour during the AM Peak, 1,922 vehicles per hour during the PM Peak and 20,668 vehicles per day.
- The direction distribution of development related volumes is 65% northerly to/from the PTH 59 at PR 202 intersection and 35% southerly to/from the PTH 101 at Wenzel Street intersection.
- The compound annual growth rates based on area count stations is 1.5% along PTH 59 and 1.07% along PTH 101.
- 2036 Pre-Development Scenario
 - The intersection of PTH 59 at PR 202 operates at an acceptable level and does not require additional lane geometry to satisfy the pre-development conditions. However, numerous individual movements are projected to operate at a LOS E and identifies little remaining capacity on the current lane assignment and traffic volumes.
 - The intersection of PTH 101 at Wenzel Street is recommended to reconfigure the northbound approach. The current northbound approach is a combined left+thru+right lane. The pre-development recommendation is to develop a separate northbound left-turn lane and use a combined thru+right lane. Optimizing the traffic signals provide adequate levels of traffic operations at this intersection.
- 2046 Pre-Development Scenario
 - The intersection of PTH 59 at PR 202 does not operate with appropriate traffic operations during the 2046 Pre-Development scenario. To facilitate improvements, many options were considered and to develop adequate operational performance, the analysis has to include:
 - A 3rd northbound-to-westbound left-turn lane from PTH 59 to PR 202
 - A 2nd eastbound-to-northbound left-turn lane from PR 202 to PTH 59



- With these additional lane assignment, numerous individual traffic movements are still projected to operate at a LOS E and identifies little remaining capacity on the current lane assignment and traffic volumes.
- 2036 Post-Development Scenario
 - To best satisfy the 2036 AM and PM Peak Hour Post-Development volumes with an approach LOS E or better and all intersection movements operating at a $v/c < 1.0$, then the following additional intersection geometry is required:
 - PTH 59 at PR 202
 - Inclusion of two westbound-to-southbound left-turn lanes; operating under fully protected signal phase
 - Inclusion of a westbound-to-northbound right-turn lane on McGregor Farm Road
 - Inclusion of two eastbound-to-northbound left-turn lanes on PR 202; operating under fully protected signal phase
 - Inclusion of a 3rd southbound thru lane on PTH 59
 - Inclusion of a 3rd northbound-to-westbound left-turn lane on PTH 59 (Pre-Development requirement)
 - Modification to the traffic signal cycle length; optimization of the signal splits
 - With these lane assignment changes implemented, the PM peak hour continues to experience operational challenges regarding volumes and capacity for the northbound-to-westbound left-turn with the projected 703 vph. The anticipated result for the northbound-to-westbound left is LOS F, delay of 99 seconds and a v/c of 1.10. The v/c of 1.1 identifies the movement is still over capacity.
- 2046 Post-Development Scenario
 - PTH 59 at PR 202
 - Inclusion of two westbound-to-southbound left-turn lanes on PR 202; operating under fully protected signal phase
 - Inclusion of a westbound-to-northbound right-turn lane on McGregor Farm Road
 - Inclusion of two eastbound-to-northbound left-turn lanes on PR 202; operating under fully protected signal phase
 - Inclusion of a 3rd northbound-to-westbound left-turn lane on PTH 59 (Pre-Development requirement)
 - Modification to the traffic signal cycle length; optimization of the traffic signal splits



- PTH 101 at Wenzel Street
 - Northbound lane modification from a combined left+thru+right lane to a left-turn lane and a combined thru+right as a pre-development requirement. Use a northbound permitted+protected left-turn phase
 - Inclusion of a 2nd eastbound-to-northbound left-turn lane on PTH 101 to assist with the 408 vph left-turns. Maintain the fully protected left-turn phase
 - Reconfiguration of the southbound approach with to accommodate a separate right-turn lane, a thru lane and a left-turn lane. Use a southbound permitted+protected left-turn phase
- However, with the lane assignment updates and changes listed above, acceptable traffic operations could not be achieved at PTH 59 and PR 202. During the AM and PM Peak hours, many movements operated at a LOS E or F and over-capacity v/c's included eastbound-to-northbound left-turn of 1.06, northbound thru movement of 1.07 and a southbound thru movement of 1.08.
- At PTH 59 and PR 202, a northbound-to-westbound flyover was included into the traffic analysis to remove traffic volumes from the signalized intersection. There were intersection operational improvements, but the northbound thru and southbound thru movements remained very high delays and v/c ratios.
- With the proposed lane assignment, the intersection of PTH 101 and Wenzel Street operates at an acceptable operational limit.
- Analysis of various interchanges for the intersection of PTH 59 at PR 202 is outside the scope of this traffic study. Development of an interchange configuration, the traffic analysis and subsequent concept design would fall under the responsibility of MTI for consideration of long-range planning for regional improvement along PTH 59 and on PR 202.
- At the time of this report, there is no known concept interchange developed for PTH 59 at PR 202.
- It is also documented above that the background volumes along northbound and southbound PTH 59 and subsequent projection to 2036 and 2046 conditions are the lead concerns from traffic analysis and operational challenges. Traffic generated from The Meadows is a contributor to the at-grade traffic volumes, but are not a significant contributor to the deficient intersection operations.
- As such, it is recommended that MTI develop the long-range planning options of an interchange at PTH 59 and PR 202 to satisfy long-term traffic operational needs and to accommodate future development.

5.2 Conclusions

Analysis of various interchanges for the intersection of PTH 59 at PR 202 is outside the scope of this traffic study. Development of an interchange configuration, the traffic analysis and subsequent concept design would fall under the responsibility of MTI for consideration of long-range planning for regional improvement along PTH 59 and on PR 202.



At the time of this report, there is no known concept interchange developed for PTH 59 at PR 202.

It is also documented above that the background volumes along northbound and southbound PTH 59 and subsequent projection to 2036 and 2046 conditions are the lead concerns from traffic analysis and operational challenges. Traffic generated from The Meadows is a contributor to the at-grade traffic volumes, but are not a significant contributor to the deficient intersection operations.

5.3 Recommendations

The study team offers the following recommendation based on the TIS findings and conclusions:

- **PTH 59 at PR 202:** The Meadows residential development can proceed without modifications to the northbound, southbound and eastbound approaches. Improvements to the westbound approach would partially be attributed to The Meadows Development.
- **PTH 101 at Wenzel Street:** The Meadows residential development can proceed without modifications to the existing signalized intersection until the projected 2046 conditions. The lane assignment change on the northbound approach (i.e. from a combined left+thru+right) to a left-turn lane and a combined thru+right) would be the responsibility of MTI. Long-term to 2046 is a projected need for a 2nd eastbound-to-northbound left-turn lane; of which a portion of this improvement could be attributed to The Meadows development.
- **Long-Term Planning:** it is recommended that MTI develop the long-range planning options of an interchange at PTH 59 and PR 202 to satisfy long-term traffic operational needs and to accommodate future development.



Appendix A: The Meadows Site Plan



Appendix B: Traffic Counts

Raw traffic counts as supplied by Manitoba Transportation and Infrastructure are supplied as follows:

- PTH 59 at PR 202
 - Tuesday, April 29, 2025 for a 24-hour intersection traffic count
 - Wednesday, April 30, 2025 for a 24-hour intersection traffic count
- PTH 101 at Wenzel Street
 - Tuesday, November 25, 2025 for a 14-hour intersection traffic count
 - Wednesday, November 26, 2025 for a 14-hour intersection traffic count





Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.

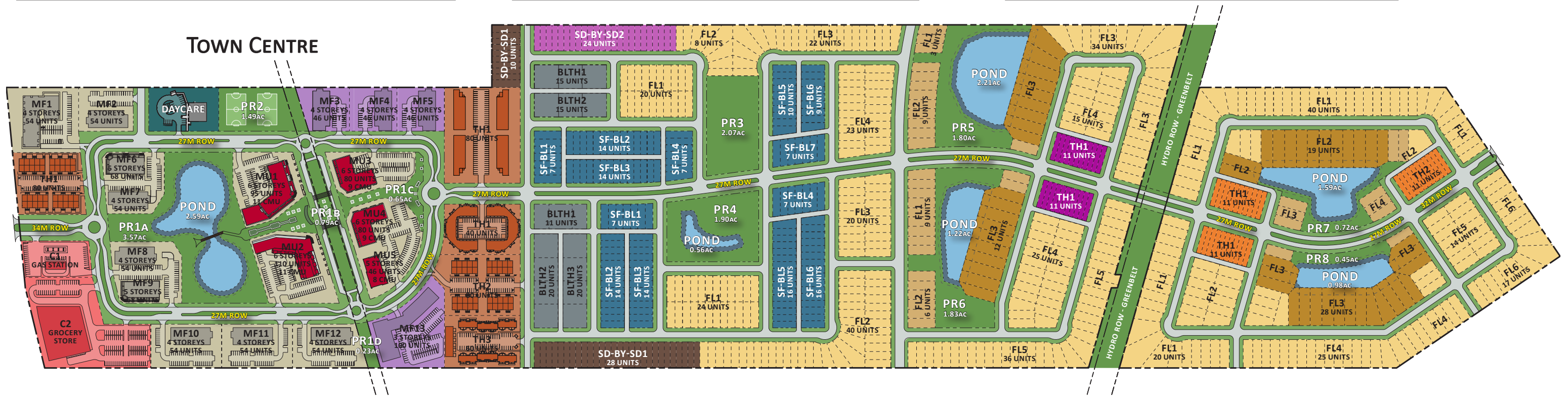


TOTAL SITE NO. OF UNITS -2331 UNITS

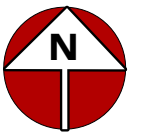
PHASE A	PHASE B
MULTI-FAMILY - 482 UNITS MIXED-USE - 411 UNITS / 48 CU	TOWNHOMES - 80 UNITS MULTI-FAMILY - 270 UNITS COMMERCIAL AREA - 4.36 ACRES DAYCARE - 1.26 ACRES
WEST UNITS TOTAL - 1243 UNITS + 48 CU	

PHASES 1 - 2	
SINGLE FRONT - 157 UNITS SINGLE BACKLANE - 142 BACKLANE TH - 81 UNITS	SIDE-BY-SIDES - 62 UNITS TOWNHOUSES - 260 UNITS
CENTRAL UNITS TOTAL - 702 UNITS	

PHASES 3 - 6	
SINGLE FRONT - 229 UNITS SINGLE WALK/LOOKOUT - 102	SIDE-BY-SIDES - 0 UNITS TOWNHOUSES - 55 UNITS
EAST UNITS TOTAL - 386 UNITS	



- | | | |
|--|---|---|
| ■ COMMERCIAL | ■ BACK LANE TOWN HOUSE | ■ SENIORS MULTI-FAMILY |
| ■ MIXED-USE | ■ SIDE-BY-SIDE | ■ SENIORS SIDE-BY-SIDE |
| ■ MULTI-FAMILY | ■ SINGLE FAMILY BACK LANE | ■ SENIORS ROW HOUSE |
| ■ DAYCARE FACILITY | ■ FRONT DRIVE | ■ PUBLIC RESERVE |
| ■ TOWN HOUSE | ■ FRONT DRIVE - LOOKOUT | |
| ■ ROW HOUSE | ■ FRONT DRIVE - WALKOUT | |



Meadows Site Development

East St. Paul, Manitoba

JANUARY 2026



Station 62

Highway 1 7.1 KM W. OF P.T.H. #21

Control Section: 3001050 -- Sequence: 300105010
 Station Type: CCS -- Equipment Type: WIM/AVC

Estimates of Traffic Statistics

Dir	Date	Method	AADT	ASDT%	30th Hour%	%Trucks
C	1990	OLDMHT	3170			
C	1991	OLDMHT	3115			
C	1992	OLDMHT	3170			
C	1993	OLDMHT	3380			19.0%
C	1994	E1442	3040	123	14	
C	1995	E1442	3680	124	13	
C	1996	E1442	2500	116	16	34.0%
C	1997	E1442	3580	132	12	
C	1998	E1442	3420	117	13	
C	1999	E1442				
C	2000	E1442	3950	122	12	
C	2001	E1442	3990	115	12	
C	2002	E1442	4160	119		
C	2003	E1442	4240	119	12	31.1%
C	2004	E1442	4310	120	12	32.7%
C	2005	TMG01	4410	117	11	34.7%
C	2006	TMG01	4550	115	11	34.9%
C	2007	TMG01	4760	112		
C	2008	TMG01	4720	113		
C	2009	TMG01	5240	119		
C	2010	TMG01	5240	115	11	
C	2011	TMG01	5450	115	11	31.6%
C	2012	TMG01	5750	114	11	31.0%
C	2013	TMG01				30.7%
C	2014	TMG01	5940	114	11	31.3%
C	2015	TMG01	6220	116	11	30.1%
C	2016	TMG01				
C	2017	TMG01	6090	114	11	30.5%
C	2018	TMG01	6270	116	23	30.1%
C	2019	TMG01				
C	2020	TMG01				
C	2021	TMG01				
C	2022	TMG01	6420	118	10	36.1%
C	2023	TMG01	6580			35.3%
C	2024	FHWA	6720			35.7%
EB	1990	OLDMHT	1555			
EB	1991	OLDMHT	1530			
EB	1992	OLDMHT	1580			
EB	1993	OLDMHT	1680			19.0%
EB	1994	E1442	1510	123	14	
EB	1995	E1442	1840	124	13	
EB	1997	E1442	1850	132	12	
EB	1998	E1442	1930	117	13	
EB	1999	E1442	1610			
EB	2000	E1442	1990	122	12	
EB	2001	E1442	1980	115	12	
EB	2002	E1442	2080	119		
EB	2003	E1442	2080	119	12	31.1%
EB	2004	E1442	2110	120	12	32.7%
EB	2005	TMG01	2130	117	11	34.7%
EB	2006	TMG01	2210	115	11	34.8%
EB	2007	TMG01				
EB	2008	TMG01	2360	112		35.2%
EB	2009	TMG01				
EB	2010	TMG01	2580	116	11	
EB	2011	TMG01	2690	115	11	30.9%
EB	2012	TMG01	2830	114	11	30.0%
EB	2013	TMG01				29.8%
EB	2014	TMG01	2930	114		30.4%
EB	2015	TMG01	3080	116		28.6%
EB	2016	TMG01				
EB	2017	TMG01	3030	114		30.0%
EB	2018	TMG01	3110	117		29.6%
EB	2019	TMG01				
EB	2020	TMG01				
EB	2021	TMG01				
EB	2022	TMG01				
EB	2023	TMG01				

EB	2024	FHWA			
WB	1990	OLDMHT	1615		
WB	1991	OLDMHT	1585		
WB	1992	OLDMHT	1600		
WB	1993	OLDMHT	1700		19.0%
WB	1994	E1442	1530	123	
WB	1995	E1442		124	
WB	1996	E1442	1250	116	34.0%
WB	1997	E1442	1730	132	
WB	1998	E1442	1490	117	
WB	1999	E1442	1330		
WB	2000	E1442	1960	122	
WB	2001	E1442	2010	115	
WB	2002	E1442			
WB	2003	E1442	2160	119	31.1%
WB	2004	E1442	2200	120	32.7%
WB	2005	TMG01	2280	117	34.7%
WB	2006	TMG01	2340	115	35.0%
WB	2007	TMG01	2380	112	36.6%
WB	2008	TMG01			
WB	2009	TMG01	2620	119	
WB	2010	TMG01	2660	115	
WB	2011	TMG01	2760	115	32.2%
WB	2012	TMG01	2920	114	31.8%
WB	2013	TMG01			31.5%
WB	2014	TMG01	3010	113	32.2%
WB	2015	TMG01	3140	116	31.5%
WB	2016	TMG01			
WB	2017	TMG01	3060	114	31.0%
WB	2018	TMG01	3160	116	30.7%
WB	2019	TMG01			
WB	2020	TMG01			
WB	2021	TMG01			
WB	2022	TMG01	3210	118	36.1%
WB	2023	TMG01	3290	115	35.3%
WB	2024	FHWA	3360	117	35.7%

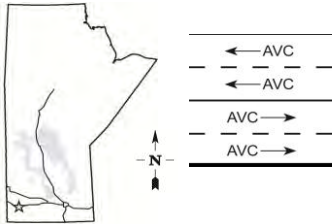
Graphical Representation of Traffic Statistics

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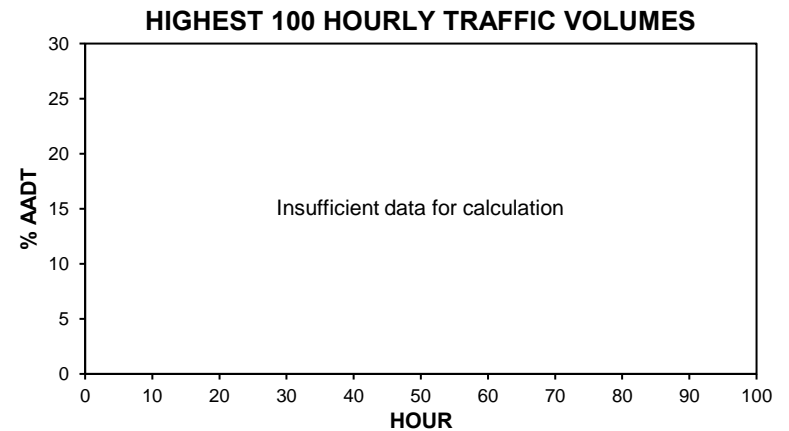
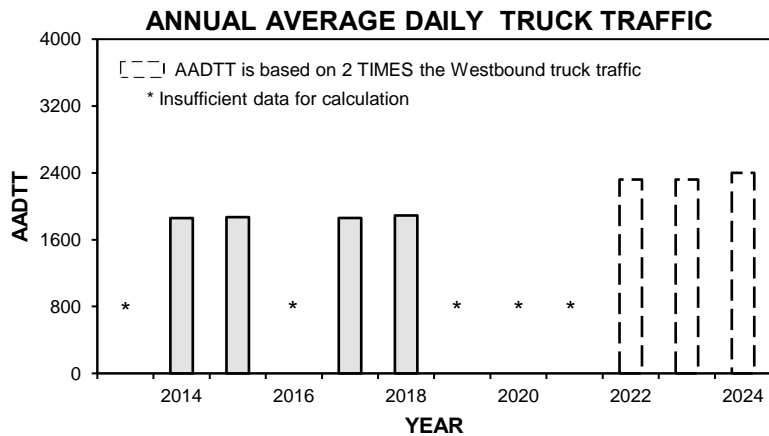
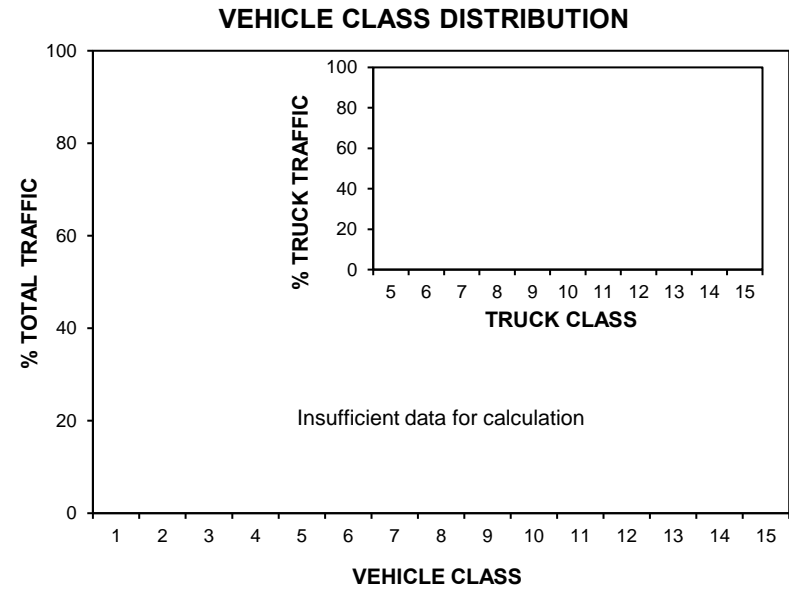
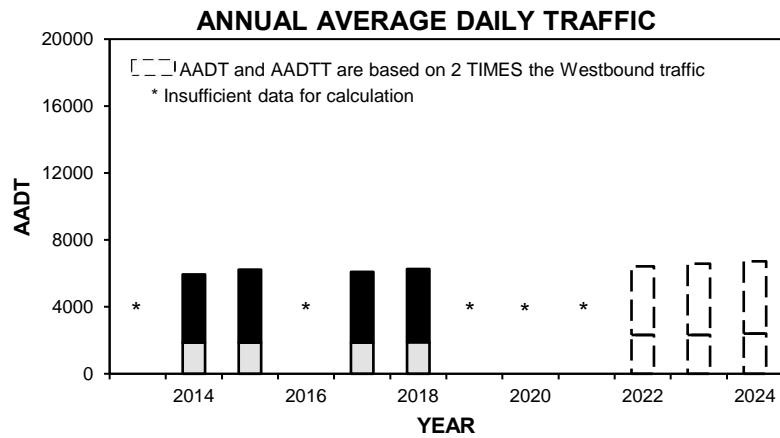
Contact: Urban Mobility and Transportation Informatics Group
 Email: mhtis_info@umanitoba.ca

Station 62



Location: PTH 1, 7.1 km West of PTH 21 (Oak Lake)
Flow: EB-WB
Type: AVC/WIM
AADT: 6720
AADTT: 2400
ASDT%: Insufficient data for calculation
Annual Growth: 120 veh/day/yr
Equipment out of service (WB only)

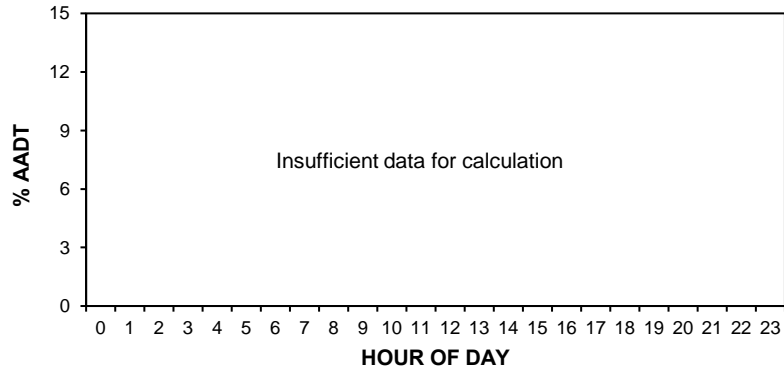
■ Total Traffic □ Truck Traffic



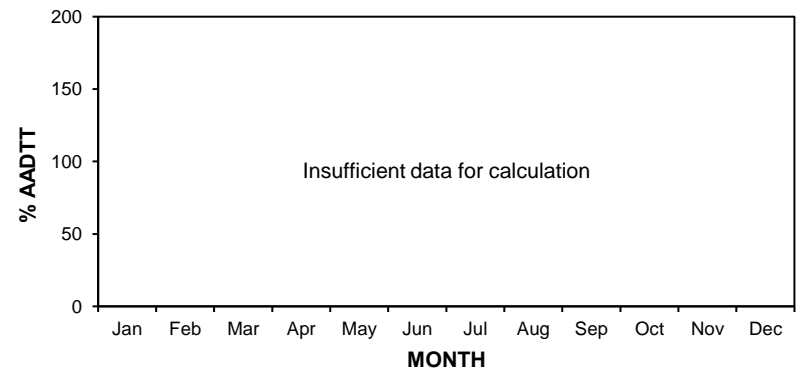
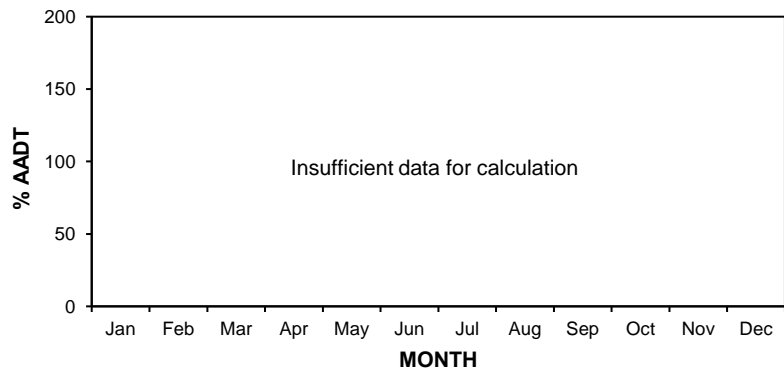
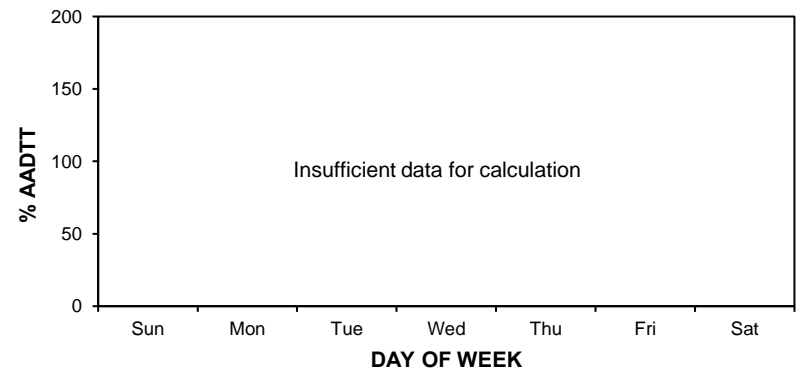
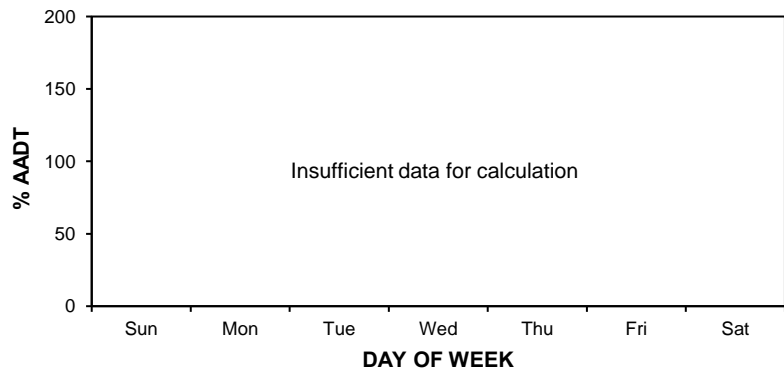
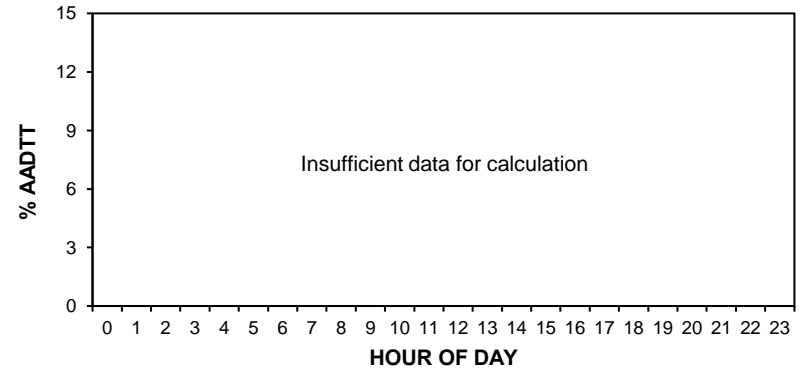
• Station 62 •

■ Total Traffic □ Truck Traffic

TOTAL TRAFFIC VARIATION



TRUCK TRAFFIC VARIATION



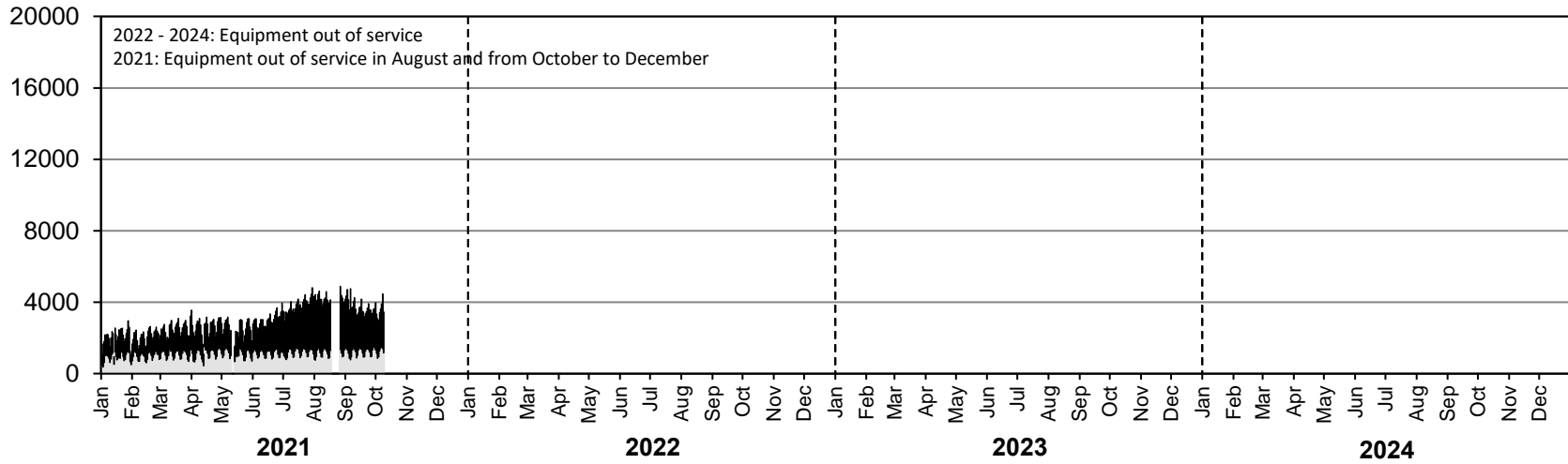
• Station 62 •

AADT: 6720

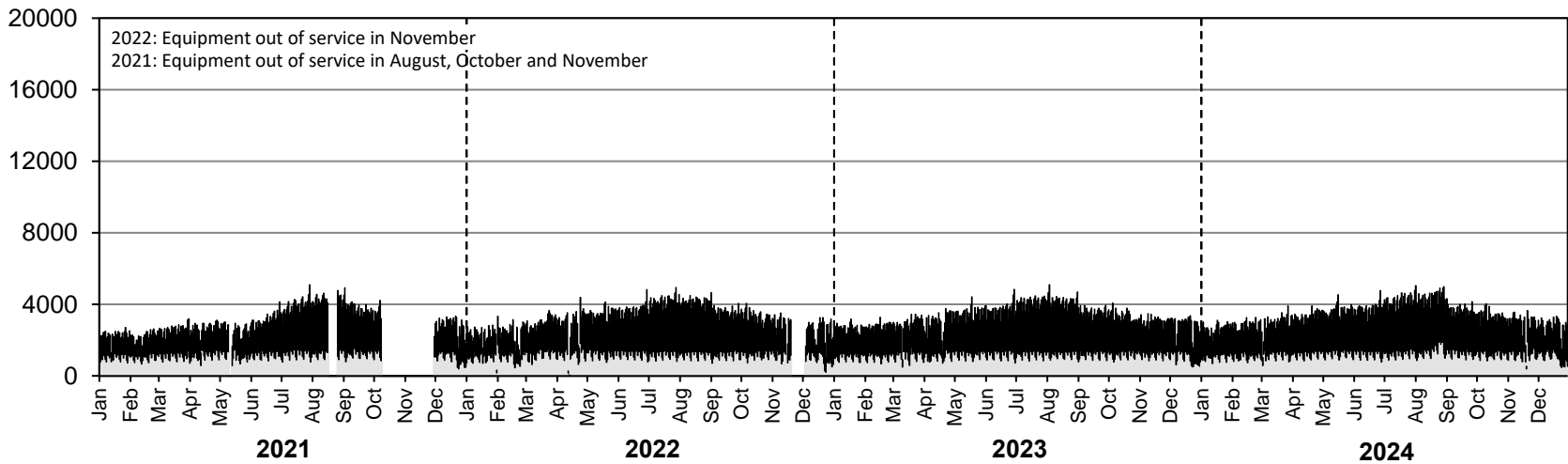
■ Total Traffic □ Truck Traffic

2021-2024 DAILY TOTAL TRAFFIC COUNTS

Eastbound AADT: Insufficient data for calculation



Westbound AADT: 3360



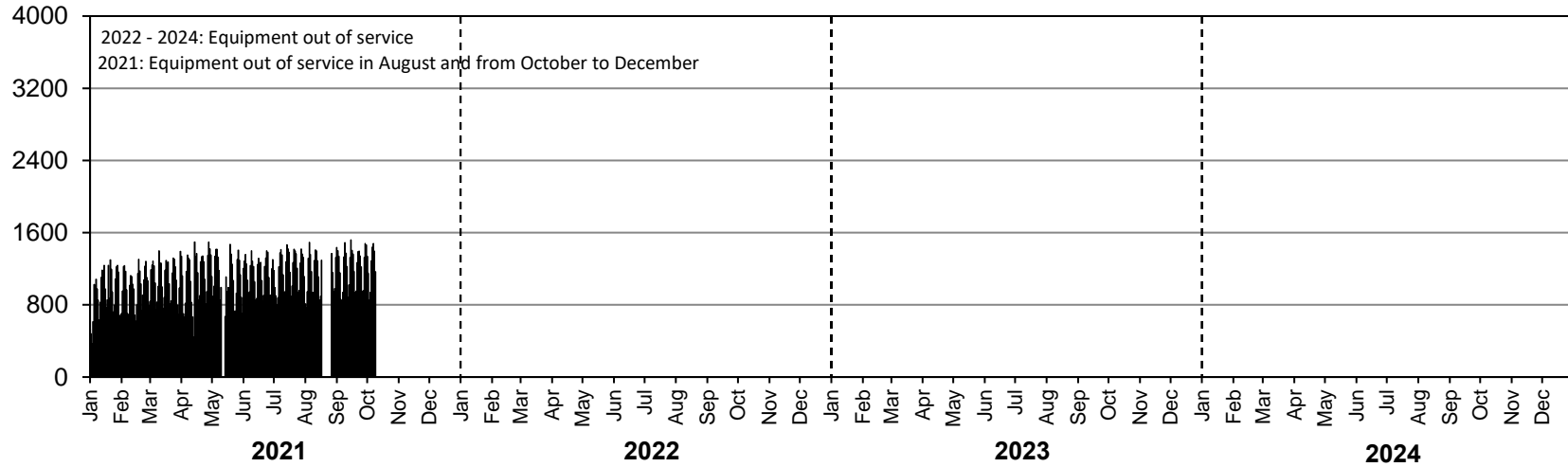
• Station 62 •

AADTT: 2400

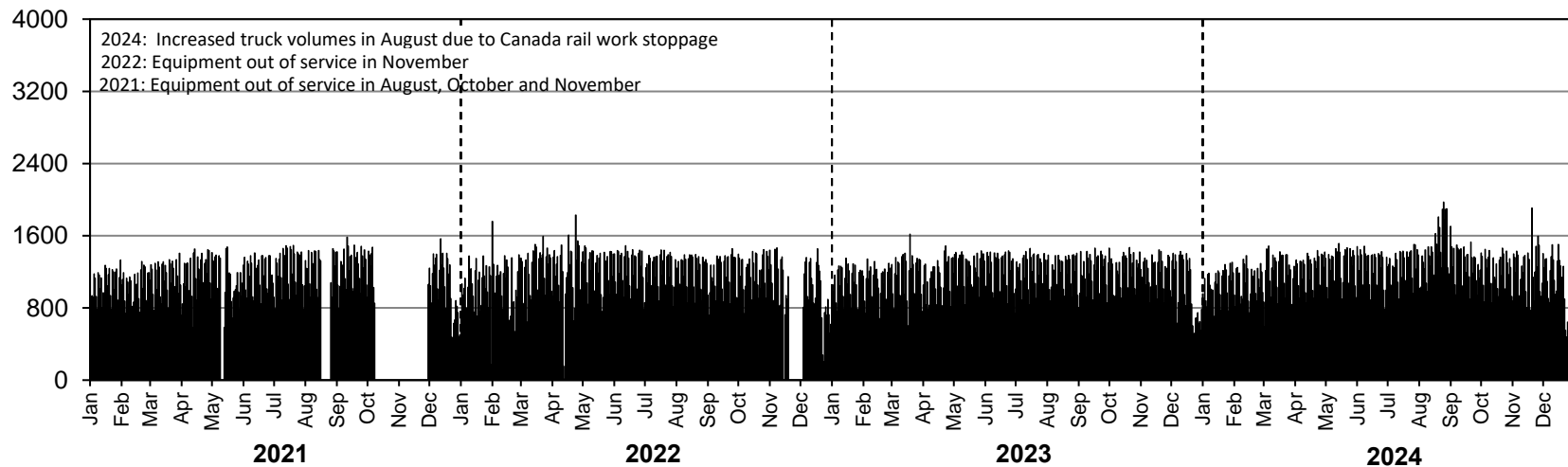
■ Truck Traffic

2021-2024 DAILY TRUCK TRAFFIC COUNTS

Eastbound AADTT: Insufficient data for calculation



Westbound AADTT: 1200





Station 78

Highway 59 5.4 KM S. OF P.T.H. #44

Control Section: 1059090 -- Sequence: 105909010

Station Type: CCS -- Equipment Type: AVC

Estimates of Traffic Statistics

Dir	Date	Method	<u>AADT</u>	<u>ASDT%</u>	<u>30th Hour%</u>	%Trucks
C	1989	OLDMHT	8328			
C	1990	OLDMHT	8325			
C	1991	OLDMHT	8330			
C	1992	OLDMHT	8080			
C	1993	OLDMHT	8450			2.9%
C	1994	E1442	8760	129	25	4.0%
C	1995	E1442	8730	130	17	
C	1996	E1442	8440	136	17	
C	1997	E1442	8810	123	17	
C	1998	E1442	10150	120	16	7.1%
C	1999	E1442	10230	126	17	
C	2000	E1442	10170	129	19	
C	2001	E1442	10600	129		
C	2002	E1442				
C	2003	E1442	9260	125	15	3.5%
C	2004	E1442	9180	123	16	3.6%
C	2005	TMG01	9260	125	15	4.0%
C	2006	TMG01	9540	123		3.7%
C	2007	TMG01	9430	123	15	4.1%
C	2008	TMG01	9410	123	15	4.0%
C	2009	TMG01	9930	120	14	3.8%
C	2010	TMG01	10730	120	15	3.7%
C	2011	TMG01	10960	121	14	3.3%
C	2012	TMG01	11160	122	14	
C	2013	TMG01	11250	122	14	3.0%
C	2014	TMG01	11440	121	14	3.0%
C	2015	TMG01	12160	120	14	2.9%
C	2016	TMG01	12070	118	13	3.1%
C	2017	TMG01	12030	120	13	3.1%
C	2018	TMG01	12040	120	13	3.1%
C	2019	TMG01	12330	121	14	3.1%
C	2020	TMG01	11970	127	15	3.2%
C	2021	TMG01	12440	119	13	3.4%
C	2022	TMG01	11800			3.2%
C	2023	TMG01	13000	121	14	3.3%
C	2024	FHWA	13250	119	14	3.4%
NB	1989	OLDMHT	4245			
NB	1990	OLDMHT	4246			
NB	1991	OLDMHT	4240			
NB	1992	OLDMHT	4110			
NB	1993	OLDMHT	4225			2.9%
NB	1994	E1442	4450	129		4.0%
NB	1995	E1442	4450	130		
NB	1996	E1442	4290	136		
NB	1997	E1442	4440	123		
NB	1998	E1442	5200	120		7.1%
NB	1999	E1442	5240	126		
NB	2000	E1442	5210	129		
NB	2001	E1442	5300	129		
NB	2002	E1442				
NB	2003	E1442	4680	125		3.5%
NB	2004	E1442	4630	123		3.6%
NB	2005	TMG01	4670	125		4.0%
NB	2006	TMG01				
NB	2007	TMG01	4760	123		4.2%
NB	2008	TMG01	4600	124		4.1%
NB	2009	TMG01	4970	120		
NB	2010	TMG01	5390	120		
NB	2011	TMG01	5500	121		3.3%
NB	2012	TMG01	5600	122		
NB	2013	TMG01	5640	122		3.0%
NB	2014	TMG01	5740	121		3.1%
NB	2015	TMG01	6080	120		2.8%
NB	2016	TMG01	6040	118		3.0%
NB	2017	TMG01	6000	119		3.0%
NB	2018	TMG01	6000	119		3.0%
NB	2019	TMG01	6140	120		2.9%
NB	2020	TMG01	5960	127		3.0%

NB	2021	TMG01	6200	118	3.2%
NB	2022	TMG01	5900	122	3.2%
NB	2023	TMG01	6500	120	3.1%
NB	2024	FHWA	6640	119	3.2%
SB	1989	OLDMHT	4083		
SB	1990	OLDMHT	4079		
SB	1991	OLDMHT	4090		
SB	1992	OLDMHT	3970		
SB	1993	OLDMHT	4225		2.9%
SB	1994	E1442	4310	129	4.0%
SB	1995	E1442	4280	130	
SB	1996	E1442	4150	136	
SB	1997	E1442	4370	123	
SB	1998	E1442	4950	120	7.1%
SB	1999	E1442	4990	126	
SB	2000	E1442	4960	129	
SB	2001	E1442			
SB	2002	E1442			
SB	2003	E1442	4580	125	3.5%
SB	2004	E1442	4550	123	3.6%
SB	2005	TMG01	4590	125	4.0%
SB	2006	TMG01	4770	123	3.8%
SB	2007	TMG01	4670	122	4.1%
SB	2008	TMG01	4810	122	4.0%
SB	2009	TMG01	4960	121	3.8%
SB	2010	TMG01	5340	120	3.7%
SB	2011	TMG01	5460	121	3.3%
SB	2012	TMG01	5560	122	
SB	2013	TMG01	5610	122	3.0%
SB	2014	TMG01	5700	121	2.8%
SB	2015	TMG01	6080	120	3.0%
SB	2016	TMG01	6030	118	3.2%
SB	2017	TMG01	6030	120	3.2%
SB	2018	TMG01	6040	120	3.1%
SB	2019	TMG01	6190	121	3.2%
SB	2020	TMG01	6010	128	3.3%
SB	2021	TMG01	6240	120	3.5%
SB	2022	TMG01			
SB	2023	TMG01	6500	121	3.5%
SB	2024	FHWA	6610	119	3.6%

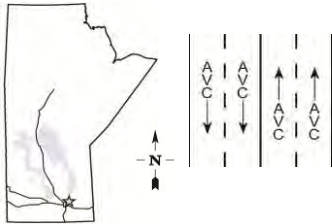
Graphical Representation of Traffic Statistics

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Contact: Urban Mobility and Transportation Informatics Group
 Email: mhtis_info@umanitoba.ca

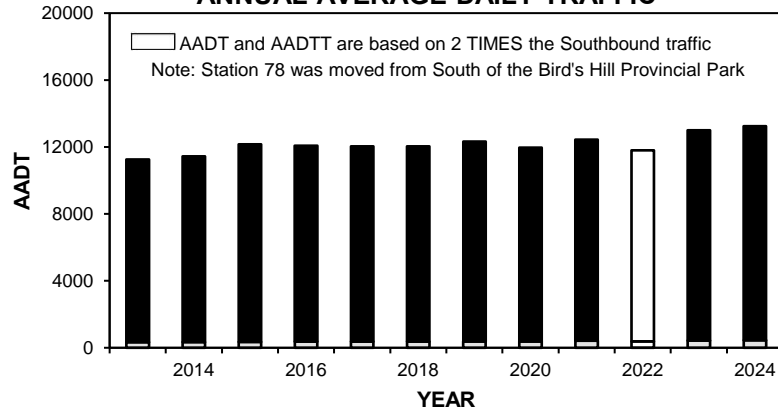
• Station 78 •



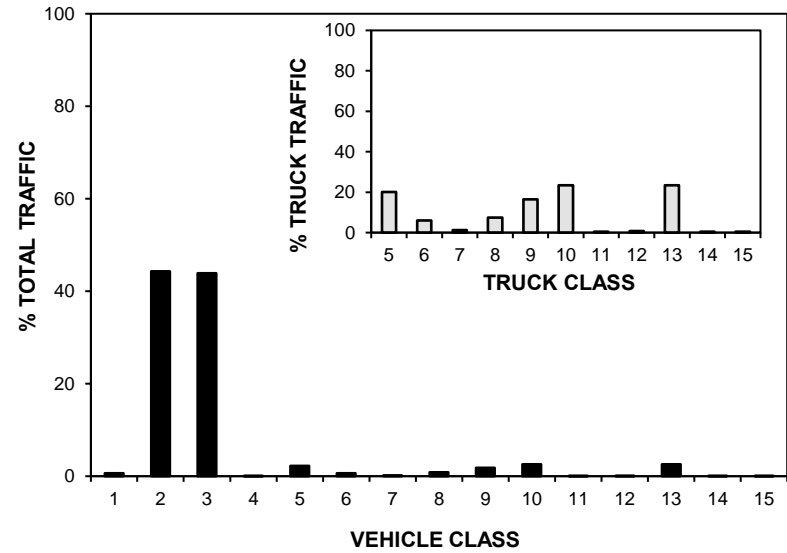
Location: PTH 59, 5.4 km South of PTH 44 (Bird's Hill)
Flow: NB-SB
Type: AVC
AADT: 13250
AADTT: 450
ASDT%: 119
Annual Growth: 190 veh/day/yr

■ Total Traffic □ Truck Traffic

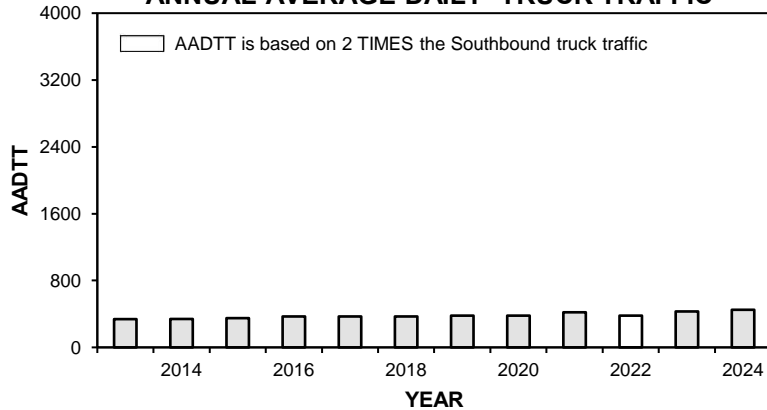
ANNUAL AVERAGE DAILY TRAFFIC



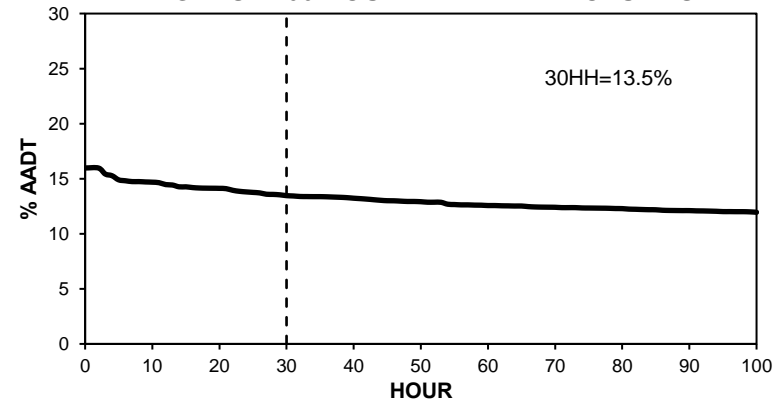
VEHICLE CLASS DISTRIBUTION



ANNUAL AVERAGE DAILY TRUCK TRAFFIC



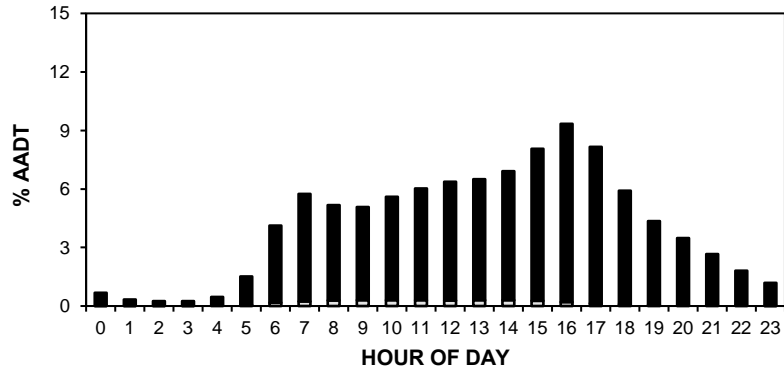
HIGHEST 100 HOURLY TRAFFIC VOLUMES



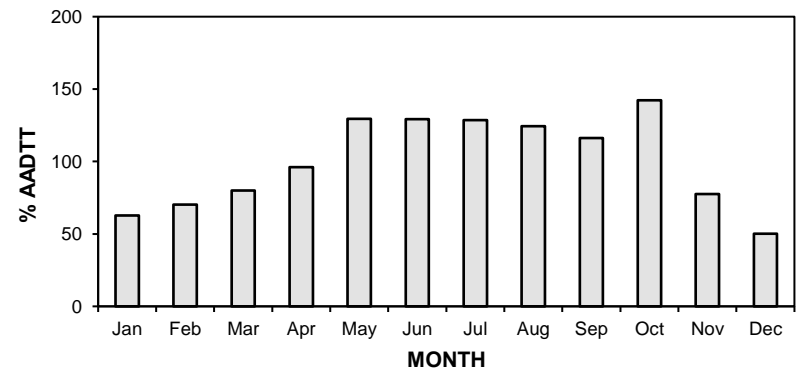
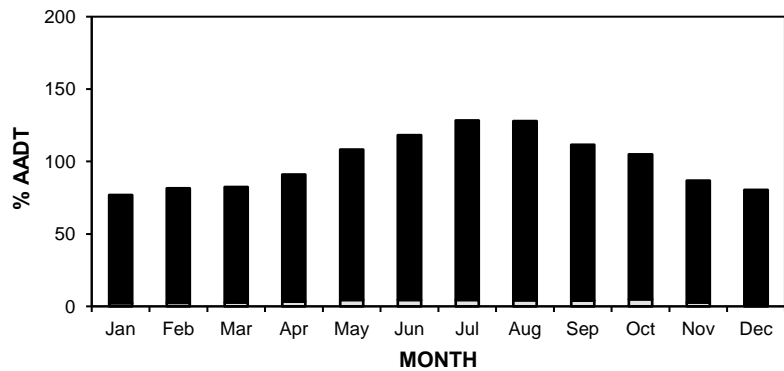
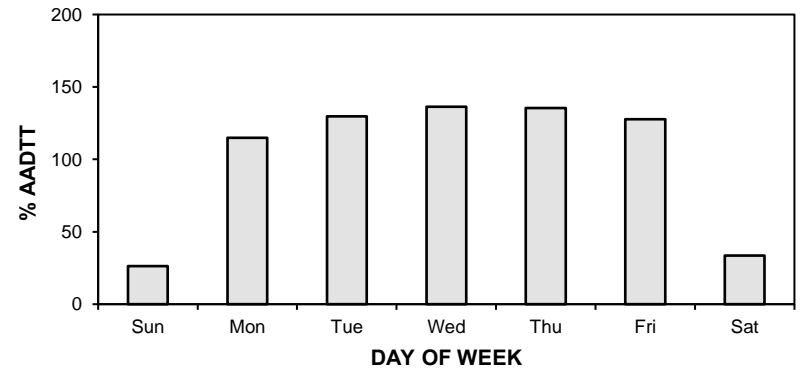
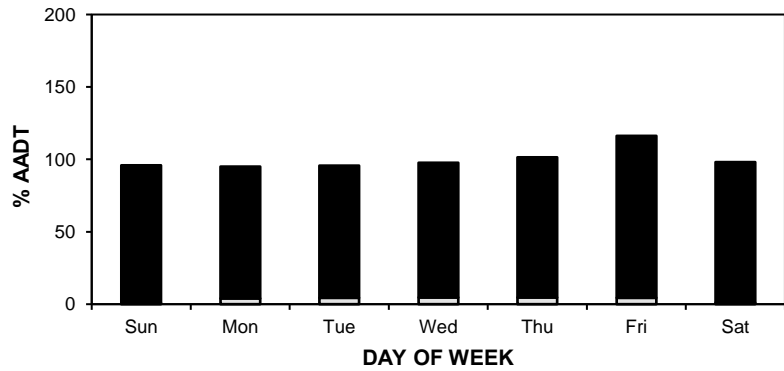
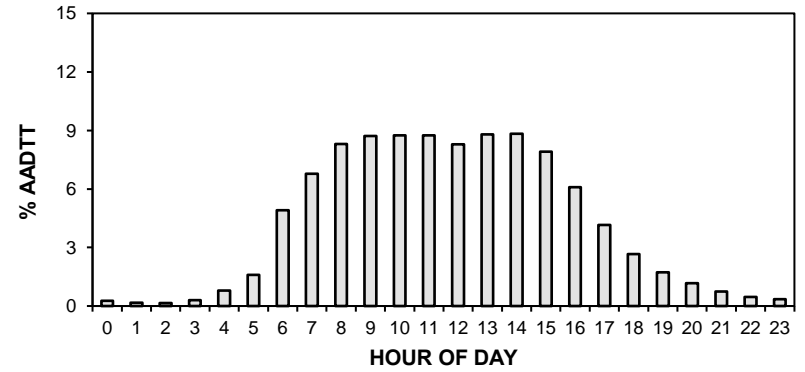
Station 78

■ Total Traffic □ Truck Traffic

TOTAL TRAFFIC VARIATION



TRUCK TRAFFIC VARIATION



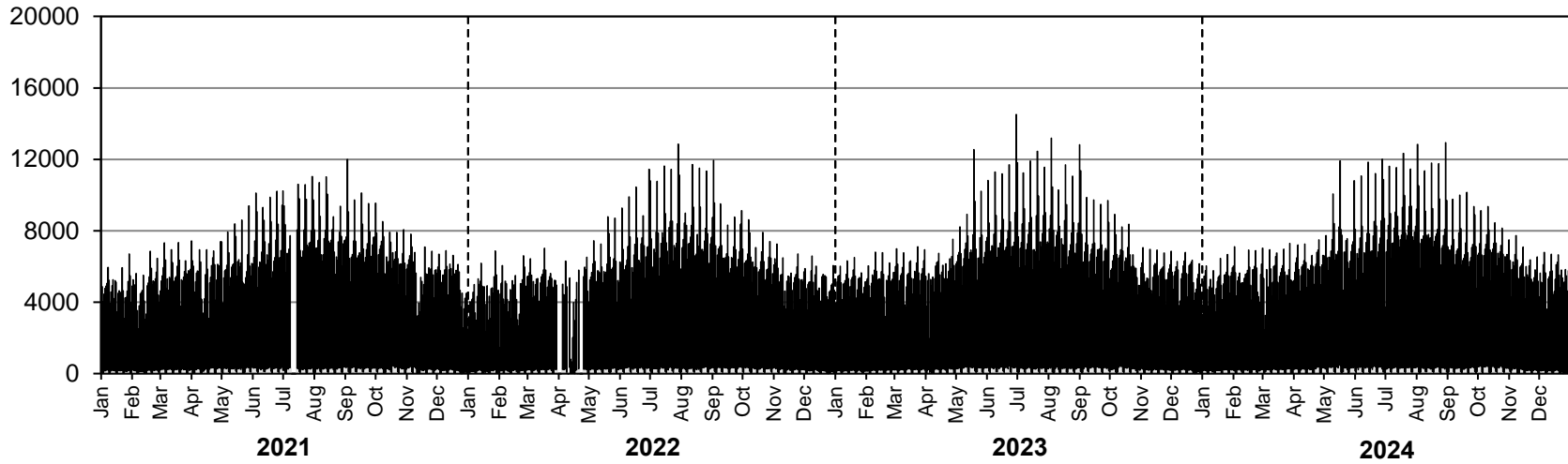
• Station 78 •

AADT: 13250

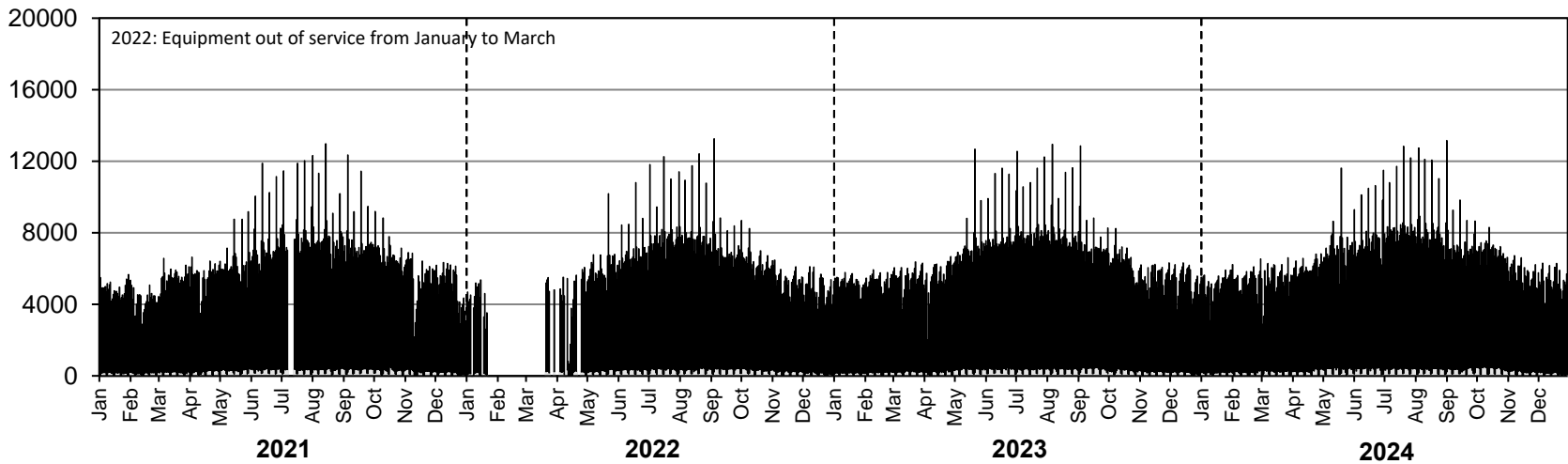
■ Total Traffic □ Truck Traffic

2021-2024 DAILY TOTAL TRAFFIC COUNTS

Northbound AADT: 6640



Southbound AADT: 6610



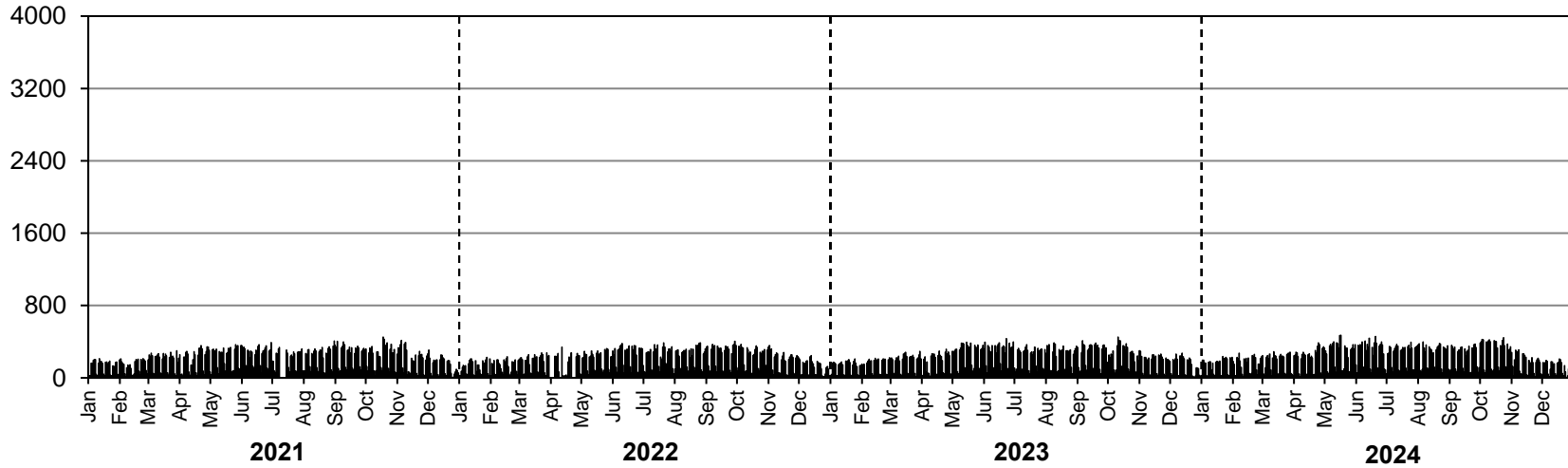
• Station 78 •

AADTT: 450

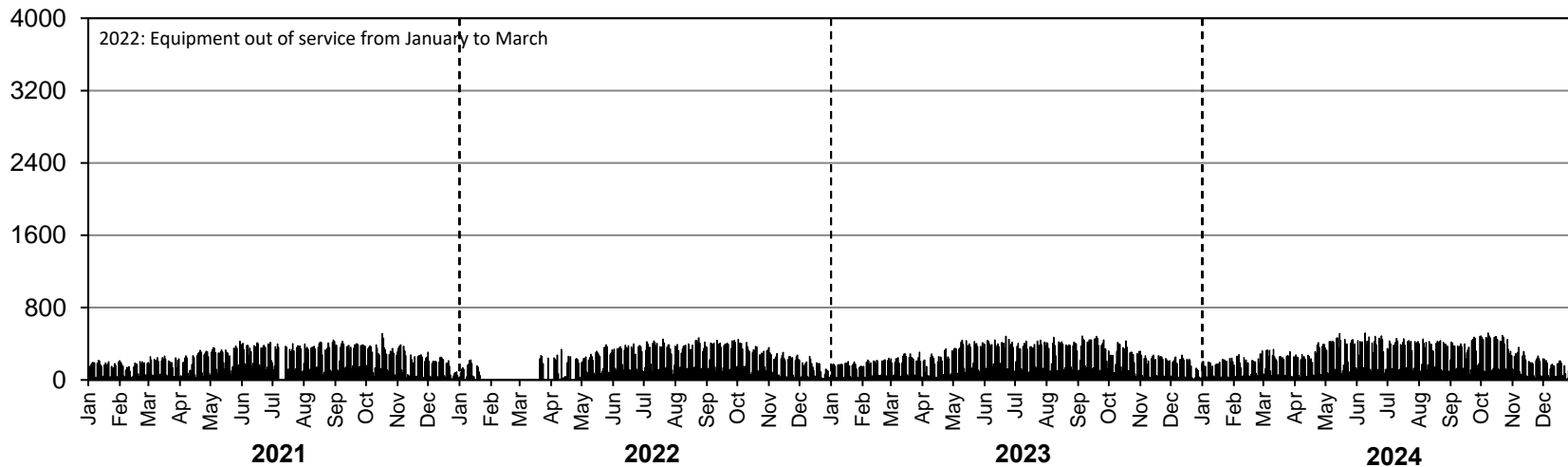
■ Truck Traffic

2021-2024 DAILY TRUCK TRAFFIC COUNTS

Northbound AADTT: 210



Southbound AADTT: 240





Station 79

Highway 1 3.3 KM W. OF P.T.H. #5

Control Section: 3001110 -- Sequence: 300111020
 Station Type: CCS -- Equipment Type: AVC

Estimates of Traffic Statistics

Dir	Date	Method	<u>AADT</u>	<u>ASDT%</u>	<u>30th Hour%</u>	%Trucks
C	1989	OLDMHT	4563			
C	1990	OLDMHT	4585			
C	1991	OLDMHT	4489			
C	1992	OLDMHT	4650			
C	1993	OLDMHT	4860			17.4%
C	1994	E1442	5040	117	14	
C	1995	E1442	5180	118	12	
C	1996	E1442	5200	120	12	19.4%
C	1997	E1442	5380	116	11	
C	1998	E1442	5700	115	11	
C	1999	E1442	5870	114	11	
C	2000	E1442	5730	115	11	
C	2001	E1442	5770	113	11	
C	2002	E1442	5960	114	11	
C	2003	E1442	6060	114	11	
C	2004	E1442	6140	113	11	
C	2005	TMG01	6210	113	11	
C	2006	TMG01	6390	111	10	
C	2007	TMG01	6670	112	11	
C	2008	TMG01	6690	110	11	
C	2009	TMG01	7070	113	11	
C	2010	TMG01	7120	113	11	
C	2011	TMG01	7050	110	11	28.7%
C	2012	TMG01	7350	111	10	28.8%
C	2013	TMG01	7230	109	10	
C	2014	TMG01				
C	2015	TMG01				
C	2016	TMG01	8100	112	10	25.7%
C	2017	TMG01	8320			25.2%
C	2018	TMG01	8330	111	10	26.7%
C	2019	TMG01	8300	112	10	26.6%
C	2020	TMG01	6940	113	11	33.0%
C	2021	TMG01	7710	114	11	34.1%
C	2022	TMG01	8170	116	10	31.9%
C	2023	TMG01	8500	112	10	30.7%
C	2024	FHWA	8700	113	10	30.2%
EB	1989	OLDMHT	2273			
EB	1990	OLDMHT	2287			
EB	1991	OLDMHT	2231			
EB	1992	OLDMHT	2320			
EB	1993	OLDMHT	2430			17.4%
EB	1994	E1442	2520	117	14	
EB	1995	E1442	2590	118	12	
EB	1996	E1442	2600	120	12	19.4%
EB	1997	E1442	2680	116	11	
EB	1998	E1442	2850	115	11	
EB	1999	E1442	2930	114	11	
EB	2000	E1442	2850	115	11	
EB	2001	E1442	2870	113	11	
EB	2002	E1442	2970	114	11	
EB	2003	E1442	3020	114	11	
EB	2004	E1442	3050	113	11	
EB	2005	TMG01	3070	113	11	
EB	2006	TMG01	3230	111	10	
EB	2007	TMG01	3310	113	11	
EB	2008	TMG01	3320	110	11	
EB	2009	TMG01	3510	113	11	
EB	2010	TMG01	3560	113	11	
EB	2011	TMG01	3500	111	11	27.7%
EB	2012	TMG01	3640	111	10	28.0%
EB	2013	TMG01	3570	109	10	
EB	2014	TMG01				
EB	2015	TMG01				
EB	2016	TMG01	4060	112		24.9%
EB	2017	TMG01	4160	113		25.2%
EB	2018	TMG01	4160	111		26.0%
EB	2019	TMG01	4150	112		26.0%
EB	2020	TMG01	3460	113		32.4%

EB	2021	TMG01	3840	114	33.9%
EB	2022	TMG01	4070	116	31.9%
EB	2023	TMG01	4220	112	30.3%
EB	2024	FHWA	4320	113	29.4%
WB	1989	OLDMHT	2290		
WB	1990	OLDMHT	2298		
WB	1991	OLDMHT	2258		
WB	1992	OLDMHT	2320		
WB	1993	OLDMHT	2430		17.4%
WB	1994	E1442	2520	117	
WB	1995	E1442	2590	118	
WB	1996	E1442	2600	120	19.4%
WB	1997	E1442	2700	116	
WB	1998	E1442	2850	115	
WB	1999	E1442	2940	114	
WB	2000	E1442	2880	115	
WB	2001	E1442	2900	113	
WB	2002	E1442	2990	114	
WB	2003	E1442	3040	114	
WB	2004	E1442	3090	113	
WB	2005	TMG01	3140	113	
WB	2006	TMG01	3160	111	
WB	2007	TMG01	3360	112	
WB	2008	TMG01	3370	109	
WB	2009	TMG01	3560	112	
WB	2010	TMG01			
WB	2011	TMG01	3550	110	29.6%
WB	2012	TMG01	3710	110	29.6%
WB	2013	TMG01	3660	109	
WB	2014	TMG01			
WB	2015	TMG01			
WB	2016	TMG01	4040	112	26.5%
WB	2017	TMG01			
WB	2018	TMG01	4170	111	27.3%
WB	2019	TMG01	4150	111	27.2%
WB	2020	TMG01	3480	113	33.6%
WB	2021	TMG01	3870	114	34.4%
WB	2022	TMG01	4100	115	32.0%
WB	2023	TMG01	4280	112	31.1%
WB	2024	FHWA	4380	113	31.1%

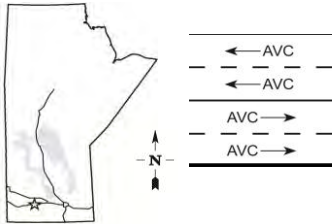
Graphical Representation of Traffic Statistics

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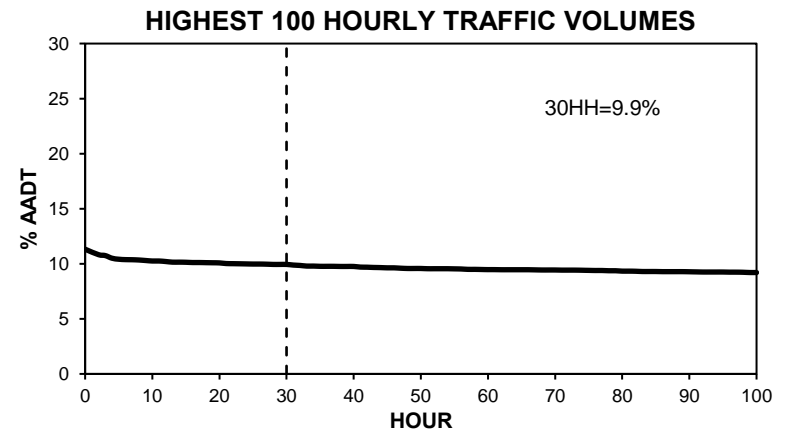
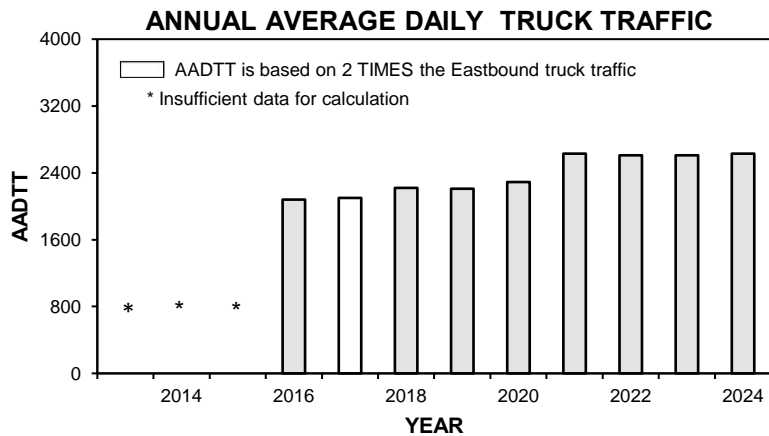
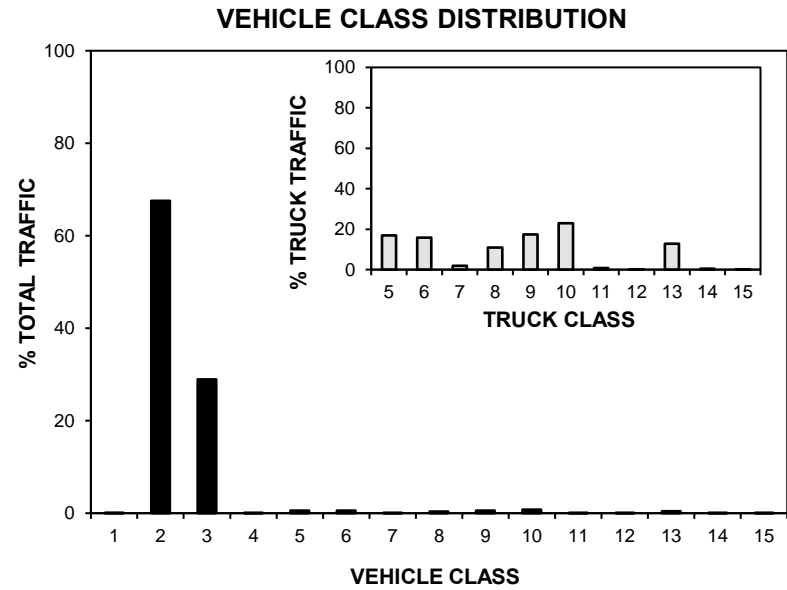
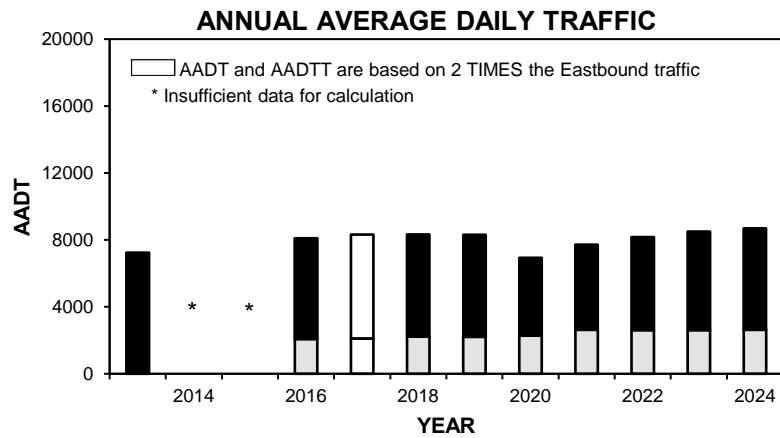
Contact: Urban Mobility and Transportation Informatics Group
 Email: mhtis_info@umanitoba.ca

Station 79



Location: PTH 1, 3.3 km West of PTH 5
Flow: EB-WB
Type: AVC
AADT: 8700
AADTT: 2630
ASDT%: 113
Annual Growth: 120 veh/day/yr

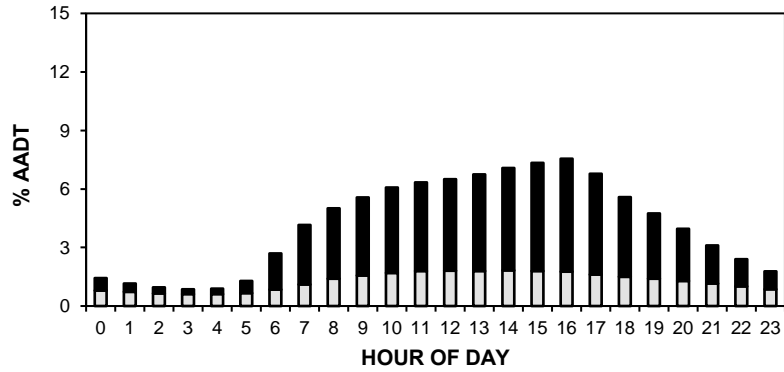
■ Total Traffic □ Truck Traffic



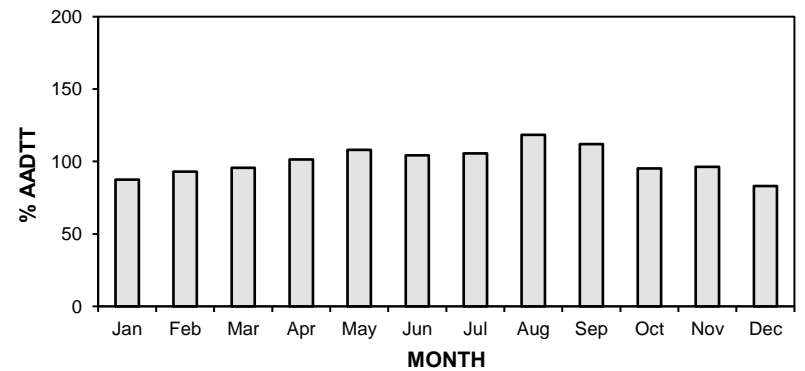
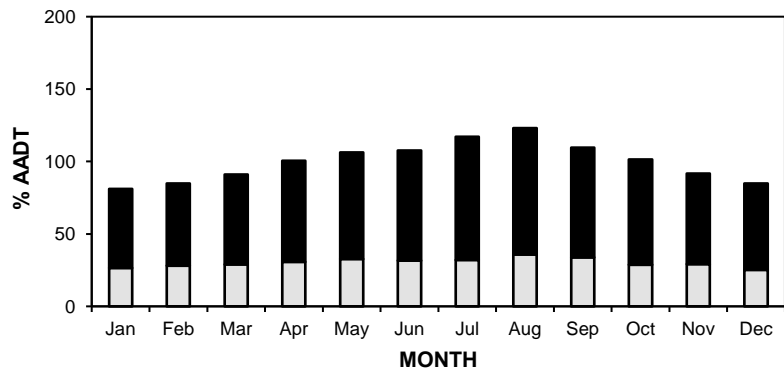
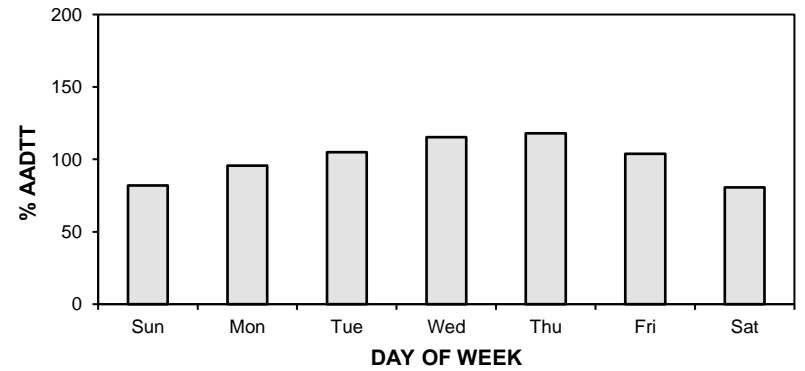
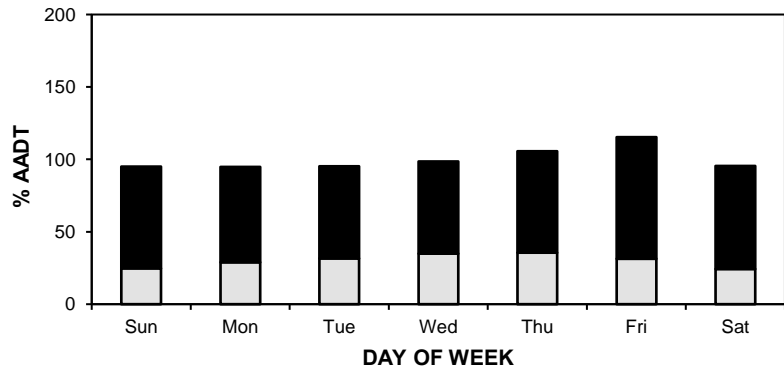
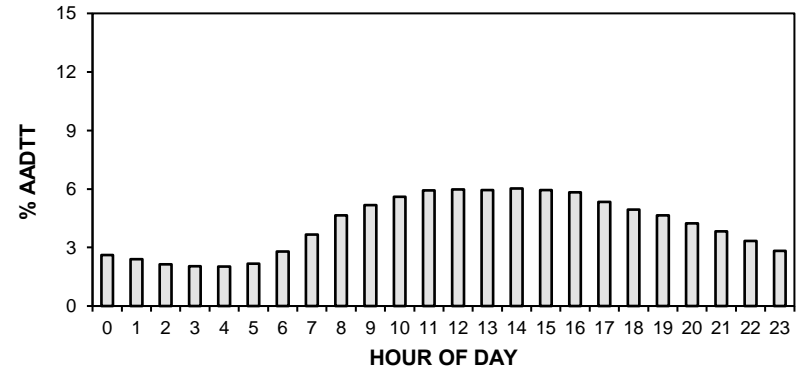
• Station 79 •

■ Total Traffic □ Truck Traffic

TOTAL TRAFFIC VARIATION



TRUCK TRAFFIC VARIATION



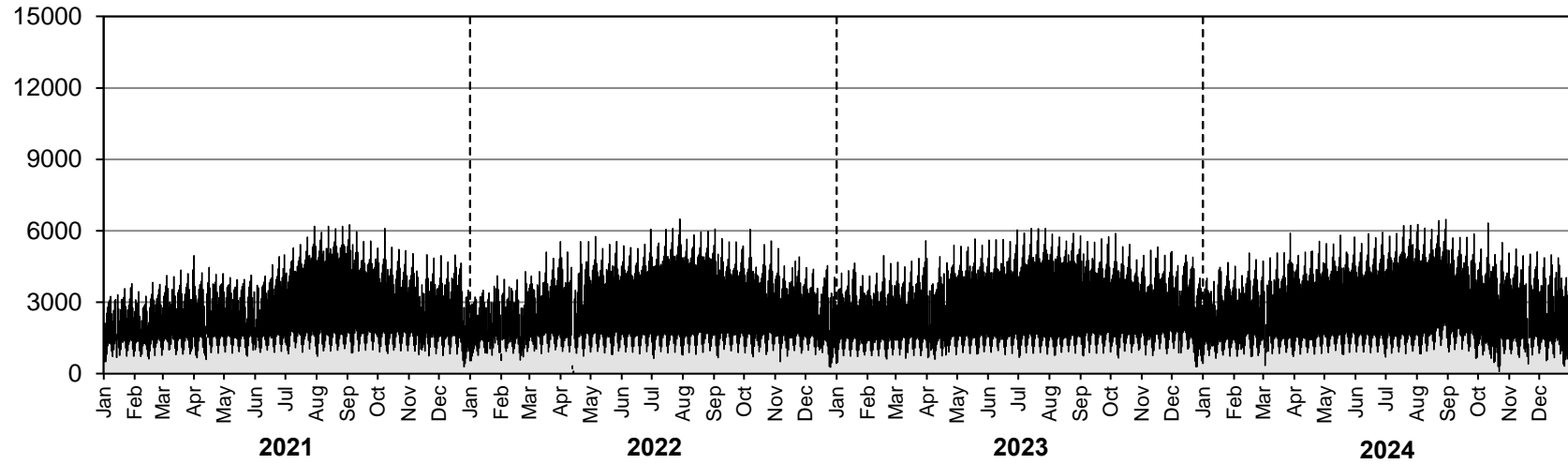
• Station 79 •

AADT: 8700

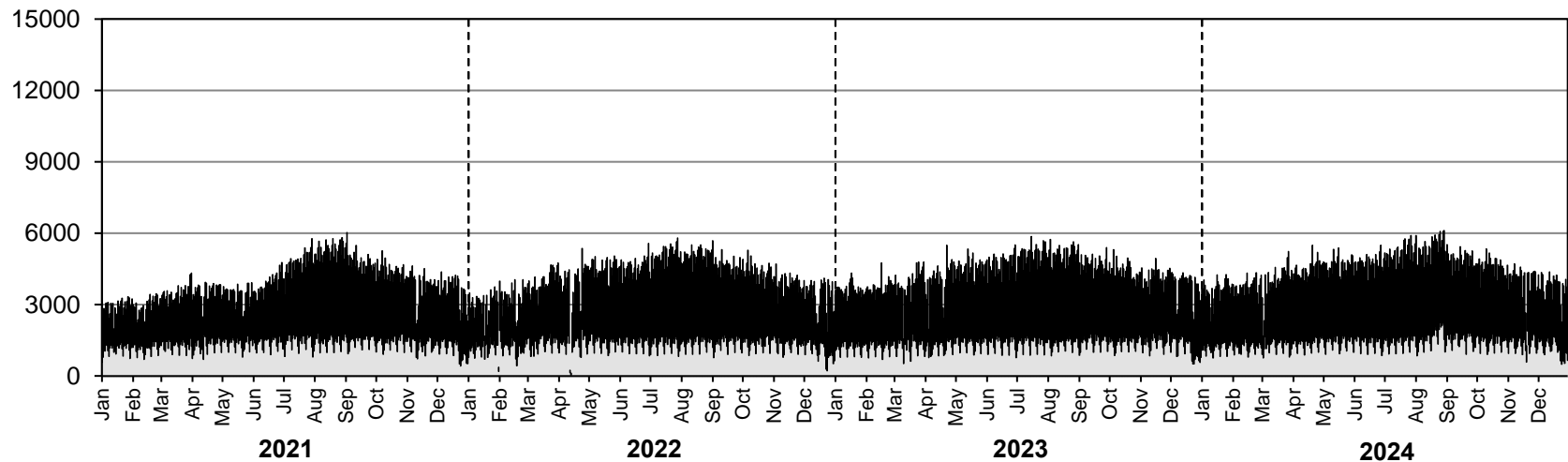
■ Total Traffic □ Truck Traffic

2021-2024 DAILY TOTAL TRAFFIC COUNTS

Eastbound AADT: 4320



Westbound AADT: 4380



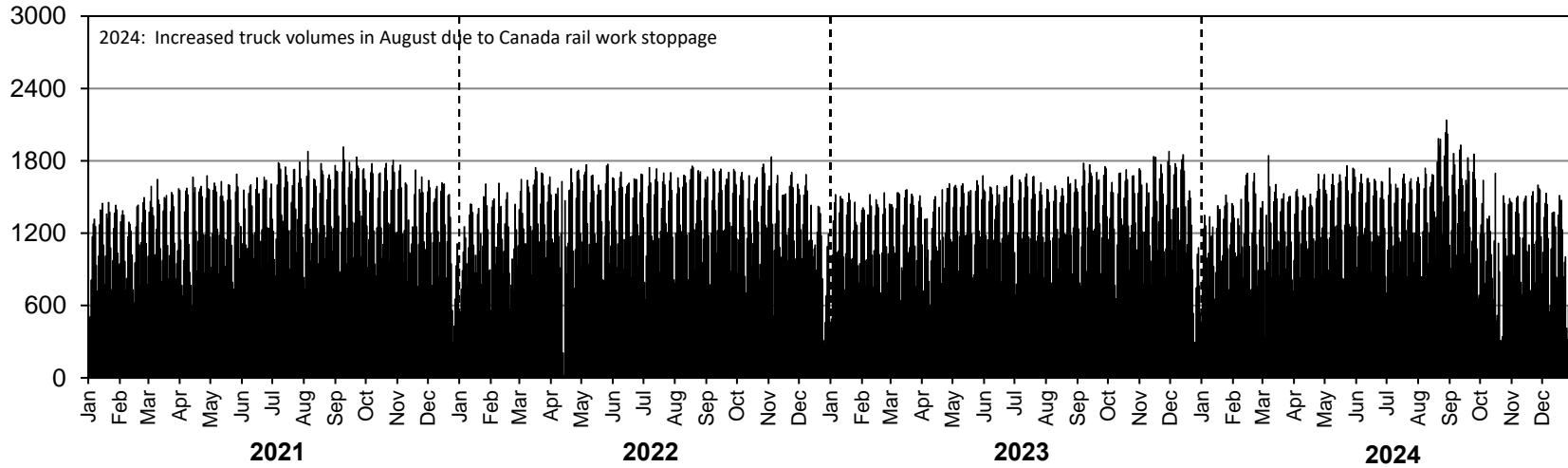
• Station 79 •

AADTT: 2630

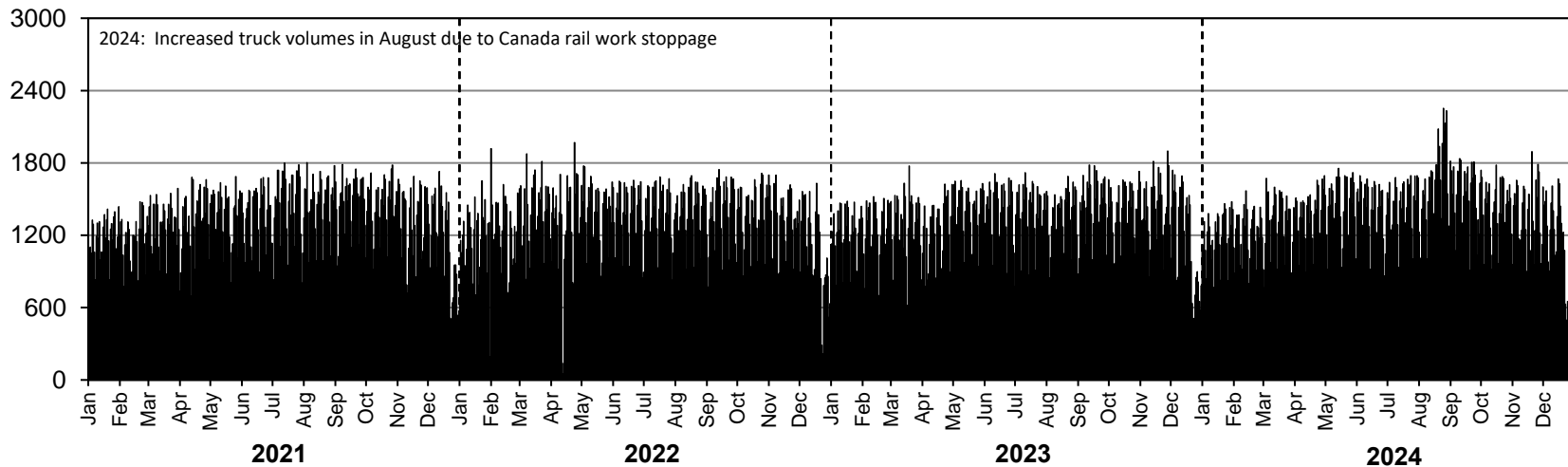
■ Truck Traffic

2021-2024 DAILY TRUCK TRAFFIC COUNTS

Eastbound AADTT: 1270



Westbound AADTT: 1360





Station 86

Highway 101 0.5 KM E. OF WENZEL RD.

Control Section: 1101070 -- Sequence: 110107020
 Station Type: CCS -- Equipment Type: AVC

Estimates of Traffic Statistics

Dir	Date	Method	<u>AADT</u>	<u>ASDT%</u>	<u>30th Hour%</u>	%Trucks
C	1997	E1442	3150	133	15	
C	1998	E1442	3460	115	14	
C	1999	E1442	3970	117	14	
C	2000	E1442	3960	117	14	
C	2001	E1442	4100	115	15	
C	2002	E1442	4410	116	15	19.0%
C	2003	E1442	4630	117	14	21.4%
C	2004	E1442	4640	117	15	20.3%
C	2005	TMG01	4820	118	15	
C	2006	TMG01	5420	116		21.1%
C	2007	TMG01	5580	116	15	20.1%
C	2008	TMG01	5680	115	15	18.8%
C	2009	TMG01	6150	117	15	18.4%
C	2010	TMG01	6600	115	14	18.3%
C	2011	TMG01	7350	117	16	18.1%
C	2012	TMG01	7940	118	16	17.0%
C	2013	TMG01				
C	2014	TMG01	8840	116	16	16.4%
C	2015	TMG01	9520	118	15	15.8%
C	2016	TMG01	9010	115	15	15.4%
C	2017	TMG01	9300	116	15	15.6%
C	2018	TMG01				
C	2019	TMG01	12260	115	15	14.2%
C	2020	TMG01	11890	115	14	16.7%
C	2021	TMG01	13220	115	15	16.6%
C	2022	TMG01	14160	121	14	15.3%
C	2023	TMG01	14930	116	15	14.4%
C	2024	FHWA				
EB	1997	E1442	1560	133	15	
EB	1998	E1442	1720	115	14	
EB	1999	E1442	1970	117	14	
EB	2000	E1442	1970	117	14	
EB	2001	E1442	2030	115	15	
EB	2002	E1442	2190	116	15	19.0%
EB	2003	E1442	2310	117	14	21.4%
EB	2004	E1442	2320	117	15	20.3%
EB	2005	TMG01	2470	118	15	
EB	2006	TMG01	2710	116		20.3%
EB	2007	TMG01	2820	115	15	19.1%
EB	2008	TMG01	2850	115	15	18.6%
EB	2009	TMG01	3080	117	15	18.2%
EB	2010	TMG01	3320	115	14	18.1%
EB	2011	TMG01	3710	117	16	17.8%
EB	2012	TMG01	4020	119	16	16.7%
EB	2013	TMG01				
EB	2014	TMG01	4470	115		16.1%
EB	2015	TMG01				
EB	2016	TMG01	4540	115		15.0%
EB	2017	TMG01	4620	116		15.4%
EB	2018	TMG01				
EB	2019	TMG01	6280	115		14.2%
EB	2020	TMG01	6030	115		16.3%
EB	2021	TMG01	6700	114		16.4%
EB	2022	TMG01	7100	120		16.6%
EB	2023	TMG01	7490	117		15.4%
EB	2024	FHWA				
WB	1997	E1442	1590	133		
WB	1998	E1442	1740	115		
WB	1999	E1442	2000	117		
WB	2000	E1442	1990	117		
WB	2001	E1442	2070	115		
WB	2002	E1442	2220	116		19.0%
WB	2003	E1442	2320	117		21.4%
WB	2004	E1442	2320	117		20.3%
WB	2005	TMG01	2350	118		
WB	2006	TMG01				
WB	2007	TMG01	2760	118		21.0%

WB	2008	TMG01	2830	115	19.1%
WB	2009	TMG01	3070	117	18.6%
WB	2010	TMG01	3280	115	18.6%
WB	2011	TMG01	3640	116	18.4%
WB	2012	TMG01	3920	118	17.3%
WB	2013	TMG01			
WB	2014	TMG01	4370	116	16.7%
WB	2015	TMG01	4760	118	15.8%
WB	2016	TMG01	4470	115	15.9%
WB	2017	TMG01	4680	117	15.8%
WB	2018	TMG01			
WB	2019	TMG01	5980	116	
WB	2020	TMG01	5860	115	17.1%
WB	2021	TMG01	6520	115	16.7%
WB	2022	TMG01	7060	123	14.0%
WB	2023	TMG01	7440	116	
WB	2024	FHWA			

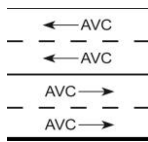
Graphical Representation of Traffic Statistics

See the next pages:

Manitoba Infrastructure and Transportation - Manitoba Highway Traffic Information System
This report generated 08/12/2025

Contact: Urban Mobility and Transportation Informatics Group
Email: mhtis_info@umanitoba.ca

• Station 86 •



Location: PTH 101, 0.5 km East of Wenzel Road (Wenzel)

Flow: NB-SB

Type: AVC

2023 AADT: 14930

2023 AADTT: 2300

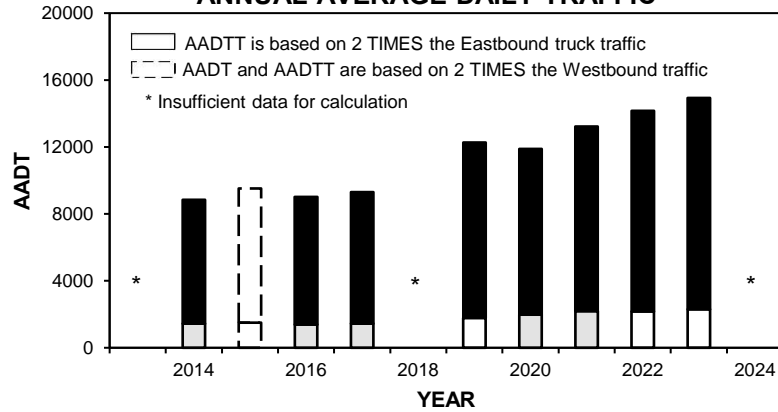
2023 ASDT%: 116

2023 Annual Growth: 430 veh/day/yr

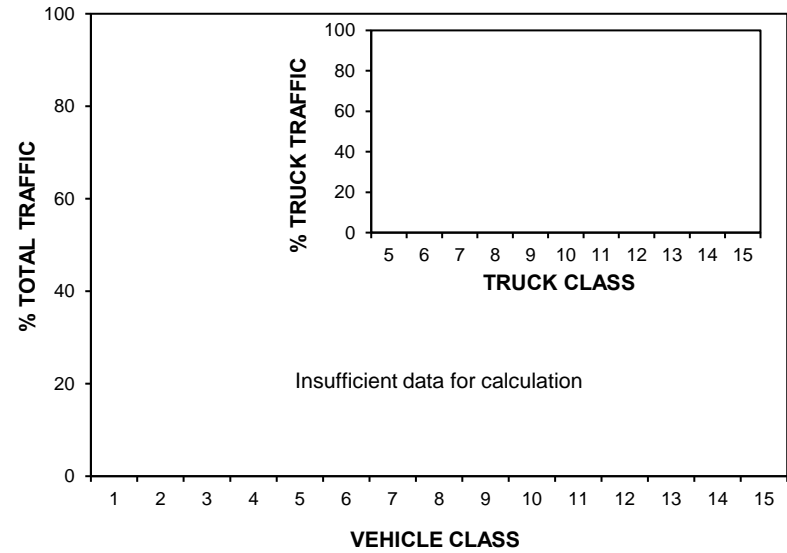
Equipment out of service in August and September (EB only), June and July (WB only) and from January to May and from August to October (WB truck traffic)

■ Total Traffic □ Truck Traffic

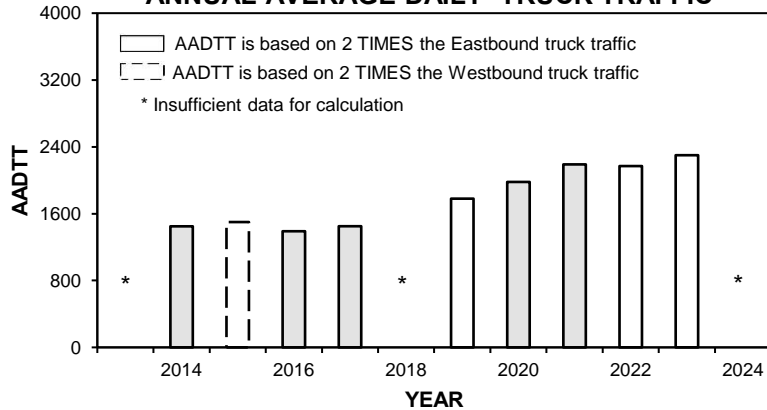
ANNUAL AVERAGE DAILY TRAFFIC



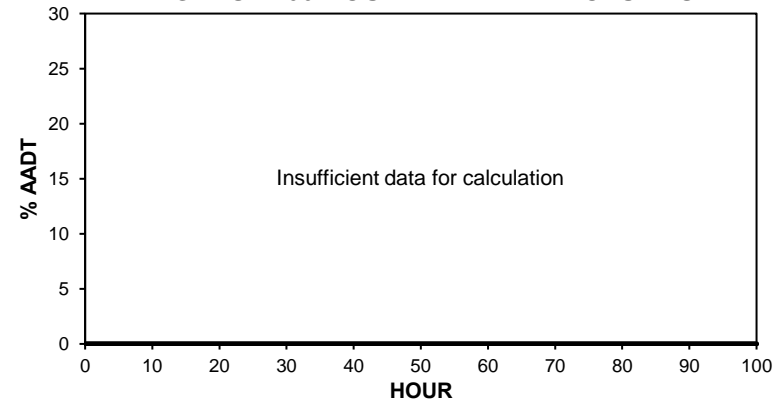
VEHICLE CLASS DISTRIBUTION



ANNUAL AVERAGE DAILY TRUCK TRAFFIC



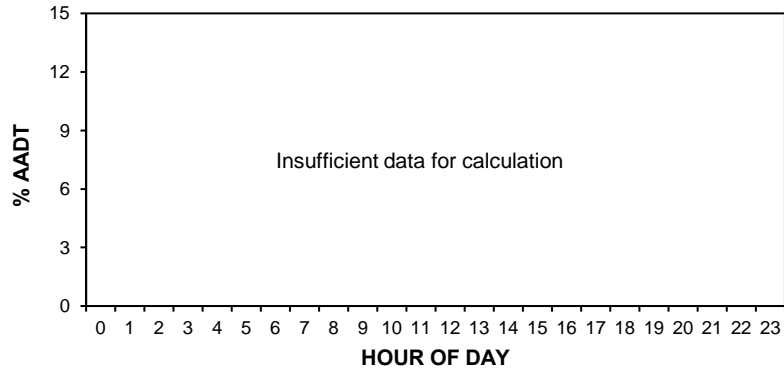
HIGHEST 100 HOURLY TRAFFIC VOLUMES



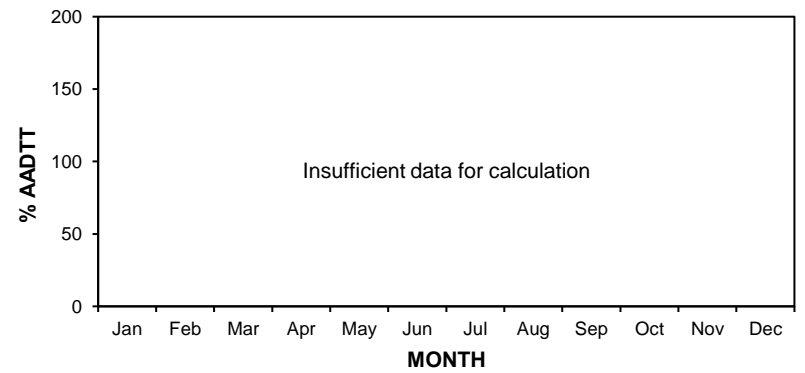
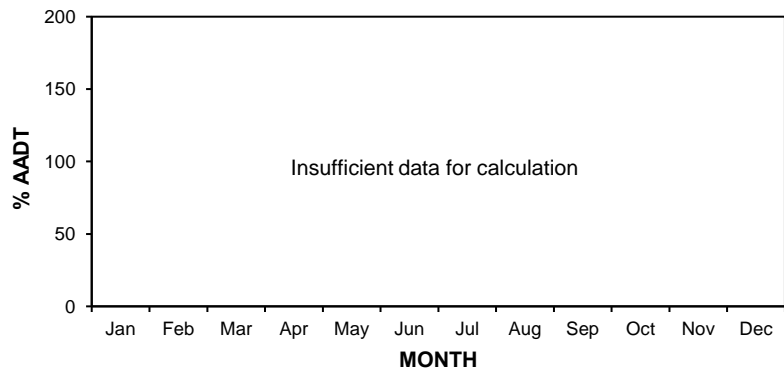
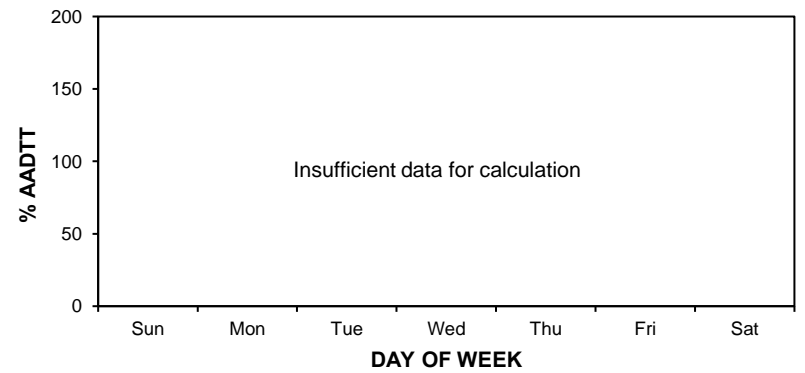
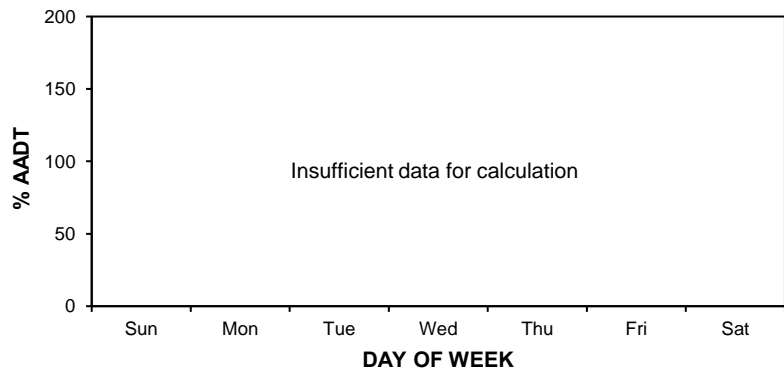
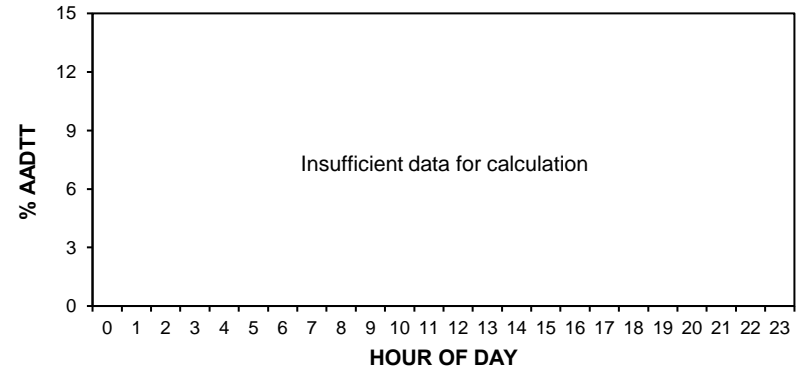
• Station 86 •

■ Total Traffic □ Truck Traffic

TOTAL TRAFFIC VARIATION



TRUCK TRAFFIC VARIATION



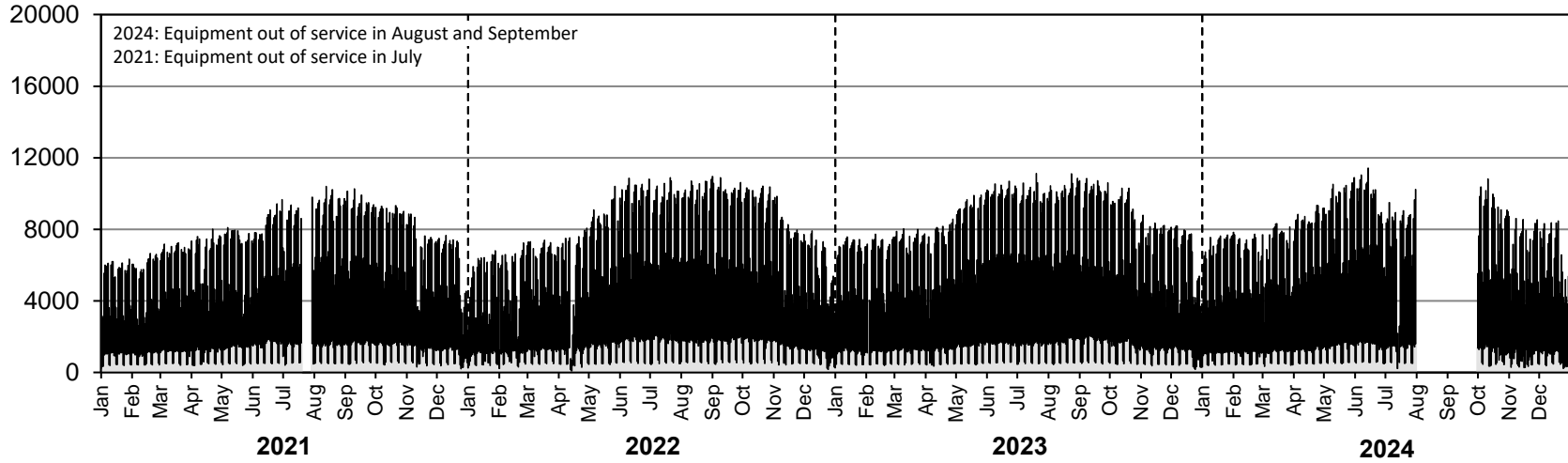
• Station 86 •

2023 AADT: 14930

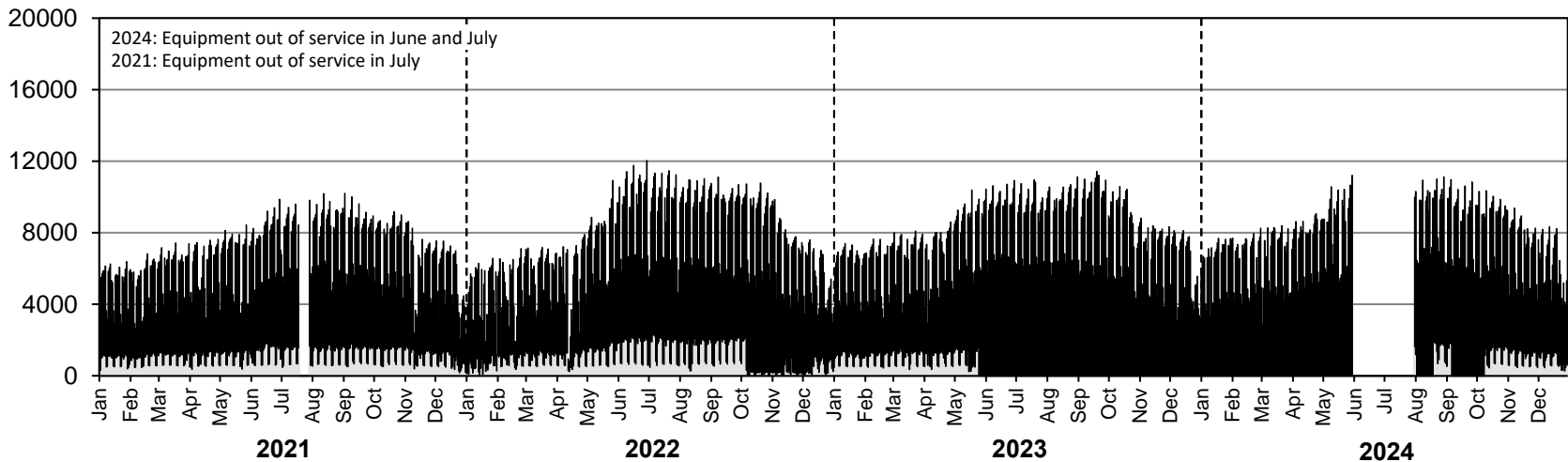
■ Total Traffic □ Truck Traffic

2021-2024 DAILY TOTAL TRAFFIC COUNTS

Eastbound AADT: Insufficient data for calculation



Westbound AADT: Insufficient data for calculation



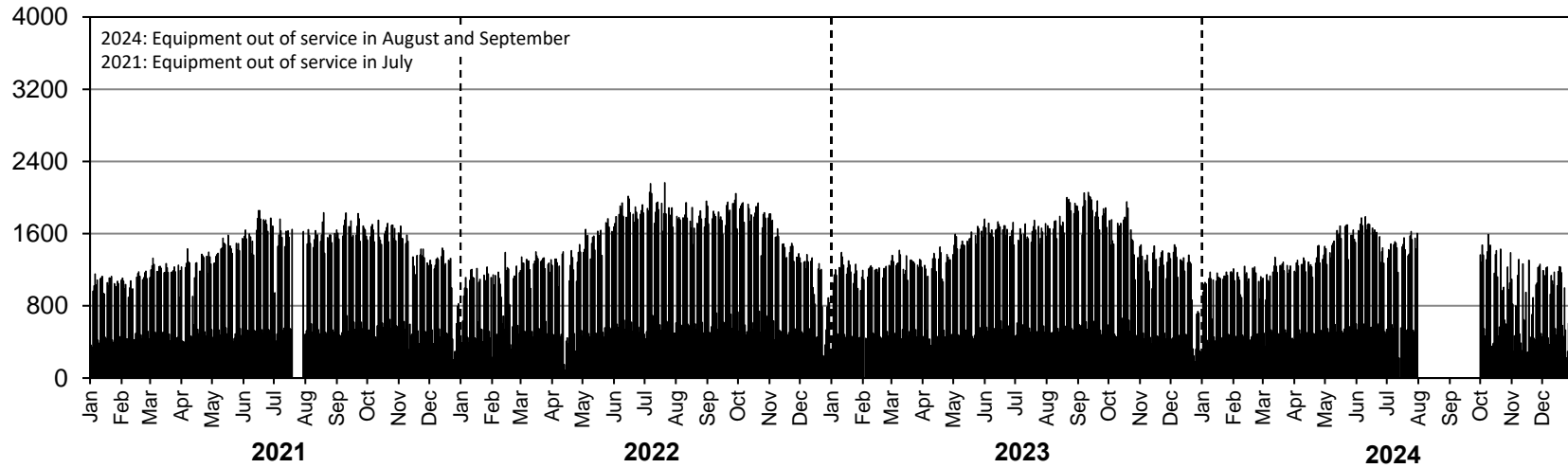
• Station 86 •

2023 AADTT: 2300

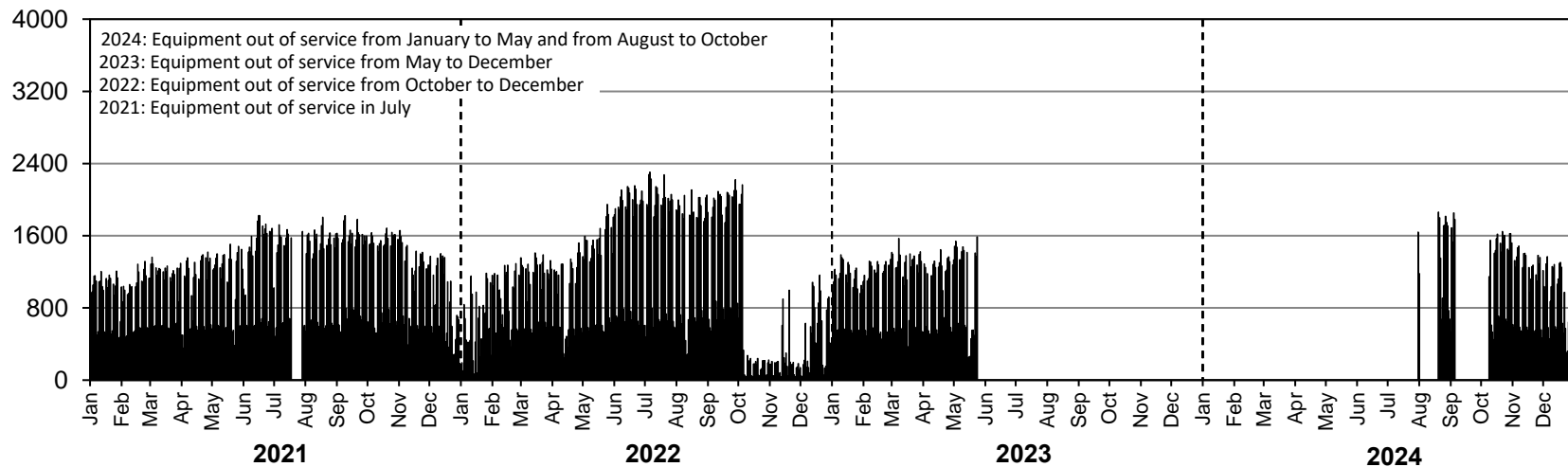
■ Truck Traffic

2021-2024 DAILY TRUCK TRAFFIC COUNTS

Eastbound AADTT: Insufficient data for calculation



Westbound AADTT: Insufficient data for calculation





Station 551

Highway 59 S. OF P.R. #202

Control Section: 1059080 -- Sequence: 105908010

Station Type: SDC -- Equipment Type: SDC-LOOP

Estimates of Traffic Statistics

Dir	Date	Method	<u>AADT</u>	<u>ASDT%</u>	<u>30th Hour%</u>	%Trucks
C	1989	OLDMHT	16546			
C	1990	OLDMHT	17034			
C	1991	OLDMHT	17104			
C	1992	OLDMHT	16000			
C	1993	OLDMHT	16800			7.1%
C	1995	95A1	18850	115	12	
C	1997	97A1	18400	132	12	4.2%
C	1999	99A1	20210	113		
C	2001	01A1	22340	113		
C	2003	03A1	23080	110		
C	2005	TMG01	20030	118	15	
C	2007	TMG01	21070	116	15	
C	2009	TMG01	22040	117	15	
C	2011	TMG01	21810	117	16	
C	2014	TMG01	23180	116	16	
NB	1989	OLDMHT	8273			
NB	1990	OLDMHT	8517			
NB	1991	OLDMHT	8552			
NB	1992	OLDMHT	8000			
NB	1993	OLDMHT	8400			7.1%
NB	1995	95A1	9040	115		
NB	1997	97A1	9120	132		4.2%
NB	1999	99A1	9940	113		
NB	2001	01A1	11100	113		
NB	2003	03A1	11820	110		
NB	2005	TMG01	10080	118		
NB	2007	TMG01	10790	116		
NB	2009	TMG01	11390	117		
NB	2011	TMG01	11080	117		
NB	2014	TMG01	11560	116		
SB	1989	OLDMHT	8273			
SB	1990	OLDMHT	8517			
SB	1991	OLDMHT	8552			
SB	1992	OLDMHT	8000			
SB	1993	OLDMHT	8400			7.1%
SB	1995	95A1	9810	115		
SB	1997	97A1	9280	132		4.2%
SB	1999	99A1	10270	113		
SB	2001	01A1	11240	113		
SB	2003	03A1	11260	110		
SB	2005	TMG01	9950	118		
SB	2007	TMG01	10280	116		
SB	2009	TMG01	10650	117		
SB	2011	TMG01	10730	117		
SB	2014	TMG01	11620	116		

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Contact: Urban Mobility and Transportation Informatics Group
 Email: mhtis_info@umanitoba.ca



Station 718

Highway 1 E. OF E. JCT. P.T.H. #10

Control Section: 3001100 -- Sequence: 300110010

Station Type: SDC -- Equipment Type: SDC-LOOP

Estimates of Traffic Statistics

Dir	Date	Method	<u>AADT</u>	<u>ASDT%</u>	<u>30th Hour%</u>	%Trucks
C	1989	OLDMHT	5510			
C	1990	OLDMHT	5528			
C	1991	OLDMHT	5546			
C	1992	OLDMHT	5600			
C	1993	OLDMHT	5600			16.8%
C	1994	944A1	6070	116	14	17.0%
C	1996	96A1	6500	119	12	
C	1997	97A1	6230	115	12	
C	1998	98A1	6510	116	12	
C	2000	00A1	5840	116	12	
C	2002	02A1	6650	115	12	
C	2004	04A1	6510	112	12	
C	2006	TMG01	6690	111	12	
C	2008	TMG01	7120	110	12	
C	2010	TMG01	7690	111	12	
C	2013	TMG01	7890	113	12	
C	2016	TMG01	8210	112	12	
C	2019	TMG01	8510			
EB	1989	OLDMHT	2755			
EB	1990	OLDMHT	2764			
EB	1991	OLDMHT	2773			
EB	1992	OLDMHT	2800			
EB	1993	OLDMHT	2800			16.8%
EB	1994	94A1	2990	116	14	17.0%
EB	1996	96A1	3270	119	12	
EB	1997	97A1	3080	115	12	
EB	1998	98A1	3280	116	12	
EB	2000	00A1	2930	116	12	
EB	2002	02A1	3260	115	12	
EB	2004	04A1	3250	112	12	
EB	2006	TMG01	3330	111	12	
EB	2008	TMG01	3640	110	12	
EB	2010	TMG01	3920	111	12	
EB	2013	TMG01	3980	113	12	
EB	2016	TMG01	4140	112	12	
EB	2019	TMG01	4240			
WB	1989	OLDMHT	2755			
WB	1990	OLDMHT	2764			
WB	1991	OLDMHT	2773			
WB	1992	OLDMHT	2800			
WB	1993	OLDMHT	2800			16.8%
WB	1994	94A1	3080	116		17.0%
WB	1996	96A1	3230	119		
WB	1997	97A1	3150	115		
WB	1998	98A1	3230	116		
WB	2000	00A1	2910	116		
WB	2002	02A1	3390	115		
WB	2004	04A1	3260	112		
WB	2006	TMG01	3360	111		
WB	2008	TMG01	3480	110		
WB	2010	TMG01	3770	111		
WB	2013	TMG01	3910	113		
WB	2016	TMG01	4070	112		
WB	2019	TMG01	4270			



Station 1878

Highway 59 S. OF P.R. #213

Control Section: 1059080 -- Sequence: 105908020
 Station Type: SDC -- Equipment Type: SDC-LOOP

Estimates of Traffic Statistics

Dir	Date	Method	<u>AADT</u>	<u>ASDT%</u>	<u>30th Hour%</u>	%Trucks
C	1989	OLDMHT	13986			
C	1990	OLDMHT	13698			
C	1991	OLDMHT	13706			
C	1992	OLDMHT	13000			
C	1993	OLDMHT	12970			4.6%
C	1995	95A1	13650	115	12	
C	1997	97A1	13840	132	12	
C	1999	99A1	15840	113		
C	2001	01A1	17170	113		
C	2003	03A1	17830	110		
C	2005	TMG01	14490	118	15	
C	2007	TMG01	15210	116	15	
C	2009	TMG01	16370	117	15	
C	2011	TMG01	16910	117	16	
C	2014	TMG01	17760	116	16	
C	2017	TMG01	18180	116	15	
NB	1989	OLDMHT	6998			
NB	1990	OLDMHT	6849			
NB	1991	OLDMHT	6853			
NB	1992	OLDMHT	6500			
NB	1993	OLDMHT	6485			4.6%
NB	1995	95A1	7090	115		
NB	1997	97A1	6650	132		
NB	1999	99A1	7850	113		
NB	2001	01A1	8650	113		
NB	2003	03A1	8940	110		
NB	2005	TMG01	7380	118		
NB	2007	TMG01	7520	116		
NB	2009	TMG01	8380	117		
NB	2011	TMG01	8610	117		
NB	2014	TMG01	8850	116		
NB	2017	TMG01	9290	116		
SB	1989	OLDMHT	6998			
SB	1990	OLDMHT	6849			
SB	1991	OLDMHT	6853			
SB	1992	OLDMHT	6500			
SB	1993	OLDMHT	6485			4.6%
SB	1995	95A1	6560	115		
SB	1997	97A1	7190	132		
SB	1999	99A1	7990	113		
SB	2001	01A1	8520	113		
SB	2003	03A1	8890	110		
SB	2005	TMG01	7110	118		
SB	2007	TMG01	7690	116		
SB	2009	TMG01	7990	117		
SB	2011	TMG01	8300	117		
SB	2014	TMG01	8910	116		
SB	2017	TMG01	8890	116		

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Contact: Urban Mobility and Transportation Informatics Group
 Email: mhtis_info@umanitoba.ca

Study Name PTH 59 & PR 202
Start Date Tuesday, April 29, 2025 7:00
End Date Wednesday, April 30, 2025 21:00
Site Code 930094990

Overview

This report contains turning movement volume (TMV) data of vehicular traf

Content

Summary Contains a TMV summary of all vehicular traffic in
TMV Table Contains a pivot table of the TMV road and crossw
TMV Data Contains measured TMV data of all vehicular traffi

Traffic Study

Start Date Tuesday, April 29, 2025 7:00
End Date Wednesday, April 30, 2025 21:00
Classification Categories Lights, Mediums, Articulated Trucks
04/29/2025 AM Peaks 7:15 - 8:15
04/29/2025 PM Peaks 16:00 - 17:00
04/30/2025 AM Peaks 7:15 - 8:15
04/30/2025 PM Peaks 16:00 - 17:00



ffic in the intersection of study.



the intersection for defined peak periods

alk data

ic in the intersection for each approach



11:30	Car	11	0	0	0	1	1	1	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	1	0	0	0
	Peds	0	0	0	0	0	0	0	0
11:45	Car	7	4	0	0	1	0	0	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
12:00	Car	15	4	1	0	1	1	3	0
	Sm Truck	0	0	0	0	0	0	1	0
	Lg Truck	0	0	0	0	0	0	1	0
	Peds	0	0	0	0	0	0	0	0
12:15	Car	15	4	1	0	2	3	9	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
12:30	Car	15	1	0	0	2	0	2	0
	Sm Truck	0	0	0	0	0	0	2	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
12:45	Car	14	0	1	0	1	3	2	0
	Sm Truck	0	0	0	0	0	0	1	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0

MANITOBA INFRASTRUCTURE & TRANSPORTATION

Location: PTH 101 & Wenzel Road
Notes: Wenzel Road N-S
Study ID: MERGED TCP113 & TCP114
Operator: Ahmad
Weather: 0

From South

From North

Begins

Left Thru Right U-turn

Left Thru Right U-turn

13:00	Car	24	3	1	0	4	0	8	0
	Sm Truck	0	0	0	0	0	0	2	0
	Lg Truck	1	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
13:15	Car	12	1	2	0	0	3	7	0
	Sm Truck	0	0	0	0	0	0	1	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
13:30	Car	17	2	0	0	0	6	3	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
13:45	Car	20	3	0	0	0	3	4	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
14:00	Car	9	2	1	0	0	1	2	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
14:15	Car	12	0	0	0	2	3	2	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	1	0	0
	Peds	0	0	0	0	0	0	0	0
14:30	Car	19	5	2	0	1	2	6	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
14:45	Car	28	2	3	0	1	1	1	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0

MANITOBA INFRASTRUCTURE & TRANSPORTATION

Location: PTH 101 & Wenzel Road
Notes: Wenzel Road N-S
Study ID: MERGED TCP113 & TCP114
Operator: Ahmad

Weather: 0

		From South				From North			

Begins		Left	Thru	Right	U-turn	Left	Thru	Right	U-turn

15:00	Car	19	4	0	0	2	2	1	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
15:15	Car	29	4	5	0	3	3	5	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
15:30	Car	42	3	1	0	4	1	6	0
	Sm Truck	1	0	0	0	0	0	1	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
15:45	Car	54	7	7	0	3	2	4	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	1	0
	Peds	0	0	0	0	0	0	0	0
16:00	Car	72	5	6	0	8	5	6	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	1	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
16:15	Car	65	8	4	0	10	4	6	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	1	0	0	0
	Peds	0	0	0	0	0	0	0	0
16:30	Car	27	6	2	0	0	3	10	0
	Sm Truck	1	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
16:45	Car	33	2	4	0	7	5	19	0
	Sm Truck	0	0	0	0	1	0	0	0

	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
18:30	Car	9	5	0	0	0	0	3	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
18:45	Car	17	2	0	0	0	0	2	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0

MANITOBA INFRASTRUCTURE & TRANSPORTATION

Location: PTH 101 & Wenzel Road
 Notes: Wenzel Road N-S
 Study ID: MERGED TCP113 & TCP114
 Operator: Ahmad
 Weather: 0

From South

From North

Begins	From South				From North				
	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	
19:00	Car	7	2	1	0	1	1	4	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
19:15	Car	13	0	0	0	0	0	6	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
19:30	Car	7	0	1	0	0	2	3	0
	Sm Truck	0	0	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0
	Peds	0	0	0	0	0	0	0	0
19:45	Car	10	1	0	0	3	2	4	0
	Sm Truck	0	0	0	0	0	0	0	0

2	36	7	0	0	42	0	0	101
0	4	1	0	0	4	0	0	9
0	11	0	0	0	12	0	0	24
0	0	0	0	0	0	0	0	0
4	33	14	0	0	36	1	1	101
0	1	0	0	0	2	1	0	4
0	3	0	0	0	11	0	0	14
0	0	0	0	0	0	0	0	0
2	77	19	0	0	76	0	0	199
0	4	0	0	0	6	0	0	11
0	21	0	0	0	13	0	0	35
0	0	0	0	0	0	0	0	0
9	70	16	0	0	64	0	0	193
3	11	0	0	0	8	0	0	22
0	17	0	0	0	13	0	0	30
0	0	0	0	0	0	0	0	0
2	69	7	0	0	60	1	0	159
0	9	0	1	0	9	0	0	21
0	14	0	0	0	19	0	0	33
0	0	0	0	0	0	0	0	0
4	85	19	1	0	50	3	0	183
1	10	0	0	0	5	0	0	17
0	17	0	0	0	11	0	0	28
0	0	0	0	0	0	0	0	0

ON

Page 4
Date

Starts: 2025 Nov 24
 End: 2025 Nov 25
 Interval: 15 min Intervals: 56
 Type: C, SmT, LgT, P-rt/red
 Correction: 1.00

From West

From East

From West				From East				Interval
Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Total

4	64	8	1	0	48	0	0	165
0	4	0	1	0	1	0	0	8
0	17	0	0	0	12	0	0	30
0	0	0	0	0	0	0	0	0
3	64	17	0	0	94	2	0	205
0	10	0	0	0	12	0	0	23
0	19	0	0	0	19	0	0	38
0	0	0	0	0	0	0	0	0
8	74	15	0	1	73	1	0	200
0	14	0	0	0	10	0	0	24
0	17	1	0	0	12	0	0	30
0	0	0	0	0	0	0	0	0
0	86	9	0	0	71	1	0	197
0	15	3	0	0	12	0	0	30
0	22	0	0	0	17	0	0	39
0	0	0	0	0	0	0	0	0
3	66	7	0	0	53	2	0	146
1	6	0	0	0	5	0	0	12
0	5	0	0	0	12	0	0	17
0	0	0	0	0	0	0	0	0
3	62	17	0	0	68	2	0	171
0	2	0	0	0	1	0	0	3
0	13	0	0	0	16	0	0	30
0	0	0	0	0	0	0	0	0
6	108	20	0	4	87	2	0	262
0	7	0	0	0	5	0	0	12
0	22	0	0	0	16	0	0	38
0	0	0	0	0	0	0	0	0
3	96	29	0	2	70	0	0	236
0	6	2	0	0	2	0	0	10
0	13	0	0	0	12	0	0	25
0	0	0	0	0	0	0	0	0

ON

Page 5
Date

Starts: 2025 Nov 24
End: 2025 Nov 25
Interval: 15 min Intervals: 56
Type: C, SmT, LgT, P-rt/red

Correction: 1.00

From West

From East

From West				From East				Interval
Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Total
7	133	19	0	0	99	2	0	288
0	2	4	0	0	7	0	0	13
0	13	0	0	0	24	1	0	38
0	0	0	0	0	0	0	0	0
13	138	29	1	0	124	3	0	357
0	9	0	0	0	8	0	0	17
0	17	0	0	0	15	0	0	32
0	0	0	0	0	0	0	0	0
9	163	32	1	1	119	7	0	389
1	6	0	0	0	12	0	0	21
0	13	0	0	0	12	0	0	25
0	0	0	0	0	0	0	0	0
12	161	44	0	2	149	1	0	446
1	4	0	0	0	8	1	0	14
0	12	0	0	0	18	0	0	31
0	0	0	0	0	0	0	0	0
6	223	34	1	4	160	4	0	534
0	8	0	0	0	8	0	0	16
0	17	0	0	0	14	0	0	32
0	0	0	0	0	0	0	0	0
7	256	44	0	2	197	2	0	605
0	6	0	0	0	11	0	0	17
0	17	0	0	0	17	0	0	35
0	0	0	0	0	0	0	0	0
7	84	18	1	0	41	0	0	199
0	2	1	0	0	4	0	0	8
0	3	0	0	0	5	0	0	8
0	0	0	0	0	0	0	0	0
6	196	53	2	0	141	1	0	469
0	4	0	0	0	2	0	0	7

0	7	0	0	0	6	0	0	13
0	0	0	0	0	0	0	0	0

ON

Page 6

Date

Starts: 2025 Nov 24
 End: 2025 Nov 25
 Interval: 15 min Intervals: 56
 Type: C, SmT, LgT, P-rt/red
 Correction: 1.00

From West

From East

Eastbound				Westbound				Interval
Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Total
0.72	0.89	0.77		n/a	0.95	0.56		0.69364
52	974	164	3	0	666	9	0	2,157
18	275	38	0	0	178	4	0	606
1	5	0	0	0	6	0	0	12
0	12	0	0	0	9	0	0	21
0	0	0	0	0	0	0	0	0
17	210	37	1	0	140	2	0	502
1	7	0	0	0	2	0	0	11
0	11	0	0	0	10	0	0	21
0	0	0	0	0	0	0	0	0
8	222	36	0	0	156	2	0	453
0	5	0	0	0	4	0	0	9
1	20	0	0	0	12	0	0	33
0	0	0	0	0	0	0	0	0
7	165	30	0	1	114	1	0	366
0	5	1	0	0	7	0	0	13
0	9	1	0	0	10	0	0	20
0	0	0	0	0	0	0	0	0
4	138	8	0	0	126	7	0	317
0	0	0	0	0	2	1	0	4
0	4	0	0	0	11	0	0	15
0	0	0	0	0	0	0	0	0
2	97	10	1	0	92	1	1	225
0	2	0	0	0	0	0	0	2

0	11	0	0	0	3	0	0	14
0	0	0	0	0	0	0	0	0
6	74	13	0	0	67	1	0	178
0	2	0	0	0	1	0	0	3
0	7	0	0	0	8	0	0	15
0	0	0	0	0	0	0	0	0
3	81	10	0	0	60	0	0	175
0	1	0	0	0	2	0	0	3
0	5	0	0	0	9	0	0	14
0	0	0	0	0	0	0	0	0

ON

Page 7

Date

Starts: 2025 Nov 24
 End: 2025 Nov 25
 Interval: 15 min Intervals: 56
 Type: C, SmT, LgT, P-rt/red
 Correction: 1.00

From West

From East

From West				From East				Interval
Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Total
4	52	6	0	0	58	2	0	138
0	1	0	0	0	3	0	0	4
0	6	0	0	0	6	0	0	12
0	0	0	0	0	0	0	0	0
4	37	7	0	0	51	0	0	118
0	2	0	0	0	1	0	0	3
0	7	0	0	0	3	0	0	10
0	0	0	0	0	0	0	0	0
6	52	6	0	0	42	0	0	119
0	1	0	0	0	2	0	0	3
0	7	0	0	0	8	0	0	15
0	0	0	0	0	0	0	0	0
4	64	9	0	0	51	1	0	149
0	0	0	0	0	1	0	0	1

0	6	0	0	0	3	0	0	9
0	0	0	0	0	0	0	0	0
3	60	8	1	1	29	1	0	115
0	2	0	0	0	2	0	0	4
0	10	0	0	0	5	0	0	15
0	0	0	0	0	0	0	0	0
2	18	2	0	1	18	0	0	47
0	0	0	0	0	1	0	0	1
0	3	0	0	0	5	0	0	8
0	0	0	0	0	0	0	0	0
0	43	3	1	0	22	0	0	74
0	0	0	0	0	1	0	0	1
0	4	0	0	0	1	0	0	5
0	0	0	0	0	0	0	0	0
4	40	6	2	0	29	0	0	92
0	0	0	0	0	0	0	0	0
0	7	0	0	0	4	0	0	11
0	0	0	0	0	0	0	0	0

9	10	11	12	13	14	15	16	Total
174	2,441	590	6	32	2,665	65	1	
174	3,314	575	12	18	2,541	48	1	
348	5,755	1,165	18	50	5,206	113	2	14,581
12	204	10	2	0	171	4	0	
5	95	8	0	0	108	2	0	
17	299	18	2	0	279	6	0	651
3	419	1	1	0	381	0	0	
1	281	1	0	0	274	1	0	
4	700	2	1	0	655	1	0	1371
369	6,754	1,185	21	50	6,140	120	2	16,603

CCW	CW			CCW	CW			
0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	
		0			0			0

Date	Time	Type	Turning Direction	Ped	Cars	Leave Blank	Sm Vehicle
2025 Nov 25	7:00:00 AM	Axle	Left	0	13		0
2025 Nov 25	7:00:00 AM	Axle	Thru	0	1		0
2025 Nov 25	7:00:00 AM	Axle	Right	0	0		0
2025 Nov 25	7:00:00 AM	Axle	U-turn	0	0		0
2025 Nov 25	7:00:00 AM	Axle	Left	0	0		0
2025 Nov 25	7:00:00 AM	Axle	Thru	0	0		0
2025 Nov 25	7:00:00 AM	Axle	Right	0	2		0
2025 Nov 25	7:00:00 AM	Axle	U-turn	0	0		0
2025 Nov 25	7:00:00 AM	Axle	Left	0	5		0
2025 Nov 25	7:00:00 AM	Axle	Thru	0	51		4
2025 Nov 25	7:00:00 AM	Axle	Right	0	13		0
2025 Nov 25	7:00:00 AM	Axle	U-turn	0	0		0
2025 Nov 25	7:00:00 AM	Axle	Left	0	0		0
2025 Nov 25	7:00:00 AM	Axle	Thru	0	91		5
2025 Nov 25	7:00:00 AM	Axle	Right	0	3		0
2025 Nov 25	7:00:00 AM	Axle	U-turn	0	0		0
2025 Nov 25	7:15:00 AM	Axle	Left	0	38		0
2025 Nov 25	7:15:00 AM	Axle	Thru	0	2		0
2025 Nov 25	7:15:00 AM	Axle	Right	0	0		0
2025 Nov 25	7:15:00 AM	Axle	U-turn	0	0		0
2025 Nov 25	7:15:00 AM	Axle	Left	0	3		0
2025 Nov 25	7:15:00 AM	Axle	Thru	0	1		0
2025 Nov 25	7:15:00 AM	Axle	Right	0	4		0
2025 Nov 25	7:15:00 AM	Axle	U-turn	0	0		0
2025 Nov 25	7:15:00 AM	Axle	Left	0	8		0
2025 Nov 25	7:15:00 AM	Axle	Thru	0	147		2
2025 Nov 25	7:15:00 AM	Axle	Right	0	31		0
2025 Nov 25	7:15:00 AM	Axle	U-turn	0	0		0
2025 Nov 25	7:15:00 AM	Axle	Left	0	4		0
2025 Nov 25	7:15:00 AM	Axle	Thru	0	196		4

2025 Nov 25	7:15:00 AM	Axle	Right	0	5	0
2025 Nov 25	7:15:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	7:30:00 AM	Axle	Left	0	34	1
2025 Nov 25	7:30:00 AM	Axle	Thru	0	3	0
2025 Nov 25	7:30:00 AM	Axle	Right	0	0	0
2025 Nov 25	7:30:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	7:30:00 AM	Axle	Left	0	3	1
2025 Nov 25	7:30:00 AM	Axle	Thru	0	5	0
2025 Nov 25	7:30:00 AM	Axle	Right	0	3	0
2025 Nov 25	7:30:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	7:30:00 AM	Axle	Left	0	13	1
2025 Nov 25	7:30:00 AM	Axle	Thru	0	184	14
2025 Nov 25	7:30:00 AM	Axle	Right	0	39	1
2025 Nov 25	7:30:00 AM	Axle	U-turn	0	1	0
2025 Nov 25	7:30:00 AM	Axle	Left	0	5	0
2025 Nov 25	7:30:00 AM	Axle	Thru	0	212	7
2025 Nov 25	7:30:00 AM	Axle	Right	0	7	1
2025 Nov 25	7:30:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	7:45:00 AM	Axle	Left	0	42	0
2025 Nov 25	7:45:00 AM	Axle	Thru	0	5	0
2025 Nov 25	7:45:00 AM	Axle	Right	0	0	0
2025 Nov 25	7:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	7:45:00 AM	Axle	Left	0	4	0
2025 Nov 25	7:45:00 AM	Axle	Thru	0	7	1
2025 Nov 25	7:45:00 AM	Axle	Right	0	4	0
2025 Nov 25	7:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	7:45:00 AM	Axle	Left	0	9	0
2025 Nov 25	7:45:00 AM	Axle	Thru	0	169	12
2025 Nov 25	7:45:00 AM	Axle	Right	0	75	2
2025 Nov 25	7:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	7:45:00 AM	Axle	Left	0	7	0
2025 Nov 25	7:45:00 AM	Axle	Thru	0	233	7
2025 Nov 25	7:45:00 AM	Axle	Right	0	2	0
2025 Nov 25	7:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:00:00 AM	Axle	Left	0	29	0
2025 Nov 25	8:00:00 AM	Axle	Thru	0	5	0
2025 Nov 25	8:00:00 AM	Axle	Right	0	0	0
2025 Nov 25	8:00:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:00:00 AM	Axle	Left	0	9	1
2025 Nov 25	8:00:00 AM	Axle	Thru	0	5	0
2025 Nov 25	8:00:00 AM	Axle	Right	0	5	1
2025 Nov 25	8:00:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:00:00 AM	Axle	Left	0	12	1
2025 Nov 25	8:00:00 AM	Axle	Thru	0	137	7
2025 Nov 25	8:00:00 AM	Axle	Right	0	46	2
2025 Nov 25	8:00:00 AM	Axle	U-turn	0	0	0

2025 Nov 25	8:00:00 AM	Axle	Left	0	7	0
2025 Nov 25	8:00:00 AM	Axle	Thru	0	173	3
2025 Nov 25	8:00:00 AM	Axle	Right	0	7	0
2025 Nov 25	8:00:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:15:00 AM	Axle	Left	0	27	0
2025 Nov 25	8:15:00 AM	Axle	Thru	0	3	0
2025 Nov 25	8:15:00 AM	Axle	Right	0	1	0
2025 Nov 25	8:15:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:15:00 AM	Axle	Left	0	2	1
2025 Nov 25	8:15:00 AM	Axle	Thru	0	4	0
2025 Nov 25	8:15:00 AM	Axle	Right	0	7	0
2025 Nov 25	8:15:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:15:00 AM	Axle	Left	0	3	0
2025 Nov 25	8:15:00 AM	Axle	Thru	0	127	8
2025 Nov 25	8:15:00 AM	Axle	Right	0	35	0
2025 Nov 25	8:15:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:15:00 AM	Axle	Left	0	0	0
2025 Nov 25	8:15:00 AM	Axle	Thru	0	177	6
2025 Nov 25	8:15:00 AM	Axle	Right	0	1	0
2025 Nov 25	8:15:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:30:00 AM	Axle	Left	0	19	0
2025 Nov 25	8:30:00 AM	Axle	Thru	0	5	0
2025 Nov 25	8:30:00 AM	Axle	Right	0	1	0
2025 Nov 25	8:30:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:30:00 AM	Axle	Left	0	2	0
2025 Nov 25	8:30:00 AM	Axle	Thru	0	3	0
2025 Nov 25	8:30:00 AM	Axle	Right	0	13	0
2025 Nov 25	8:30:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:30:00 AM	Axle	Left	0	12	0
2025 Nov 25	8:30:00 AM	Axle	Thru	0	144	14
2025 Nov 25	8:30:00 AM	Axle	Right	0	36	0
2025 Nov 25	8:30:00 AM	Axle	U-turn	0	1	0
2025 Nov 25	8:30:00 AM	Axle	Left	0	3	0
2025 Nov 25	8:30:00 AM	Axle	Thru	0	166	7
2025 Nov 25	8:30:00 AM	Axle	Right	0	3	0
2025 Nov 25	8:30:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:45:00 AM	Axle	Left	0	21	1
2025 Nov 25	8:45:00 AM	Axle	Thru	0	0	0
2025 Nov 25	8:45:00 AM	Axle	Right	0	0	0
2025 Nov 25	8:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:45:00 AM	Axle	Left	0	0	1
2025 Nov 25	8:45:00 AM	Axle	Thru	0	3	0
2025 Nov 25	8:45:00 AM	Axle	Right	0	8	1
2025 Nov 25	8:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	8:45:00 AM	Axle	Left	0	6	2
2025 Nov 25	8:45:00 AM	Axle	Thru	0	120	10

2025 Nov 25	8:45:00 AM	Axle	Right	0	25	0
2025 Nov 25	8:45:00 AM	Axle	U-turn	0	1	0
2025 Nov 25	8:45:00 AM	Axle	Left	0	0	0
2025 Nov 25	8:45:00 AM	Axle	Thru	0	138	6
2025 Nov 25	8:45:00 AM	Axle	Right	0	6	0
2025 Nov 25	8:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:00:00 AM	Axle	Left	0	14	1
2025 Nov 25	9:00:00 AM	Axle	Thru	0	0	0
2025 Nov 25	9:00:00 AM	Axle	Right	0	0	0
2025 Nov 25	9:00:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:00:00 AM	Axle	Left	0	4	1
2025 Nov 25	9:00:00 AM	Axle	Thru	0	1	0
2025 Nov 25	9:00:00 AM	Axle	Right	0	10	1
2025 Nov 25	9:00:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:00:00 AM	Axle	Left	0	18	0
2025 Nov 25	9:00:00 AM	Axle	Thru	0	90	5
2025 Nov 25	9:00:00 AM	Axle	Right	0	21	0
2025 Nov 25	9:00:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:00:00 AM	Axle	Left	0	0	0
2025 Nov 25	9:00:00 AM	Axle	Thru	0	116	4
2025 Nov 25	9:00:00 AM	Axle	Right	0	3	0
2025 Nov 25	9:00:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:15:00 AM	Axle	Left	0	13	0
2025 Nov 25	9:15:00 AM	Axle	Thru	0	1	0
2025 Nov 25	9:15:00 AM	Axle	Right	0	1	0
2025 Nov 25	9:15:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:15:00 AM	Axle	Left	0	4	0
2025 Nov 25	9:15:00 AM	Axle	Thru	0	1	0
2025 Nov 25	9:15:00 AM	Axle	Right	0	8	0
2025 Nov 25	9:15:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:15:00 AM	Axle	Left	0	5	0
2025 Nov 25	9:15:00 AM	Axle	Thru	0	109	6
2025 Nov 25	9:15:00 AM	Axle	Right	0	20	0
2025 Nov 25	9:15:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:15:00 AM	Axle	Left	0	0	0
2025 Nov 25	9:15:00 AM	Axle	Thru	0	77	7
2025 Nov 25	9:15:00 AM	Axle	Right	0	2	0
2025 Nov 25	9:15:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:30:00 AM	Axle	Left	0	8	0
2025 Nov 25	9:30:00 AM	Axle	Thru	0	1	0
2025 Nov 25	9:30:00 AM	Axle	Right	0	0	0
2025 Nov 25	9:30:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:30:00 AM	Axle	Left	0	3	0
2025 Nov 25	9:30:00 AM	Axle	Thru	0	0	0
2025 Nov 25	9:30:00 AM	Axle	Right	0	5	0
2025 Nov 25	9:30:00 AM	Axle	U-turn	0	0	0

2025 Nov 25	9:30:00 AM	Axle	Left	0	8	0
2025 Nov 25	9:30:00 AM	Axle	Thru	0	53	2
2025 Nov 25	9:30:00 AM	Axle	Right	0	10	1
2025 Nov 25	9:30:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:30:00 AM	Axle	Left	0	0	0
2025 Nov 25	9:30:00 AM	Axle	Thru	0	71	3
2025 Nov 25	9:30:00 AM	Axle	Right	0	1	0
2025 Nov 25	9:30:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:45:00 AM	Axle	Left	0	1	0
2025 Nov 25	9:45:00 AM	Axle	Thru	0	5	0
2025 Nov 25	9:45:00 AM	Axle	Right	0	0	0
2025 Nov 25	9:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:45:00 AM	Axle	Left	0	1	0
2025 Nov 25	9:45:00 AM	Axle	Thru	0	1	0
2025 Nov 25	9:45:00 AM	Axle	Right	0	1	0
2025 Nov 25	9:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:45:00 AM	Axle	Left	0	2	0
2025 Nov 25	9:45:00 AM	Axle	Thru	0	29	5
2025 Nov 25	9:45:00 AM	Axle	Right	0	10	0
2025 Nov 25	9:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	9:45:00 AM	Axle	Left	0	1	0
2025 Nov 25	9:45:00 AM	Axle	Thru	0	31	4
2025 Nov 25	9:45:00 AM	Axle	Right	0	1	0
2025 Nov 25	9:45:00 AM	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	13	0
2025 Nov 25	#####	Axle	Thru	0	0	0
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	3	0
2025 Nov 25	#####	Axle	Thru	0	3	0
2025 Nov 25	#####	Axle	Right	0	2	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	10	3
2025 Nov 25	#####	Axle	Thru	0	63	8
2025 Nov 25	#####	Axle	Right	0	17	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	2	0
2025 Nov 25	#####	Axle	Thru	0	69	5
2025 Nov 25	#####	Axle	Right	0	6	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	14	0
2025 Nov 25	#####	Axle	Thru	0	6	0
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	3	2
2025 Nov 25	#####	Axle	Thru	0	3	0
2025 Nov 25	#####	Axle	Right	0	2	0

2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	2	0
2025 Nov 25	#####	Axle	Thru	0	78	6
2025 Nov 25	#####	Axle	Right	0	14	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	1	0
2025 Nov 25	#####	Axle	Thru	0	69	9
2025 Nov 25	#####	Axle	Right	0	2	1
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	15	0
2025 Nov 25	#####	Axle	Thru	0	3	0
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	2	1
2025 Nov 25	#####	Axle	Thru	0	2	0
2025 Nov 25	#####	Axle	Right	0	8	2
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	9	0
2025 Nov 25	#####	Axle	Thru	0	67	8
2025 Nov 25	#####	Axle	Right	0	21	0
2025 Nov 25	#####	Axle	U-turn	0	1	0
2025 Nov 25	#####	Axle	Left	0	1	0
2025 Nov 25	#####	Axle	Thru	0	42	4
2025 Nov 25	#####	Axle	Right	0	3	1
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	12	0
2025 Nov 25	#####	Axle	Thru	0	0	0
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	1	0
2025 Nov 25	#####	Axle	Thru	0	1	0
2025 Nov 25	#####	Axle	Right	0	5	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	8	0
2025 Nov 25	#####	Axle	Thru	0	71	5
2025 Nov 25	#####	Axle	Right	0	18	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	0	0
2025 Nov 25	#####	Axle	Thru	0	73	3
2025 Nov 25	#####	Axle	Right	0	1	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	17	0
2025 Nov 25	#####	Axle	Thru	0	1	0
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	6	0

2025 Nov 25	#####	Axle	Thru	0	3	0
2025 Nov 25	#####	Axle	Right	0	1	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	4	1
2025 Nov 25	#####	Axle	Thru	0	74	5
2025 Nov 25	#####	Axle	Right	0	10	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	0	0
2025 Nov 25	#####	Axle	Thru	0	52	10
2025 Nov 25	#####	Axle	Right	0	1	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	21	0
2025 Nov 25	#####	Axle	Thru	0	0	0
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	1	0
2025 Nov 25	#####	Axle	Thru	0	0	0
2025 Nov 25	#####	Axle	Right	0	5	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	2	0
2025 Nov 25	#####	Axle	Thru	0	70	1
2025 Nov 25	#####	Axle	Right	0	18	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	0	0
2025 Nov 25	#####	Axle	Thru	0	65	8
2025 Nov 25	#####	Axle	Right	0	2	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	11	0
2025 Nov 25	#####	Axle	Thru	0	0	0
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	1	0
2025 Nov 25	#####	Axle	Thru	0	1	0
2025 Nov 25	#####	Axle	Right	0	1	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	2	0
2025 Nov 25	#####	Axle	Thru	0	36	4
2025 Nov 25	#####	Axle	Right	0	7	1
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	0	0
2025 Nov 25	#####	Axle	Thru	0	42	4
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	7	0
2025 Nov 25	#####	Axle	Thru	0	4	0
2025 Nov 25	#####	Axle	Right	0	0	0

2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	1	0
2025 Nov 25	#####	Axle	Thru	0	0	0
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	4	0
2025 Nov 25	#####	Axle	Thru	0	33	1
2025 Nov 25	#####	Axle	Right	0	14	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	0	0
2025 Nov 25	#####	Axle	Thru	0	36	2
2025 Nov 25	#####	Axle	Right	0	1	1
2025 Nov 25	#####	Axle	U-turn	0	1	0
2025 Nov 25	#####	Axle	Left	0	15	0
2025 Nov 25	#####	Axle	Thru	0	4	0
2025 Nov 25	#####	Axle	Right	0	1	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	1	0
2025 Nov 25	#####	Axle	Thru	0	1	0
2025 Nov 25	#####	Axle	Right	0	3	1
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	2	0
2025 Nov 25	#####	Axle	Thru	0	77	4
2025 Nov 25	#####	Axle	Right	0	19	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	0	0
2025 Nov 25	#####	Axle	Thru	0	76	6
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	15	0
2025 Nov 25	#####	Axle	Thru	0	4	0
2025 Nov 25	#####	Axle	Right	0	1	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	2	0
2025 Nov 25	#####	Axle	Thru	0	3	0
2025 Nov 25	#####	Axle	Right	0	9	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	9	3
2025 Nov 25	#####	Axle	Thru	0	70	11
2025 Nov 25	#####	Axle	Right	0	16	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	0	0
2025 Nov 25	#####	Axle	Thru	0	64	8
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	15	0

2025 Nov 25	#####	Axle	Thru	0	1	0
2025 Nov 25	#####	Axle	Right	0	0	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	2	0
2025 Nov 25	#####	Axle	Thru	0	0	0
2025 Nov 25	#####	Axle	Right	0	2	2
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	2	0
2025 Nov 25	#####	Axle	Thru	0	69	9
2025 Nov 25	#####	Axle	Right	0	7	0
2025 Nov 25	#####	Axle	U-turn	0	0	1
2025 Nov 25	#####	Axle	Left	0	0	0
2025 Nov 25	#####	Axle	Thru	0	60	9
2025 Nov 25	#####	Axle	Right	0	1	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	14	0
2025 Nov 25	#####	Axle	Thru	0	0	0
2025 Nov 25	#####	Axle	Right	0	1	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	1	0
2025 Nov 25	#####	Axle	Thru	0	3	0
2025 Nov 25	#####	Axle	Right	0	2	1
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	#####	Axle	Left	0	4	1
2025 Nov 25	#####	Axle	Thru	0	85	10
2025 Nov 25	#####	Axle	Right	0	19	0
2025 Nov 25	#####	Axle	U-turn	0	1	0
2025 Nov 25	#####	Axle	Left	0	0	0
2025 Nov 25	#####	Axle	Thru	0	50	5
2025 Nov 25	#####	Axle	Right	0	3	0
2025 Nov 25	#####	Axle	U-turn	0	0	0
2025 Nov 25	1:00:00 PM	Axle	Left	0	24	0
2025 Nov 25	1:00:00 PM	Axle	Thru	0	3	0
2025 Nov 25	1:00:00 PM	Axle	Right	0	1	0
2025 Nov 25	1:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:00:00 PM	Axle	Left	0	4	0
2025 Nov 25	1:00:00 PM	Axle	Thru	0	0	0
2025 Nov 25	1:00:00 PM	Axle	Right	0	8	2
2025 Nov 25	1:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:00:00 PM	Axle	Left	0	4	0
2025 Nov 25	1:00:00 PM	Axle	Thru	0	64	4
2025 Nov 25	1:00:00 PM	Axle	Right	0	8	0
2025 Nov 25	1:00:00 PM	Axle	U-turn	0	1	1
2025 Nov 25	1:00:00 PM	Axle	Left	0	0	0
2025 Nov 25	1:00:00 PM	Axle	Thru	0	48	1
2025 Nov 25	1:00:00 PM	Axle	Right	0	0	0
2025 Nov 25	1:00:00 PM	Axle	U-turn	0	0	0

2025 Nov 25	1:15:00 PM	Axle	Left	0	12	0
2025 Nov 25	1:15:00 PM	Axle	Thru	0	1	0
2025 Nov 25	1:15:00 PM	Axle	Right	0	2	0
2025 Nov 25	1:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:15:00 PM	Axle	Left	0	0	0
2025 Nov 25	1:15:00 PM	Axle	Thru	0	3	0
2025 Nov 25	1:15:00 PM	Axle	Right	0	7	1
2025 Nov 25	1:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:15:00 PM	Axle	Left	0	3	0
2025 Nov 25	1:15:00 PM	Axle	Thru	0	64	10
2025 Nov 25	1:15:00 PM	Axle	Right	0	17	0
2025 Nov 25	1:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:15:00 PM	Axle	Left	0	0	0
2025 Nov 25	1:15:00 PM	Axle	Thru	0	94	12
2025 Nov 25	1:15:00 PM	Axle	Right	0	2	0
2025 Nov 25	1:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:30:00 PM	Axle	Left	0	17	0
2025 Nov 25	1:30:00 PM	Axle	Thru	0	2	0
2025 Nov 25	1:30:00 PM	Axle	Right	0	0	0
2025 Nov 25	1:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:30:00 PM	Axle	Left	0	0	0
2025 Nov 25	1:30:00 PM	Axle	Thru	0	6	0
2025 Nov 25	1:30:00 PM	Axle	Right	0	3	0
2025 Nov 25	1:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:30:00 PM	Axle	Left	0	8	0
2025 Nov 25	1:30:00 PM	Axle	Thru	0	74	14
2025 Nov 25	1:30:00 PM	Axle	Right	0	15	0
2025 Nov 25	1:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:30:00 PM	Axle	Left	0	1	0
2025 Nov 25	1:30:00 PM	Axle	Thru	0	73	10
2025 Nov 25	1:30:00 PM	Axle	Right	0	1	0
2025 Nov 25	1:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:45:00 PM	Axle	Left	0	20	0
2025 Nov 25	1:45:00 PM	Axle	Thru	0	3	0
2025 Nov 25	1:45:00 PM	Axle	Right	0	0	0
2025 Nov 25	1:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:45:00 PM	Axle	Left	0	0	0
2025 Nov 25	1:45:00 PM	Axle	Thru	0	3	0
2025 Nov 25	1:45:00 PM	Axle	Right	0	4	0
2025 Nov 25	1:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:45:00 PM	Axle	Left	0	0	0
2025 Nov 25	1:45:00 PM	Axle	Thru	0	86	15
2025 Nov 25	1:45:00 PM	Axle	Right	0	9	3
2025 Nov 25	1:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 25	1:45:00 PM	Axle	Left	0	0	0
2025 Nov 25	1:45:00 PM	Axle	Thru	0	71	12
2025 Nov 25	1:45:00 PM	Axle	Right	0	1	0

2025 Nov 25	1:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:00:00 PM	Axle	Left	0	9	0
2025 Nov 24	2:00:00 PM	Axle	Thru	0	2	0
2025 Nov 24	2:00:00 PM	Axle	Right	0	1	0
2025 Nov 24	2:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:00:00 PM	Axle	Left	0	0	0
2025 Nov 24	2:00:00 PM	Axle	Thru	0	1	0
2025 Nov 24	2:00:00 PM	Axle	Right	0	2	0
2025 Nov 24	2:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:00:00 PM	Axle	Left	0	3	1
2025 Nov 24	2:00:00 PM	Axle	Thru	0	66	6
2025 Nov 24	2:00:00 PM	Axle	Right	0	7	0
2025 Nov 24	2:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:00:00 PM	Axle	Left	0	0	0
2025 Nov 24	2:00:00 PM	Axle	Thru	0	53	5
2025 Nov 24	2:00:00 PM	Axle	Right	0	2	0
2025 Nov 24	2:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:15:00 PM	Axle	Left	0	12	0
2025 Nov 24	2:15:00 PM	Axle	Thru	0	0	0
2025 Nov 24	2:15:00 PM	Axle	Right	0	0	0
2025 Nov 24	2:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:15:00 PM	Axle	Left	0	2	0
2025 Nov 24	2:15:00 PM	Axle	Thru	0	3	0
2025 Nov 24	2:15:00 PM	Axle	Right	0	2	0
2025 Nov 24	2:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:15:00 PM	Axle	Left	0	3	0
2025 Nov 24	2:15:00 PM	Axle	Thru	0	62	2
2025 Nov 24	2:15:00 PM	Axle	Right	0	17	0
2025 Nov 24	2:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:15:00 PM	Axle	Left	0	0	0
2025 Nov 24	2:15:00 PM	Axle	Thru	0	68	1
2025 Nov 24	2:15:00 PM	Axle	Right	0	2	0
2025 Nov 24	2:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:30:00 PM	Axle	Left	0	19	0
2025 Nov 24	2:30:00 PM	Axle	Thru	0	5	0
2025 Nov 24	2:30:00 PM	Axle	Right	0	2	0
2025 Nov 24	2:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:30:00 PM	Axle	Left	0	1	0
2025 Nov 24	2:30:00 PM	Axle	Thru	0	2	0
2025 Nov 24	2:30:00 PM	Axle	Right	0	6	0
2025 Nov 24	2:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:30:00 PM	Axle	Left	0	6	0
2025 Nov 24	2:30:00 PM	Axle	Thru	0	108	7
2025 Nov 24	2:30:00 PM	Axle	Right	0	20	0
2025 Nov 24	2:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:30:00 PM	Axle	Left	0	4	0
2025 Nov 24	2:30:00 PM	Axle	Thru	0	87	5

2025 Nov 24	2:30:00 PM	Axle	Right	0	2	0
2025 Nov 24	2:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:45:00 PM	Axle	Left	0	28	0
2025 Nov 24	2:45:00 PM	Axle	Thru	0	2	0
2025 Nov 24	2:45:00 PM	Axle	Right	0	3	0
2025 Nov 24	2:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:45:00 PM	Axle	Left	0	1	0
2025 Nov 24	2:45:00 PM	Axle	Thru	0	1	0
2025 Nov 24	2:45:00 PM	Axle	Right	0	1	0
2025 Nov 24	2:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:45:00 PM	Axle	Left	0	3	0
2025 Nov 24	2:45:00 PM	Axle	Thru	0	96	6
2025 Nov 24	2:45:00 PM	Axle	Right	0	29	2
2025 Nov 24	2:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	2:45:00 PM	Axle	Left	0	2	0
2025 Nov 24	2:45:00 PM	Axle	Thru	0	70	2
2025 Nov 24	2:45:00 PM	Axle	Right	0	0	0
2025 Nov 24	2:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:00:00 PM	Axle	Left	0	19	0
2025 Nov 24	3:00:00 PM	Axle	Thru	0	4	0
2025 Nov 24	3:00:00 PM	Axle	Right	0	0	0
2025 Nov 24	3:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:00:00 PM	Axle	Left	0	2	0
2025 Nov 24	3:00:00 PM	Axle	Thru	0	2	0
2025 Nov 24	3:00:00 PM	Axle	Right	0	1	0
2025 Nov 24	3:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:00:00 PM	Axle	Left	0	7	0
2025 Nov 24	3:00:00 PM	Axle	Thru	0	133	2
2025 Nov 24	3:00:00 PM	Axle	Right	0	19	4
2025 Nov 24	3:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:00:00 PM	Axle	Left	0	0	0
2025 Nov 24	3:00:00 PM	Axle	Thru	0	99	7
2025 Nov 24	3:00:00 PM	Axle	Right	0	2	0
2025 Nov 24	3:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:15:00 PM	Axle	Left	0	29	0
2025 Nov 24	3:15:00 PM	Axle	Thru	0	4	0
2025 Nov 24	3:15:00 PM	Axle	Right	0	5	0
2025 Nov 24	3:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:15:00 PM	Axle	Left	0	3	0
2025 Nov 24	3:15:00 PM	Axle	Thru	0	3	0
2025 Nov 24	3:15:00 PM	Axle	Right	0	5	0
2025 Nov 24	3:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:15:00 PM	Axle	Left	0	13	0
2025 Nov 24	3:15:00 PM	Axle	Thru	0	138	9
2025 Nov 24	3:15:00 PM	Axle	Right	0	29	0
2025 Nov 24	3:15:00 PM	Axle	U-turn	0	1	0
2025 Nov 24	3:15:00 PM	Axle	Left	0	0	0

2025 Nov 24	3:15:00 PM	Axle	Thru	0	124	8
2025 Nov 24	3:15:00 PM	Axle	Right	0	3	0
2025 Nov 24	3:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:30:00 PM	Axle	Left	0	42	1
2025 Nov 24	3:30:00 PM	Axle	Thru	0	3	0
2025 Nov 24	3:30:00 PM	Axle	Right	0	1	0
2025 Nov 24	3:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:30:00 PM	Axle	Left	0	4	0
2025 Nov 24	3:30:00 PM	Axle	Thru	0	1	0
2025 Nov 24	3:30:00 PM	Axle	Right	0	6	1
2025 Nov 24	3:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:30:00 PM	Axle	Left	0	9	1
2025 Nov 24	3:30:00 PM	Axle	Thru	0	163	6
2025 Nov 24	3:30:00 PM	Axle	Right	0	32	0
2025 Nov 24	3:30:00 PM	Axle	U-turn	0	1	0
2025 Nov 24	3:30:00 PM	Axle	Left	0	1	0
2025 Nov 24	3:30:00 PM	Axle	Thru	0	119	12
2025 Nov 24	3:30:00 PM	Axle	Right	0	7	0
2025 Nov 24	3:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:45:00 PM	Axle	Left	0	54	0
2025 Nov 24	3:45:00 PM	Axle	Thru	0	7	0
2025 Nov 24	3:45:00 PM	Axle	Right	0	7	0
2025 Nov 24	3:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:45:00 PM	Axle	Left	0	3	0
2025 Nov 24	3:45:00 PM	Axle	Thru	0	2	0
2025 Nov 24	3:45:00 PM	Axle	Right	0	4	0
2025 Nov 24	3:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:45:00 PM	Axle	Left	0	12	1
2025 Nov 24	3:45:00 PM	Axle	Thru	0	161	4
2025 Nov 24	3:45:00 PM	Axle	Right	0	44	0
2025 Nov 24	3:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	3:45:00 PM	Axle	Left	0	2	0
2025 Nov 24	3:45:00 PM	Axle	Thru	0	149	8
2025 Nov 24	3:45:00 PM	Axle	Right	0	1	1
2025 Nov 24	3:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:00:00 PM	Axle	Left	0	72	0
2025 Nov 24	4:00:00 PM	Axle	Thru	0	5	0
2025 Nov 24	4:00:00 PM	Axle	Right	0	6	0
2025 Nov 24	4:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:00:00 PM	Axle	Left	0	8	0
2025 Nov 24	4:00:00 PM	Axle	Thru	0	5	0
2025 Nov 24	4:00:00 PM	Axle	Right	0	6	0
2025 Nov 24	4:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:00:00 PM	Axle	Left	0	6	0
2025 Nov 24	4:00:00 PM	Axle	Thru	0	223	8
2025 Nov 24	4:00:00 PM	Axle	Right	0	34	0
2025 Nov 24	4:00:00 PM	Axle	U-turn	0	1	0

2025 Nov 24	4:00:00 PM	Axle	Left	0	4	0
2025 Nov 24	4:00:00 PM	Axle	Thru	0	160	8
2025 Nov 24	4:00:00 PM	Axle	Right	0	4	0
2025 Nov 24	4:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:15:00 PM	Axle	Left	0	65	0
2025 Nov 24	4:15:00 PM	Axle	Thru	0	8	0
2025 Nov 24	4:15:00 PM	Axle	Right	0	4	0
2025 Nov 24	4:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:15:00 PM	Axle	Left	0	10	0
2025 Nov 24	4:15:00 PM	Axle	Thru	0	4	0
2025 Nov 24	4:15:00 PM	Axle	Right	0	6	0
2025 Nov 24	4:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:15:00 PM	Axle	Left	0	7	0
2025 Nov 24	4:15:00 PM	Axle	Thru	0	256	6
2025 Nov 24	4:15:00 PM	Axle	Right	0	44	0
2025 Nov 24	4:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:15:00 PM	Axle	Left	0	2	0
2025 Nov 24	4:15:00 PM	Axle	Thru	0	197	11
2025 Nov 24	4:15:00 PM	Axle	Right	0	2	0
2025 Nov 24	4:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:30:00 PM	Axle	Left	0	27	1
2025 Nov 24	4:30:00 PM	Axle	Thru	0	6	0
2025 Nov 24	4:30:00 PM	Axle	Right	0	2	0
2025 Nov 24	4:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	4:30:00 PM	Axle	Thru	0	3	0
2025 Nov 24	4:30:00 PM	Axle	Right	0	10	0
2025 Nov 24	4:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:30:00 PM	Axle	Left	0	7	0
2025 Nov 24	4:30:00 PM	Axle	Thru	0	84	2
2025 Nov 24	4:30:00 PM	Axle	Right	0	18	1
2025 Nov 24	4:30:00 PM	Axle	U-turn	0	1	0
2025 Nov 24	4:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	4:30:00 PM	Axle	Thru	0	41	4
2025 Nov 24	4:30:00 PM	Axle	Right	0	0	0
2025 Nov 24	4:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:45:00 PM	Axle	Left	0	33	0
2025 Nov 24	4:45:00 PM	Axle	Thru	0	2	0
2025 Nov 24	4:45:00 PM	Axle	Right	0	4	0
2025 Nov 24	4:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:45:00 PM	Axle	Left	0	7	1
2025 Nov 24	4:45:00 PM	Axle	Thru	0	5	0
2025 Nov 24	4:45:00 PM	Axle	Right	0	19	0
2025 Nov 24	4:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	4:45:00 PM	Axle	Left	0	6	0
2025 Nov 24	4:45:00 PM	Axle	Thru	0	196	4
2025 Nov 24	4:45:00 PM	Axle	Right	0	53	0

2025 Nov 24	4:45:00 PM	Axle	U-turn	0	2	0
2025 Nov 24	4:45:00 PM	Axle	Left	0	0	0
2025 Nov 24	4:45:00 PM	Axle	Thru	0	141	2
2025 Nov 24	4:45:00 PM	Axle	Right	0	1	0
2025 Nov 24	4:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:00:00 PM	Axle	Left	0	69	0
2025 Nov 24	5:00:00 PM	Axle	Thru	0	8	0
2025 Nov 24	5:00:00 PM	Axle	Right	0	3	0
2025 Nov 24	5:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:00:00 PM	Axle	Left	0	5	0
2025 Nov 24	5:00:00 PM	Axle	Thru	0	2	0
2025 Nov 24	5:00:00 PM	Axle	Right	0	6	0
2025 Nov 24	5:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:00:00 PM	Axle	Left	0	18	1
2025 Nov 24	5:00:00 PM	Axle	Thru	0	275	5
2025 Nov 24	5:00:00 PM	Axle	Right	0	38	0
2025 Nov 24	5:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:00:00 PM	Axle	Left	0	0	0
2025 Nov 24	5:00:00 PM	Axle	Thru	0	178	6
2025 Nov 24	5:00:00 PM	Axle	Right	0	4	0
2025 Nov 24	5:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:15:00 PM	Axle	Left	0	61	1
2025 Nov 24	5:15:00 PM	Axle	Thru	0	2	0
2025 Nov 24	5:15:00 PM	Axle	Right	0	7	0
2025 Nov 24	5:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:15:00 PM	Axle	Left	0	6	0
2025 Nov 24	5:15:00 PM	Axle	Thru	0	4	0
2025 Nov 24	5:15:00 PM	Axle	Right	0	15	0
2025 Nov 24	5:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:15:00 PM	Axle	Left	0	17	1
2025 Nov 24	5:15:00 PM	Axle	Thru	0	210	7
2025 Nov 24	5:15:00 PM	Axle	Right	0	37	0
2025 Nov 24	5:15:00 PM	Axle	U-turn	0	1	0
2025 Nov 24	5:15:00 PM	Axle	Left	0	0	0
2025 Nov 24	5:15:00 PM	Axle	Thru	0	140	2
2025 Nov 24	5:15:00 PM	Axle	Right	0	2	0
2025 Nov 24	5:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:30:00 PM	Axle	Left	0	18	0
2025 Nov 24	5:30:00 PM	Axle	Thru	0	1	0
2025 Nov 24	5:30:00 PM	Axle	Right	0	1	0
2025 Nov 24	5:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	5:30:00 PM	Axle	Thru	0	4	0
2025 Nov 24	5:30:00 PM	Axle	Right	0	5	0
2025 Nov 24	5:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:30:00 PM	Axle	Left	0	8	0
2025 Nov 24	5:30:00 PM	Axle	Thru	0	222	5

2025 Nov 24	5:30:00 PM	Axle	Right	0	36	0
2025 Nov 24	5:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	5:30:00 PM	Axle	Thru	0	156	4
2025 Nov 24	5:30:00 PM	Axle	Right	0	2	0
2025 Nov 24	5:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:45:00 PM	Axle	Left	0	31	0
2025 Nov 24	5:45:00 PM	Axle	Thru	0	1	0
2025 Nov 24	5:45:00 PM	Axle	Right	0	3	0
2025 Nov 24	5:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:45:00 PM	Axle	Left	0	4	0
2025 Nov 24	5:45:00 PM	Axle	Thru	0	2	0
2025 Nov 24	5:45:00 PM	Axle	Right	0	7	0
2025 Nov 24	5:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:45:00 PM	Axle	Left	0	7	0
2025 Nov 24	5:45:00 PM	Axle	Thru	0	165	5
2025 Nov 24	5:45:00 PM	Axle	Right	0	30	1
2025 Nov 24	5:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	5:45:00 PM	Axle	Left	0	1	0
2025 Nov 24	5:45:00 PM	Axle	Thru	0	114	7
2025 Nov 24	5:45:00 PM	Axle	Right	0	1	0
2025 Nov 24	5:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:00:00 PM	Axle	Left	0	21	1
2025 Nov 24	6:00:00 PM	Axle	Thru	0	0	0
2025 Nov 24	6:00:00 PM	Axle	Right	0	5	0
2025 Nov 24	6:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:00:00 PM	Axle	Left	0	3	0
2025 Nov 24	6:00:00 PM	Axle	Thru	0	1	0
2025 Nov 24	6:00:00 PM	Axle	Right	0	4	0
2025 Nov 24	6:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:00:00 PM	Axle	Left	0	4	0
2025 Nov 24	6:00:00 PM	Axle	Thru	0	138	0
2025 Nov 24	6:00:00 PM	Axle	Right	0	8	0
2025 Nov 24	6:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:00:00 PM	Axle	Left	0	0	0
2025 Nov 24	6:00:00 PM	Axle	Thru	0	126	2
2025 Nov 24	6:00:00 PM	Axle	Right	0	7	1
2025 Nov 24	6:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:15:00 PM	Axle	Left	0	11	0
2025 Nov 24	6:15:00 PM	Axle	Thru	0	2	0
2025 Nov 24	6:15:00 PM	Axle	Right	0	1	0
2025 Nov 24	6:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:15:00 PM	Axle	Left	0	2	0
2025 Nov 24	6:15:00 PM	Axle	Thru	0	0	0
2025 Nov 24	6:15:00 PM	Axle	Right	0	5	0
2025 Nov 24	6:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:15:00 PM	Axle	Left	0	2	0

2025 Nov 24	6:15:00 PM	Axle	Thru	0	97	2
2025 Nov 24	6:15:00 PM	Axle	Right	0	10	0
2025 Nov 24	6:15:00 PM	Axle	U-turn	0	1	0
2025 Nov 24	6:15:00 PM	Axle	Left	0	0	0
2025 Nov 24	6:15:00 PM	Axle	Thru	0	92	0
2025 Nov 24	6:15:00 PM	Axle	Right	0	1	0
2025 Nov 24	6:15:00 PM	Axle	U-turn	0	1	0
2025 Nov 24	6:30:00 PM	Axle	Left	0	9	0
2025 Nov 24	6:30:00 PM	Axle	Thru	0	5	0
2025 Nov 24	6:30:00 PM	Axle	Right	0	0	0
2025 Nov 24	6:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	6:30:00 PM	Axle	Thru	0	0	0
2025 Nov 24	6:30:00 PM	Axle	Right	0	3	0
2025 Nov 24	6:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:30:00 PM	Axle	Left	0	6	0
2025 Nov 24	6:30:00 PM	Axle	Thru	0	74	2
2025 Nov 24	6:30:00 PM	Axle	Right	0	13	0
2025 Nov 24	6:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	6:30:00 PM	Axle	Thru	0	67	1
2025 Nov 24	6:30:00 PM	Axle	Right	0	1	0
2025 Nov 24	6:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:45:00 PM	Axle	Left	0	17	0
2025 Nov 24	6:45:00 PM	Axle	Thru	0	2	0
2025 Nov 24	6:45:00 PM	Axle	Right	0	0	0
2025 Nov 24	6:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:45:00 PM	Axle	Left	0	0	0
2025 Nov 24	6:45:00 PM	Axle	Thru	0	0	0
2025 Nov 24	6:45:00 PM	Axle	Right	0	2	0
2025 Nov 24	6:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:45:00 PM	Axle	Left	0	3	0
2025 Nov 24	6:45:00 PM	Axle	Thru	0	81	1
2025 Nov 24	6:45:00 PM	Axle	Right	0	10	0
2025 Nov 24	6:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	6:45:00 PM	Axle	Left	0	0	0
2025 Nov 24	6:45:00 PM	Axle	Thru	0	60	2
2025 Nov 24	6:45:00 PM	Axle	Right	0	0	0
2025 Nov 24	6:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:00:00 PM	Axle	Left	0	7	0
2025 Nov 24	7:00:00 PM	Axle	Thru	0	2	0
2025 Nov 24	7:00:00 PM	Axle	Right	0	1	0
2025 Nov 24	7:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:00:00 PM	Axle	Left	0	1	0
2025 Nov 24	7:00:00 PM	Axle	Thru	0	1	0
2025 Nov 24	7:00:00 PM	Axle	Right	0	4	0
2025 Nov 24	7:00:00 PM	Axle	U-turn	0	0	0

2025 Nov 24	7:00:00 PM	Axle	Left	0	4	0
2025 Nov 24	7:00:00 PM	Axle	Thru	0	52	1
2025 Nov 24	7:00:00 PM	Axle	Right	0	6	0
2025 Nov 24	7:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:00:00 PM	Axle	Left	0	0	0
2025 Nov 24	7:00:00 PM	Axle	Thru	0	58	3
2025 Nov 24	7:00:00 PM	Axle	Right	0	2	0
2025 Nov 24	7:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:15:00 PM	Axle	Left	0	13	0
2025 Nov 24	7:15:00 PM	Axle	Thru	0	0	0
2025 Nov 24	7:15:00 PM	Axle	Right	0	0	0
2025 Nov 24	7:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:15:00 PM	Axle	Left	0	0	0
2025 Nov 24	7:15:00 PM	Axle	Thru	0	0	0
2025 Nov 24	7:15:00 PM	Axle	Right	0	6	0
2025 Nov 24	7:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:15:00 PM	Axle	Left	0	4	0
2025 Nov 24	7:15:00 PM	Axle	Thru	0	37	2
2025 Nov 24	7:15:00 PM	Axle	Right	0	7	0
2025 Nov 24	7:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:15:00 PM	Axle	Left	0	0	0
2025 Nov 24	7:15:00 PM	Axle	Thru	0	51	1
2025 Nov 24	7:15:00 PM	Axle	Right	0	0	0
2025 Nov 24	7:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:30:00 PM	Axle	Left	0	7	0
2025 Nov 24	7:30:00 PM	Axle	Thru	0	0	0
2025 Nov 24	7:30:00 PM	Axle	Right	0	1	0
2025 Nov 24	7:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	7:30:00 PM	Axle	Thru	0	2	0
2025 Nov 24	7:30:00 PM	Axle	Right	0	3	0
2025 Nov 24	7:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:30:00 PM	Axle	Left	0	6	0
2025 Nov 24	7:30:00 PM	Axle	Thru	0	52	1
2025 Nov 24	7:30:00 PM	Axle	Right	0	6	0
2025 Nov 24	7:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	7:30:00 PM	Axle	Thru	0	42	2
2025 Nov 24	7:30:00 PM	Axle	Right	0	0	0
2025 Nov 24	7:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:45:00 PM	Axle	Left	0	10	0
2025 Nov 24	7:45:00 PM	Axle	Thru	0	1	0
2025 Nov 24	7:45:00 PM	Axle	Right	0	0	0
2025 Nov 24	7:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:45:00 PM	Axle	Left	0	3	0
2025 Nov 24	7:45:00 PM	Axle	Thru	0	2	0
2025 Nov 24	7:45:00 PM	Axle	Right	0	4	0

2025 Nov 24	7:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:45:00 PM	Axle	Left	0	4	0
2025 Nov 24	7:45:00 PM	Axle	Thru	0	64	0
2025 Nov 24	7:45:00 PM	Axle	Right	0	9	0
2025 Nov 24	7:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	7:45:00 PM	Axle	Left	0	0	0
2025 Nov 24	7:45:00 PM	Axle	Thru	0	51	1
2025 Nov 24	7:45:00 PM	Axle	Right	0	1	0
2025 Nov 24	7:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:00:00 PM	Axle	Left	0	9	0
2025 Nov 24	8:00:00 PM	Axle	Thru	0	0	0
2025 Nov 24	8:00:00 PM	Axle	Right	0	0	0
2025 Nov 24	8:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:00:00 PM	Axle	Left	0	1	0
2025 Nov 24	8:00:00 PM	Axle	Thru	0	0	0
2025 Nov 24	8:00:00 PM	Axle	Right	0	2	0
2025 Nov 24	8:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:00:00 PM	Axle	Left	0	3	0
2025 Nov 24	8:00:00 PM	Axle	Thru	0	60	2
2025 Nov 24	8:00:00 PM	Axle	Right	0	8	0
2025 Nov 24	8:00:00 PM	Axle	U-turn	0	1	0
2025 Nov 24	8:00:00 PM	Axle	Left	0	1	0
2025 Nov 24	8:00:00 PM	Axle	Thru	0	29	2
2025 Nov 24	8:00:00 PM	Axle	Right	0	1	0
2025 Nov 24	8:00:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:15:00 PM	Axle	Left	0	3	0
2025 Nov 24	8:15:00 PM	Axle	Thru	0	0	0
2025 Nov 24	8:15:00 PM	Axle	Right	0	1	0
2025 Nov 24	8:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:15:00 PM	Axle	Left	0	0	0
2025 Nov 24	8:15:00 PM	Axle	Thru	0	0	0
2025 Nov 24	8:15:00 PM	Axle	Right	0	2	0
2025 Nov 24	8:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:15:00 PM	Axle	Left	0	2	0
2025 Nov 24	8:15:00 PM	Axle	Thru	0	18	0
2025 Nov 24	8:15:00 PM	Axle	Right	0	2	0
2025 Nov 24	8:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:15:00 PM	Axle	Left	0	1	0
2025 Nov 24	8:15:00 PM	Axle	Thru	0	18	1
2025 Nov 24	8:15:00 PM	Axle	Right	0	0	0
2025 Nov 24	8:15:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:30:00 PM	Axle	Left	0	3	0
2025 Nov 24	8:30:00 PM	Axle	Thru	0	1	0
2025 Nov 24	8:30:00 PM	Axle	Right	0	0	0
2025 Nov 24	8:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	8:30:00 PM	Axle	Thru	0	0	0

2025 Nov 24	8:30:00 PM	Axle	Right	0	1	0
2025 Nov 24	8:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	8:30:00 PM	Axle	Thru	0	43	0
2025 Nov 24	8:30:00 PM	Axle	Right	0	3	0
2025 Nov 24	8:30:00 PM	Axle	U-turn	0	1	0
2025 Nov 24	8:30:00 PM	Axle	Left	0	0	0
2025 Nov 24	8:30:00 PM	Axle	Thru	0	22	1
2025 Nov 24	8:30:00 PM	Axle	Right	0	0	0
2025 Nov 24	8:30:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:45:00 PM	Axle	Left	0	6	0
2025 Nov 24	8:45:00 PM	Axle	Thru	0	2	0
2025 Nov 24	8:45:00 PM	Axle	Right	0	0	0
2025 Nov 24	8:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:45:00 PM	Axle	Left	0	0	0
2025 Nov 24	8:45:00 PM	Axle	Thru	0	1	0
2025 Nov 24	8:45:00 PM	Axle	Right	0	2	0
2025 Nov 24	8:45:00 PM	Axle	U-turn	0	0	0
2025 Nov 24	8:45:00 PM	Axle	Left	0	4	0
2025 Nov 24	8:45:00 PM	Axle	Thru	0	40	0
2025 Nov 24	8:45:00 PM	Axle	Right	0	6	0
2025 Nov 24	8:45:00 PM	Axle	U-turn	0	2	0
2025 Nov 24	8:45:00 PM	Axle	Left	0	0	0
2025 Nov 24	8:45:00 PM	Axle	Thru	0	29	0
2025 Nov 24	8:45:00 PM	Axle	Right	0	0	0
2025 Nov 24	8:45:00 PM	Axle	U-turn	0	0	0
				0	14,581	651

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Date

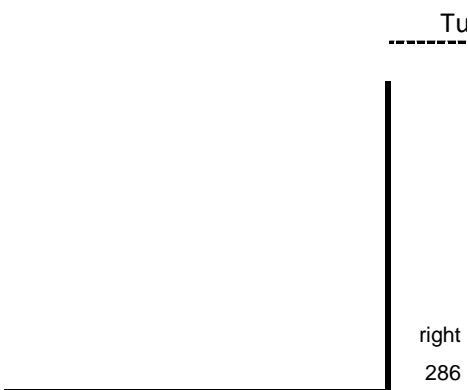
Starts: 2025 Nov 24
 End: 2025 Nov 25
 Interval: 15 min Intervals: 56
 Type: Peds, Car, Sm Veh, Lg Veh
 Correction: 1.00

Location: PTH 101 & Wenzel Road
 Notes: Wenzel Road N-S
 Study ID: MERGED TCP113 & T
 Operator: Ahmad
 Weather: 0

West From East

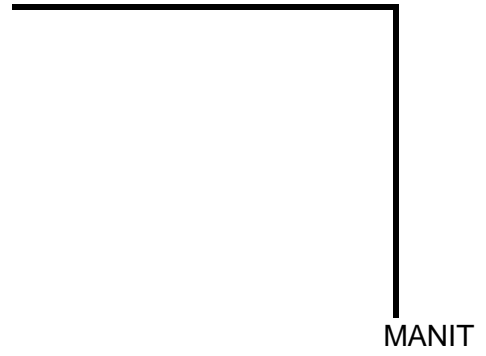
						Interval
right	u-turn	left	thru	right	u-turn	Total

1,165	18	50	5,206	113	2	14,581
7.0%	0.1%	0.3%	31.4%	0.7%	0.0%	87.8%
18	2	0	279	6	0	651
0.1%	0.0%	0.0%	1.7%	0.0%	0.0%	3.9%
2	1	0	655	1	0	1371
0.0%	0.0%	0.0%	3.9%	0.0%	0.0%	8.3%
1,185	21	50	6,140	120	2	16,603
7.1%	0.1%	0.3%	37.0%	0.7%	0.0%	100.0%
0				0		0
#####				#####		#DIV/0!



Approach	7,639	286
		6,140
		1,213
Total	15,968	
	From West	
	u-turn	21
	left	369
Depart	8,329	
	thru	6,754

right 1,185



Location: PTH 101 & Wenzel Road
Notes: Wenzel Road N-S
Study ID: MERGED TCP113 & T
Operator: Ahmad
Weather: 0

ad

Starts: 2025 Nov 24

End: 2025 Nov 25

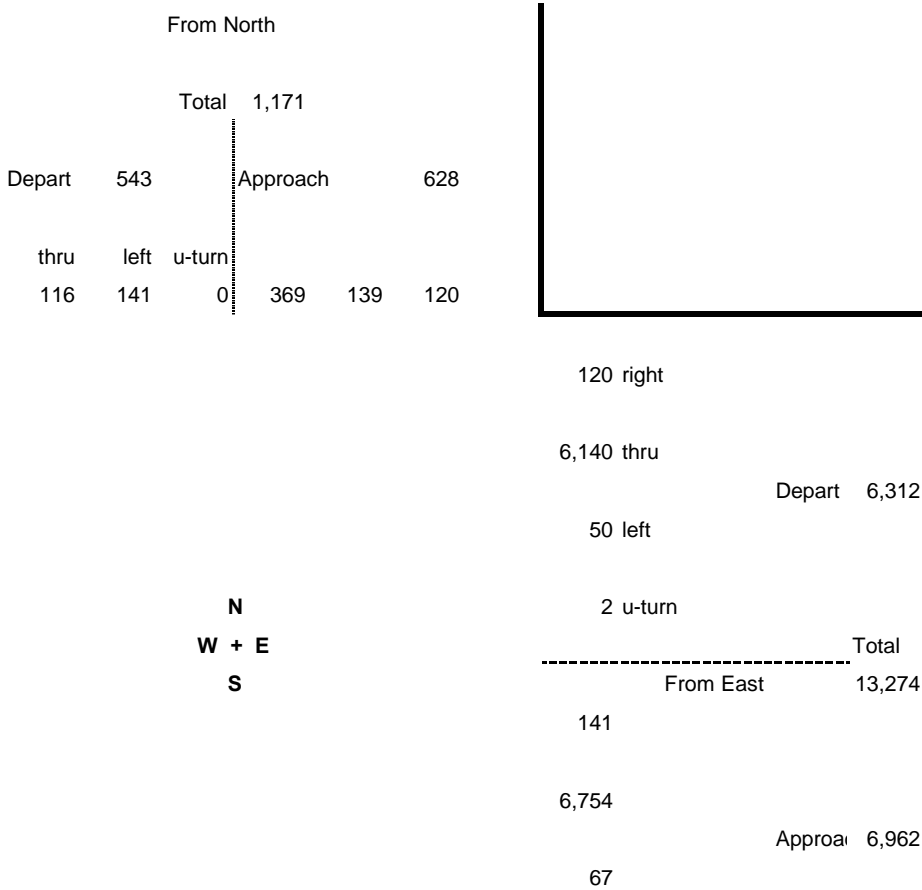
CP114

Interval: 15 min Intervals: 56

Type: Peds, Car, Sm Veh, Lg Veh

Correction: 1.00

Turning Movements For Total Intersection



1,185	116	50	0	1,213	139	67
			u-turn	left	thru	right
Approach	1,351			Depart	1,419	
		Total			2,770	
		From South				

ad

Starts: 2025 Nov 24

End: 2025 Nov 25

CP114

Interval: 15 min Intervals: 56

Type: C, SmT, LgT, P-rt/red

Correction: 1.00

Date:

Location: PTH 101 & Wenzel Road
 Notes: Wenzel Road N-S
 Study ID: MERGED TCP113 & TCP114
 Operator: Ahmad
 Weather: 0

Starts: 2025 Nov 24
 End: 2025 Nov 25
 Interval: 15 min Intervals: 56
 Type: Peds, Car, Sm Veh, Lg \'
 Correction: 1.00

Chart of Total Volume per Interval

Chart of Total Volume

Date:

7:00	206	1.2%
7:15	472	2.8%
7:30	559	3.4%
7:45	610	3.7%
8:00	475	2.9%
8:15	435	2.6%
8:30	460	2.8%
8:45	380	2.3%
9:00	327	2.0%
9:15	284	1.7%
9:30	182	1.1%
9:45	114	0.7%
10:00	230	1.4%
10:15	249	1.5%
10:30	212	1.3%
10:45	235	1.4%
11:00	216	1.3%
11:15	222	1.3%
11:30	134	0.8%
11:45	119	0.7%
12:00	245	1.5%
12:15	245	1.5%
12:30	213	1.3%
12:45	228	1.4%
13:00	203	1.2%
13:15	266	1.6%
13:30	254	1.5%
13:45	266	1.6%

14:00	175	1.1%
14:15	204	1.2%
14:30	312	1.9%
14:45	271	1.6%
15:00	339	2.0%
15:15	406	2.4%
15:30	435	2.6%
15:45	491	3.0%
16:00	582	3.5%
16:15	657	4.0%
16:30	215	1.3%
16:45	489	2.9%
17:00	639	3.8%
17:15	534	3.2%
17:30	495	3.0%
17:45	399	2.4%
18:00	336	2.0%
18:15	241	1.5%
18:30	196	1.2%
18:45	192	1.2%
19:00	154	0.9%
19:15	131	0.8%
19:30	137	0.8%
19:45	159	1.0%
20:00	134	0.8%
20:15	56	0.3%
20:30	80	0.5%
20:45	103	0.6%
Total	16603	100.0%

7:00	1847
8:00	1750
9:00	907
10:00	926
11:00	691
12:00	931
13:00	989
14:00	962
15:00	1671
16:00	1943
17:00	2067
18:00	965
19:00	581
20:00	373
Total	16603

Location: PTH 101 & Wenzel Road
 Notes: Wenzel Road N-S
 Study ID: MERGED TCP113 & TCP114
 Operator: Ahmad
 Weather: 0

Starts: 2025 Nov 24
 End: 2025 Nov 25
 Interval: 15 min Intervals: 56
 Type: C, SmT, LgT, P-rt/red
 Correction: 1.00

Chart of Total Sm Trucks per Interval

Chart of Total Sm Trucks

Date:

7:00	9	1.4%
7:15	6	0.9%
7:30	26	4.0%
7:45	22	3.4%
8:00	15	2.3%
8:15	15	2.3%
8:30	21	3.2%
8:45	21	3.2%
9:00	12	1.8%
9:15	13	2.0%
9:30	6	0.9%
9:45	9	1.4%
10:00	16	2.5%
10:15	18	2.8%
10:30	16	2.5%
10:45	8	1.2%
11:00	16	2.5%
11:15	9	1.4%
11:30	9	1.4%
11:45	4	0.6%
12:00	11	1.7%
12:15	22	3.4%
12:30	21	3.2%

14:00	12	1.8%
14:15	3	0.5%
14:30	12	1.8%
14:45	10	1.5%
15:00	13	2.0%
15:15	17	2.6%
15:30	21	3.2%
15:45	14	2.2%
16:00	16	2.5%
16:15	17	2.6%
16:30	8	1.2%
16:45	7	1.1%
17:00	12	1.8%
17:15	11	1.7%
17:30	9	1.4%
17:45	13	2.0%
18:00	4	0.6%
18:15	2	0.3%
18:30	3	0.5%
18:45	3	0.5%
19:00	4	0.6%
19:15	3	0.5%
19:30	3	0.5%

7:00	63
8:00	72
9:00	40
10:00	58
11:00	38
12:00	71
13:00	85
14:00	37
15:00	65
16:00	48
17:00	45
18:00	12
19:00	11
20:00	6
Total	651

12:45	17	2.6%
13:00	8	1.2%
13:15	23	3.5%
13:30	24	3.7%
13:45	30	4.6%

19:45	1	0.2%
20:00	4	0.6%
20:15	1	0.2%
20:30	1	0.2%
20:45	0	0.0%
Total	651	100.0%

Location: PTH 101 & Wenzel Road
 Notes: Wenzel Road N-S
 Study ID: MERGED TCP113 & TCP114
 Operator: Ahmad
 Weather: 0

Starts: 2025 Nov 24
 End: 2025 Nov 25
 Interval: 15 min Intervals: 56
 Type: C, SmT, LgT, P-rt/red
 Correction: 1.00

Chart of Total Lg Trucks per Interval

Chart of Total Lg Trucks per Interval

Date:

7:00	18	1.3%
7:15	27	2.0%
7:30	24	1.8%
7:45	31	2.3%
8:00	25	1.8%
8:15	33	2.4%
8:30	31	2.3%
8:45	31	2.3%
9:00	38	2.8%
9:15	30	2.2%
9:30	16	1.2%
9:45	22	1.6%
10:00	26	1.9%

14:00	17	1.2%
14:15	30	2.2%
14:30	38	2.8%
14:45	25	1.8%
15:00	38	2.8%
15:15	32	2.3%
15:30	25	1.8%
15:45	31	2.3%
16:00	32	2.3%
16:15	35	2.6%
16:30	8	0.6%
16:45	13	0.9%
17:00	21	1.5%

7:00	100
8:00	120
9:00	106
10:00	122
11:00	98
12:00	126
13:00	137
14:00	110
15:00	126
16:00	88
17:00	95
18:00	58
19:00	46

10:15	37	2.7%
10:30	22	1.6%
10:45	37	2.7%
11:00	31	2.3%
11:15	29	2.1%
11:30	24	1.8%
11:45	14	1.0%
12:00	35	2.6%
12:15	30	2.2%
12:30	33	2.4%
12:45	28	2.0%
13:00	30	2.2%
13:15	38	2.8%
13:30	30	2.2%
13:45	39	2.8%

17:15	21	1.5%
17:30	33	2.4%
17:45	20	1.5%
18:00	15	1.1%
18:15	14	1.0%
18:30	15	1.1%
18:45	14	1.0%
19:00	12	0.9%
19:15	10	0.7%
19:30	15	1.1%
19:45	9	0.7%
20:00	15	1.1%
20:15	8	0.6%
20:30	5	0.4%
20:45	11	0.8%
Total	1371	100.0%

20:00	39
Total	1371

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4.2%
5.6%
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5.8%
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11.7%
12.4%
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3.5%
2.2%
100.0%

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per Hour

9.7%
11.1%
6.1%
8.9%
5.8%
10.9%
13.1%
5.7%
10.0%
7.4%
6.9%
1.8%
1.7%
0.9%
100.0%

;

per Hour

7.3%
8.8%
7.7%
8.9%
7.1%
9.2%
10.0%
8.0%
9.2%
6.4%
6.9%
4.2%
3.4%

2.8%
100.0%

11:30	Car	1	0	0	0	0	1	1	0	1	14	12	0	1	18	0	0
	Sm Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	Lg Truck	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	Car	12	5	1	0	2	0	0	0	6	65	17	0	1	59	2	0
	Sm Truck	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0
	Lg Truck	0	0	0	0	0	0	0	0	0	12	0	0	0	11	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	Car	16	1	0	0	1	1	10	0	7	72	14	0	0	62	0	0
	Sm Truck	0	1	0	0	0	0	1	0	0	6	0	0	0	8	0	0
	Lg Truck	0	0	0	0	0	0	0	0	0	19	0	0	0	14	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	Car	19	0	0	0	1	6	7	0	8	94	17	0	1	70	2	0
	Sm Truck	0	0	0	0	0	0	0	0	0	4	0	0	0	8	0	0
	Lg Truck	0	0	0	0	0	0	0	0	0	17	0	0	0	15	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	Car	17	4	2	0	2	5	4	0	3	80	22	0	0	96	3	0
	Sm Truck	0	0	0	0	1	0	0	0	1	7	0	0	0	7	0	0
	Lg Truck	0	0	0	0	0	0	0	0	0	23	0	0	0	15	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	Car	9	1	1	0	2	1	4	0	2	63	14	1	1	59	3	0
	Sm Truck	1	0	0	0	0	0	0	0	0	3	1	0	0	3	0	0
	Lg Truck	0	0	0	0	0	0	0	0	0	19	0	0	0	19	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MANITOBA INFRASTRUCTURE & TRANSPORTATION

Page
Date

Location: PTH 101 & Wenzel Road
Notes: Wenzel Road N-S
Study ID: MERGED TCP-115 & TCP-116
Operator: Ahmad
Weather: 0

Starts: 2025 NOV 26
End: 2025 NOV 27
Interval: 15 min Interv
Type: C, SmT, LgT, P-
Correction: 1.00

From South

From North

From West

From East

Begins

Left Thru Right U-turn

Left Thru Right U-turn

Left Thru Right U-turn

Left Thru Right U-turn

13:00	Car	7	4	1	0	3	0	4	0	6	85	10	0	0	67	2	0
	Sm Truck	0	0	0	0	3	0	0	0	0	5	0	0	0	3	1	0
	Lg Truck	0	0	0	0	0	0	0	0	0	15	0	0	0	4	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	Car	16	4	3	0	1	0	4	0	2	88	21	0	0	94	3	0
	Sm Truck	0	0	0	0	0	0	0	0	2	6	0	0	0	11	0	0
	Lg Truck	0	0	0	0	0	0	0	0	0	19	0	0	0	12	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	Car	11	4	1	0	0	1	5	0	5	71	12	0	1	71	2	0
	Sm Truck	0	0	0	0	0	0	0	0	2	12	0	0	0	6	1	0
	Lg Truck	0	0	0	0	0	0	0	0	0	19	0	0	0	23	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	Car	11	2	1	0	2	4	4	0	6	70	19	1	0	53	1	0
	Sm Truck	0	0	0	0	2	0	0	0	0	5	0	0	0	5	0	0
	Lg Truck	0	0	0	0	0	0	0	0	0	15	0	0	0	11	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	Car	11	1	0	0	0	0	0	0	1	44	6	0	0	26	2	0
	Sm Truck	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0
	Lg Truck	0	0	0	0	0	0	0	0	0	7	0	0	0	11	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	Car	10	3	0	0	1	1	2	0	2	74	11	0	0	72	1	0
	Sm Truck	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0
	Lg Truck	0	0	0	0	0	0	0	0	1	14	0	0	0	5	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	Car	14	2	0	0	0	3	4	0	6	92	9	1	3	59	2	0
	Sm Truck	0	0	0	0	3	0	0	0	0	5	0	0	0	4	0	0
	Lg Truck	0	0	0	0	0	0	0	0	0	12	0	0	0	8	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	Car	26	5	1	0	1	2	7	0	3	124	16	0	3	109	4	0
	Sm Truck	0	0	0	0	0	0	0	0	0	10	3	0	0	3	0	0
	Lg Truck	0	0	0	0	1	0	0	0	0	16	0	0	0	20	0	0
	Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MANITOBA INFRASTRUCTURE & TRANSPORTATION

Page

Date

Location: PTH 101 & Wenzel Road
Notes: Wenzel Road N-S
Study ID: MERGED TCP-115 & TCP-116
Operator: Ahmad

Starts: 2025 NOV 26
End: 2025 NOV 27
Interval: 15 min Interv
Type: C, SmT, LgT, P-

Weather: 0

Correction: 1.00

Begins	From South				From North				From West				From East			
	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn
15:00 Car	23	2	1	0	4	0	8	0	6	122	22	2	0	99	3	0
Sm Truck	0	0	0	0	0	0	0	0	1	8	2	0	0	7	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	14	0	0	0	21	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 Car	36	1	2	0	2	4	1	0	5	162	26	0	0	95	4	0
Sm Truck	0	0	0	0	0	0	0	0	0	4	0	0	0	11	1	0
Lg Truck	0	0	0	0	0	0	0	0	0	13	0	0	0	17	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 Car	49	5	2	0	4	2	10	0	10	180	33	1	5	132	5	0
Sm Truck	0	0	0	0	0	0	0	0	0	9	0	0	0	9	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	10	0	0	0	30	0	1
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 Car	76	3	7	0	4	3	11	0	18	207	27	2	0	148	6	0
Sm Truck	0	0	0	0	0	0	0	0	0	7	0	0	0	17	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	14	0	0	0	22	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00 Car	78	7	4	0	7	9	12	0	7	237	24	0	0	172	1	0
Sm Truck	0	1	0	0	0	0	0	0	1	5	0	0	0	7	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	7	0	0	0	18	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15 Car	76	3	9	0	7	11	9	0	13	247	38	0	0	189	4	0
Sm Truck	0	0	0	0	0	0	0	0	2	5	0	0	0	7	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	13	0	0	0	15	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30 Car	58	5	6	0	4	7	11	0	9	310	46	0	0	225	2	0
Sm Truck	1	0	0	0	0	0	0	0	0	6	0	0	0	8	1	0
Lg Truck	0	0	0	0	0	0	0	0	0	13	0	0	0	17	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45 Car	4	2	1	0	1	1	3	0	3	57	9	0	0	42	0	0
Sm Truck	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0

Lg Truck	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MANITOBA INFRASTRUCTURE & TRANSPORTATION

Page

Date

Location: PTH 101 & Wenzel Road
Notes: Wenzel Road N-S
Study ID: MERGED TCP-115 & TCP-116
Operator: Ahmad
Weather: 0

Starts: 2025 NOV 26
End: 2025 NOV 27
Interval: 15 min Interv
Type: C, SmT, LgT, P-
Correction: 1.00

	From South				From North				From West				From East			
	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn
17:00 Car	39	4	2	0	3	3	16	0	7	204	41	0	0	181	2	0
Sm Truck	0	0	0	0	0	0	0	0	1	3	1	0	0	4	0	0
Lg Truck	0	0	0	0	0	0	0	0	1	9	1	0	0	10	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15 Car	52	4	7	0	8	6	14	0	12	233	53	1	0	121	5	0
Sm Truck	0	0	0	0	0	0	0	0	0	6	0	0	0	2	1	0
Lg Truck	0	0	0	0	0	0	0	0	0	9	0	0	0	20	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 Car	53	5	1	0	5	4	5	0	8	255	40	2	0	205	2	0
Sm Truck	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	0
Lg Truck	0	0	0	0	0	0	1	0	0	16	0	0	0	10	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 Car	31	0	3	0	2	5	10	0	8	213	29	0	0	159	1	0
Sm Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	10	0	0	0	14	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00 Car	28	1	1	0	2	2	4	0	4	169	27	0	1	139	4	0
Sm Truck	1	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	8	1	0	0	4	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15 Car	10	0	0	0	0	1	2	0	1	20	3	0	0	18	0	0
Sm Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

Lg Truck	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30 Car	6	0	3	0	0	0	0	0	0	125	0	0	0	0	93	1	0
Sm Truck	0	0	0	0	0	0	0	0	0	2	0	0	0	0	6	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	15	0	0	0	0	7	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45 Car	24	0	0	0	0	0	11	0	14	73	8	0	0	0	75	4	0
Sm Truck	0	0	0	0	0	0	0	0	0	2	0	0	0	0	4	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	9	0	0	0	0	5	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MANITOBA INFRASTRUCTURE & TRANSPORTATION

Page

Date

Location: PTH 101 & Wenzel Road
Notes: Wenzel Road N-S
Study ID: MERGED TCP-115 & TCP-116
Operator: Ahmad
Weather: 0

Starts: 2025 NOV 26
End: 2025 NOV 27
Interval: 15 min Interv
Type: C, SmT, LgT, P-
Correction: 1.00

	From South				From North				From West				From East			
	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn	Left	Thru	Right	U-turn
Begins																
19:00 Car	6	2	0	0	3	0	2	0	4	52	12	0	0	47	1	0
Sm Truck	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15 Car	11	3	0	0	1	5	3	0	7	46	9	0	1	58	1	0
Sm Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	11	0	0	0	6	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30 Car	12	0	1	0	0	2	5	0	3	42	3	0	1	45	0	0
Sm Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45 Car	7	0	0	0	1	1	7	0	2	38	6	0	0	45	0	0
Sm Truck	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0

Lg Truck	0	0	0	0	0	0	0	0	0	12	0	0	0	7	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00 Car	7	1	0	0	1	1	1	0	3	57	8	0	1	39	1	0
Sm Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	6	0	0	0	3	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15 Car	7	0	1	0	0	0	4	0	6	52	9	0	1	40	0	0
Sm Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	9	0	0	0	4	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30 Car	4	0	1	0	1	0	1	0	3	47	8	1	0	21	0	0
Sm Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	9	0	0	0	5	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45 Car	1	0	0	0	3	0	1	0	3	38	1	0	1	20	0	0
Sm Truck	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0
Lg Truck	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LANES 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

7:00 - 14:00 Cars	447	75	19	0	52	52	142	0	179	2,454	632	8	28	2,791	54	1
14:00 - 21:00 Cars	759	59	53	0	65	73	164	0	168	3,520	524	10	17	2,674	56	0
Total Cars	1,206	134	72	0	117	125	306	0	347	5,974	1,156	18	45	5,465	110	1
7:00 - 14:00 Sm Truck	4	1	0	0	15	1	11	0	10	176	8	0	1	176	3	0
14:00 - 21:00 Sm Truck	2	1	0	0	3	0	0	0	5	90	6	0	0	117	3	0
Total Sm Truck	6	2	0	0	18	1	11	0	15	266	14	0	1	293	6	0
7:00 - 14:00 Lg Truck	0	0	0	0	1	0	1	0	1	470	0	0	0	376	0	0
14:00 - 21:00 Lg Truck	0	0	0	0	1	0	1	0	2	275	2	0	0	292	0	1
Total Lg Truck	0	0	0	0	2	0	2	0	3	745	2	0	0	668	0	1
Total All	1,212	136	72	0	137	126	319	0	365	6,985	1,172	18	46	6,426	116	2
	CCW	CW			CCW	CW			CCW	CW			CCW	CW		
7:00 - 14:00 Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 21:00 Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Peds			0				0				0				0	

als: 56
 eh, Lg Veh

Interval
 Total

	Date	Time	Type	Turning Direction	Ped	Cars
311	2025 NOV 27	7:00:00 AM	Axle	Left	0	24
5	2025 NOV 27	7:00:00 AM	Axle	Thru	0	0
26	2025 NOV 27	7:00:00 AM	Axle	Right	0	0
0	2025 NOV 27	7:00:00 AM	Axle	U-turn	0	0
	2025 NOV 27	7:00:00 AM	Axle	Left	0	3
413	2025 NOV 27	7:00:00 AM	Axle	Thru	0	1
9	2025 NOV 27	7:00:00 AM	Axle	Right	0	4
25	2025 NOV 27	7:00:00 AM	Axle	U-turn	0	0
0	2025 NOV 27	7:00:00 AM	Axle	Left	0	3
	2025 NOV 27	7:00:00 AM	Axle	Thru	0	76
538	2025 NOV 27	7:00:00 AM	Axle	Right	0	32
14	2025 NOV 27	7:00:00 AM	Axle	U-turn	0	0
29	2025 NOV 27	7:00:00 AM	Axle	Left	0	2
0	2025 NOV 27	7:00:00 AM	Axle	Thru	0	163
	2025 NOV 27	7:00:00 AM	Axle	Right	0	3
516	2025 NOV 27	7:00:00 AM	Axle	U-turn	0	0
32	2025 NOV 27	7:15:00 AM	Axle	Left	0	29
37	2025 NOV 27	7:15:00 AM	Axle	Thru	0	8
0	2025 NOV 27	7:15:00 AM	Axle	Right	0	0
	2025 NOV 27	7:15:00 AM	Axle	U-turn	0	0
433	2025 NOV 27	7:15:00 AM	Axle	Left	0	3
17	2025 NOV 27	7:15:00 AM	Axle	Thru	0	2
29	2025 NOV 27	7:15:00 AM	Axle	Right	0	4
0	2025 NOV 27	7:15:00 AM	Axle	U-turn	0	0
	2025 NOV 27	7:15:00 AM	Axle	Left	0	9
394	2025 NOV 27	7:15:00 AM	Axle	Thru	0	130
23	2025 NOV 27	7:15:00 AM	Axle	Right	0	44
27	2025 NOV 27	7:15:00 AM	Axle	U-turn	0	0
0	2025 NOV 27	7:15:00 AM	Axle	Left	0	4
	2025 NOV 27	7:15:00 AM	Axle	Thru	0	175

356	2025 NOV 27	7:15:00 AM	Axle	Right	0	5
23	2025 NOV 27	7:15:00 AM	Axle	U-turn	0	0
38	2025 NOV 27	7:30:00 AM	Axle	Left	0	29
0	2025 NOV 27	7:30:00 AM	Axle	Thru	0	3
	2025 NOV 27	7:30:00 AM	Axle	Right	0	0
354	2025 NOV 27	7:30:00 AM	Axle	U-turn	0	0
17	2025 NOV 27	7:30:00 AM	Axle	Left	0	3
31	2025 NOV 27	7:30:00 AM	Axle	Thru	0	1
0	2025 NOV 27	7:30:00 AM	Axle	Right	0	5
	2025 NOV 27	7:30:00 AM	Axle	U-turn	0	0
2	2025 NOV 27	7:30:00 AM	Axle	Left	0	11
	2025 NOV 27	7:30:00 AM	Axle	Thru	0	185
	2025 NOV 27	7:30:00 AM	Axle	Right	0	45
	2025 NOV 27	7:30:00 AM	Axle	U-turn	0	0
	2025 NOV 27	7:30:00 AM	Axle	Left	0	2
als: 56	2025 NOV 27	7:30:00 AM	Axle	Thru	0	248
rt/red	2025 NOV 27	7:30:00 AM	Axle	Right	0	6
	2025 NOV 27	7:30:00 AM	Axle	U-turn	0	0
	2025 NOV 27	7:45:00 AM	Axle	Left	0	35
	2025 NOV 27	7:45:00 AM	Axle	Thru	0	6
	2025 NOV 27	7:45:00 AM	Axle	Right	0	0
Interval	2025 NOV 27	7:45:00 AM	Axle	U-turn	0	0
Total	2025 NOV 27	7:45:00 AM	Axle	Left	0	6
	2025 NOV 27	7:45:00 AM	Axle	Thru	0	3
	2025 NOV 27	7:45:00 AM	Axle	Right	0	3
	2025 NOV 27	7:45:00 AM	Axle	U-turn	0	0
221	2025 NOV 27	7:45:00 AM	Axle	Left	0	13
21	2025 NOV 27	7:45:00 AM	Axle	Thru	0	162
29	2025 NOV 27	7:45:00 AM	Axle	Right	0	76
0	2025 NOV 27	7:45:00 AM	Axle	U-turn	0	0
	2025 NOV 27	7:45:00 AM	Axle	Left	0	8
302	2025 NOV 27	7:45:00 AM	Axle	Thru	0	201
17	2025 NOV 27	7:45:00 AM	Axle	Right	0	3
34	2025 NOV 27	7:45:00 AM	Axle	U-turn	0	0
0	2025 NOV 27	8:00:00 AM	Axle	Left	0	32
	2025 NOV 27	8:00:00 AM	Axle	Thru	0	4
41	2025 NOV 27	8:00:00 AM	Axle	Right	0	3
6	2025 NOV 27	8:00:00 AM	Axle	U-turn	0	0
6	2025 NOV 27	8:00:00 AM	Axle	Left	0	3
0	2025 NOV 27	8:00:00 AM	Axle	Thru	0	4
	2025 NOV 27	8:00:00 AM	Axle	Right	0	4
168	2025 NOV 27	8:00:00 AM	Axle	U-turn	0	0
14	2025 NOV 27	8:00:00 AM	Axle	Left	0	2
41	2025 NOV 27	8:00:00 AM	Axle	Thru	0	123
0	2025 NOV 27	8:00:00 AM	Axle	Right	0	54
	2025 NOV 27	8:00:00 AM	Axle	U-turn	0	0

151	2025 NOV 27	8:00:00 AM	Axle	Left	0	1
4	2025 NOV 27	8:00:00 AM	Axle	Thru	0	200
26	2025 NOV 27	8:00:00 AM	Axle	Right	0	3
0	2025 NOV 27	8:00:00 AM	Axle	U-turn	0	0
	2025 NOV 27	8:15:00 AM	Axle	Left	0	30
192	2025 NOV 27	8:15:00 AM	Axle	Thru	0	2
15	2025 NOV 27	8:15:00 AM	Axle	Right	0	1
34	2025 NOV 27	8:15:00 AM	Axle	U-turn	0	0
0	2025 NOV 27	8:15:00 AM	Axle	Left	0	0
	2025 NOV 27	8:15:00 AM	Axle	Thru	0	5
204	2025 NOV 27	8:15:00 AM	Axle	Right	0	5
12	2025 NOV 27	8:15:00 AM	Axle	U-turn	0	0
44	2025 NOV 27	8:15:00 AM	Axle	Left	0	7
0	2025 NOV 27	8:15:00 AM	Axle	Thru	0	128
	2025 NOV 27	8:15:00 AM	Axle	Right	0	41
184	2025 NOV 27	8:15:00 AM	Axle	U-turn	0	0
18	2025 NOV 27	8:15:00 AM	Axle	Left	0	1
35	2025 NOV 27	8:15:00 AM	Axle	Thru	0	172
0	2025 NOV 27	8:15:00 AM	Axle	Right	0	2
	2025 NOV 27	8:15:00 AM	Axle	U-turn	0	0
3	2025 NOV 27	8:30:00 AM	Axle	Left	0	15
	2025 NOV 27	8:30:00 AM	Axle	Thru	0	0
	2025 NOV 27	8:30:00 AM	Axle	Right	0	0
	2025 NOV 27	8:30:00 AM	Axle	U-turn	0	0
	2025 NOV 27	8:30:00 AM	Axle	Left	0	2
als: 56	2025 NOV 27	8:30:00 AM	Axle	Thru	0	1
rt/red	2025 NOV 27	8:30:00 AM	Axle	Right	0	8
	2025 NOV 27	8:30:00 AM	Axle	U-turn	0	0
	2025 NOV 27	8:30:00 AM	Axle	Left	0	13
	2025 NOV 27	8:30:00 AM	Axle	Thru	0	109
	2025 NOV 27	8:30:00 AM	Axle	Right	0	27
Interval	2025 NOV 27	8:30:00 AM	Axle	U-turn	0	0
Total	2025 NOV 27	8:30:00 AM	Axle	Left	0	2
	2025 NOV 27	8:30:00 AM	Axle	Thru	0	178
	2025 NOV 27	8:30:00 AM	Axle	Right	0	1
	2025 NOV 27	8:30:00 AM	Axle	U-turn	0	0
184	2025 NOV 27	8:45:00 AM	Axle	Left	0	18
15	2025 NOV 27	8:45:00 AM	Axle	Thru	0	3
30	2025 NOV 27	8:45:00 AM	Axle	Right	0	1
0	2025 NOV 27	8:45:00 AM	Axle	U-turn	0	0
	2025 NOV 27	8:45:00 AM	Axle	Left	0	4
162	2025 NOV 27	8:45:00 AM	Axle	Thru	0	2
18	2025 NOV 27	8:45:00 AM	Axle	Right	0	11
36	2025 NOV 27	8:45:00 AM	Axle	U-turn	0	0
0	2025 NOV 27	8:45:00 AM	Axle	Left	0	17
	2025 NOV 27	8:45:00 AM	Axle	Thru	0	114

49	2025 NOV 27	8:45:00 AM	Axle	Right	0	25
1	2025 NOV 27	8:45:00 AM	Axle	U-turn	0	0
10	2025 NOV 27	8:45:00 AM	Axle	Left	0	0
0	2025 NOV 27	8:45:00 AM	Axle	Thru	0	157
	2025 NOV 27	8:45:00 AM	Axle	Right	0	1
170	2025 NOV 27	8:45:00 AM	Axle	U-turn	0	1
9	2025 NOV 27	9:00:00 AM	Axle	Left	0	11
23	2025 NOV 27	9:00:00 AM	Axle	Thru	0	4
0	2025 NOV 27	9:00:00 AM	Axle	Right	0	1
	2025 NOV 27	9:00:00 AM	Axle	U-turn	0	0
184	2025 NOV 27	9:00:00 AM	Axle	Left	0	1
16	2025 NOV 27	9:00:00 AM	Axle	Thru	0	3
33	2025 NOV 27	9:00:00 AM	Axle	Right	0	13
0	2025 NOV 27	9:00:00 AM	Axle	U-turn	0	0
	2025 NOV 27	9:00:00 AM	Axle	Left	0	10
225	2025 NOV 27	9:00:00 AM	Axle	Thru	0	81
12	2025 NOV 27	9:00:00 AM	Axle	Right	0	12
32	2025 NOV 27	9:00:00 AM	Axle	U-turn	0	1
0	2025 NOV 27	9:00:00 AM	Axle	Left	0	0
	2025 NOV 27	9:00:00 AM	Axle	Thru	0	81
238	2025 NOV 27	9:00:00 AM	Axle	Right	0	3
16	2025 NOV 27	9:00:00 AM	Axle	U-turn	0	0
38	2025 NOV 27	9:15:00 AM	Axle	Left	0	17
0	2025 NOV 27	9:15:00 AM	Axle	Thru	0	3
	2025 NOV 27	9:15:00 AM	Axle	Right	0	0
161	2025 NOV 27	9:15:00 AM	Axle	U-turn	0	0
8	2025 NOV 27	9:15:00 AM	Axle	Left	0	3
38	2025 NOV 27	9:15:00 AM	Axle	Thru	0	2
0	2025 NOV 27	9:15:00 AM	Axle	Right	0	14
	2025 NOV 27	9:15:00 AM	Axle	U-turn	0	0
4	2025 NOV 27	9:15:00 AM	Axle	Left	0	10
	2025 NOV 27	9:15:00 AM	Axle	Thru	0	104
	2025 NOV 27	9:15:00 AM	Axle	Right	0	17
	2025 NOV 27	9:15:00 AM	Axle	U-turn	0	0
	2025 NOV 27	9:15:00 AM	Axle	Left	0	0
als: 56	2025 NOV 27	9:15:00 AM	Axle	Thru	0	129
rt/red	2025 NOV 27	9:15:00 AM	Axle	Right	0	3
	2025 NOV 27	9:15:00 AM	Axle	U-turn	0	0
	2025 NOV 27	9:30:00 AM	Axle	Left	0	2
	2025 NOV 27	9:30:00 AM	Axle	Thru	0	0
	2025 NOV 27	9:30:00 AM	Axle	Right	0	0
Interval	2025 NOV 27	9:30:00 AM	Axle	U-turn	0	0
Total	2025 NOV 27	9:30:00 AM	Axle	Left	0	0
	2025 NOV 27	9:30:00 AM	Axle	Thru	0	0
	2025 NOV 27	9:30:00 AM	Axle	Right	0	1
	2025 NOV 27	9:30:00 AM	Axle	U-turn	0	0

189	2025 NOV 27	9:30:00 AM	Axle	Left	0	2
12	2025 NOV 27	9:30:00 AM	Axle	Thru	0	17
19	2025 NOV 27	9:30:00 AM	Axle	Right	0	3
0	2025 NOV 27	9:30:00 AM	Axle	U-turn	0	1
	2025 NOV 27	9:30:00 AM	Axle	Left	0	0
236	2025 NOV 27	9:30:00 AM	Axle	Thru	0	15
19	2025 NOV 27	9:30:00 AM	Axle	Right	0	0
31	2025 NOV 27	9:30:00 AM	Axle	U-turn	0	0
0	2025 NOV 27	9:45:00 AM	Axle	Left	0	12
	2025 NOV 27	9:45:00 AM	Axle	Thru	0	3
184	2025 NOV 27	9:45:00 AM	Axle	Right	0	0
21	2025 NOV 27	9:45:00 AM	Axle	U-turn	0	0
42	2025 NOV 27	9:45:00 AM	Axle	Left	0	2
0	2025 NOV 27	9:45:00 AM	Axle	Thru	0	3
	2025 NOV 27	9:45:00 AM	Axle	Right	0	4
174	2025 NOV 27	9:45:00 AM	Axle	U-turn	0	0
12	2025 NOV 27	9:45:00 AM	Axle	Left	0	5
26	2025 NOV 27	9:45:00 AM	Axle	Thru	0	61
0	2025 NOV 27	9:45:00 AM	Axle	Right	0	16
	2025 NOV 27	9:45:00 AM	Axle	U-turn	0	0
91	2025 NOV 27	9:45:00 AM	Axle	Left	0	0
4	2025 NOV 27	9:45:00 AM	Axle	Thru	0	62
18	2025 NOV 27	9:45:00 AM	Axle	Right	0	0
0	2025 NOV 27	9:45:00 AM	Axle	U-turn	0	0
	2025 NOV 27	10:00:00 AM	Axle	Left	0	7
177	2025 NOV 27	10:00:00 AM	Axle	Thru	0	1
6	2025 NOV 27	10:00:00 AM	Axle	Right	0	1
20	2025 NOV 27	10:00:00 AM	Axle	U-turn	0	0
0	2025 NOV 27	10:00:00 AM	Axle	Left	0	2
	2025 NOV 27	10:00:00 AM	Axle	Thru	0	4
195	2025 NOV 27	10:00:00 AM	Axle	Right	0	0
12	2025 NOV 27	10:00:00 AM	Axle	U-turn	0	0
20	2025 NOV 27	10:00:00 AM	Axle	Left	0	2
0	2025 NOV 27	10:00:00 AM	Axle	Thru	0	62
	2025 NOV 27	10:00:00 AM	Axle	Right	0	15
301	2025 NOV 27	10:00:00 AM	Axle	U-turn	0	0
16	2025 NOV 27	10:00:00 AM	Axle	Left	0	2
37	2025 NOV 27	10:00:00 AM	Axle	Thru	0	55
0	2025 NOV 27	10:00:00 AM	Axle	Right	0	0
	2025 NOV 27	10:00:00 AM	Axle	U-turn	0	0
5	2025 NOV 27	10:15:00 AM	Axle	Left	0	13
	2025 NOV 27	10:15:00 AM	Axle	Thru	0	3
	2025 NOV 27	10:15:00 AM	Axle	Right	0	1
	2025 NOV 27	10:15:00 AM	Axle	U-turn	0	0
	2025 NOV 27	10:15:00 AM	Axle	Left	0	1
	2025 NOV 27	10:15:00 AM	Axle	Thru	0	0
	2025 NOV 27	10:15:00 AM	Axle	Right	0	2

als: 56
rt/red

	2025 NOV 27 10:15:00 AM	Axle	U-turn	0	0
	2025 NOV 27 10:15:00 AM	Axle	Left	0	4
	2025 NOV 27 10:15:00 AM	Axle	Thru	0	81
	2025 NOV 27 10:15:00 AM	Axle	Right	0	8
Interval	2025 NOV 27 10:15:00 AM	Axle	U-turn	0	2
Total	2025 NOV 27 10:15:00 AM	Axle	Left	0	0
	2025 NOV 27 10:15:00 AM	Axle	Thru	0	77
	2025 NOV 27 10:15:00 AM	Axle	Right	0	0
	2025 NOV 27 10:15:00 AM	Axle	U-turn	0	0
292	2025 NOV 27 10:30:00 AM	Axle	Left	0	11
18	2025 NOV 27 10:30:00 AM	Axle	Thru	0	0
35	2025 NOV 27 10:30:00 AM	Axle	Right	0	0
0	2025 NOV 27 10:30:00 AM	Axle	U-turn	0	0
	2025 NOV 27 10:30:00 AM	Axle	Left	0	2
338	2025 NOV 27 10:30:00 AM	Axle	Thru	0	0
16	2025 NOV 27 10:30:00 AM	Axle	Right	0	8
30	2025 NOV 27 10:30:00 AM	Axle	U-turn	0	0
0	2025 NOV 27 10:30:00 AM	Axle	Left	0	5
	2025 NOV 27 10:30:00 AM	Axle	Thru	0	98
438	2025 NOV 27 10:30:00 AM	Axle	Right	0	9
18	2025 NOV 27 10:30:00 AM	Axle	U-turn	0	0
41	2025 NOV 27 10:30:00 AM	Axle	Left	0	0
0	2025 NOV 27 10:30:00 AM	Axle	Thru	0	70
	2025 NOV 27 10:30:00 AM	Axle	Right	0	1
512	2025 NOV 27 10:30:00 AM	Axle	U-turn	0	0
24	2025 NOV 27 10:45:00 AM	Axle	Left	0	15
36	2025 NOV 27 10:45:00 AM	Axle	Thru	0	3
0	2025 NOV 27 10:45:00 AM	Axle	Right	0	0
	2025 NOV 27 10:45:00 AM	Axle	U-turn	0	0
558	2025 NOV 27 10:45:00 AM	Axle	Left	0	0
14	2025 NOV 27 10:45:00 AM	Axle	Thru	0	0
25	2025 NOV 27 10:45:00 AM	Axle	Right	0	6
0	2025 NOV 27 10:45:00 AM	Axle	U-turn	0	0
	2025 NOV 27 10:45:00 AM	Axle	Left	0	4
606	2025 NOV 27 10:45:00 AM	Axle	Thru	0	91
14	2025 NOV 27 10:45:00 AM	Axle	Right	0	12
28	2025 NOV 27 10:45:00 AM	Axle	U-turn	0	0
0	2025 NOV 27 10:45:00 AM	Axle	Left	0	0
	2025 NOV 27 10:45:00 AM	Axle	Thru	0	51
683	2025 NOV 27 10:45:00 AM	Axle	Right	0	2
16	2025 NOV 27 10:45:00 AM	Axle	U-turn	0	0
30	2025 NOV 27 11:00:00 AM	Axle	Left	0	14
0	2025 NOV 27 11:00:00 AM	Axle	Thru	0	5
	2025 NOV 27 11:00:00 AM	Axle	Right	0	1
123	2025 NOV 27 11:00:00 AM	Axle	U-turn	0	0
5	2025 NOV 27 11:00:00 AM	Axle	Left	0	1

2	2025 NOV 27 11:00:00 AM	Axle	Thru	0	2
0	2025 NOV 27 11:00:00 AM	Axle	Right	0	2
6	2025 NOV 27 11:00:00 AM	Axle	U-turn	0	0
	2025 NOV 27 11:00:00 AM	Axle	Left	0	4
	2025 NOV 27 11:00:00 AM	Axle	Thru	0	84
	2025 NOV 27 11:00:00 AM	Axle	Right	0	19
	2025 NOV 27 11:00:00 AM	Axle	U-turn	0	0
	2025 NOV 27 11:00:00 AM	Axle	Left	0	0
als: 56	2025 NOV 27 11:00:00 AM	Axle	Thru	0	51
rt/red	2025 NOV 27 11:00:00 AM	Axle	Right	0	1
	2025 NOV 27 11:00:00 AM	Axle	U-turn	0	0
	2025 NOV 27 11:15:00 AM	Axle	Left	0	14
	2025 NOV 27 11:15:00 AM	Axle	Thru	0	2
	2025 NOV 27 11:15:00 AM	Axle	Right	0	0
Interval	2025 NOV 27 11:15:00 AM	Axle	U-turn	0	0
Total	2025 NOV 27 11:15:00 AM	Axle	Left	0	2
	2025 NOV 27 11:15:00 AM	Axle	Thru	0	0
	2025 NOV 27 11:15:00 AM	Axle	Right	0	5
	2025 NOV 27 11:15:00 AM	Axle	U-turn	0	0
502	2025 NOV 27 11:15:00 AM	Axle	Left	0	12
9	2025 NOV 27 11:15:00 AM	Axle	Thru	0	46
21	2025 NOV 27 11:15:00 AM	Axle	Right	0	19
0	2025 NOV 27 11:15:00 AM	Axle	U-turn	0	2
	2025 NOV 27 11:15:00 AM	Axle	Left	0	1
516	2025 NOV 27 11:15:00 AM	Axle	Thru	0	57
9	2025 NOV 27 11:15:00 AM	Axle	Right	0	2
29	2025 NOV 27 11:15:00 AM	Axle	U-turn	0	0
0	2025 NOV 27 11:30:00 AM	Axle	Left	0	1
	2025 NOV 27 11:30:00 AM	Axle	Thru	0	0
585	2025 NOV 27 11:30:00 AM	Axle	Right	0	0
7	2025 NOV 27 11:30:00 AM	Axle	U-turn	0	0
27	2025 NOV 27 11:30:00 AM	Axle	Left	0	0
0	2025 NOV 27 11:30:00 AM	Axle	Thru	0	1
	2025 NOV 27 11:30:00 AM	Axle	Right	0	1
461	2025 NOV 27 11:30:00 AM	Axle	U-turn	0	0
4	2025 NOV 27 11:30:00 AM	Axle	Left	0	1
24	2025 NOV 27 11:30:00 AM	Axle	Thru	0	14
0	2025 NOV 27 11:30:00 AM	Axle	Right	0	12
	2025 NOV 27 11:30:00 AM	Axle	U-turn	0	0
382	2025 NOV 27 11:30:00 AM	Axle	Left	0	1
7	2025 NOV 27 11:30:00 AM	Axle	Thru	0	18
13	2025 NOV 27 11:30:00 AM	Axle	Right	0	0
0	2025 NOV 27 11:30:00 AM	Axle	U-turn	0	0
	2025 NOV 27 11:45:00 AM	Axle	Left	0	12
55	2025 NOV 27 11:45:00 AM	Axle	Thru	0	5
1	2025 NOV 27 11:45:00 AM	Axle	Right	0	1

5	2025 NOV 27 11:45:00 AM	Axle	U-turn	0	0
0	2025 NOV 27 11:45:00 AM	Axle	Left	0	2
	2025 NOV 27 11:45:00 AM	Axle	Thru	0	0
228	2025 NOV 27 11:45:00 AM	Axle	Right	0	0
8	2025 NOV 27 11:45:00 AM	Axle	U-turn	0	0
22	2025 NOV 27 11:45:00 AM	Axle	Left	0	6
0	2025 NOV 27 11:45:00 AM	Axle	Thru	0	65
	2025 NOV 27 11:45:00 AM	Axle	Right	0	17
209	2025 NOV 27 11:45:00 AM	Axle	U-turn	0	0
6	2025 NOV 27 11:45:00 AM	Axle	Left	0	1
14	2025 NOV 27 11:45:00 AM	Axle	Thru	0	59
0	2025 NOV 27 11:45:00 AM	Axle	Right	0	2
	2025 NOV 27 11:45:00 AM	Axle	U-turn	0	0
7	2025 NOV 27 12:00:00 PM	Axle	Left	0	16
	2025 NOV 27 12:00:00 PM	Axle	Thru	0	1
	2025 NOV 27 12:00:00 PM	Axle	Right	0	0
	2025 NOV 27 12:00:00 PM	Axle	U-turn	0	0
	2025 NOV 27 12:00:00 PM	Axle	Left	0	1
	2025 NOV 27 12:00:00 PM	Axle	Thru	0	1
	2025 NOV 27 12:00:00 PM	Axle	Right	0	10
	2025 NOV 27 12:00:00 PM	Axle	U-turn	0	0
	2025 NOV 27 12:00:00 PM	Axle	Left	0	7
	2025 NOV 27 12:00:00 PM	Axle	Thru	0	72
	2025 NOV 27 12:00:00 PM	Axle	Right	0	14
	2025 NOV 27 12:00:00 PM	Axle	U-turn	0	0
Interval	2025 NOV 27 12:00:00 PM	Axle	Left	0	0
Total	2025 NOV 27 12:00:00 PM	Axle	Thru	0	62
	2025 NOV 27 12:00:00 PM	Axle	Right	0	0
	2025 NOV 27 12:00:00 PM	Axle	U-turn	0	0
129	2025 NOV 27 12:15:00 PM	Axle	Left	0	19
3	2025 NOV 27 12:15:00 PM	Axle	Thru	0	0
10	2025 NOV 27 12:15:00 PM	Axle	Right	0	0
0	2025 NOV 27 12:15:00 PM	Axle	U-turn	0	0
	2025 NOV 27 12:15:00 PM	Axle	Left	0	1
145	2025 NOV 27 12:15:00 PM	Axle	Thru	0	6
3	2025 NOV 27 12:15:00 PM	Axle	Right	0	7
17	2025 NOV 27 12:15:00 PM	Axle	U-turn	0	0
0	2025 NOV 27 12:15:00 PM	Axle	Left	0	8
	2025 NOV 27 12:15:00 PM	Axle	Thru	0	94
114	2025 NOV 27 12:15:00 PM	Axle	Right	0	17
1	2025 NOV 27 12:15:00 PM	Axle	U-turn	0	0
6	2025 NOV 27 12:15:00 PM	Axle	Left	0	1
0	2025 NOV 27 12:15:00 PM	Axle	Thru	0	70
	2025 NOV 27 12:15:00 PM	Axle	Right	0	2
107	2025 NOV 27 12:15:00 PM	Axle	U-turn	0	0
2	2025 NOV 27 12:30:00 PM	Axle	Left	0	17

19	2025 NOV 27	12:30:00 PM	Axle	Thru	0	4
0	2025 NOV 27	12:30:00 PM	Axle	Right	0	2
	2025 NOV 27	12:30:00 PM	Axle	U-turn	0	0
120	2025 NOV 27	12:30:00 PM	Axle	Left	0	2
1	2025 NOV 27	12:30:00 PM	Axle	Thru	0	5
9	2025 NOV 27	12:30:00 PM	Axle	Right	0	4
0	2025 NOV 27	12:30:00 PM	Axle	U-turn	0	0
	2025 NOV 27	12:30:00 PM	Axle	Left	0	3
120	2025 NOV 27	12:30:00 PM	Axle	Thru	0	80
0	2025 NOV 27	12:30:00 PM	Axle	Right	0	22
13	2025 NOV 27	12:30:00 PM	Axle	U-turn	0	0
0	2025 NOV 27	12:30:00 PM	Axle	Left	0	0
	2025 NOV 27	12:30:00 PM	Axle	Thru	0	96
87	2025 NOV 27	12:30:00 PM	Axle	Right	0	3
0	2025 NOV 27	12:30:00 PM	Axle	U-turn	0	0
14	2025 NOV 27	12:45:00 PM	Axle	Left	0	9
0	2025 NOV 27	12:45:00 PM	Axle	Thru	0	1
	2025 NOV 27	12:45:00 PM	Axle	Right	0	1
68	2025 NOV 27	12:45:00 PM	Axle	U-turn	0	0
3	2025 NOV 27	12:45:00 PM	Axle	Left	0	2
9	2025 NOV 27	12:45:00 PM	Axle	Thru	0	1
0	2025 NOV 27	12:45:00 PM	Axle	Right	0	4
	2025 NOV 27	12:45:00 PM	Axle	U-turn	0	0
	2025 NOV 27	12:45:00 PM	Axle	Left	0	2
Total	2025 NOV 27	12:45:00 PM	Axle	Thru	0	63
	2025 NOV 27	12:45:00 PM	Axle	Right	0	14
	2025 NOV 27	12:45:00 PM	Axle	U-turn	0	1
	2025 NOV 27	12:45:00 PM	Axle	Left	0	1
15,076	2025 NOV 27	12:45:00 PM	Axle	Thru	0	59
	2025 NOV 27	12:45:00 PM	Axle	Right	0	3
	2025 NOV 27	12:45:00 PM	Axle	U-turn	0	0
	2025 NOV 27	1:00:00 PM	Axle	Left	0	7
633	2025 NOV 27	1:00:00 PM	Axle	Thru	0	4
	2025 NOV 27	1:00:00 PM	Axle	Right	0	1
	2025 NOV 27	1:00:00 PM	Axle	U-turn	0	0
	2025 NOV 27	1:00:00 PM	Axle	Left	0	3
1423	2025 NOV 27	1:00:00 PM	Axle	Thru	0	0
	2025 NOV 27	1:00:00 PM	Axle	Right	0	4
17,132	2025 NOV 27	1:00:00 PM	Axle	U-turn	0	0
	2025 NOV 27	1:00:00 PM	Axle	Left	0	6
	2025 NOV 27	1:00:00 PM	Axle	Thru	0	85
	2025 NOV 27	1:00:00 PM	Axle	Right	0	10
	2025 NOV 27	1:00:00 PM	Axle	U-turn	0	0
0	2025 NOV 27	1:00:00 PM	Axle	Left	0	0
	2025 NOV 27	1:00:00 PM	Axle	Thru	0	67
	2025 NOV 27	1:00:00 PM	Axle	Right	0	2
	2025 NOV 27	1:00:00 PM	Axle	U-turn	0	0

2025 NOV 27	1:15:00 PM	Axle	Left	0	16
2025 NOV 27	1:15:00 PM	Axle	Thru	0	4
2025 NOV 27	1:15:00 PM	Axle	Right	0	3
2025 NOV 27	1:15:00 PM	Axle	U-turn	0	0
2025 NOV 27	1:15:00 PM	Axle	Left	0	1
2025 NOV 27	1:15:00 PM	Axle	Thru	0	0
2025 NOV 27	1:15:00 PM	Axle	Right	0	4
2025 NOV 27	1:15:00 PM	Axle	U-turn	0	0
2025 NOV 27	1:15:00 PM	Axle	Left	0	2
2025 NOV 27	1:15:00 PM	Axle	Thru	0	88
2025 NOV 27	1:15:00 PM	Axle	Right	0	21
2025 NOV 27	1:15:00 PM	Axle	U-turn	0	0
2025 NOV 27	1:15:00 PM	Axle	Left	0	0
2025 NOV 27	1:15:00 PM	Axle	Thru	0	94
2025 NOV 27	1:15:00 PM	Axle	Right	0	3
2025 NOV 27	1:15:00 PM	Axle	U-turn	0	0
2025 NOV 27	1:30:00 PM	Axle	Left	0	11
2025 NOV 27	1:30:00 PM	Axle	Thru	0	4
2025 NOV 27	1:30:00 PM	Axle	Right	0	1
2025 NOV 27	1:30:00 PM	Axle	U-turn	0	0
2025 NOV 27	1:30:00 PM	Axle	Left	0	0
2025 NOV 27	1:30:00 PM	Axle	Thru	0	1
2025 NOV 27	1:30:00 PM	Axle	Right	0	5
2025 NOV 27	1:30:00 PM	Axle	U-turn	0	0
2025 NOV 27	1:30:00 PM	Axle	Left	0	5
2025 NOV 27	1:30:00 PM	Axle	Thru	0	71
2025 NOV 27	1:30:00 PM	Axle	Right	0	12
2025 NOV 27	1:30:00 PM	Axle	U-turn	0	0
2025 NOV 27	1:30:00 PM	Axle	Left	0	1
2025 NOV 27	1:30:00 PM	Axle	Thru	0	71
2025 NOV 27	1:30:00 PM	Axle	Right	0	2
2025 NOV 27	1:30:00 PM	Axle	U-turn	0	0
2025 NOV 27	1:45:00 PM	Axle	Left	0	11
2025 NOV 27	1:45:00 PM	Axle	Thru	0	2
2025 NOV 27	1:45:00 PM	Axle	Right	0	1
2025 NOV 27	1:45:00 PM	Axle	U-turn	0	0
2025 NOV 27	1:45:00 PM	Axle	Left	0	2
2025 NOV 27	1:45:00 PM	Axle	Thru	0	4
2025 NOV 27	1:45:00 PM	Axle	Right	0	4
2025 NOV 27	1:45:00 PM	Axle	U-turn	0	0
2025 NOV 27	1:45:00 PM	Axle	Left	0	6
2025 NOV 27	1:45:00 PM	Axle	Thru	0	70
2025 NOV 27	1:45:00 PM	Axle	Right	0	19
2025 NOV 27	1:45:00 PM	Axle	U-turn	0	1
2025 NOV 27	1:45:00 PM	Axle	Left	0	0
2025 NOV 27	1:45:00 PM	Axle	Thru	0	53
2025 NOV 27	1:45:00 PM	Axle	Right	0	1

2025 NOV 27	1:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:00:00 PM	Axle	Left	0	11
2025 NOV 26	2:00:00 PM	Axle	Thru	0	1
2025 NOV 26	2:00:00 PM	Axle	Right	0	0
2025 NOV 26	2:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:00:00 PM	Axle	Left	0	0
2025 NOV 26	2:00:00 PM	Axle	Thru	0	0
2025 NOV 26	2:00:00 PM	Axle	Right	0	0
2025 NOV 26	2:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:00:00 PM	Axle	Left	0	1
2025 NOV 26	2:00:00 PM	Axle	Thru	0	44
2025 NOV 26	2:00:00 PM	Axle	Right	0	6
2025 NOV 26	2:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:00:00 PM	Axle	Left	0	0
2025 NOV 26	2:00:00 PM	Axle	Thru	0	26
2025 NOV 26	2:00:00 PM	Axle	Right	0	2
2025 NOV 26	2:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:15:00 PM	Axle	Left	0	10
2025 NOV 26	2:15:00 PM	Axle	Thru	0	3
2025 NOV 26	2:15:00 PM	Axle	Right	0	0
2025 NOV 26	2:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:15:00 PM	Axle	Left	0	1
2025 NOV 26	2:15:00 PM	Axle	Thru	0	1
2025 NOV 26	2:15:00 PM	Axle	Right	0	2
2025 NOV 26	2:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:15:00 PM	Axle	Left	0	2
2025 NOV 26	2:15:00 PM	Axle	Thru	0	74
2025 NOV 26	2:15:00 PM	Axle	Right	0	11
2025 NOV 26	2:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:15:00 PM	Axle	Left	0	0
2025 NOV 26	2:15:00 PM	Axle	Thru	0	72
2025 NOV 26	2:15:00 PM	Axle	Right	0	1
2025 NOV 26	2:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:30:00 PM	Axle	Left	0	14
2025 NOV 26	2:30:00 PM	Axle	Thru	0	2
2025 NOV 26	2:30:00 PM	Axle	Right	0	0
2025 NOV 26	2:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:30:00 PM	Axle	Left	0	0
2025 NOV 26	2:30:00 PM	Axle	Thru	0	3
2025 NOV 26	2:30:00 PM	Axle	Right	0	4
2025 NOV 26	2:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:30:00 PM	Axle	Left	0	6
2025 NOV 26	2:30:00 PM	Axle	Thru	0	92
2025 NOV 26	2:30:00 PM	Axle	Right	0	9
2025 NOV 26	2:30:00 PM	Axle	U-turn	0	1
2025 NOV 26	2:30:00 PM	Axle	Left	0	3
2025 NOV 26	2:30:00 PM	Axle	Thru	0	59

2025 NOV 26	2:30:00 PM	Axle	Right	0	2
2025 NOV 26	2:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:45:00 PM	Axle	Left	0	26
2025 NOV 26	2:45:00 PM	Axle	Thru	0	5
2025 NOV 26	2:45:00 PM	Axle	Right	0	1
2025 NOV 26	2:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:45:00 PM	Axle	Left	0	1
2025 NOV 26	2:45:00 PM	Axle	Thru	0	2
2025 NOV 26	2:45:00 PM	Axle	Right	0	7
2025 NOV 26	2:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:45:00 PM	Axle	Left	0	3
2025 NOV 26	2:45:00 PM	Axle	Thru	0	124
2025 NOV 26	2:45:00 PM	Axle	Right	0	16
2025 NOV 26	2:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	2:45:00 PM	Axle	Left	0	3
2025 NOV 26	2:45:00 PM	Axle	Thru	0	109
2025 NOV 26	2:45:00 PM	Axle	Right	0	4
2025 NOV 26	2:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:00:00 PM	Axle	Left	0	23
2025 NOV 26	3:00:00 PM	Axle	Thru	0	2
2025 NOV 26	3:00:00 PM	Axle	Right	0	1
2025 NOV 26	3:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:00:00 PM	Axle	Left	0	4
2025 NOV 26	3:00:00 PM	Axle	Thru	0	0
2025 NOV 26	3:00:00 PM	Axle	Right	0	8
2025 NOV 26	3:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:00:00 PM	Axle	Left	0	6
2025 NOV 26	3:00:00 PM	Axle	Thru	0	122
2025 NOV 26	3:00:00 PM	Axle	Right	0	22
2025 NOV 26	3:00:00 PM	Axle	U-turn	0	2
2025 NOV 26	3:00:00 PM	Axle	Left	0	0
2025 NOV 26	3:00:00 PM	Axle	Thru	0	99
2025 NOV 26	3:00:00 PM	Axle	Right	0	3
2025 NOV 26	3:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:15:00 PM	Axle	Left	0	36
2025 NOV 26	3:15:00 PM	Axle	Thru	0	1
2025 NOV 26	3:15:00 PM	Axle	Right	0	2
2025 NOV 26	3:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:15:00 PM	Axle	Left	0	2
2025 NOV 26	3:15:00 PM	Axle	Thru	0	4
2025 NOV 26	3:15:00 PM	Axle	Right	0	1
2025 NOV 26	3:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:15:00 PM	Axle	Left	0	5
2025 NOV 26	3:15:00 PM	Axle	Thru	0	162
2025 NOV 26	3:15:00 PM	Axle	Right	0	26
2025 NOV 26	3:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:15:00 PM	Axle	Left	0	0

2025 NOV 26	3:15:00 PM	Axle	Thru	0	95
2025 NOV 26	3:15:00 PM	Axle	Right	0	4
2025 NOV 26	3:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:30:00 PM	Axle	Left	0	49
2025 NOV 26	3:30:00 PM	Axle	Thru	0	5
2025 NOV 26	3:30:00 PM	Axle	Right	0	2
2025 NOV 26	3:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:30:00 PM	Axle	Left	0	4
2025 NOV 26	3:30:00 PM	Axle	Thru	0	2
2025 NOV 26	3:30:00 PM	Axle	Right	0	10
2025 NOV 26	3:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:30:00 PM	Axle	Left	0	10
2025 NOV 26	3:30:00 PM	Axle	Thru	0	180
2025 NOV 26	3:30:00 PM	Axle	Right	0	33
2025 NOV 26	3:30:00 PM	Axle	U-turn	0	1
2025 NOV 26	3:30:00 PM	Axle	Left	0	5
2025 NOV 26	3:30:00 PM	Axle	Thru	0	132
2025 NOV 26	3:30:00 PM	Axle	Right	0	5
2025 NOV 26	3:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:45:00 PM	Axle	Left	0	76
2025 NOV 26	3:45:00 PM	Axle	Thru	0	3
2025 NOV 26	3:45:00 PM	Axle	Right	0	7
2025 NOV 26	3:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:45:00 PM	Axle	Left	0	4
2025 NOV 26	3:45:00 PM	Axle	Thru	0	3
2025 NOV 26	3:45:00 PM	Axle	Right	0	11
2025 NOV 26	3:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	3:45:00 PM	Axle	Left	0	18
2025 NOV 26	3:45:00 PM	Axle	Thru	0	207
2025 NOV 26	3:45:00 PM	Axle	Right	0	27
2025 NOV 26	3:45:00 PM	Axle	U-turn	0	2
2025 NOV 26	3:45:00 PM	Axle	Left	0	0
2025 NOV 26	3:45:00 PM	Axle	Thru	0	148
2025 NOV 26	3:45:00 PM	Axle	Right	0	6
2025 NOV 26	3:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:00:00 PM	Axle	Left	0	78
2025 NOV 26	4:00:00 PM	Axle	Thru	0	7
2025 NOV 26	4:00:00 PM	Axle	Right	0	4
2025 NOV 26	4:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:00:00 PM	Axle	Left	0	7
2025 NOV 26	4:00:00 PM	Axle	Thru	0	9
2025 NOV 26	4:00:00 PM	Axle	Right	0	12
2025 NOV 26	4:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:00:00 PM	Axle	Left	0	7
2025 NOV 26	4:00:00 PM	Axle	Thru	0	237
2025 NOV 26	4:00:00 PM	Axle	Right	0	24
2025 NOV 26	4:00:00 PM	Axle	U-turn	0	0

2025 NOV 26	4:00:00 PM	Axle	Left	0	0
2025 NOV 26	4:00:00 PM	Axle	Thru	0	172
2025 NOV 26	4:00:00 PM	Axle	Right	0	1
2025 NOV 26	4:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:15:00 PM	Axle	Left	0	76
2025 NOV 26	4:15:00 PM	Axle	Thru	0	3
2025 NOV 26	4:15:00 PM	Axle	Right	0	9
2025 NOV 26	4:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:15:00 PM	Axle	Left	0	7
2025 NOV 26	4:15:00 PM	Axle	Thru	0	11
2025 NOV 26	4:15:00 PM	Axle	Right	0	9
2025 NOV 26	4:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:15:00 PM	Axle	Left	0	13
2025 NOV 26	4:15:00 PM	Axle	Thru	0	247
2025 NOV 26	4:15:00 PM	Axle	Right	0	38
2025 NOV 26	4:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:15:00 PM	Axle	Left	0	0
2025 NOV 26	4:15:00 PM	Axle	Thru	0	189
2025 NOV 26	4:15:00 PM	Axle	Right	0	4
2025 NOV 26	4:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:30:00 PM	Axle	Left	0	58
2025 NOV 26	4:30:00 PM	Axle	Thru	0	5
2025 NOV 26	4:30:00 PM	Axle	Right	0	6
2025 NOV 26	4:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:30:00 PM	Axle	Left	0	4
2025 NOV 26	4:30:00 PM	Axle	Thru	0	7
2025 NOV 26	4:30:00 PM	Axle	Right	0	11
2025 NOV 26	4:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:30:00 PM	Axle	Left	0	9
2025 NOV 26	4:30:00 PM	Axle	Thru	0	310
2025 NOV 26	4:30:00 PM	Axle	Right	0	46
2025 NOV 26	4:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:30:00 PM	Axle	Left	0	0
2025 NOV 26	4:30:00 PM	Axle	Thru	0	225
2025 NOV 26	4:30:00 PM	Axle	Right	0	2
2025 NOV 26	4:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:45:00 PM	Axle	Left	0	4
2025 NOV 26	4:45:00 PM	Axle	Thru	0	2
2025 NOV 26	4:45:00 PM	Axle	Right	0	1
2025 NOV 26	4:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:45:00 PM	Axle	Left	0	1
2025 NOV 26	4:45:00 PM	Axle	Thru	0	1
2025 NOV 26	4:45:00 PM	Axle	Right	0	3
2025 NOV 26	4:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:45:00 PM	Axle	Left	0	3
2025 NOV 26	4:45:00 PM	Axle	Thru	0	57
2025 NOV 26	4:45:00 PM	Axle	Right	0	9

2025 NOV 26	4:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	4:45:00 PM	Axle	Left	0	0
2025 NOV 26	4:45:00 PM	Axle	Thru	0	42
2025 NOV 26	4:45:00 PM	Axle	Right	0	0
2025 NOV 26	4:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:00:00 PM	Axle	Left	0	39
2025 NOV 26	5:00:00 PM	Axle	Thru	0	4
2025 NOV 26	5:00:00 PM	Axle	Right	0	2
2025 NOV 26	5:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:00:00 PM	Axle	Left	0	3
2025 NOV 26	5:00:00 PM	Axle	Thru	0	3
2025 NOV 26	5:00:00 PM	Axle	Right	0	16
2025 NOV 26	5:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:00:00 PM	Axle	Left	0	7
2025 NOV 26	5:00:00 PM	Axle	Thru	0	204
2025 NOV 26	5:00:00 PM	Axle	Right	0	41
2025 NOV 26	5:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:00:00 PM	Axle	Left	0	0
2025 NOV 26	5:00:00 PM	Axle	Thru	0	181
2025 NOV 26	5:00:00 PM	Axle	Right	0	2
2025 NOV 26	5:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:15:00 PM	Axle	Left	0	52
2025 NOV 26	5:15:00 PM	Axle	Thru	0	4
2025 NOV 26	5:15:00 PM	Axle	Right	0	7
2025 NOV 26	5:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:15:00 PM	Axle	Left	0	8
2025 NOV 26	5:15:00 PM	Axle	Thru	0	6
2025 NOV 26	5:15:00 PM	Axle	Right	0	14
2025 NOV 26	5:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:15:00 PM	Axle	Left	0	12
2025 NOV 26	5:15:00 PM	Axle	Thru	0	233
2025 NOV 26	5:15:00 PM	Axle	Right	0	53
2025 NOV 26	5:15:00 PM	Axle	U-turn	0	1
2025 NOV 26	5:15:00 PM	Axle	Left	0	0
2025 NOV 26	5:15:00 PM	Axle	Thru	0	121
2025 NOV 26	5:15:00 PM	Axle	Right	0	5
2025 NOV 26	5:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:30:00 PM	Axle	Left	0	53
2025 NOV 26	5:30:00 PM	Axle	Thru	0	5
2025 NOV 26	5:30:00 PM	Axle	Right	0	1
2025 NOV 26	5:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:30:00 PM	Axle	Left	0	5
2025 NOV 26	5:30:00 PM	Axle	Thru	0	4
2025 NOV 26	5:30:00 PM	Axle	Right	0	5
2025 NOV 26	5:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:30:00 PM	Axle	Left	0	8
2025 NOV 26	5:30:00 PM	Axle	Thru	0	255

2025 NOV 26	5:30:00 PM	Axle	Right	0	40
2025 NOV 26	5:30:00 PM	Axle	U-turn	0	2
2025 NOV 26	5:30:00 PM	Axle	Left	0	0
2025 NOV 26	5:30:00 PM	Axle	Thru	0	205
2025 NOV 26	5:30:00 PM	Axle	Right	0	2
2025 NOV 26	5:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:45:00 PM	Axle	Left	0	31
2025 NOV 26	5:45:00 PM	Axle	Thru	0	0
2025 NOV 26	5:45:00 PM	Axle	Right	0	3
2025 NOV 26	5:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:45:00 PM	Axle	Left	0	2
2025 NOV 26	5:45:00 PM	Axle	Thru	0	5
2025 NOV 26	5:45:00 PM	Axle	Right	0	10
2025 NOV 26	5:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:45:00 PM	Axle	Left	0	8
2025 NOV 26	5:45:00 PM	Axle	Thru	0	213
2025 NOV 26	5:45:00 PM	Axle	Right	0	29
2025 NOV 26	5:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	5:45:00 PM	Axle	Left	0	0
2025 NOV 26	5:45:00 PM	Axle	Thru	0	159
2025 NOV 26	5:45:00 PM	Axle	Right	0	1
2025 NOV 26	5:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:00:00 PM	Axle	Left	0	28
2025 NOV 26	6:00:00 PM	Axle	Thru	0	1
2025 NOV 26	6:00:00 PM	Axle	Right	0	1
2025 NOV 26	6:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:00:00 PM	Axle	Left	0	2
2025 NOV 26	6:00:00 PM	Axle	Thru	0	2
2025 NOV 26	6:00:00 PM	Axle	Right	0	4
2025 NOV 26	6:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:00:00 PM	Axle	Left	0	4
2025 NOV 26	6:00:00 PM	Axle	Thru	0	169
2025 NOV 26	6:00:00 PM	Axle	Right	0	27
2025 NOV 26	6:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:00:00 PM	Axle	Left	0	1
2025 NOV 26	6:00:00 PM	Axle	Thru	0	139
2025 NOV 26	6:00:00 PM	Axle	Right	0	4
2025 NOV 26	6:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:15:00 PM	Axle	Left	0	10
2025 NOV 26	6:15:00 PM	Axle	Thru	0	0
2025 NOV 26	6:15:00 PM	Axle	Right	0	0
2025 NOV 26	6:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:15:00 PM	Axle	Left	0	0
2025 NOV 26	6:15:00 PM	Axle	Thru	0	1
2025 NOV 26	6:15:00 PM	Axle	Right	0	2
2025 NOV 26	6:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:15:00 PM	Axle	Left	0	1

2025 NOV 26	6:15:00 PM	Axle	Thru	0	20
2025 NOV 26	6:15:00 PM	Axle	Right	0	3
2025 NOV 26	6:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:15:00 PM	Axle	Left	0	0
2025 NOV 26	6:15:00 PM	Axle	Thru	0	18
2025 NOV 26	6:15:00 PM	Axle	Right	0	0
2025 NOV 26	6:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:30:00 PM	Axle	Left	0	6
2025 NOV 26	6:30:00 PM	Axle	Thru	0	0
2025 NOV 26	6:30:00 PM	Axle	Right	0	3
2025 NOV 26	6:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:30:00 PM	Axle	Left	0	0
2025 NOV 26	6:30:00 PM	Axle	Thru	0	0
2025 NOV 26	6:30:00 PM	Axle	Right	0	0
2025 NOV 26	6:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:30:00 PM	Axle	Left	0	0
2025 NOV 26	6:30:00 PM	Axle	Thru	0	125
2025 NOV 26	6:30:00 PM	Axle	Right	0	0
2025 NOV 26	6:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:30:00 PM	Axle	Left	0	0
2025 NOV 26	6:30:00 PM	Axle	Thru	0	93
2025 NOV 26	6:30:00 PM	Axle	Right	0	1
2025 NOV 26	6:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:45:00 PM	Axle	Left	0	24
2025 NOV 26	6:45:00 PM	Axle	Thru	0	0
2025 NOV 26	6:45:00 PM	Axle	Right	0	0
2025 NOV 26	6:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:45:00 PM	Axle	Left	0	0
2025 NOV 26	6:45:00 PM	Axle	Thru	0	0
2025 NOV 26	6:45:00 PM	Axle	Right	0	11
2025 NOV 26	6:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:45:00 PM	Axle	Left	0	14
2025 NOV 26	6:45:00 PM	Axle	Thru	0	73
2025 NOV 26	6:45:00 PM	Axle	Right	0	8
2025 NOV 26	6:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	6:45:00 PM	Axle	Left	0	0
2025 NOV 26	6:45:00 PM	Axle	Thru	0	75
2025 NOV 26	6:45:00 PM	Axle	Right	0	4
2025 NOV 26	6:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:00:00 PM	Axle	Left	0	6
2025 NOV 26	7:00:00 PM	Axle	Thru	0	2
2025 NOV 26	7:00:00 PM	Axle	Right	0	0
2025 NOV 26	7:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:00:00 PM	Axle	Left	0	3
2025 NOV 26	7:00:00 PM	Axle	Thru	0	0
2025 NOV 26	7:00:00 PM	Axle	Right	0	2
2025 NOV 26	7:00:00 PM	Axle	U-turn	0	0

2025 NOV 26	7:00:00 PM	Axle	Left	0	4
2025 NOV 26	7:00:00 PM	Axle	Thru	0	52
2025 NOV 26	7:00:00 PM	Axle	Right	0	12
2025 NOV 26	7:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:00:00 PM	Axle	Left	0	0
2025 NOV 26	7:00:00 PM	Axle	Thru	0	47
2025 NOV 26	7:00:00 PM	Axle	Right	0	1
2025 NOV 26	7:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:15:00 PM	Axle	Left	0	11
2025 NOV 26	7:15:00 PM	Axle	Thru	0	3
2025 NOV 26	7:15:00 PM	Axle	Right	0	0
2025 NOV 26	7:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:15:00 PM	Axle	Left	0	1
2025 NOV 26	7:15:00 PM	Axle	Thru	0	5
2025 NOV 26	7:15:00 PM	Axle	Right	0	3
2025 NOV 26	7:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:15:00 PM	Axle	Left	0	7
2025 NOV 26	7:15:00 PM	Axle	Thru	0	46
2025 NOV 26	7:15:00 PM	Axle	Right	0	9
2025 NOV 26	7:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:15:00 PM	Axle	Left	0	1
2025 NOV 26	7:15:00 PM	Axle	Thru	0	58
2025 NOV 26	7:15:00 PM	Axle	Right	0	1
2025 NOV 26	7:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:30:00 PM	Axle	Left	0	12
2025 NOV 26	7:30:00 PM	Axle	Thru	0	0
2025 NOV 26	7:30:00 PM	Axle	Right	0	1
2025 NOV 26	7:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:30:00 PM	Axle	Left	0	0
2025 NOV 26	7:30:00 PM	Axle	Thru	0	2
2025 NOV 26	7:30:00 PM	Axle	Right	0	5
2025 NOV 26	7:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:30:00 PM	Axle	Left	0	3
2025 NOV 26	7:30:00 PM	Axle	Thru	0	42
2025 NOV 26	7:30:00 PM	Axle	Right	0	3
2025 NOV 26	7:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:30:00 PM	Axle	Left	0	1
2025 NOV 26	7:30:00 PM	Axle	Thru	0	45
2025 NOV 26	7:30:00 PM	Axle	Right	0	0
2025 NOV 26	7:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:45:00 PM	Axle	Left	0	7
2025 NOV 26	7:45:00 PM	Axle	Thru	0	0
2025 NOV 26	7:45:00 PM	Axle	Right	0	0
2025 NOV 26	7:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:45:00 PM	Axle	Left	0	1
2025 NOV 26	7:45:00 PM	Axle	Thru	0	1
2025 NOV 26	7:45:00 PM	Axle	Right	0	7

2025 NOV 26	7:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:45:00 PM	Axle	Left	0	2
2025 NOV 26	7:45:00 PM	Axle	Thru	0	38
2025 NOV 26	7:45:00 PM	Axle	Right	0	6
2025 NOV 26	7:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	7:45:00 PM	Axle	Left	0	0
2025 NOV 26	7:45:00 PM	Axle	Thru	0	45
2025 NOV 26	7:45:00 PM	Axle	Right	0	0
2025 NOV 26	7:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:00:00 PM	Axle	Left	0	7
2025 NOV 26	8:00:00 PM	Axle	Thru	0	1
2025 NOV 26	8:00:00 PM	Axle	Right	0	0
2025 NOV 26	8:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:00:00 PM	Axle	Left	0	1
2025 NOV 26	8:00:00 PM	Axle	Thru	0	1
2025 NOV 26	8:00:00 PM	Axle	Right	0	1
2025 NOV 26	8:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:00:00 PM	Axle	Left	0	3
2025 NOV 26	8:00:00 PM	Axle	Thru	0	57
2025 NOV 26	8:00:00 PM	Axle	Right	0	8
2025 NOV 26	8:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:00:00 PM	Axle	Left	0	1
2025 NOV 26	8:00:00 PM	Axle	Thru	0	39
2025 NOV 26	8:00:00 PM	Axle	Right	0	1
2025 NOV 26	8:00:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:15:00 PM	Axle	Left	0	7
2025 NOV 26	8:15:00 PM	Axle	Thru	0	0
2025 NOV 26	8:15:00 PM	Axle	Right	0	1
2025 NOV 26	8:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:15:00 PM	Axle	Left	0	0
2025 NOV 26	8:15:00 PM	Axle	Thru	0	0
2025 NOV 26	8:15:00 PM	Axle	Right	0	4
2025 NOV 26	8:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:15:00 PM	Axle	Left	0	6
2025 NOV 26	8:15:00 PM	Axle	Thru	0	52
2025 NOV 26	8:15:00 PM	Axle	Right	0	9
2025 NOV 26	8:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:15:00 PM	Axle	Left	0	1
2025 NOV 26	8:15:00 PM	Axle	Thru	0	40
2025 NOV 26	8:15:00 PM	Axle	Right	0	0
2025 NOV 26	8:15:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:30:00 PM	Axle	Left	0	4
2025 NOV 26	8:30:00 PM	Axle	Thru	0	0
2025 NOV 26	8:30:00 PM	Axle	Right	0	1
2025 NOV 26	8:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:30:00 PM	Axle	Left	0	1
2025 NOV 26	8:30:00 PM	Axle	Thru	0	0

2025 NOV 26	8:30:00 PM	Axle	Right	0	1
2025 NOV 26	8:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:30:00 PM	Axle	Left	0	3
2025 NOV 26	8:30:00 PM	Axle	Thru	0	47
2025 NOV 26	8:30:00 PM	Axle	Right	0	8
2025 NOV 26	8:30:00 PM	Axle	U-turn	0	1
2025 NOV 26	8:30:00 PM	Axle	Left	0	0
2025 NOV 26	8:30:00 PM	Axle	Thru	0	21
2025 NOV 26	8:30:00 PM	Axle	Right	0	0
2025 NOV 26	8:30:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:45:00 PM	Axle	Left	0	1
2025 NOV 26	8:45:00 PM	Axle	Thru	0	0
2025 NOV 26	8:45:00 PM	Axle	Right	0	0
2025 NOV 26	8:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:45:00 PM	Axle	Left	0	3
2025 NOV 26	8:45:00 PM	Axle	Thru	0	0
2025 NOV 26	8:45:00 PM	Axle	Right	0	1
2025 NOV 26	8:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:45:00 PM	Axle	Left	0	3
2025 NOV 26	8:45:00 PM	Axle	Thru	0	38
2025 NOV 26	8:45:00 PM	Axle	Right	0	1
2025 NOV 26	8:45:00 PM	Axle	U-turn	0	0
2025 NOV 26	8:45:00 PM	Axle	Left	0	1
2025 NOV 26	8:45:00 PM	Axle	Thru	0	20
2025 NOV 26	8:45:00 PM	Axle	Right	0	0
2025 NOV 26	8:45:00 PM	Axle	U-turn	0	0
				0	15,076

 Location: PTH 101 & Wenzel Road
 Notes: Wenzel Road N-S
 Study ID: MERGED TCP-115 & TCP-116
 Operator: Ahmad
 Weather: 0

From South From

 left thru right u-turn left thru

 Grand Totals

Car	1,206	134	72	0	117	125
%	7.0%	0.8%	0.4%	0.0%	0.7%	0.7%
Sm Truck	6	2	0	0	18	1
%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Lg Truck	0	0	0	0	2	0
%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ALL	1,212	136	72	0	137	126
%	7.1%	0.8%	0.4%	0.0%	0.8%	0.7%
Peds				0		
%				#DIV/0!		

Leave Blank	Sm Vehicle	Lg Vehicle
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
2	14	
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3	12	
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4	16

Starts: 2025 NOV 26
 End: 2025 NOV 27
 Interval: 15 min Intervals: 56
 Type: Peds, Car, Sm Veh, Lg Veh
 Correction: 1.00

Location:
 Notes:
 Study ID:
 Operator:
 Weather:

North		From West				From East				Interval
right	u-turn	left	thru	right	u-turn	left	thru	right	u-turn	Total
306	0	347	5,974	1,156	18	45	5,465	110	1	15,076
1.8%	0.0%	2.0%	34.9%	6.7%	0.1%	0.3%	31.9%	0.6%	0.0%	88.0%
11	0	15	266	14	0	1	293	6	0	633
0.1%	0.0%	0.1%	1.6%	0.1%	0.0%	0.0%	1.7%	0.0%	0.0%	3.7%
2	0	3	745	2	0	0	668	0	1	1423
0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%	3.9%	0.0%	0.0%	8.3%
319	0	365	6,985	1,172	18	46	6,426	116	2	17,132
1.9%	0.0%	2.1%	40.8%	6.8%	0.1%	0.3%	37.5%	0.7%	0.0%	100.0%
0				0				0		0
#####				#####				#####		#DIV/0!

Approach

Total -----
 16,497

Depart

Location:

Notes:

Study ID:

Operator:

Weather:

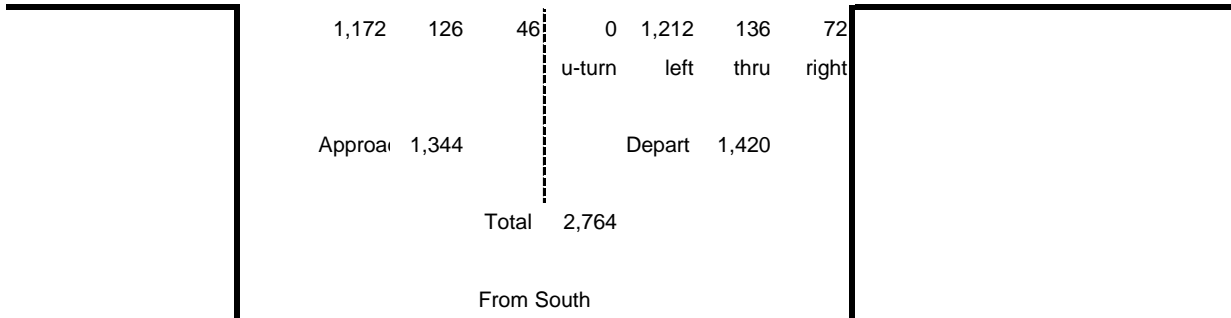
PTH 101 & Wenzel Road
Wenzel Road N-S
MERGED TCP-115 & TCP-116
Ahmad
0

Starts: 2025 NOV 26
End: 2025 NOV 27
Interval: 15 min Intervals: 56
Type: Peds, Car, Sm Veh, Lg Veh
Correction: 1.00

Turning Movements For Total Intersection

		From North							
		Total 1,199							
		Depart 582		Approach 617					
		right	thru	left	u-turn				
		319	126	137	0	365	136	116	
								116 right	
7,957	319							6,426 thru	
	6,426							Depart 6,590	
								46 left	
	1,212							2 u-turn	
From West								Total	
								From East 13,784	
								137	
								6,985	
8,540								Approach 7,194	
								72	

right 1,172



PTH 101 & Wenzel Road
 Wenzel Road N-S
 MERGED TCP-115 & TCP-116
 Ahmad
 0

Starts: 2025 NOV 26
 End: 2025 NOV 27
 Interval: 15 min Intervals: 56
 Type: C, SmT, LgT, P-rt/red
 Correction: 1.00

MANITOBA INFRASTRUCTURE & TRANSPORTATI

Location: PTH 101 & Wenzel Road
 Notes: Wenzel Road N-S
 Study ID: MERGED TCP-115 & TCP-116
 Operator: Ahmad
 Weather: 0

Chart of Total Volume per Interval

Date:

7:00	342	2.0%
7:15	447	2.6%
7:30	581	3.4%
7:45	585	3.4%
8:00	479	2.8%
8:15	444	2.6%
8:30	417	2.4%
8:45	402	2.3%
9:00	271	1.6%
9:15	353	2.1%
9:30	53	0.3%
9:45	223	1.3%
10:00	181	1.1%
10:15	241	1.4%
10:30	260	1.5%
10:45	237	1.4%
11:00	229	1.3%
11:15	216	1.3%
11:30	60	0.4%
11:45	202	1.2%
12:00	233	1.4%
12:15	269	1.6%
12:30	292	1.7%
12:45	207	1.2%
13:00	220	1.3%
13:15	286	1.7%
13:30	247	1.4%
13:45	212	1.2%

14:00	113	0.7%
14:15	203	1.2%
14:30	227	1.3%
14:45	354	2.1%
15:00	345	2.0%
15:15	384	2.2%
15:30	497	2.9%
15:45	572	3.3%
16:00	597	3.5%
16:15	648	3.8%
16:30	729	4.3%
16:45	130	0.8%
17:00	532	3.1%
17:15	554	3.2%
17:30	619	3.6%
17:45	489	2.9%
18:00	402	2.3%
18:15	61	0.4%
18:30	258	1.5%
18:45	229	1.3%
19:00	142	0.8%
19:15	165	1.0%
19:30	121	0.7%
19:45	128	0.7%
20:00	130	0.8%
20:15	133	0.8%
20:30	101	0.6%
20:45	80	0.5%
Total	17132	100.0%

MANITOBA INFRASTRUCTURE & TRANSPORTATI

Location: PTH 101 & Wenzel Road
 Notes: Wenzel Road N-S
 Study ID: MERGED TCP-115 & TCP-116
 Operator: Ahmad
 Weather: 0

Chart of Total Sm Trucks per Interval

Date:

7:00	5	0.8%
7:15	9	1.4%
7:30	14	2.2%
7:45	32	5.1%
8:00	17	2.7%
8:15	23	3.6%
8:30	23	3.6%
8:45	17	2.7%
9:00	21	3.3%
9:15	17	2.7%
9:30	6	0.9%
9:45	14	2.2%
10:00	4	0.6%
10:15	15	2.4%
10:30	12	1.9%
10:45	18	2.8%
11:00	15	2.4%
11:15	18	2.8%
11:30	1	0.2%
11:45	9	1.4%
12:00	16	2.5%
12:15	12	1.9%
12:30	16	2.5%

14:00	4	0.6%
14:15	6	0.9%
14:30	12	1.9%
14:45	16	2.5%
15:00	18	2.8%
15:15	16	2.5%
15:30	18	2.8%
15:45	24	3.8%
16:00	14	2.2%
16:15	14	2.2%
16:30	16	2.5%
16:45	5	0.8%
17:00	9	1.4%
17:15	9	1.4%
17:30	7	1.1%
17:45	4	0.6%
18:00	7	1.1%
18:15	1	0.2%
18:30	8	1.3%
18:45	6	0.9%
19:00	3	0.5%
19:15	3	0.5%
19:30	1	0.2%

12:45	8	1.3%
13:00	12	1.9%
13:15	19	3.0%
13:30	21	3.3%
13:45	12	1.9%

19:45	2	0.3%
20:00	1	0.2%
20:15	0	0.0%
20:30	0	0.0%
20:45	3	0.5%
Total	633	100.0%

MANITOBA INFRASTRUCTURE & TRANSPORTATI

Location: PTH 101 & Wenzel Road
Notes: Wenzel Road N-S
Study ID: MERGED TCP-115 & TCP-116
Operator: Ahmad
Weather: 0

Chart of Total Lg Trucks per Interval

Date:

7:00	26	1.8%
7:15	25	1.8%
7:30	29	2.0%
7:45	37	2.6%
8:00	29	2.0%
8:15	27	1.9%
8:30	38	2.7%
8:45	31	2.2%
9:00	29	2.0%
9:15	34	2.4%
9:30	6	0.4%
9:45	41	2.9%
10:00	26	1.8%

14:00	18	1.3%
14:15	20	1.4%
14:30	20	1.4%
14:45	37	2.6%
15:00	35	2.5%
15:15	30	2.1%
15:30	41	2.9%
15:45	36	2.5%
16:00	25	1.8%
16:15	28	2.0%
16:30	30	2.1%
16:45	2	0.1%
17:00	21	1.5%

10:15	34	2.4%
10:30	44	3.1%
10:45	35	2.5%
11:00	30	2.1%
11:15	36	2.5%
11:30	10	0.7%
11:45	23	1.6%
12:00	33	2.3%
12:15	32	2.2%
12:30	38	2.7%
12:45	38	2.7%
13:00	19	1.3%
13:15	31	2.2%
13:30	42	3.0%
13:45	26	1.8%

17:15	29	2.0%
17:30	27	1.9%
17:45	24	1.7%
18:00	13	0.9%
18:15	5	0.4%
18:30	22	1.5%
18:45	14	1.0%
19:00	10	0.7%
19:15	17	1.2%
19:30	6	0.4%
19:45	19	1.3%
20:00	9	0.6%
20:15	13	0.9%
20:30	14	1.0%
20:45	9	0.6%
Total	1423	100.0%

Starts: 2025 NOV 26

End: 2025 NOV 27

Interval: 15 min Intervals: 56

Type: Peds, Car, Sm Veh, Lg Veh

Correction: 1.00

Chart of Total Volume per Hour

7:00	1955	11.4%
8:00	1742	10.2%
9:00	900	5.3%
10:00	919	5.4%
11:00	707	4.1%
12:00	1001	5.8%
13:00	965	5.6%
14:00	897	5.2%
15:00	1798	10.5%
16:00	2104	12.3%
17:00	2194	12.8%
18:00	950	5.5%
19:00	556	3.2%
20:00	444	2.6%
Total	17132	100.0%

Starts: 2025 NOV 26

End: 2025 NOV 27

Interval: 15 min Intervals: 56

Type: C, SmT, LgT, P-rt/red

Correction: 1.00

Chart of Total Sm Trucks per Hour

7:00	60	9.5%
8:00	80	12.6%
9:00	58	9.2%
10:00	49	7.7%
11:00	43	6.8%
12:00	52	8.2%
13:00	64	10.1%
14:00	38	6.0%
15:00	76	12.0%
16:00	49	7.7%
17:00	29	4.6%
18:00	22	3.5%
19:00	9	1.4%
20:00	4	0.6%
Total	633	100.0%

Starts: 2025 NOV 26

End: 2025 NOV 27

Interval: 15 min Intervals: 56

Type: C, SmT, LgT, P-rt/red

Correction: 1.00

Chart of Total Lg Trucks per Hour

7:00	117	8.2%
8:00	125	8.8%
9:00	110	7.7%
10:00	139	9.8%
11:00	99	7.0%
12:00	141	9.9%
13:00	118	8.3%
14:00	95	6.7%
15:00	142	10.0%
16:00	85	6.0%
17:00	101	7.1%
18:00	54	3.8%
19:00	52	3.7%

20:00	45	3.2%
Total	1423	100.0%

The Meadows Development - Municipal Servicing Brief

Preliminary servicing brief for wastewater sewer, watermain and land drainage for the proposed development of the Meadows



Disclaimer

The conclusions in the Report titled The Meadows Development - Municipal Servicing Brief are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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Prepared by:

Signature

Kyu Hyun Jeong

Printed Name

Reviewed by:

Signature

Dan Mages

Printed Name

Approved by:

Signature

Dan Mages

Printed Name

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2	Water	1
3	Wastewater.....	3
4	Land Drainage.....	4
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4.2	Design Criteria and Detailed Analysis.....	4
4.2.1	Retention Lakes	4
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- Figure 2.0 – Proposed Watermain Sizing and Fire Flows
- Figure 3.0 – Wastewater Sewer – Sizing and Catchment Areas

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- Appendix A Sanitary Sewer Design Spreadsheet**
- Appendix B Stormwater Management Report**



THE MEADOWS DEVELOPMENT - MUNICIPAL SERVICING BRIEF

Introduction
March 18th, 2026

1 Introduction

This Municipal Servicing Brief has been prepared on behalf of 10089844 Manitoba Inc and 10215032 Manitoba Inc. The brief is intended to support preparation of the Meadows Development by identifying high-level municipal servicing requirements for the study area.

The objective is to establish an overall high-level framework for future water, wastewater, and land drainage infrastructure that supports the ultimate development of the planned area.

The Meadows Development is planned to be a combination of mixed use, commercial, multi-family, single family and a day care centre.

The Meadows Plan Area comprises approximately 74.29 hectares and is shown on Figure 1.0 below. Manitoba Hydro right-of-way traverses the eastern side of the plan area in a generally north-east to south-west direction and a Winnipeg Gas Company buried pipe right-of-way traverses through the western side of the plan area in a generally north-west to south-east direction. The overall area is bounded: on the east by Wenzel Street and McGregor Farm Road; on the south by private properties fronting onto McGregor Farm Road; on the west by McGregor Farm Road (Lagimodiere Blvd); on the north by Manitoba Highways maintenance yard and other private properties.

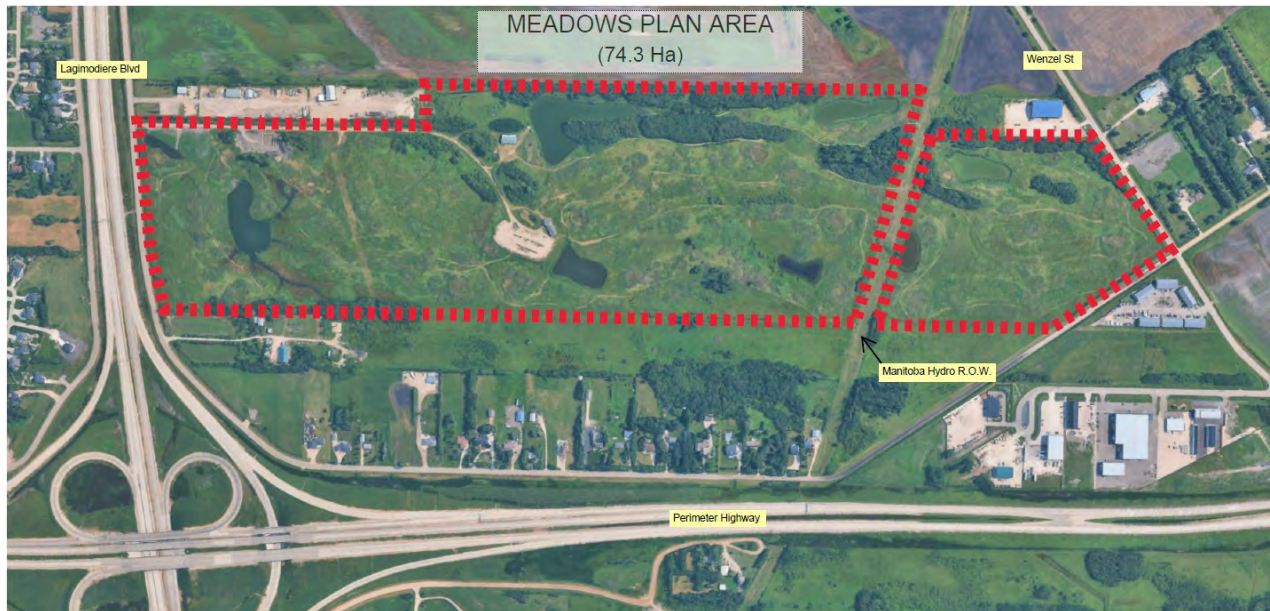


Figure 1.0 – The Meadows Development Plan Area

2 Water

The development water service area including pipe sizing and available fire flows are shown in Figure 2.0.

The system is proposed to have external feedpoints located at;

- At Benham Way & Gateway Road off a 250 mm watermain.
- At 2890 Wenzel Avenue off a 300 mm watermain.

10089844 Manitoba Inc. and 10215032 Manitoba Ltd. will be responsible for installing all internal watermains within their development areas, as well as any external watermains required to provide adequate fire flows within their development area.

The Systems performance was analyzed under various operating conditions using EPA Net 2.0, a computer simulation program produced by the Environmental Protection Agency (EPA).

This assessment is based on East St. Paul master water distribution system model supplied by Stantec's Water Group. The model was used as the starting point of this analysis.

The following design criteria and assumptions were used in the analysis of the watermains:

1. Hazen-Williams coefficient of friction ("C" value) will be assumed to be 120 for watermains with diameters of 200 mm or smaller and 130 for diameters larger than 200 mm.
2. Population will be based on the following;
 - 3.05 persons per single family dwelling unit.
 - 2.30 persons per multi-family dwelling unit
3. The number of dwelling units served by each node will be calculated based on:
 - High-level population density data from the current conceptual land use plan for the area
4. The average daily per capita consumption will be 225 L + 10%.
5. The maximum day demand will be 1.4 x average day rate.
6. The peak hour multiplier will be 2.3.
7. Minimum design fire flows to be provided with maximum day demand on the system to be as shown below, or greater based on FUS method:
 - 100 l/s for single family residential,
 - 175 l/s for multi-family residential,
 - 175 l/s for mixed use, day care and commercial.
8. For analysis purposes, the watermains were assumed to be at a constant elevation considering the subdivision's ground elevations vary slightly.



The Meadows Development - Municipal Servicing Brief

Water

9. Hydrant losses will be accounted for by calculating available fire flows using 25 psi as opposed to 20 psi.

Based on the above conditions, the proposed watermain system can meet the required operating criteria of:

- A minimum pressure of 207 kPa (30 psi) under maximum hour consumption.
- The minimum fire flow specified above at 140 kPa (20 psi) with maximum day consumption.

The available fire flows at various locations throughout the development are demonstrated in Figure 2.0.

The designers of the private sites will be required to complete a fire underwriters calculation to determine if the fire flow for the proposed site development is sufficient.

Below are the ultimate average water demand calculations for the Meadows area:

Single Family = $692 \text{ units} \times 3.05 \text{ ppu} \times 225 \text{ L/c/day} + 10\% = 522,374 \text{ L/day}$

Multi Family = $1,639 \text{ units} \times 2.3 \text{ ppu} \times 225 \text{ L/c/day} + 10\% = 933,001 \text{ L/day}$

Commercial/Mixed-Use/Day Care = $2.92 \text{ ha} \times 16,800 \text{ L/ha/day} = 49,056 \text{ L/day}$

Total = 1,504,431 L/day



3 Wastewater

The wastewater sewer system for the Meadows Development is designed to flow through proposed internal wastewater sewers and ultimately discharge into the existing East St. Paul's wastewater sewer system. Further analysis on external WWS requirements will be completed in detail at a later stage.

The contributing wastewater area and proposed pipe sizing are shown on Figure 3.0.

The design criteria and assumptions for the wastewater sewer system are:

1. Peak Design Flow = domestic sewage x peaking factor plus extraneous flow.
The extraneous flows include groundwater infiltration and manhole cover inflow.
2. Domestic Sewage (Residential)
Average Flow: 270 L/capita/day
Peaking Factor: Harman's = $1 + 14/(4+(p/1000)^{0.5})$
Population/dwelling = 3.05 persons (single family)
= 2.30 persons (multi family)
Dwelling Density = Actual predicted unit counts provided by the developer.
3. Commercial Flow: based on 50 persons per hectare – added to domestic sewage prior to applying peaking factor
4. Peak Industrial Flow (School Site): based on 70 persons per hectare – added to domestic sewage prior to applying peaking factor
5. Extraneous Flow
 - a) Groundwater Infiltration: 2200 L/hectare/day
 - b) Manhole Infiltration: 12 L/min/MH
Manhole Spacing: 1.6 Manholes/hectare
6. Pipe selection was based on full flow pipe with Manning's N = 0.013 and minimum velocity of 0.60 m/sec. Adequate pipe cover and slope will be illustrated on the detailed design drawings.

The wastewater sewer system design spreadsheet for this subdivision is presented in Appendix "A". The table shows that pipe sizes presented are sized to handle the predicted flows within this development.



4 Land Drainage

4.1 Background

The total analysis area for the Meadows Development encompasses roughly 76.02 ha, comprising approximately 74.29 ha of developable land and 1.73 ha of Manitoba Hydro transmission right-of-way. The Meadows Development will be split into six (6) catchment areas, and each serviced by its own retention pond. The retention ponds will have a Normal Water Level elevation of 231.50m and will be connected through the proposed interconnecting pipes. The proposed retention pond network will discharge to the west through a 450 mm outlet pipe to the McGregor Farm Road ditch.

4.2 Design Criteria and Detailed Analysis

4.2.1 Retention Lakes

The guidelines used for the Retention Lake are as follows:

- 1.20 m lake rise for a 25 year storm (maximum) for lakes in Residential areas.
- Freeboard elevation will be set 0.60 m above maximum High Water Level (HWL).
- HWL taken to be the maximum calculated water level for the 100 year storm.
- 7:1 side slopes above Normal Water Level (NWL) and 4:1 side slopes below NWL.
- 2.5 m minimum water depth.

The Normal Water Level for these ponds will be set at 231.50m. The maximum high water level (100 yr storm) will be 232.636m.

The detailed analysis and results related to the subdivision drainage are presented in the report named, "Stormwater Management Report for the Meadows Development" attached to this servicing brief in Appendix B.

4.2.2 Land Drainage Sewers

This section details the design criteria, parameters, and assumptions to be used in the design of the land drainage sewers. The piped system will be designed using the Rational Design method and will be based on the following criteria:

- 5 year storm intensity equation $I \text{ (mm/hr)} = 1199 / (t+8)^{0.828}$ ---> (MacLaren 1974).
- Pipe friction factor (Manning's n): 0.013 (Concrete and PVC).
- Minimum full flow velocity: 0.90 m/s.
- Maximum full flow velocity: 3.05 m/s.
- The 1:5 year return frequency will be used for the design of the storm sewer system.



The Meadows Development - Municipal Servicing Brief

Land Drainage

- Tailwater Condition at the Lake = NWL + 0.45 m

Runoff Design Criteria

The rational design method will be used to estimate rainfall runoff to be handled by the piped system:

$$Q = (1/360) CiA$$

Where:

Q = runoff (CMS)

C = runoff coefficient

i = rainfall intensity (mm/hr)

A = area (hectares)

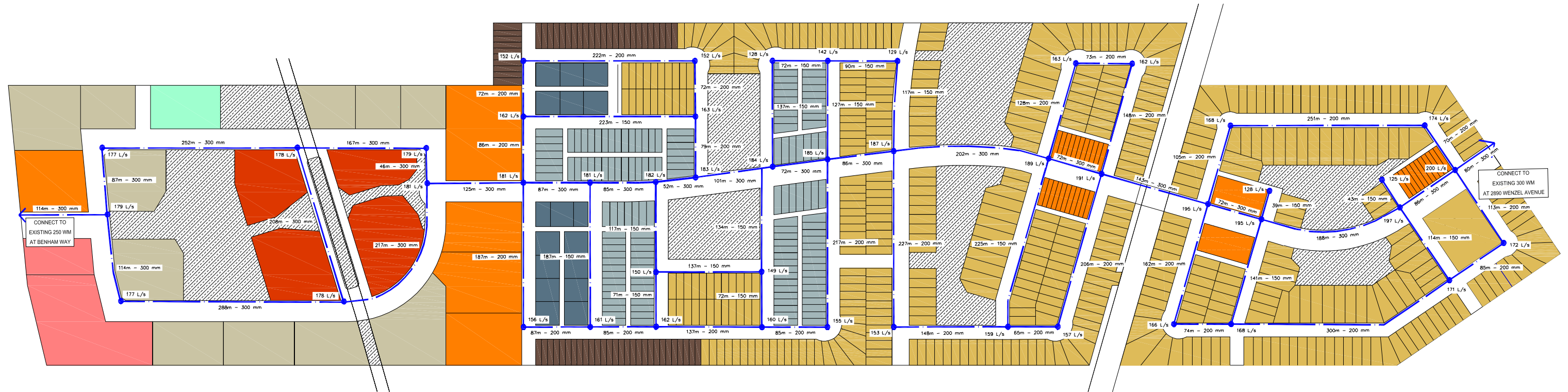
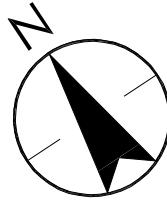
The drainage catchments are expected to include single family residential (C=0.5), duplex/townhomes (C=0.55), multi-family residential (C=0.60), commercial/mixed-use (C=0.60), park (C=0.20) and ex. Grassed area (C=0.15).

System Design Criteria

The land drainage sewers in the precinct will be designed as surcharged pipe systems to accommodate the calculated runoffs. The surcharge level of the system will be designed to be at a minimum of 0.15m below the proposed gutter elevations. The Manning's Equation with an N = 0.013 for concrete or PVC pipe will be used to determine pipe sizes and hydraulic losses within the system. At the outfalls to the lakes, the hydraulic grade line will be assumed to be 0.45 m above the NWL elevation to ensure that the pipes can discharge the peak flows as the lake rises during the storm event.



FIGURES



- | | |
|--|--|
| COMMERCIAL | BACK LANE TOWN HOUSE |
| MIXED USE | SIDE BY SIDE |
| MULTI-FAMILY | SINGLE FAMILY BACK LANE |
| DAYCARE FACILITY | FRONT DRIVE |
| TOWN HOUSE | PUBLIC RESERVE/POND |

U:\116810640\0300_drawing\0301_sketches\10640-catchments_2024-03-03.dwg Figure 2.0
2024/03/26 8:31 AM By: Kellias, Jordan

ORIGINAL SHEET - ISO 11x17 - v14.06

March 2024
116810640



Stantec Consulting Ltd.
Suite 500, 311 Portage Avenue
Winnipeg MB Canada R3B 2B9
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www.stantec.com

Legend



PROPOSED WATERMAIN



NODES

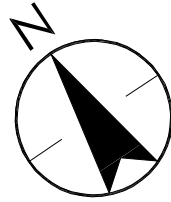
100 L/S

AVAILABLE FIREFLOW

Client/Project
10089844 Manitoba Inc. and 10215032 Manitoba Inc.
The Meadows Development

Figure No.
1.0

Title
Proposed Watermain Sizing and Fire Flows

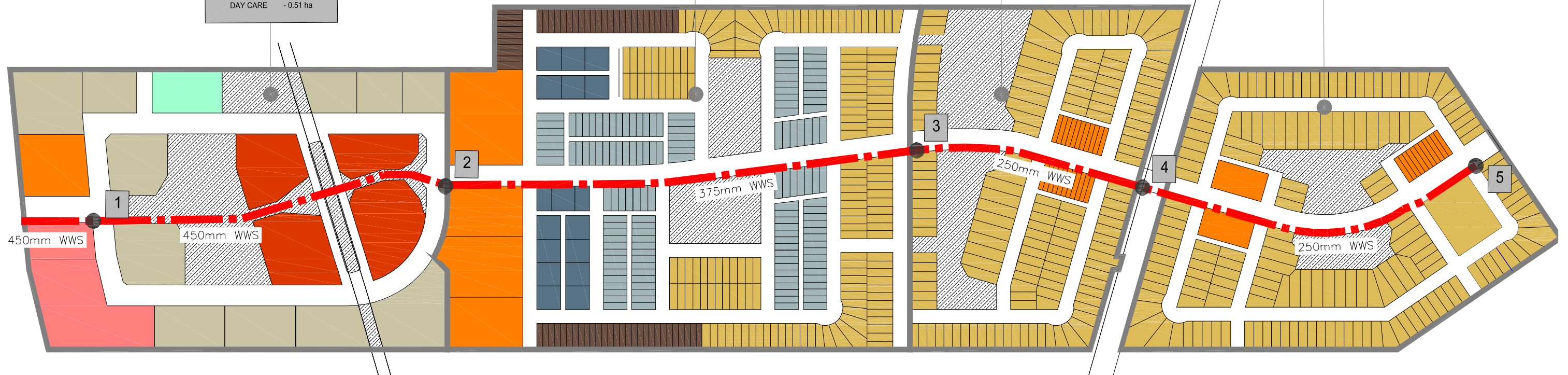












PHASE A & B
 ESTIMATED UNITS (1243 UNITS)
 MIXED USE MF - 411 UNITS
 MULTI FAMILY - 832 UNITS
 COMMERCIAL - 2.41 ha
 DAY CARE - 0.51 ha

PHASE 1 & 2
 ESTIMATED UNITS (702 UNITS)
 SINGLE FAMILY - 361 UNITS
 TOWNHOUSES (MF) - 341 UNITS

PHASE 3 & 4
 ESTIMATED UNITS (171 UNITS)
 SINGLE FAMILY - 149 UNITS
 TOWNHOUSES (MF) - 22 UNITS

PHASE 5 & 6
 ESTIMATED UNITS (215 UNITS)
 SINGLE FAMILY - 182 UNITS
 TOWNHOUSES (MF) - 33 UNITS



- | | |
|---|--|
|  COMMERCIAL |  BACK LANE TOWN HOUSE |
|  MIXED USE |  SIDE BY SIDE |
|  MULTI-FAMILY |  SINGLE FAMILY BACK LANE |
|  DAYCARE FACILITY |  FRONT DRIVE |
|  TOWN HOUSE |  PUBLIC RESERVE/POND |

U:\116810640\0300_drawing\0301_sketches\10440-catchments_2024-03-03.dwg Figure 2.0
 2024/03/26 8:32 AM By: Kellias, Jordan

ORIGINAL SHEET - ISO 11x17 - v14.06

March 2024
 116810640



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Legend

 **WWS CATCHMENTS**

 **PROPOSED WASTEWATER SEWER**

 **POND / PR (6.16 Ha) (EXCLUDED FROM I&I)**

Client/Project
 10089844 Manitoba Inc. and 10215032 Manitoba Inc.
 The Meadows Development

Figure No.
 2.0

Title
 Wastewater Sewer
 Sizing and Catchment Areas

Appendix A Sanitary Sewer Spreadsheet



WASTEWATER SEWER DESIGN SHEET

DESCRIPTION: Peak Sanitary Sewer Flow Calculations

OWNER
SUBDIV. NAME Meadows (East St. Paul)

Area No.	M.H. From	M.H. To	No. of SF Dwelling Units	No. of MF Dwelling Units	Incremental SF Area (ha)	Incremental MF Area (ha)	Incremental Comm Area (ha)	Incremental LI/School Area (ha)	Cumulative SF Area (ha)	Cumulative MF Area (ha)	Cumulative Comm Area (ha)	Cumulative LI/School Area (ha)	Incremental SF Population (Persons)	Incremental MF Population (Persons)	Incremental Comm Pop. (Persons Equiv.)	Incremental LI/School Pop. (Persons Equiv.)	Incremental Tot. Population (Persons)	Cumulative Population (Persons)	Peaking Factor M	Cumul. Dry Flow (l/s) (No PF)	Peak Cumul. Dry Flow (l/s)	Incremental ROW Area (Ha)	Cumulative ROW Area (Ha)	Cumulative Total Area (Ha)	Ground Water Infiltration (l/s)	Incremental Manholes (Counted)	Incremental Manholes (Area Based)	Cumulative Manholes	Manhole Inflow (l/s)	Peak Design Flow (l/s)	Proposed and Existing Sewer					
																															Dia. (mm)	Slope %	Crit. Slope %	Des. Slope %	Capacity Q. (l/s)	Velocity (m/s)
PHASE 5 & 6	5	4	182	33	9.1606	0.7378	0.0000	0.0000	9.1606	0.7378	0.0000	0.0000	555	76	0	0	631	631	3.920	1.97	7.73	4.2528	4.2528	14.1512	0.36	0	15.8	15.8	3.17	11.26	250	0.25%	1.43%	0.25%	29.73	0.61
PHASE 3 & 4	4	3	149	22	7.0358	0.4900	0.0000	0.0000	16.1964	1.2278	0.0000	0.0000	454	51	0	0	505	1136	3.764	3.55	13.36	2.6351	6.8879	24.3121	0.62	0	12.0	27.9	5.58	19.56	250	0.25%	1.43%	0.25%	29.73	0.61
PHASE 1 & 2	3	2	361	341	11.1722	4.8549	0.0000	0.0000	27.3686	6.0827	0.0000	0.0000	1101	784	0	0	1885	3021	3.440	9.44	32.48	8.1788	15.0667	48.5180	1.24	0	25.6	53.5	10.70	44.42	375	0.15%	1.25%	0.15%	67.91	0.61
PHASE A & B	2	1	0	1243	0.0000	8.7491	2.4133	0.5084	27.3686	14.8318	2.4133	0.5084	0	2859	121	36	3015	6037	3.168	18.86	59.77	4.3075	19.3742	64.4963	1.64	0	16.9	70.4	14.09	75.50	450	0.12%	1.17%	0.12%	98.76	0.62

Notes:

- Single Family
- 3.05 Persons per Unit (Single Family)
- 12.29 Dwellings per Hectare (Single Family)
- 2.3 Persons per Unit (Multi Family)

Population Equivalent (persons per hectare)	
50	Commercial
70	School and Light Industrial
105	Wet Industrial

Design Flow Factor, F = 0.00313 l/sec/person
 60 l. Gal/person/day = 270 l/person/day
 Harmon Factor $Pf=1+(14/(4+(p)^.5))$ P = thousands of persons
 $2<=P<=4.5$

Infiltration Factor, FI =	2200	l/Ha/day
Manhole Inflow	12	l/MH/min
Manhole Quantity (SF and MF)	1.6	MH/Ha
Manhole Quantity (CMU)	1.0	MH/Ha

Proposed Unit Count (Provided by Client - January 2026)

Proposed townhouses treated as multi-family residential for this analysis

Total CMU area of 2.9070 Ha was estimated to have 0.65 Ha of ground floor building footprint used for retail/office use. The rest of the area was dedicated for MF use.
 0.6500 + 1.7633 = 2.4133 Ha

Calculated By: K.Jeong
 Checked By: J. Kellas
 Date: 03-Mar-26
 File: 116810640

Appendix B Stormwater Management Report



Stormwater Management Report for The Meadows Development

This stormwater management report has been prepared for submission to the RM of East St. Paul,
Manitoba Transportation & Infrastructure, and Manitoba Environment & Climate Change

Date:

March 17, 2026

Prepared for:

10089844 Manitoba Inc. and 10215032 Manitoba Ltd.

Prepared by:

Stantec Consulting Ltd.

Project/File:

116810640



Revision Record

Revision	Description	Author	Date	Quality Check	Date	Independent Review	Date

Disclaimer

The conclusions in the Report titled Stormwater Management Report for the Meadows Development are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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Prepared by:

Signature
Kyu Hyun Jeong

Printed Name

Reviewed by:

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Dan Mages

Printed Name

Approved by:

Signature
Dan Mages

Printed Name

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Acronyms / Abbreviations

Acronym / Abbreviation	Full Name
ha	Hectares
Hwy	Highway
Hr	Hour
m	Meters
mm	Millimeters
min	Minutes
m/s	Meters per Second
m ³ /s	Cubic Meters per Second
SWM	Stormwater Management
NWL	Normal Water Level
HWL	High Water Level



1 Overview

This brief has been prepared for submission to the RM of East St. Paul, Manitoba Transportation & Infrastructure, and Manitoba Environment & Climate Change as a requirement for the development review and subsequent approval on behalf of the developers 10089844 Manitoba Inc and 10215032 Manitoba Ltd.

The total analysis area for this report is approximately 76.02 ha, comprising approximately 74.29 ha of land owned by 10089844 Manitoba Inc./10215032 Manitoba Ltd. and 1.73 ha of Manitoba Hydro transmission right-of-way traversing through the planned development area.

The development is located in the RM of East St. Paul, bounded by Manitoba Highways maintenance yard and private properties to the north, Lagimodiere Boulevard and McGregor Farm Road to the west, private properties fronting onto McGregor Farm Road to the south and McGregor Farm Road and Wenzel Street to the east.

This report addresses the design and modelling of the proposed subdivision's retention pond drainage system.

2 Predevelopment Flow

The Meadows development area is split into two catchment areas (East and West). The east catchment is approximately 40.26 ha and it currently drains east to an existing ditch located on the west side of Wenzel Street and McGregor Farm Road. The west catchment is approximately 35.76 ha and it currently drains west to an existing ditch located on the east side of McGregor Farm Road. The catchment is shown on Figure 1.

Predevelopment runoff rates were determined by rational method, using Kinematic Wave Equation for sheet flow, and Equation (3-4) for the FHWA HEC 22 Urban Drainage Design Manual for shallow concentrated flow. A runoff coefficient of $C=0.22$ was used for the landscaped area (former golf course). Rainfall intensity was based on 2011 Environment Canada IDF data for Winnipeg corresponding to an event with 20% probability of exceedance (5 year storm). The results of the pre-development flow calculations are shown in the table below.

Table 1. Pre-development Flow Calculations

Catchment	Area (ha)	Total Length (m)	Slope (%)	Sheet Flow			Shallow Concentrated Flow				TOC (min)	Runoff		
				n	L (m)	Tt (min)	K	L (m)	V (m/s)	Tt (min)		I (mm/hr)	C	Q (m ³ /s)
WEST	35.76	893	0.13	0.15	30	35.22	0.213	863	0.078	184.47	219.7	13.4	0.22	0.293
EAST	40.26	956	0.08	0.15	30	43.29	0.213	926	0.060	256.17	299.47	10.4	0.22	0.257
TOTAL														0.550

Based on the table above, the permitted peak flow to the existing McGregor Farm Road ditch is 0.550 m³/s.



3 Post Development Drainage Plan

The proposed Meadows development will contain six (6) naturalized retention ponds with a combined normal water level area of 3.700 ha, as illustrated in Figure 2.0. These retention ponds will store and attenuate runoff from the proposed Meadows Development and ultimately discharge to the McGregor Farm Road ditch on the west side of development. The total catchment area for the Meadows Development retention pond system is 76.02 ha.

The proposed retention ponds will drain through series of interconnecting pipes to a 450 mm control outlet culvert located approximately 30m east of the existing McGregor Farm Road ditch. The invert of this control outlet culvert will maintain the normal water level elevation of 231.50m and control the discharge from the pond system to the existing ditch west of the Development.

The post development drainage plan is shown Figure 2.0.

3.1 Analysis

Manitoba Environment & Climate Change design criteria require that retention ponds with outlet pipes limit the 25-year post-development peak flow to the 5-year pre-development peak, while also providing storage for the 100-year post-development event. The Province of Manitoba Drainage Policy further requires that outlet pipes that affect drains through provincial trunk highways are to be designed to restrict the 50-year post-development peak flow to the 5-year pre-development peak. These two criteria together form the basis for the stormwater management design for this subdivision.

A Stormwater Management (SWM) model for this subdivision was developed. The controlled discharge system (retention pond, discharge pipes, retention pond inlet pipes, surface storage) was modelled using SWMM 5.1.

The post development catchment boundaries, retention pond inlet pipes, and outlet pipe is shown in Figure 2.0.

3.1.1 Design Criteria and Assumptions

Design rainfall events for retention pond modelling.

- 5 year Storm (MacLaren 1974)
- 25 year Storm (MacLaren 1974)
- 50 year Storm (M.I.T.)
- 100 year Storm (Acres 1978)

Sub catchments were modelled using the following assumption.

- Catchment 'A' = 69% Impervious



- Catchment 'B', 'C', 'D', 'E' and 'F' = 61% Impervious
- Manning's roughness coefficient for runoff
 - Impervious $n=0.015$
 - Pervious $n=0.25$
- Depression Storage
 - Impervious = 3 mm
 - Pervious = 6 mm
- Horton Infiltration Parameters (for pervious surfaces)
 - $F_o = 75 \text{ mm/hr}$
 - $F_c = 3 \text{ mm/hr}$
 - $K = 4.14 \text{ hr}^{-1}$
- Roughness Coefficients
 - LDS Pipes (PVC & Concrete) $n = 0.013$
 - Culverts (CSP) $n = 0.024$

3.1.2 Results

3.1.2.1 Retention Pond Responses

The results of the SWM modelling for the retention pond responses to the design storms are presented in Table 2. – 7. below and the detailed plots of the retention pond levels are shown in Figure 3.

Table 2. Retention Pond Responses: Retention Pond #1 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m ³)
5 Year Storm	232.071	0.571	6,630
50 Year Storm	232.365	0.865	10,557
100 Year Storm	232.558	1.058	13,319



Stormwater Management Report for the Meadows Development
 3 Post Development Drainage Plan

Table 3 Retention Pond Responses: Retention Pond #2 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m³)
5 Year Storm	232.073	0.573	1,611
50 Year Storm	232.413	0.913	2,875
100 Year Storm	232.636	1.136	3,831

Table 4. Retention Pond Responses: Retention Pond #3 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m³)
5 Year Storm	232.011	0.511	4,968
50 Year Storm	232.266	0.766	7,742
100 Year Storm	232.456	0.956	9,938

Table 5. Retention Pond Responses: Retention Pond #4 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m³)
5 Year Storm	232.011	0.511	2,905
50 Year Storm	232.266	0.766	4,630
100 Year Storm	232.456	0.956	6,036

Table 6. Retention Pond Responses: Retention Pond #5 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m³)
5 Year Storm	232.002	0.502	2,307
50 Year Storm	232.246	0.746	3,660
100 Year Storm	232.428	0.928	4,767

Table 7. Retention Pond Responses: Retention Pond #6 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m³)
5 Year Storm	232.002	0.502	3,615
50 Year Storm	232.246	0.746	5,656
100 Year Storm	232.429	0.929	7,298

As shown in the above tables, the maximum rise for the Meadows Development Ponds is seen in pond #2 during the 100-year storm. The maximum calculated High-Water Level (HWL) is 232.636 m. This represents a rise of 1.136 m above NWL. The flood protection level for this development will be set at 233.236 m, which is 0.60m above the retention pond 100-year HWL.



3.1.2.2 Controlled Runoff

The max discharge for the design storms from the proposed development is summarized in Table 8. below and the detailed plots of the discharge curves are provided in Figure 4.

Table 8. Retention Pond Max Discharge

Storm	Max Discharge (m ³ /s)
5 Year Storm	0.242
50 Year Storm	0.355
100 Year Storm	0.411

3.1.2.3 Uncontrolled Runoff

The post-development area contributing to uncontrolled runoff is approximately 1.27 ha. At this stage of the analysis, this portion of the site is assumed to drain directly into the Wenzel Street and McGregor Farm Road ditch. The total uncontrolled surface runoff for post-development conditions under the 50-year storm event is summarized in Table 9.

Table 9. Pre-development Uncontrolled Runoff Calculations

Catchment	Area (ha)	Total Length (m)	Slope (%)	Sheet Flow			TOC (min)	Runoff		
				n	L (m)	Tt (min)		I (mm/hr)	C	Q (m ³ /s)
UNCONTROLLED	1.27	26	2.5	0.24	26	14.19	14.19	131.5	0.15	0.070

4 Conclusion

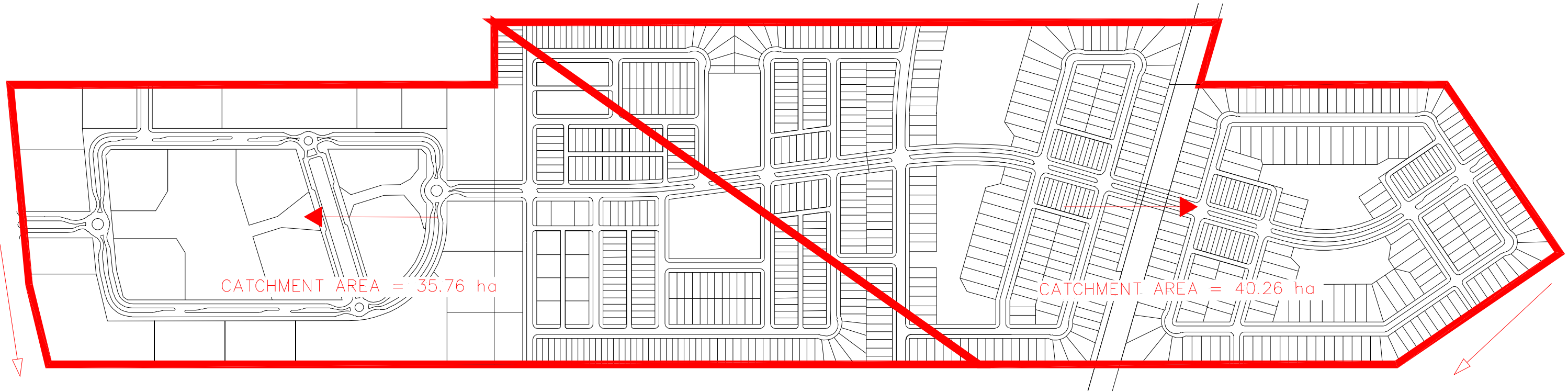
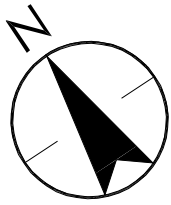
The calculated controlled 50 year post development peak flow rate to the existing ditch located directly adjacent to the west end of the site is 0.355 m³/s and the calculated uncontrolled 50 year post development peak flow rate to the existing ditch is 0.070 m³/s. The total post development peak flow is 0.425 m³/s which is 0.125 m³/s less than the calculated 5 year pre-development peak flow of 0.550 m³/s.

The retention pond system has capacity to store the runoff generated from the 100 year post development design storm with an expected HWL elevation of 232.636m. The flood protection level for this development will be set at 233.236m (HWL + 0.60m).

Based on our analysis we can conclude that the drainage from this proposed subdivision will not have a negative impact on the rural ditch system, since the post development runoff will be restricted to below the pre-development runoff rate.



FIGURES



U:\116810640\0300_drawing\0301_sketches\10440-catchments_2024-03-03.dwg Pre-development
2024/03/26 8:55 AM By: Kellus, Jordan

ORIGINAL SHEET - ISO 11x17 - v17.05

2024-03-26
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Legend

 PRE-DEVELOPMENT CATCHMENTS

Notes

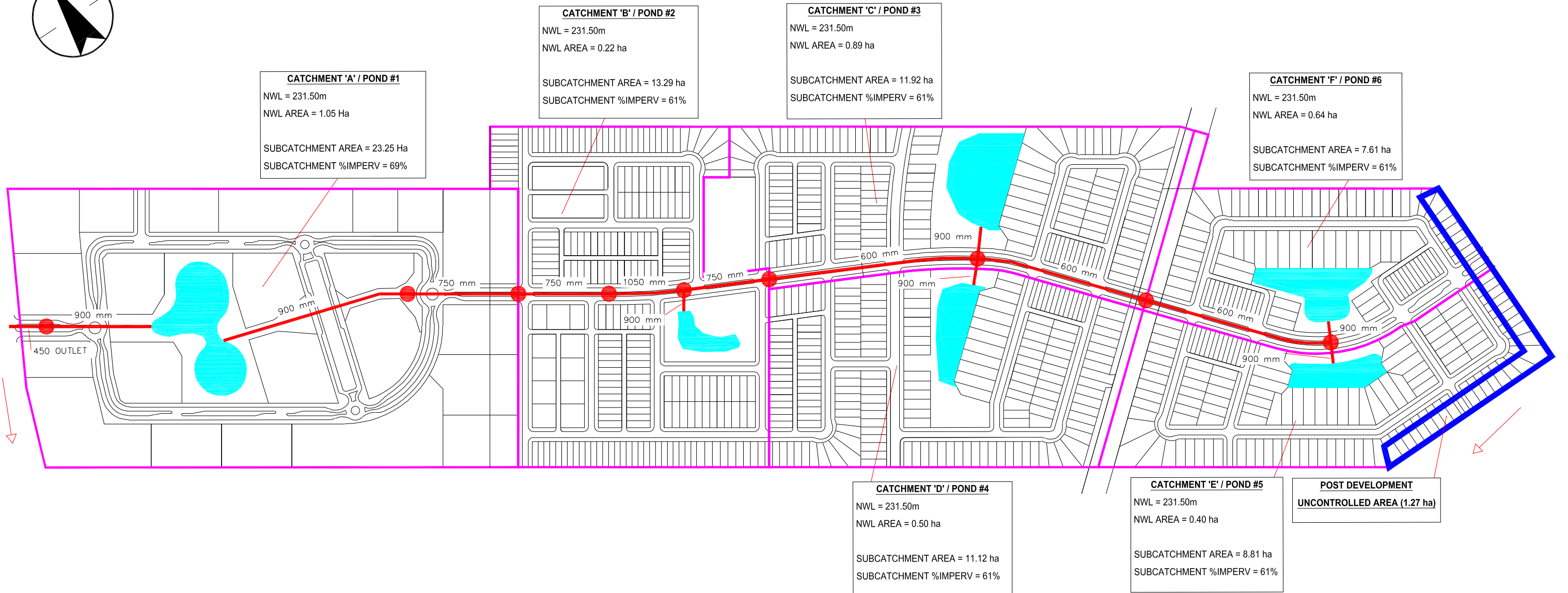
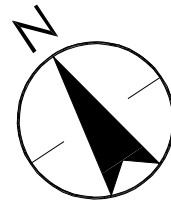
 EXISTING DITCH FLOW DIRECTION

 CATCHMENT FLOW DIRECTION

Client/Project
10089844 Manitoba Inc. and 10215032 Manitoba Ltd.
The Meadows Development

Figure No.
1.0

Title
Pre-development Flow Patterns



CATCHMENT 'A' / POND #1
 NWL = 231.50m
 NWL AREA = 1.05 Ha
 SUBCATCHMENT AREA = 23.25 Ha
 SUBCATCHMENT %IMPERV = 69%

CATCHMENT 'B' / POND #2
 NWL = 231.50m
 NWL AREA = 0.22 ha
 SUBCATCHMENT AREA = 13.29 ha
 SUBCATCHMENT %IMPERV = 61%

CATCHMENT 'C' / POND #3
 NWL = 231.50m
 NWL AREA = 0.89 ha
 SUBCATCHMENT AREA = 11.92 ha
 SUBCATCHMENT %IMPERV = 61%

CATCHMENT 'F' / POND #6
 NWL = 231.50m
 NWL AREA = 0.64 ha
 SUBCATCHMENT AREA = 7.61 ha
 SUBCATCHMENT %IMPERV = 61%

CATCHMENT 'D' / POND #4
 NWL = 231.50m
 NWL AREA = 0.50 ha
 SUBCATCHMENT AREA = 11.12 ha
 SUBCATCHMENT %IMPERV = 61%

CATCHMENT 'E' / POND #5
 NWL = 231.50m
 NWL AREA = 0.40 ha
 SUBCATCHMENT AREA = 8.81 ha
 SUBCATCHMENT %IMPERV = 61%

POST DEVELOPMENT UNCONTROLLED AREA (1.27 ha)

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ORIGINAL SHEET - ISO 11x17 - v17.05

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Legend

- RETENTION POND CATCHMENTS
- UNCONTROLLED AREA

Notes

- ← EXISTING DITCH FLOW DIRECTION
- PROPOSED INTERCONNECTING PIPE

Client/Project
 10089844 Manitoba Inc. and 10215032 Manitoba Ltd.
 The Meadows Development

Figure No.
 2.0

Title
 Post-development Catchments,
 Outlet Pipe and Interconnecting Pipes

Figure 3.1 - Retention Pond Rises During 5-Year Storm

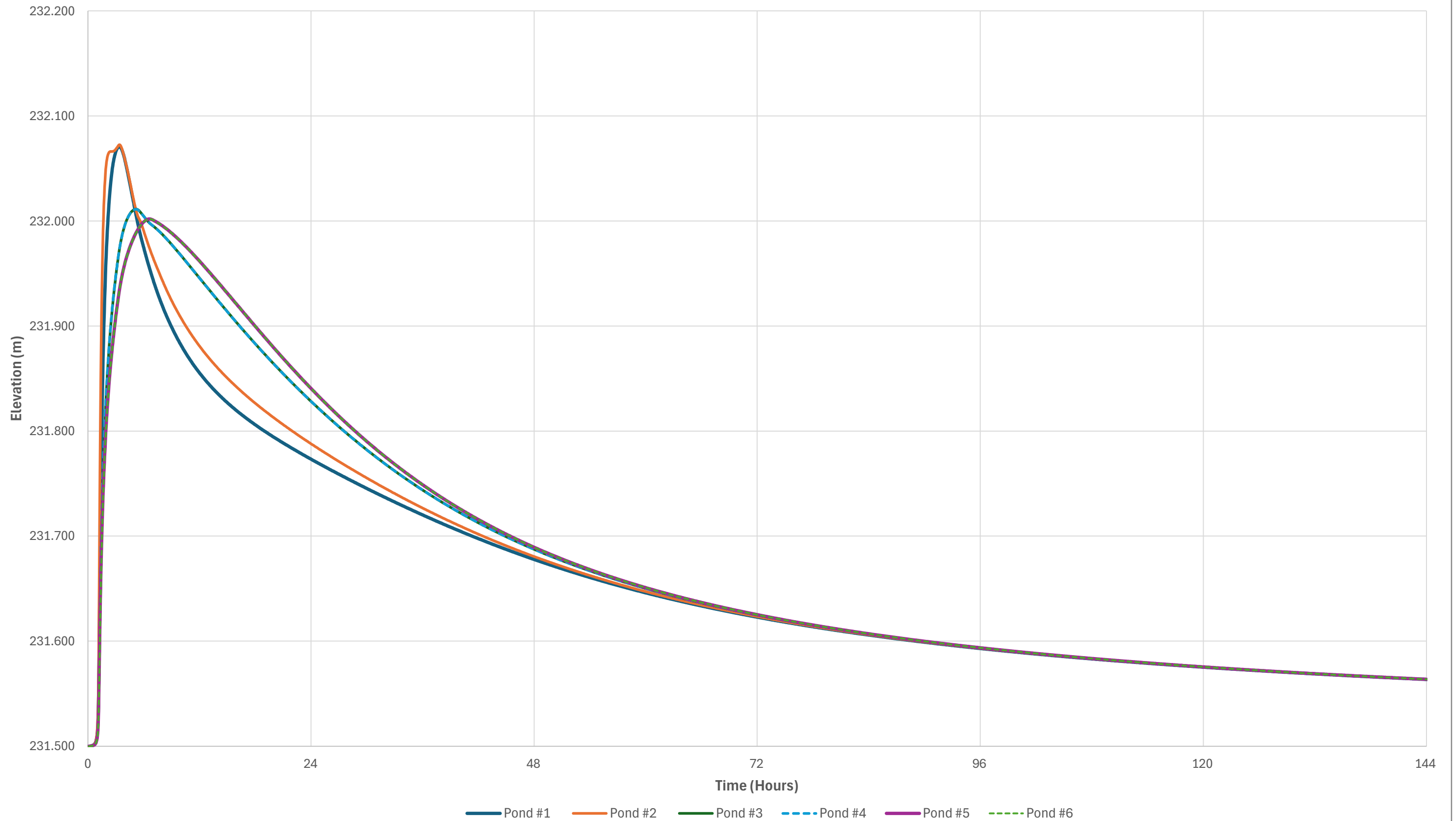


Figure 3.2 - Retention Pond Rises During 50-Year Storm

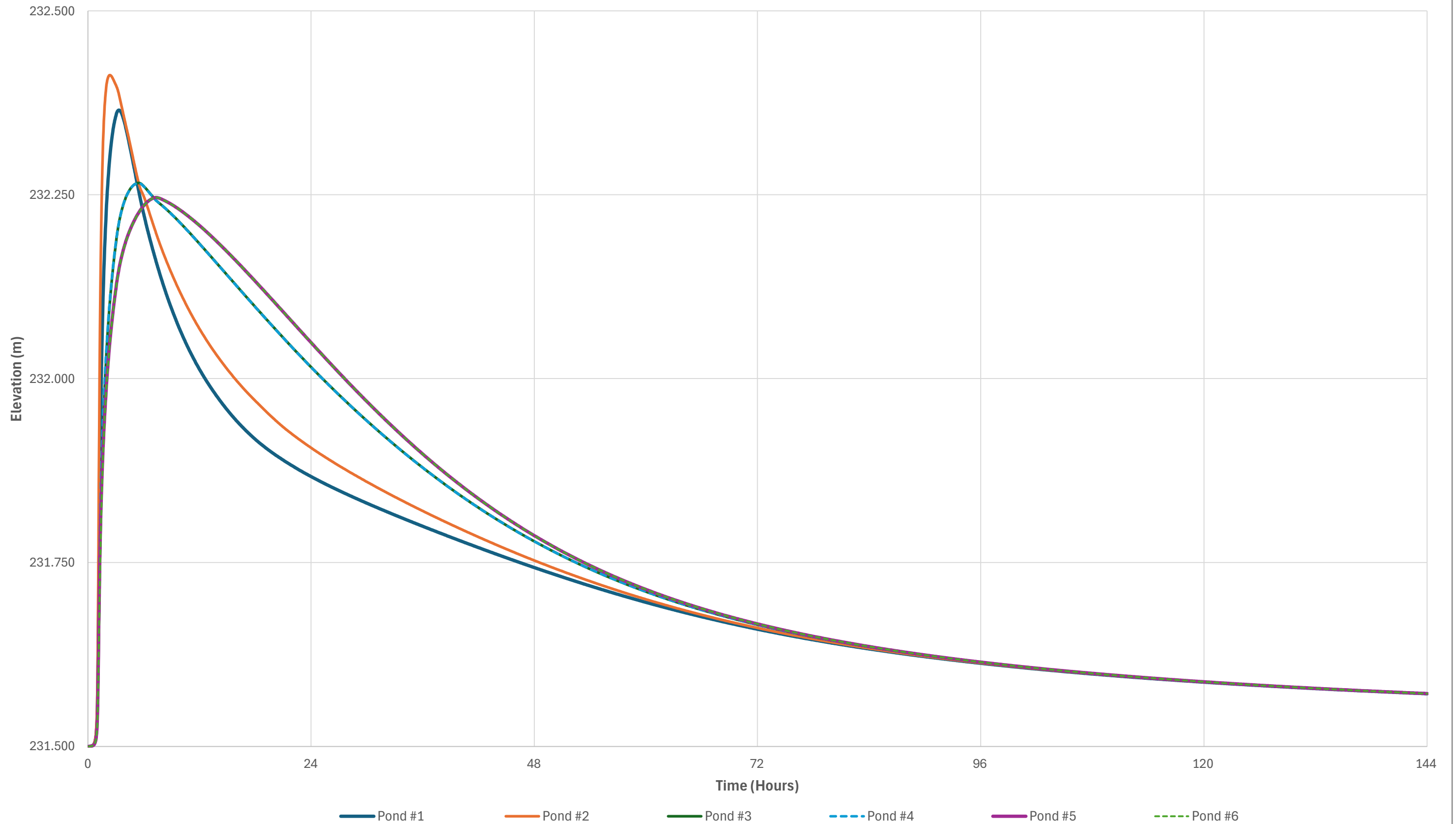
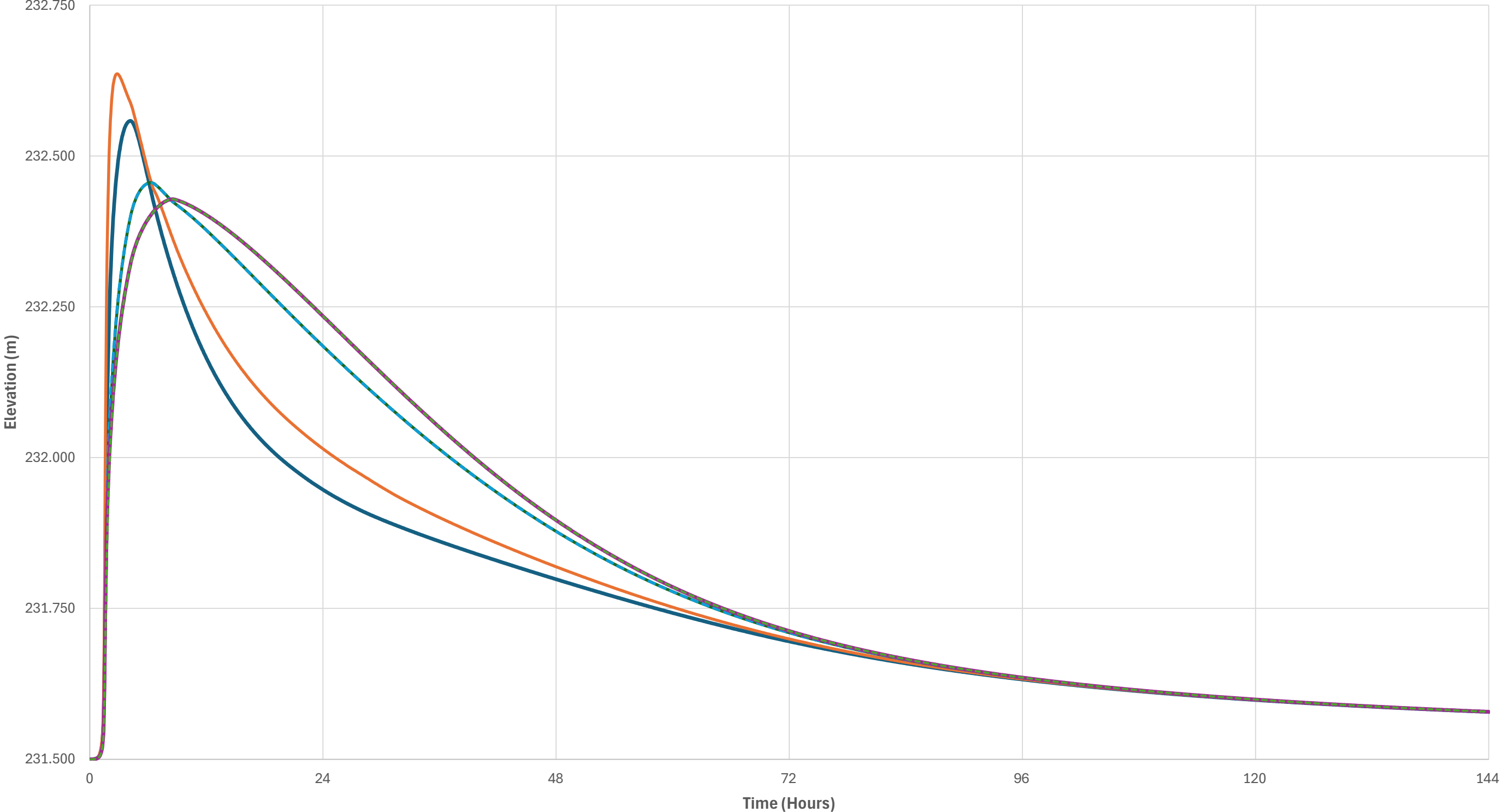
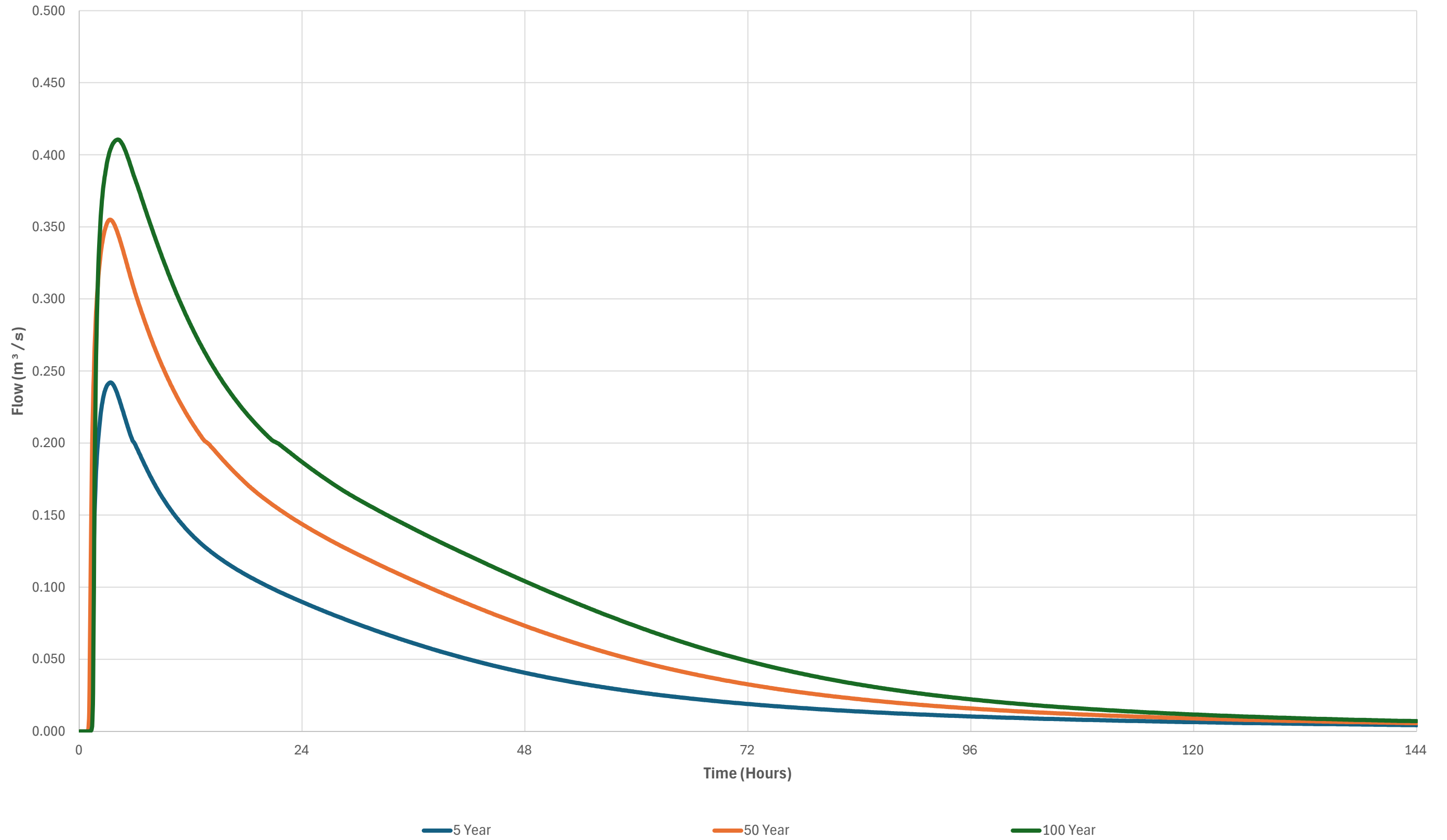


Figure 3.3 - Retention Pond Rises During 100-Year Storm



Pond #1 Pond #2 Pond #3 Pond #4 Pond #5 Pond #6

Figure 4 - Discharge Rate at Outlet



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Stantec Consulting Ltd.
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Stormwater Management Report for The Meadows Development

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Date:

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Kyu Hyun Jeong

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Dan Mages

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Approved by:

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Figure 4. Retention Pond Max Discharge



Acronyms / Abbreviations

Acronym / Abbreviation	Full Name
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Hr	Hour
m	Meters
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This report addresses the design and modelling of the proposed subdivision's retention pond drainage system.

2 Predevelopment Flow

The Meadows development area is split into two catchment areas (East and West). The east catchment is approximately 40.26 ha and it currently drains east to an existing ditch located on the west side of Wenzel Street and McGregor Farm Road. The west catchment is approximately 35.76 ha and it currently drains west to an existing ditch located on the east side of McGregor Farm Road. The catchment is shown on Figure 1.

Predevelopment runoff rates were determined by rational method, using Kinematic Wave Equation for sheet flow, and Equation (3-4) for the FHWA HEC 22 Urban Drainage Design Manual for shallow concentrated flow. A runoff coefficient of $C=0.22$ was used for the landscaped area (former golf course). Rainfall intensity was based on 2011 Environment Canada IDF data for Winnipeg corresponding to an event with 20% probability of exceedance (5 year storm). The results of the pre-development flow calculations are shown in the table below.

Table 1. Pre-development Flow Calculations

Catchment	Area (ha)	Total Length (m)	Slope (%)	Sheet Flow			Shallow Concentrated Flow				TOC (min)	Runoff		
				n	L (m)	Tt (min)	K	L (m)	V (m/s)	Tt (min)		I (mm/hr)	C	Q (m ³ /s)
WEST	35.76	893	0.13	0.15	30	35.22	0.213	863	0.078	184.47	219.7	13.4	0.22	0.293
EAST	40.26	956	0.08	0.15	30	43.29	0.213	926	0.060	256.17	299.47	10.4	0.22	0.257
TOTAL														0.550

Based on the table above, the permitted peak flow to the existing McGregor Farm Road ditch is 0.550 m³/s.



3 Post Development Drainage Plan

The proposed Meadows development will contain six (6) naturalized retention ponds with a combined normal water level area of 3.700 ha, as illustrated in Figure 2.0. These retention ponds will store and attenuate runoff from the proposed Meadows Development and ultimately discharge to the McGregor Farm Road ditch on the west side of development. The total catchment area for the Meadows Development retention pond system is 76.02 ha.

The proposed retention ponds will drain through series of interconnecting pipes to a 450 mm control outlet culvert located approximately 30m east of the existing McGregor Farm Road ditch. The invert of this control outlet culvert will maintain the normal water level elevation of 231.50m and control the discharge from the pond system to the existing ditch west of the Development.

The post development drainage plan is shown Figure 2.0.

3.1 Analysis

Manitoba Environment & Climate Change design criteria require that retention ponds with outlet pipes limit the 25-year post-development peak flow to the 5-year pre-development peak, while also providing storage for the 100-year post-development event. The Province of Manitoba Drainage Policy further requires that outlet pipes that affect drains through provincial trunk highways are to be designed to restrict the 50-year post-development peak flow to the 5-year pre-development peak. These two criteria together form the basis for the stormwater management design for this subdivision.

A Stormwater Management (SWM) model for this subdivision was developed. The controlled discharge system (retention pond, discharge pipes, retention pond inlet pipes, surface storage) was modelled using SWMM 5.1.

The post development catchment boundaries, retention pond inlet pipes, and outlet pipe is shown in Figure 2.0.

3.1.1 Design Criteria and Assumptions

Design rainfall events for retention pond modelling.

- 5 year Storm (MacLaren 1974)
- 25 year Storm (MacLaren 1974)
- 50 year Storm (M.I.T.)
- 100 year Storm (Acres 1978)

Sub catchments were modelled using the following assumption.

- Catchment 'A' = 69% Impervious



- Catchment 'B', 'C', 'D', 'E' and 'F' = 61% Impervious
- Manning's roughness coefficient for runoff
 - Impervious $n=0.015$
 - Pervious $n=0.25$
- Depression Storage
 - Impervious = 3 mm
 - Pervious = 6 mm
- Horton Infiltration Parameters (for pervious surfaces)
 - $F_o = 75$ mm/hr
 - $F_c = 3$ mm/hr
 - $K = 4.14$ hr⁻¹
- Roughness Coefficients
 - LDS Pipes (PVC & Concrete) $n = 0.013$
 - Culverts (CSP) $n = 0.024$

3.1.2 Results

3.1.2.1 Retention Pond Responses

The results of the SWM modelling for the retention pond responses to the design storms are presented in Table 2. – 7. below and the detailed plots of the retention pond levels are shown in Figure 3.

Table 2. Retention Pond Responses: Retention Pond #1 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m ³)
5 Year Storm	232.071	0.571	6,630
50 Year Storm	232.365	0.865	10,557
100 Year Storm	232.558	1.058	13,319



Stormwater Management Report for the Meadows Development
 3 Post Development Drainage Plan

Table 3 Retention Pond Responses: Retention Pond #2 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m³)
5 Year Storm	232.073	0.573	1,611
50 Year Storm	232.413	0.913	2,875
100 Year Storm	232.636	1.136	3,831

Table 4. Retention Pond Responses: Retention Pond #3 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m³)
5 Year Storm	232.011	0.511	4,968
50 Year Storm	232.266	0.766	7,742
100 Year Storm	232.456	0.956	9,938

Table 5. Retention Pond Responses: Retention Pond #4 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m³)
5 Year Storm	232.011	0.511	2,905
50 Year Storm	232.266	0.766	4,630
100 Year Storm	232.456	0.956	6,036

Table 6. Retention Pond Responses: Retention Pond #5 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m³)
5 Year Storm	232.002	0.502	2,307
50 Year Storm	232.246	0.746	3,660
100 Year Storm	232.428	0.928	4,767

Table 7. Retention Pond Responses: Retention Pond #6 (NWL =231.500m)

Storm	High Water Level (m)	Rise Above NWL (m)	Volume Stored (m³)
5 Year Storm	232.002	0.502	3,615
50 Year Storm	232.246	0.746	5,656
100 Year Storm	232.429	0.929	7,298

As shown in the above tables, the maximum rise for the Meadows Development Ponds is seen in pond #2 during the 100-year storm. The maximum calculated High-Water Level (HWL) is 232.636 m. This represents a rise of 1.136 m above NWL. The flood protection level for this development will be set at 233.236 m, which is 0.60m above the retention pond 100-year HWL.



3.1.2.2 Controlled Runoff

The max discharge for the design storms from the proposed development is summarized in Table 8. below and the detailed plots of the discharge curves are provided in Figure 4.

Table 8. Retention Pond Max Discharge

Storm	Max Discharge (m ³ /s)
5 Year Storm	0.242
50 Year Storm	0.355
100 Year Storm	0.411

3.1.2.3 Uncontrolled Runoff

The post-development area contributing to uncontrolled runoff is approximately 1.27 ha. At this stage of the analysis, this portion of the site is assumed to drain directly into the Wenzel Street and McGregor Farm Road ditch. The total uncontrolled surface runoff for post-development conditions under the 50-year storm event is summarized in Table 9.

Table 9. Pre-development Uncontrolled Runoff Calculations

Catchment	Area (ha)	Total Length (m)	Slope (%)	Sheet Flow			TOC (min)	Runoff		
				n	L (m)	Tt (min)		I (mm/hr)	C	Q (m ³ /s)
UNCONTROLLED	1.27	26	2.5	0.24	26	14.19	14.19	131.5	0.15	0.070

4 Conclusion

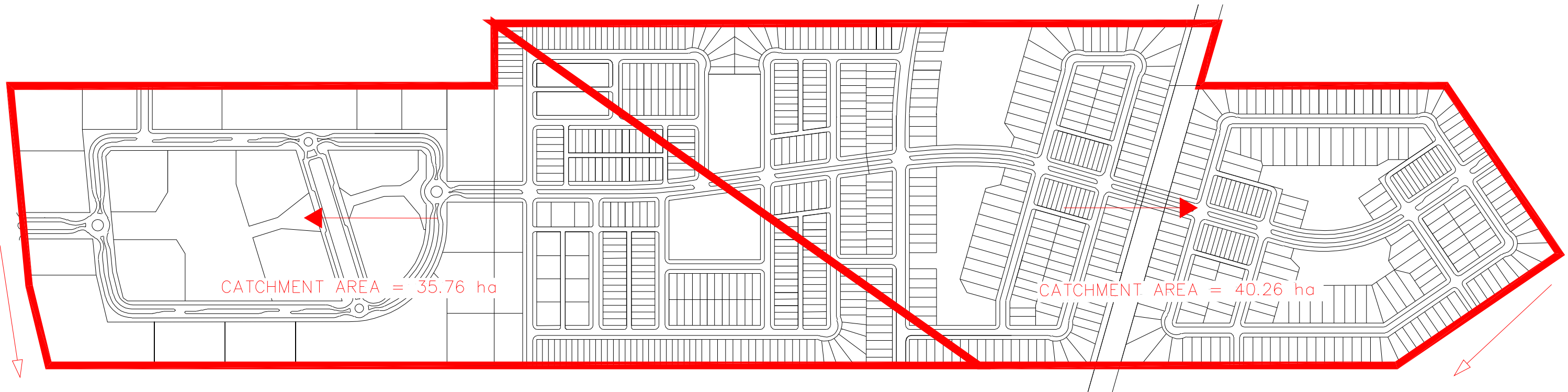
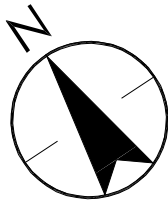
The calculated controlled 50 year post development peak flow rate to the existing ditch located directly adjacent to the west end of the site is 0.355 m³/s and the calculated uncontrolled 50 year post development peak flow rate to the existing ditch is 0.070 m³/s. The total post development peak flow is 0.425 m³/s which is 0.125 m³/s less than the calculated 5 year pre-development peak flow of 0.550 m³/s.

The retention pond system has capacity to store the runoff generated from the 100 year post development design storm with an expected HWL elevation of 232.636m. The flood protection level for this development will be set at 233.236m (HWL + 0.60m).

Based on our analysis we can conclude that the drainage from this proposed subdivision will not have a negative impact on the rural ditch system, since the post development runoff will be restricted to below the pre-development runoff rate.



FIGURES



U:\116810640\0300_drawing\0301_sketches\10440-catchments_2024-03-03.dwg Pre-development
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ORIGINAL SHEET - ISO 11x17 - v17.05

2024-03-26
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Legend

 PRE-DEVELOPMENT CATCHMENTS

Notes

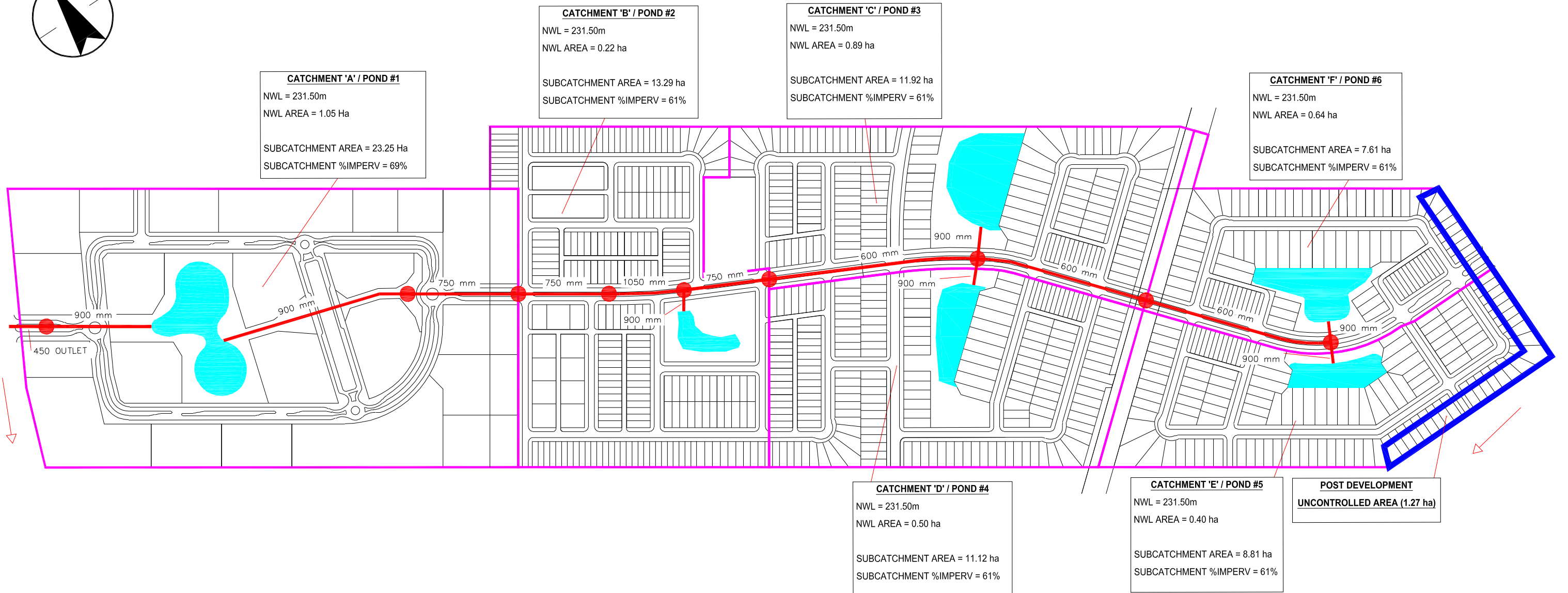
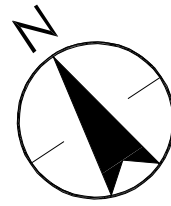
 EXISTING DITCH FLOW DIRECTION

 CATCHMENT FLOW DIRECTION

Client/Project
10089844 Manitoba Inc. and 10215032 Manitoba Ltd.
The Meadows Development

Figure No.
1.0

Title
Pre-development Flow Patterns



CATCHMENT 'A' / POND #1
 NWL = 231.50m
 NWL AREA = 1.05 Ha
 SUBCATCHMENT AREA = 23.25 Ha
 SUBCATCHMENT %IMPERV = 69%

CATCHMENT 'B' / POND #2
 NWL = 231.50m
 NWL AREA = 0.22 ha
 SUBCATCHMENT AREA = 13.29 ha
 SUBCATCHMENT %IMPERV = 61%

CATCHMENT 'C' / POND #3
 NWL = 231.50m
 NWL AREA = 0.89 ha
 SUBCATCHMENT AREA = 11.92 ha
 SUBCATCHMENT %IMPERV = 61%

CATCHMENT 'F' / POND #6
 NWL = 231.50m
 NWL AREA = 0.64 ha
 SUBCATCHMENT AREA = 7.61 ha
 SUBCATCHMENT %IMPERV = 61%

CATCHMENT 'D' / POND #4
 NWL = 231.50m
 NWL AREA = 0.50 ha
 SUBCATCHMENT AREA = 11.12 ha
 SUBCATCHMENT %IMPERV = 61%

CATCHMENT 'E' / POND #5
 NWL = 231.50m
 NWL AREA = 0.40 ha
 SUBCATCHMENT AREA = 8.81 ha
 SUBCATCHMENT %IMPERV = 61%

POST DEVELOPMENT UNCONTROLLED AREA (1.27 ha)

U:\116810140\0300_drawing\0301_sketches\10440-catchments_2024-03-03.dwg Post-development 2024/03/26 8:59 AM By: Kellus, Jordan

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2024-03-26
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Legend

- RETENTION POND CATCHMENTS
- UNCONTROLLED AREA

Notes

- ← EXISTING DITCH FLOW DIRECTION
- PROPOSED INTERCONNECTING PIPE

Client/Project
 10089844 Manitoba Inc. and 10215032 Manitoba Ltd.
 The Meadows Development

Figure No.
 2.0

Title
 Post-development Catchments,
 Outlet Pipe and Inteconnecting Pipes

Figure 3.1 - Retention Pond Rises During 5-Year Storm

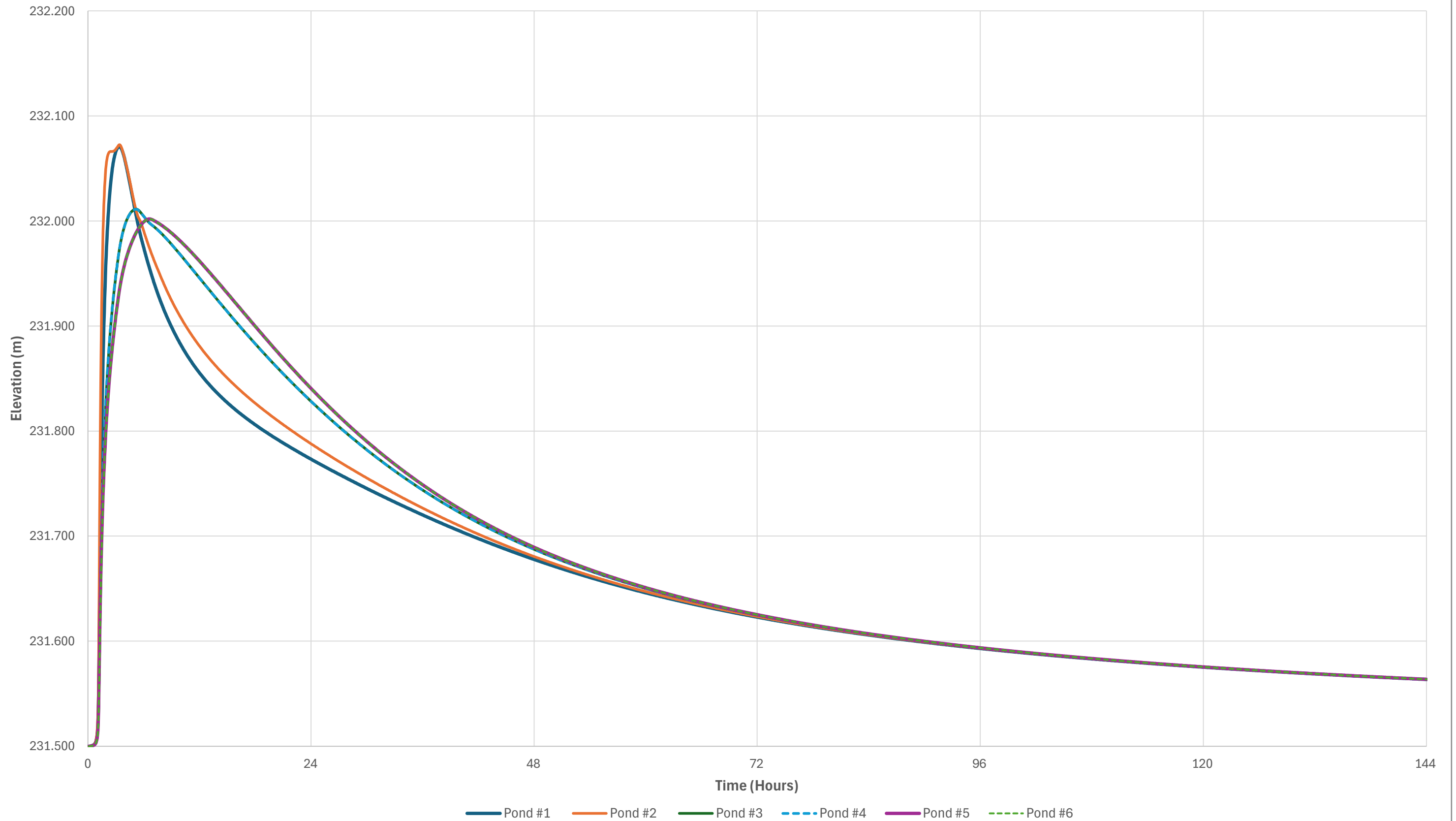


Figure 3.2 - Retention Pond Rises During 50-Year Storm

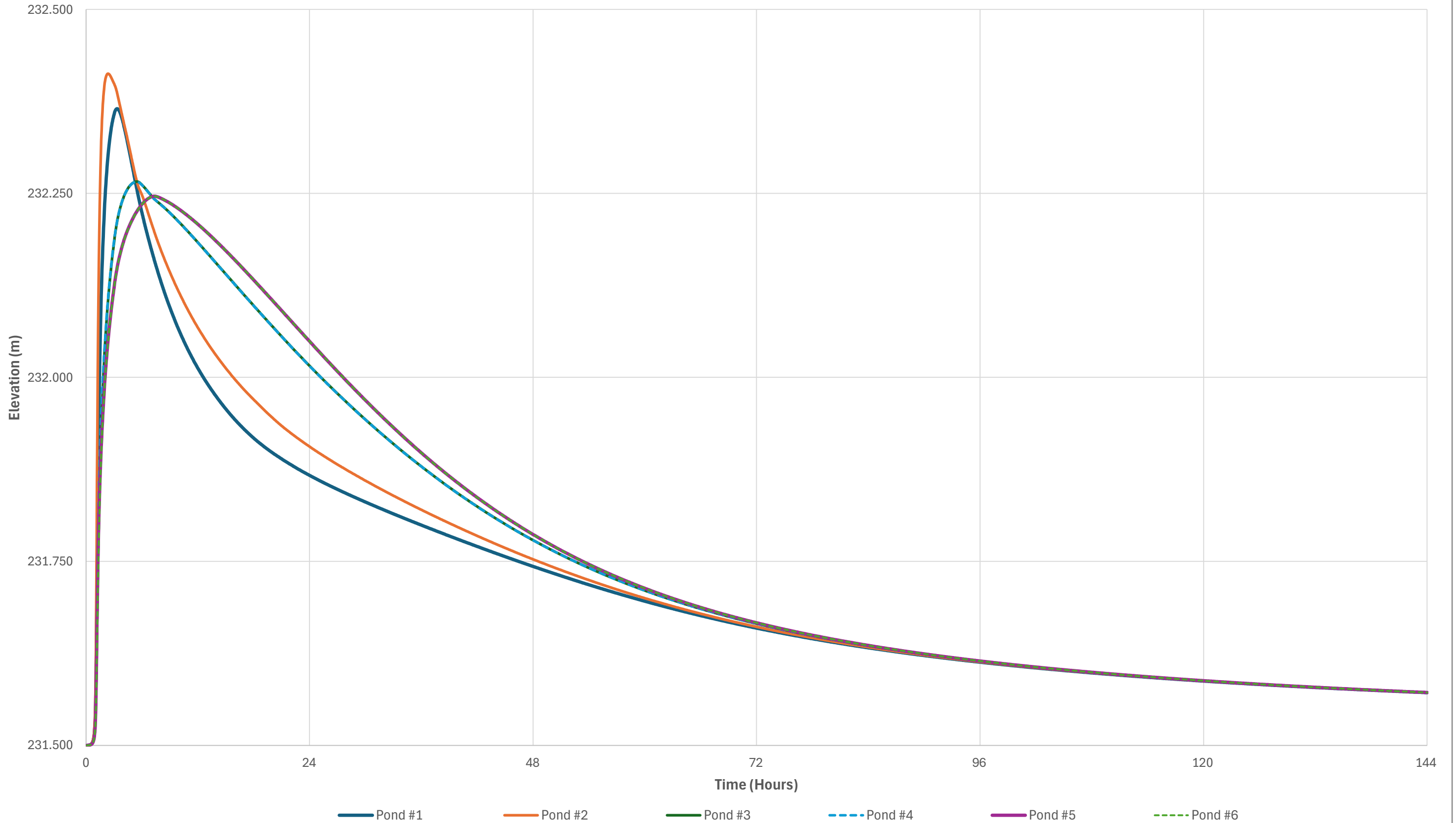
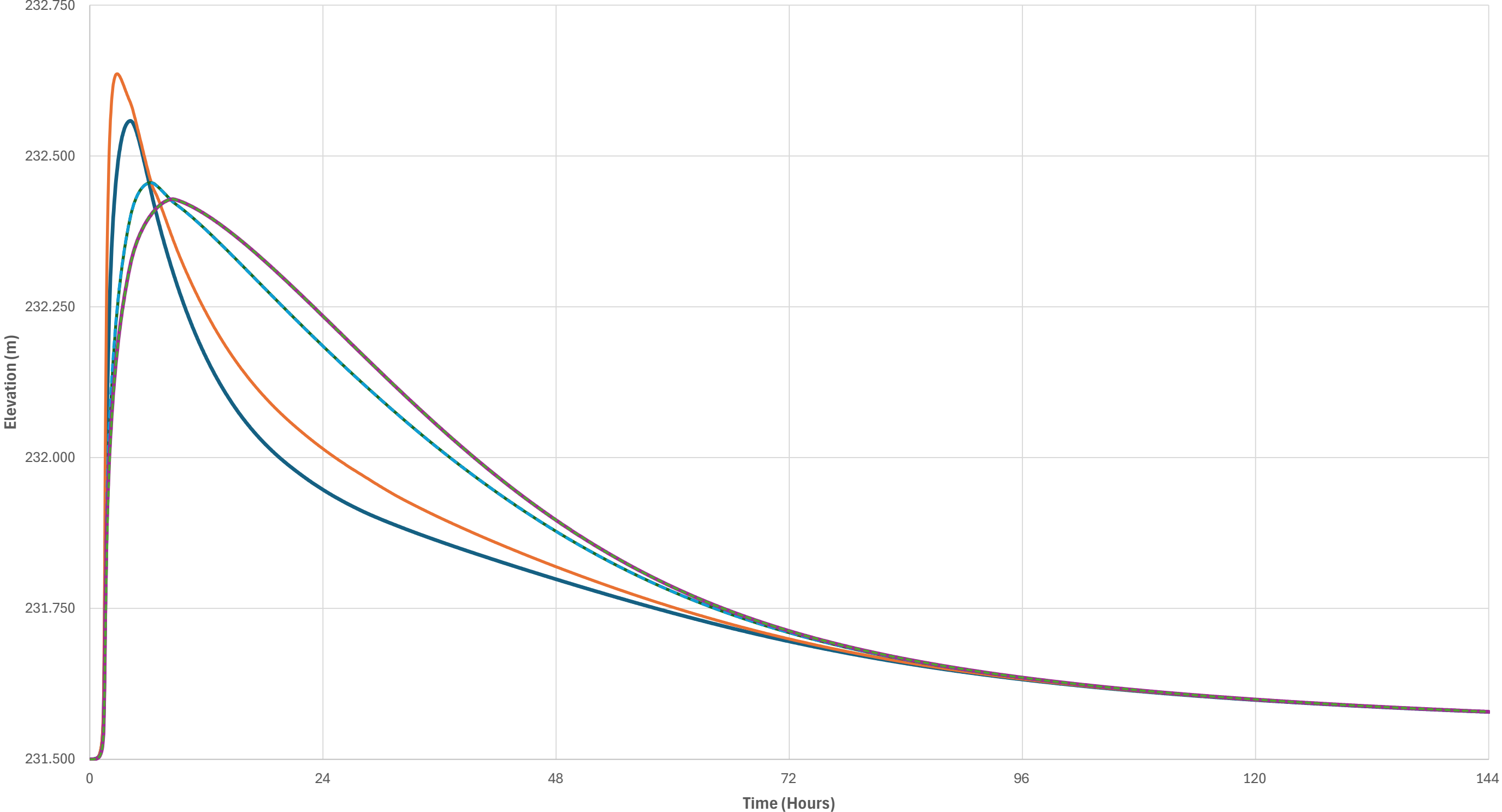
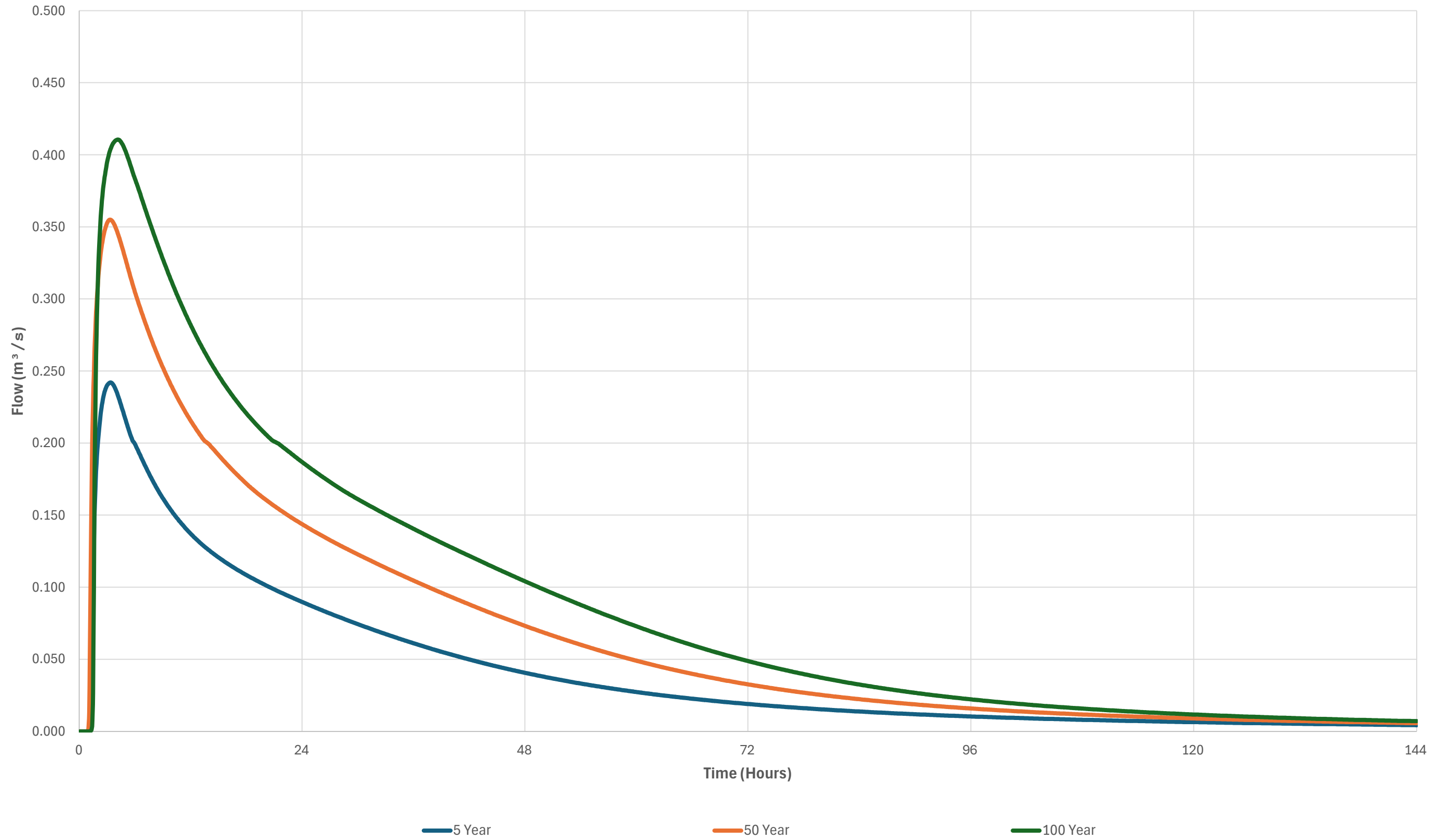


Figure 3.3 - Retention Pond Rises During 100-Year Storm



— Pond #1 — Pond #2 — Pond #3 - - - Pond #4 — Pond #5 - - - Pond #6

Figure 4 - Discharge Rate at Outlet





Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.





East St. Paul

Housing and Demographic Snapshot

Prepared by: MRA Planning and Development

MARCH 2026

MRA planning +
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REPORT OBJECTIVE

This report provides a housing and demographic snapshot of East St Paul looking at the following:

- Population
- Demographics
- Household Characteristics
- Income
- Home Ownership vs. Rent
- Housing Market by Sales and Price
- Housing Starts
- Housing Typology
- Absorption Rates
- Property Tax Revenue

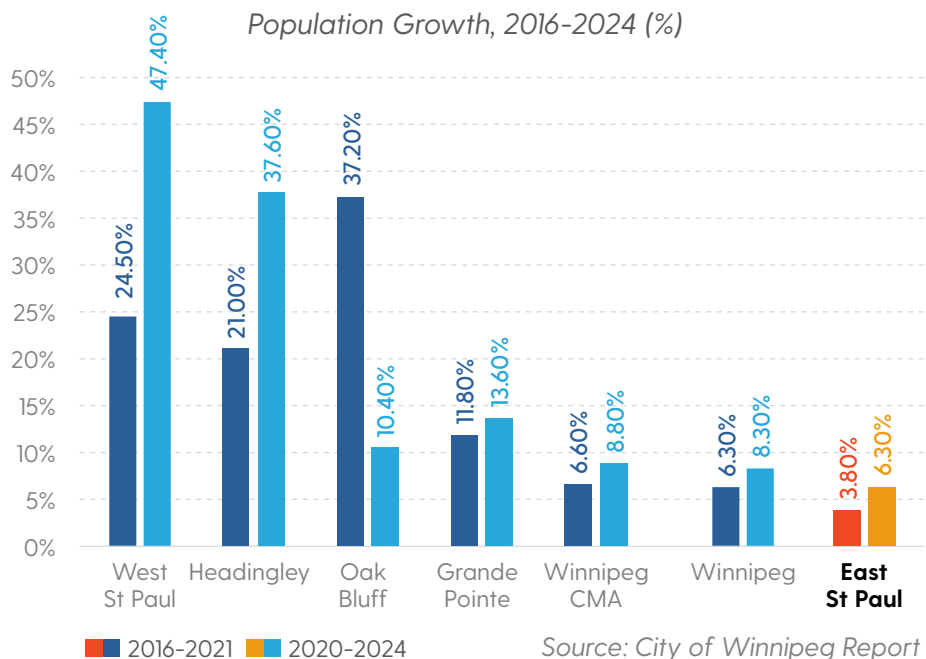


East Saint Paul, Swistun Family Heritage Park ▲

1.0 DEMOGRAPHICS

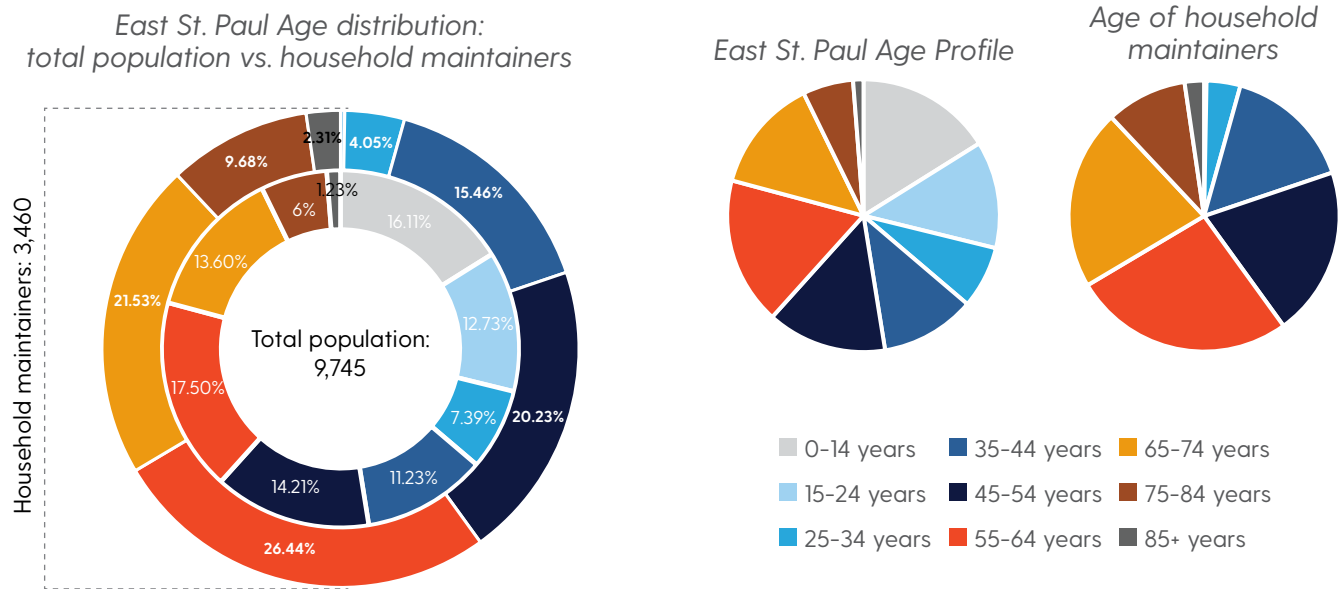
Population Growth

East St. Paul has a total population of approximately 9,745 residents and experienced 6.3% population growth between 2020 and 2024, the slowest pace amongst the Winnipeg CMA. By contrast, West St. Paul experienced significant growth (+47.4%), while Oak Bluff (+10.4%) and Headingley (+37.6%) also posted strong increases.



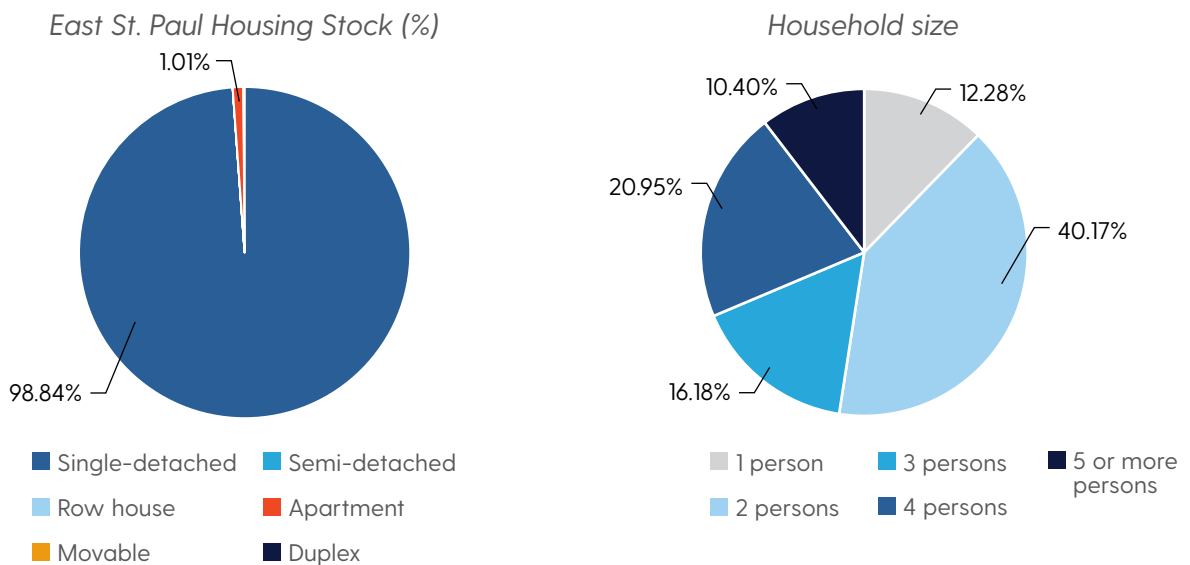
Age Profile

Adults age 25 to 34 make up the smallest share of the population, while the 55 to 64 age group has the strongest presence in East St. Paul. Given the large share of residents between the age of 55 and 74 creates an obvious need for different housing types to accommodate aging in place.



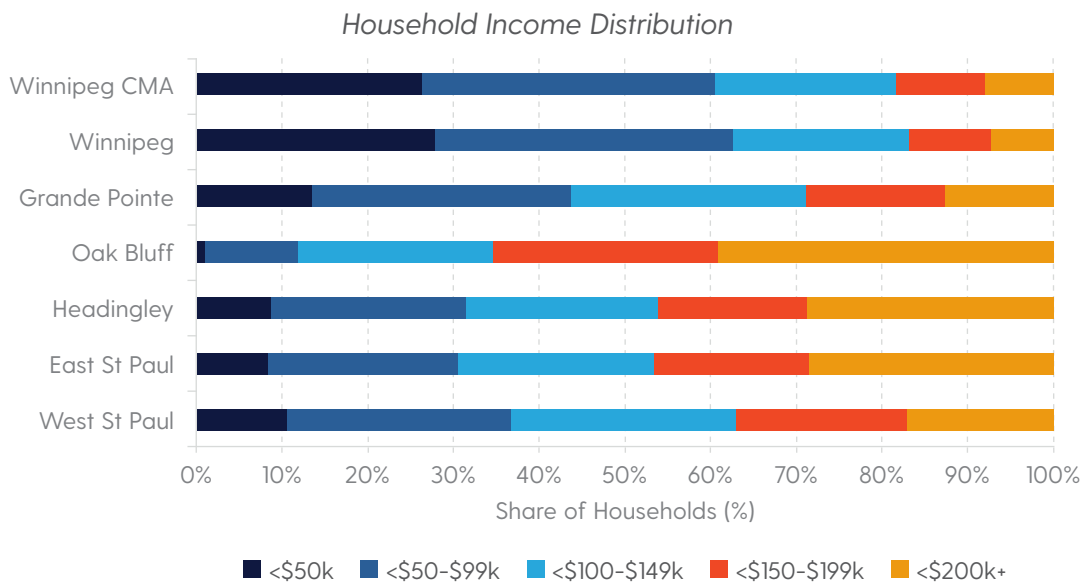
Housing Stock and Household Characteristics

East St. Paul's housing stock is almost entirely single-detached homes. Given the age profile and household demographics, there is a need for different types of housing beyond single-detached units.

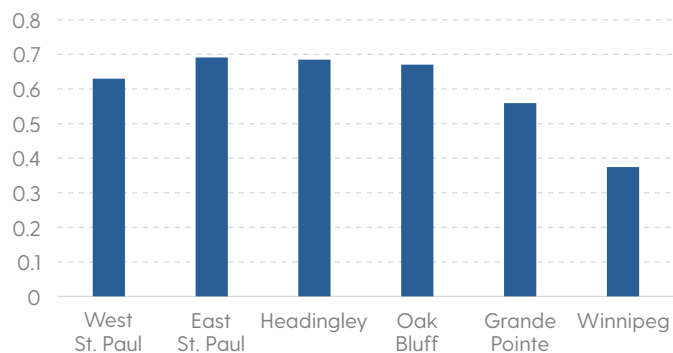


Income Profile

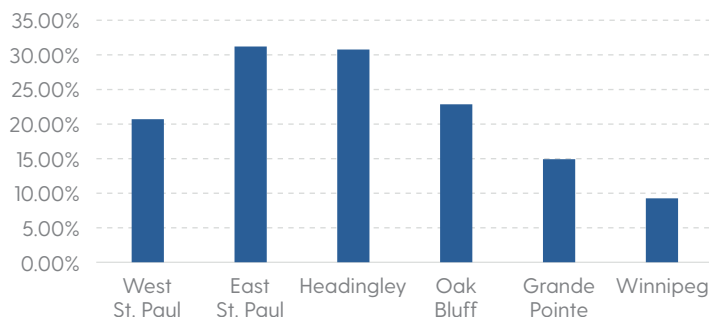
East St. Paul shows a household income profile that aligns with other higher-income rural municipalities, with a strong concentration of households earning above \$100,000 and a notable share in the \$150,000-plus range.



Household total income in 2020 with income ≥\$100k



Household after-tax income in 2020 with income ≥\$150k





East Saint Paul, Bricker Avenue ▲

2.0 HOUSING MARKET

Home Ownership and Rentals

East St. Paul contains a total of 3,465 occupied dwellings. Homeownership is overwhelmingly dominant, with 3,355 units (96.8%) being owner-occupied and only 115 units (3.3%) rented. The housing stock consists primarily of single-detached homes.

Tenure refers to whether the household owns or rents their private dwelling. The private dwelling may be situated on rented or leased land or be part of a condominium. A household is considered to own their dwelling if some member of the household owns the dwelling even if it is not fully paid for, for example if there is a mortgage or some other claim on it. A household is considered to rent their dwelling if no member of the household owns the dwelling. A household is considered to rent that dwelling even if the dwelling is provided without cash rent or at a reduced rent, or if the dwelling is part of a cooperative.

Sales and Price

Sales data reflect the distinct price tiers across the region, with East St. Paul positioned among the highest-value markets and showing a median resale price that approaches \$800,000.

Sales Price Data by Area (2025): Average and Median



East St. Paul Home Sales Data 2023 to Oct 2025

Average sale prices for residential detached homes held steady between 2023 and 2024 and then increased to about \$848,000 in 2025, reflecting a marked escalation in the upper end of the market. Condominium activity remained limited across all three years, with small but rising numbers of detached and attached units indicating only modest movement in this segment.

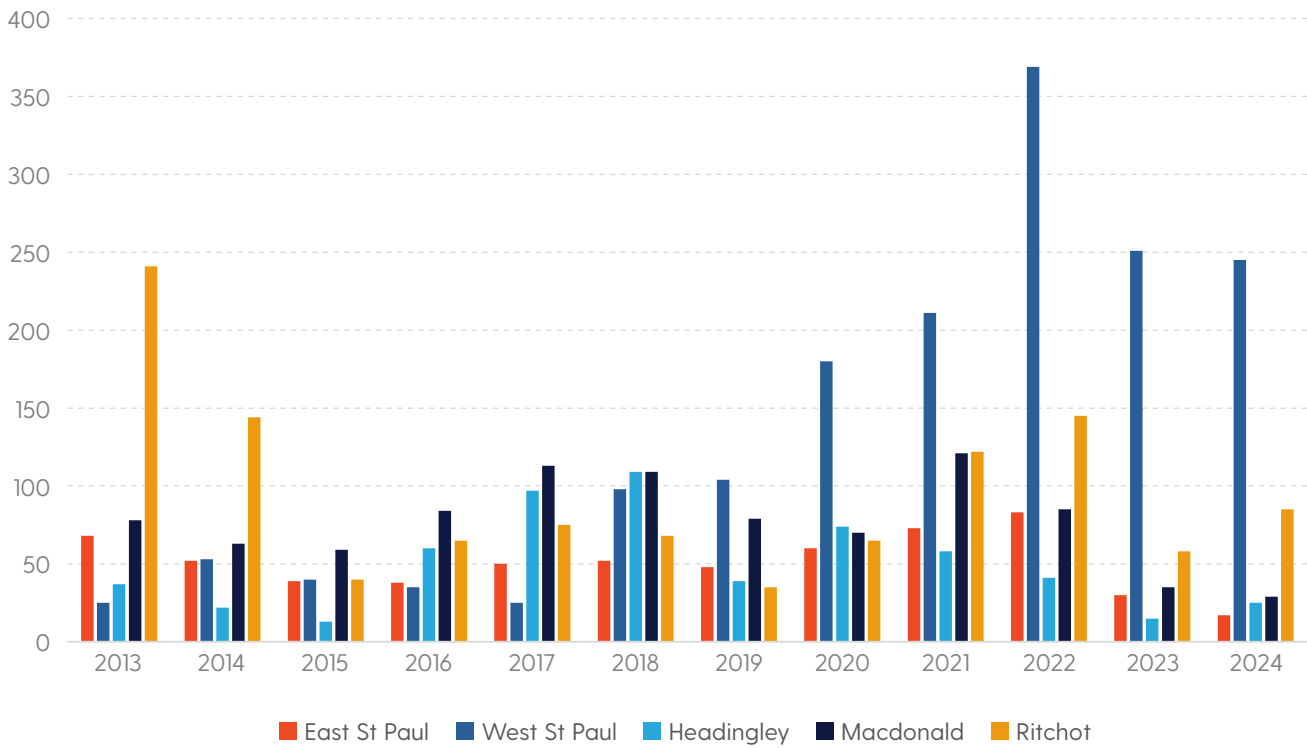
Category	2023		2024		2025	
	Sales	Avg. Sale Price	Sales	Avg. Sale Price	Sales	Avg. Sale Price
Residential Detached	68	\$699,641	76	\$703,173	94	\$847,993
Residential Attached	0	-	0	-	1	\$660,000
Condominium Detached	8	\$468,514	10	\$565,878	10	\$546,201
Condominium Attached	n/a	n/a	2	\$540,500	1	\$626,500

Source: Winnipeg Real Estate Board

Housing Starts

East St. Paul continues to record fewer annual housing starts than nearby municipalities, with Macdonald, Ritchot, and West St. Paul showing stronger and more sustained construction activity over the past decade.

Historical Housing Starts



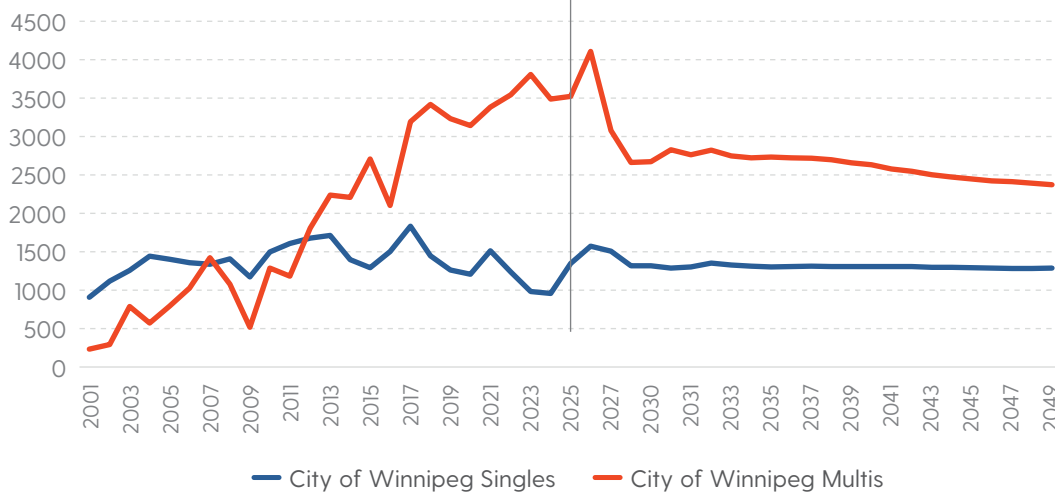
Source: CMHC Housing Market Data, Annual Housing Starts

Housing Types

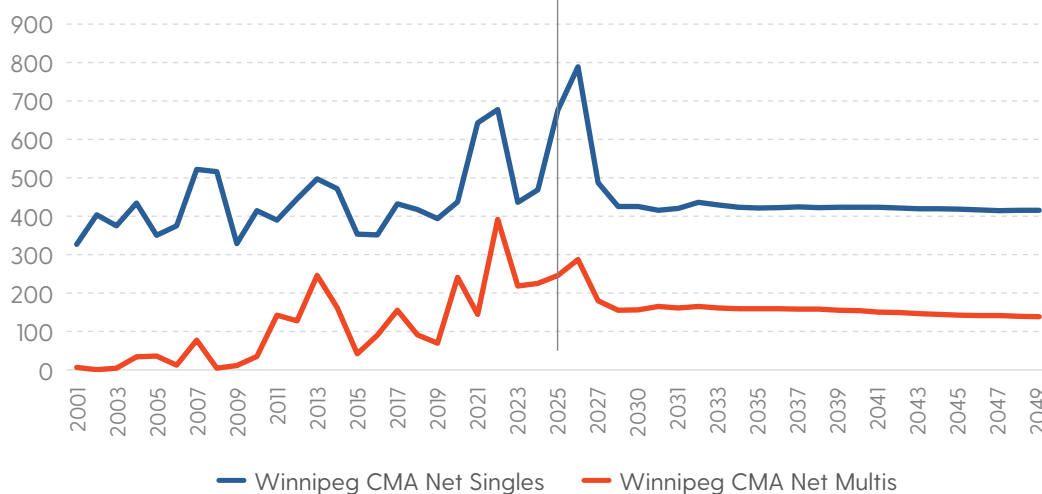
The pattern of new housing supply shows a clear split between Winnipeg and the surrounding CMA municipalities. In Winnipeg, projections indicate that multi-unit construction will remain the dominant form of new supply through the late 2020s, with output of more than 3,000 units, doubling that of single-detached homes, with only approximately 1,300 units by 2029.

In contrast, the CMA continues to rely heavily on detached housing, despite demographic trends indicating a need for more diverse housing options.

Historical and Projected Housing Starts, City of Winnipeg



Historical and Projected Housing Starts, Winnipeg CMA (excluding Winnipeg)



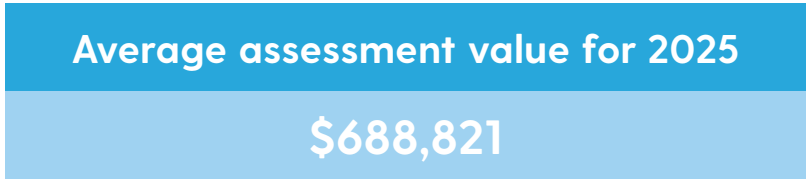
Current Housing Developments

East St. Paul has limited new subdivision activity. Gateway Point (Irwin Homes) has recently delivered about 70 single-family lots and 16 townhomes, most of which are already absorbed. “By The Park” is built out, while Countryside Crossing is at maturity with only potential for a future multi-family enclave.

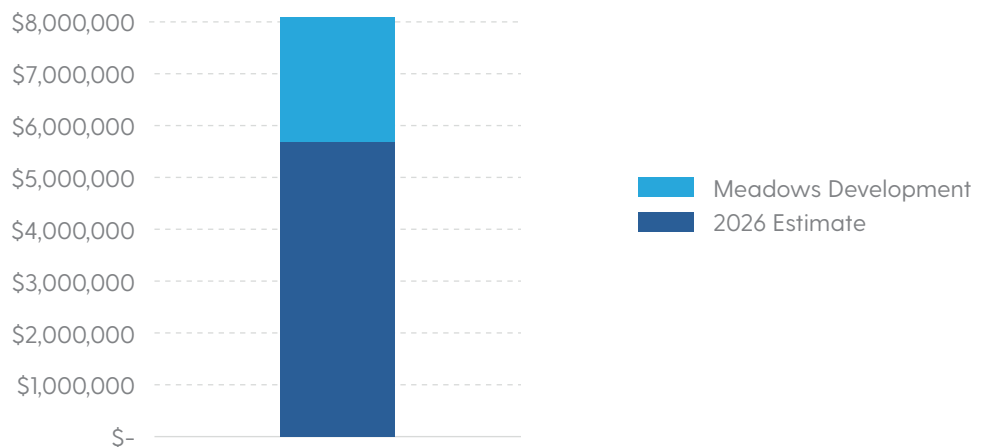
Property Tax Revenue

The total property tax revenue for residential properties in East St. Paul is estimated to be about **\$5.69 million** based on current assessment values.

The Meadows Development is estimated to add 1,965 new housing units upon full build-out. The net increase in property tax revenue for East St. Paul as a result of the Meadows Development is estimated to be in the range of **\$2.09 million**, an increase of 36%.

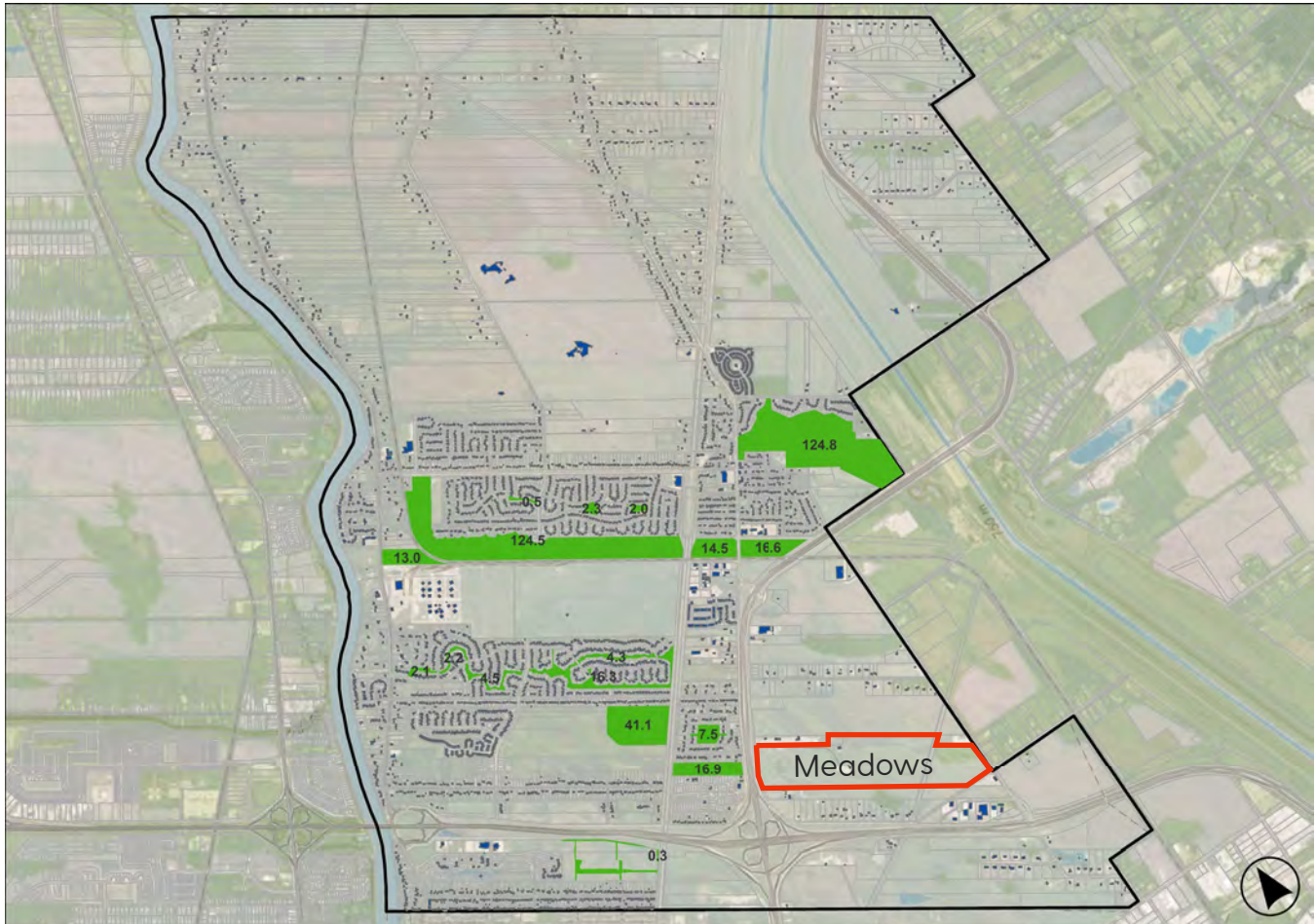


Municipal Property Tax Revenue From Residential Properties



Public Parks

Based on zoning data for park and recreation areas and spatial measurements from the map, the total area of public parks in East St. Paul is 334.5 acres.

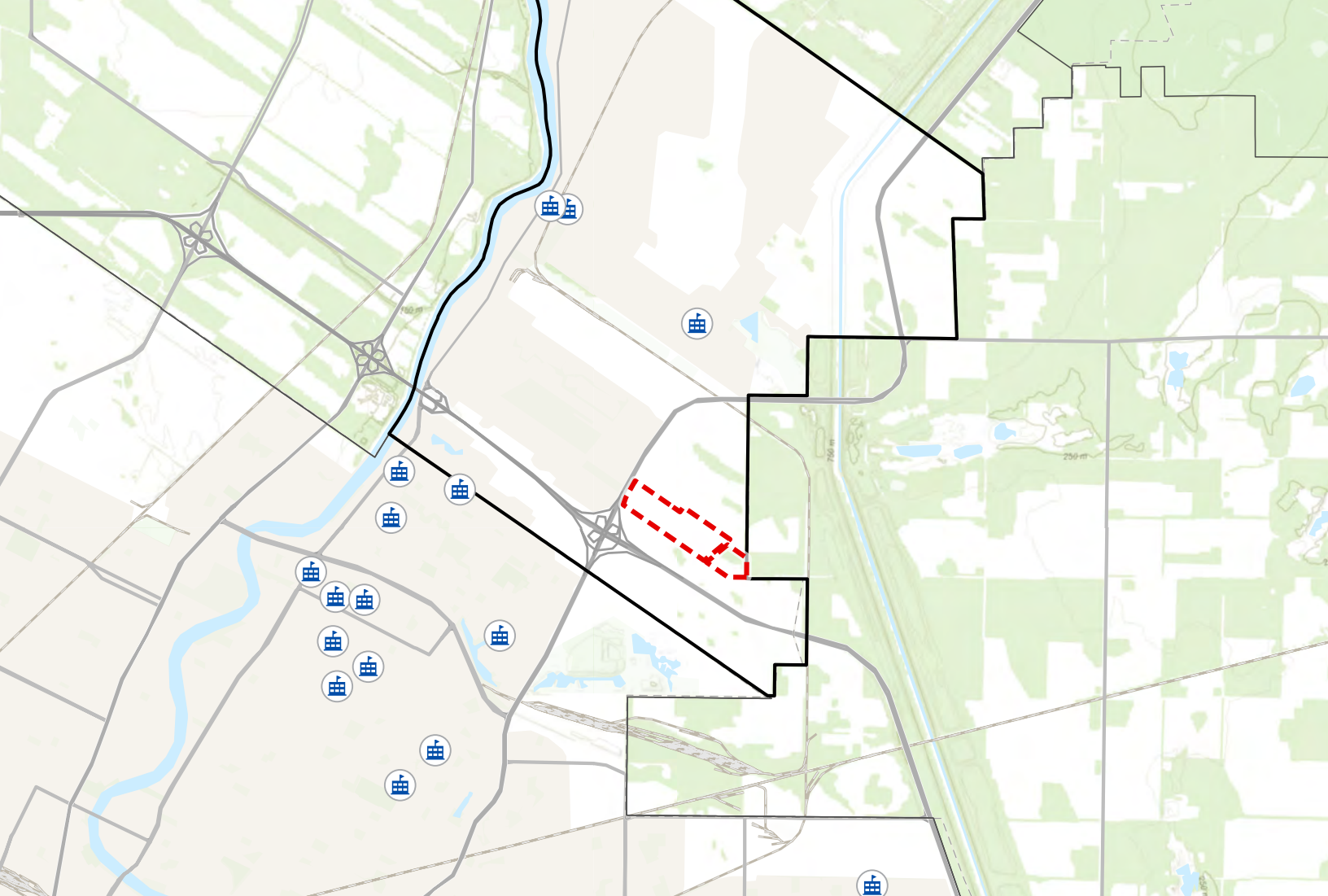


Facilities and Parks	Location
Arena & Recreation Complex	266 Hoddinott Road
Swistun Family Heritage Park	Birds Hill Road
Baseball & Soccer Complex	3412 Raleigh Street
Centennial Plaza	3021 Birds Hill Road
Benham Soccer Fields	2520 Sperring Avenue
Hyland Provincial Park	2950 Henderson Highway
Sperring Gardens	Off Elkhart Lane
JK Park	41 Birchwood Crescent/22 Chase Drive
Hugh McDonald Park	Hugh McDonald Drive
Glengarry Park	Between Clydesdale and Orkney Drive

Facilities and Parks	Location
Memorial Park	Birds Hill Road at Agar Ave
Mowat Park	284 Mowat Road
Southlands Park	Southlands Drive by High Meadow Drive
Deerledge Park	Deerledge Trail by Brookside Cove
Maxwell King Playground	South of 30 Jordanas Run
Willowside Bend Playground	South of 25 Willowside Bend
Hudson's Bay Playground	South of 18 Hudsons Bay
Deerfield Playground	480 Deerfield Drive
Gateway Point Playground	Will's Way



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Primary and Secondary Schools Analysis

Municipality of East St. Paul

Prepared by: MRA Planning and Development

MARCH 2026



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Executive Summary

This report examines student enrolment, student demographics, and estimated school capacity within the Rural Municipality (RM) of East St. Paul to understand how existing schools may support future residential growth.

Census information provides additional context regarding the distribution of school-aged children. Approximately 1,200 children aged 5 to 14 reside in East St. Paul. About 58 percent of these children are enrolled in public schools located within the municipality. In comparison, roughly 40 percent attend schools outside East St. Paul or receive education at home.

Historic enrolment data from 2006 to 2024 shows that all three schools in East St. Paul recorded their highest enrolment in the mid-2000s. All three schools in East St. Paul are Kindergarten to Grade 8 schools, and there are no senior high schools within the municipality. Student enrolment has declined through the late 2000s and early 2010s before stabilizing around 2015. Recent enrolment trends from 2019 to 2024 indicate that student numbers across the three schools have remained stable, with only minor fluctuations from year to year.

A comparison between historical peak enrolment and current enrolment levels indicates that the schools within East St. Paul previously accommodated larger student populations than they do today. Based on this comparison, the estimated available capacity as of 2024 is approximately 194 students at Bird's Hill School, 68 students at Dr. F.W.L. Hamilton School, and 179 students at Robert Andrews Middle School.

A spatial review also identifies approximately 17 additional schools located within about 5 kilometres of the planning area in nearby Winnipeg, including 3 senior high schools. These schools operate within the same River East Transcona School Division and form part of the broader network of public schools serving the region.

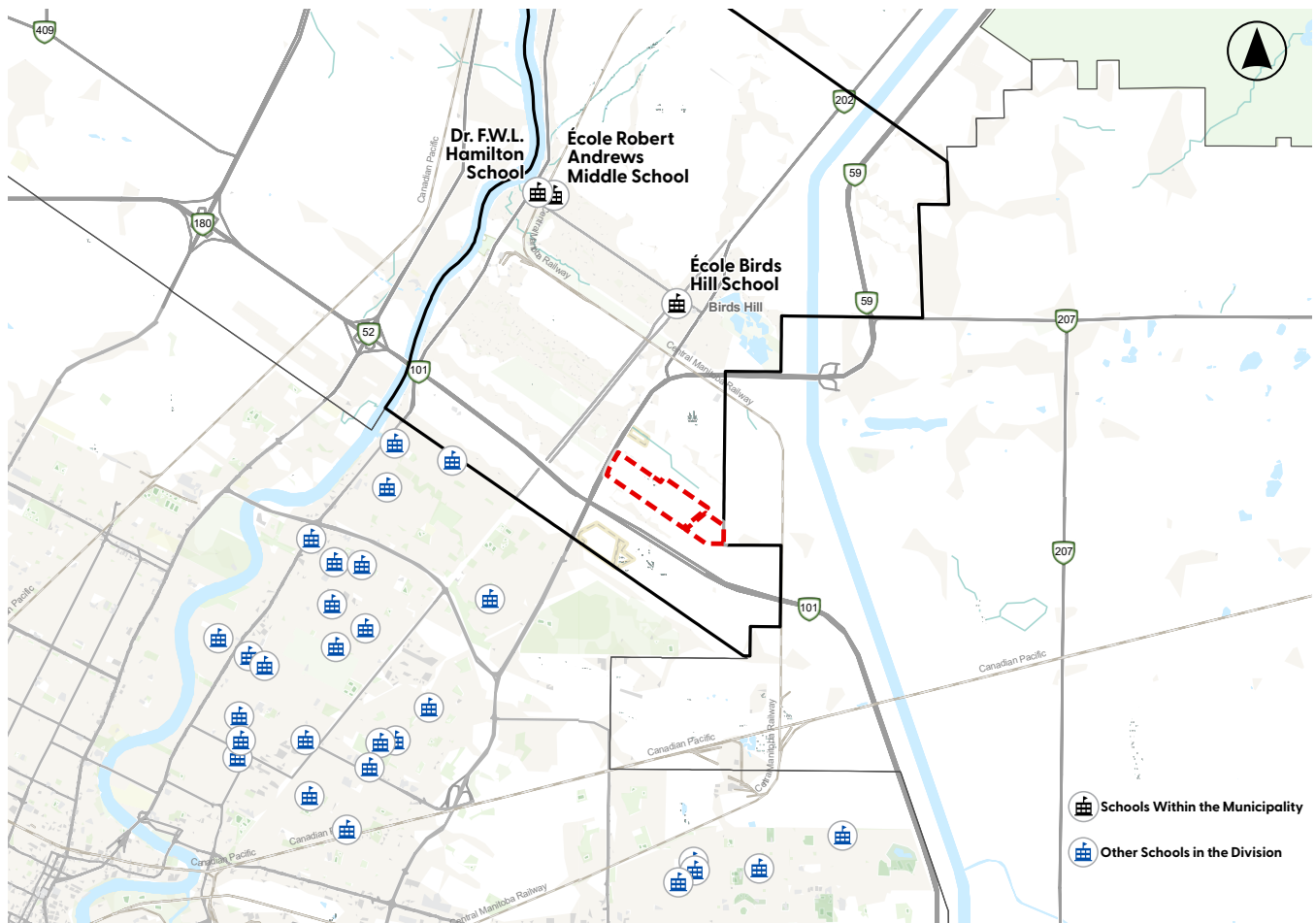
Overall, the analysis indicates that a broader regional school network serves East St. Paul. Existing schools within the municipality show stable enrolment levels and have some available capacity for additional students. These conditions suggest that the school system serving East St. Paul is likely able to accommodate enrolment growth associated with the early phases of development. As development continues and approaches fuller buildout, ongoing monitoring by the Province and the school division will be needed to determine whether additional capacity measures or new school facilities are required to meet future demand.

1. Introduction

The purpose of this report is to examine student enrolment trends, student demographics, and estimated school capacity in East St. Paul. The Rural Municipality (RM) of East St. Paul is served by the River East Transcona School Division (RETSD), which provides public education across northeast Winnipeg and several surrounding municipalities. While East St. Paul contains two elementary schools and one middle school, it does not contain a senior high school. As a result, high school students living in East St. Paul attend senior high schools elsewhere within the broader RETSD system in northeast Winnipeg and surrounding municipalities.

Three RETSD schools are located within the RM of East St. Paul and serve the local student population:

- Bird's Hill School (K-5)
- Dr. F.W.L. Hamilton School (K-5)
- Robert Andrews Middle School (6-8)



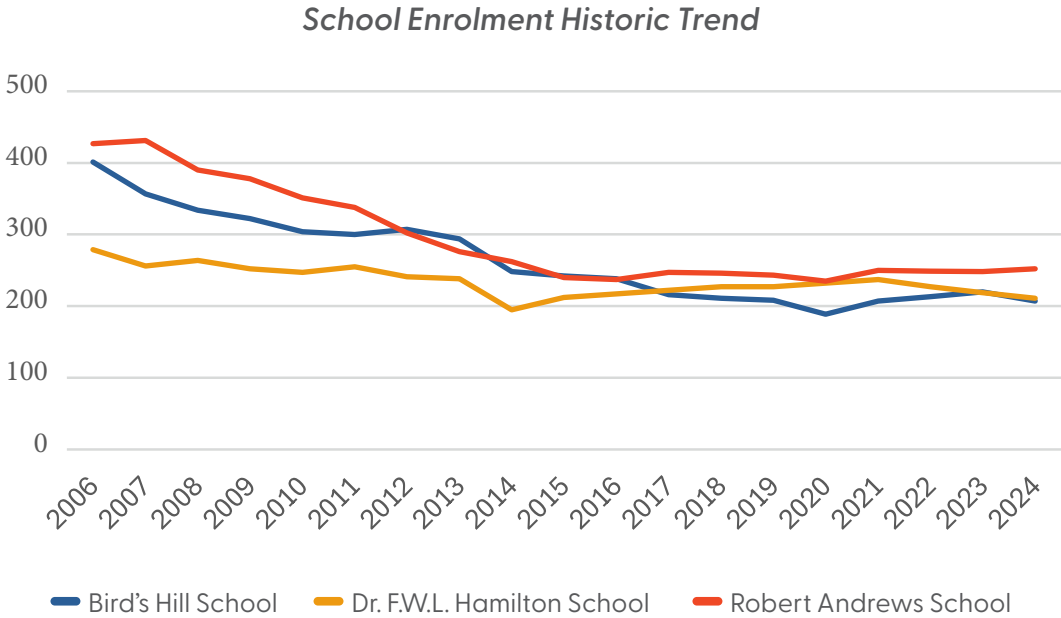
2. Historic Enrolment

Student enrolment for schools in East St. Paul is presented below and covers the period from 2006 to the most recent available year, 2024. The information is retrieved from the Province of Manitoba and has been prepared by RETSD.

Historic data demonstrates that the highest enrolment occurred in the mid-2000s at the beginning of the study period. Robert Andrews and Bird’s Hill School had the highest number of students at 431 and 401, followed by Dr. F.W.L. Hamilton School at 279.

Steady decline in enrolment occurred until the mid-2010s, reaching 262 students at Roberts Andrews, 248 students at Bird’s Hill, and 195 students at Dr. F.W.L. Hamilton School.

Following the period of decline, enrolment levels across the schools generally stabilized over the past decade. All schools have maintained roughly 200–250 students since 2020.



Please see Appendix A for the full enrolment tables for each school in East St. Paul.

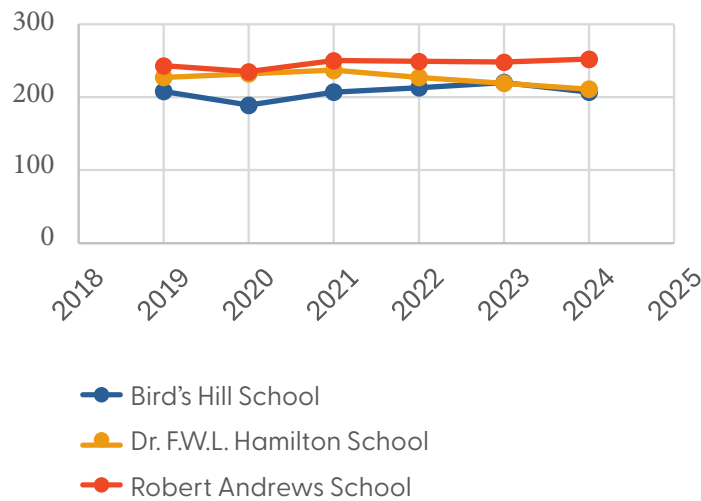
3. Recent Enrolment

Enrollment levels at all three schools have remained relatively stable between 2019-2024:

- Bird’s Hill School has recorded an average enrolment of 207 students, with a high of 220 students in 2023 and a low of 189 students in 2020.
- Dr. F.W.L. Hamilton School has recorded an average enrolment of 225 students, with a high of 237 students in 2021 and a low of 211 students in 2024.
- Robert Andrews Middle School has recorded an average enrolment of 246 students, with a high of 252 students in 2024 and a low of 235 students in 2020.

This stable trend over recent years provides a useful baseline for evaluating potential school capacity and the ability to accommodate additional students associated with population growth and new residential development within East St. Paul.

Recent Trends (2019 to 2024)



4. Estimated Capacity

The highest recorded enrolment for each school over the last twenty years is assumed to be approximate to the overall capacity of the school. As outlined in the table below, the estimated capacity for each school is measured by using the historical peak enrolment, subtracted by 2024 enrolment. These comparisons suggest that each school over recent years operates well below its historical peak and has available space to accommodate additional students.

School	Highest (peak) Enrolment	Average Enrolment (2006 to 2024)	Recent Trends (2019 to 2024)	2024 enrolment	Estimated Capacity (as of 2024)
Bird's Hill School	401	264.1	207.3	207	194
Dr. F.W.L. Hamilton School	279	234.6	225.5	211	68
Robert Andrews Middle School	431	294.8	246.1	252	179

5. Student Demographics

The population of elementary- and middle-years school-aged children in East St. Paul, defined as ages 5 to 14, was approximately 1,200 in 2021. This was slightly lower than the 2010 figure of 1,220, but higher than the 2016 figure of 1,120. Overall, this suggests that the school-aged population has remained relatively stable over the longer term, with some fluctuation between census periods.

In 2021, 694 children aged 5 to 14, or 57.83 percent of this age group, were enrolled in public schools located within East St. Paul. This was almost unchanged from 2016, when 692 children, or 61.79 percent, were enrolled in local public schools. In contrast, the proportion was much higher in 2010, when 902 children, or 73.93 percent, attended public schools within East St. Paul.

At the same time, the number and share of children not enrolled in East St. Paul public schools has increased. In 2010, this group accounted for 318 children, or 26.07 percent of the age 5-14 population. By 2016, this had risen to 428 children, or 38.21 percent. In 2021, the figure increased further to 506 children, or 42.17 percent.

These findings indicate that a growing share of school-aged children residing in East St. Paul are attending schools outside the municipality or receiving education through other arrangements. This may include attendance at private schools, enrolment in specialized or alternative programs in nearby jurisdictions, or home-based education.

	2021	2016	2010
Population age 5–14	1200	1120	1220
Enrolment in East St. Paul Schools	694 (57.83%)	692 (61.79%)	902 (73.93%)
Enrolment in schools outside of East St. Paul	506 (42.17%)	428 (38.21%)	318 (26.07%)

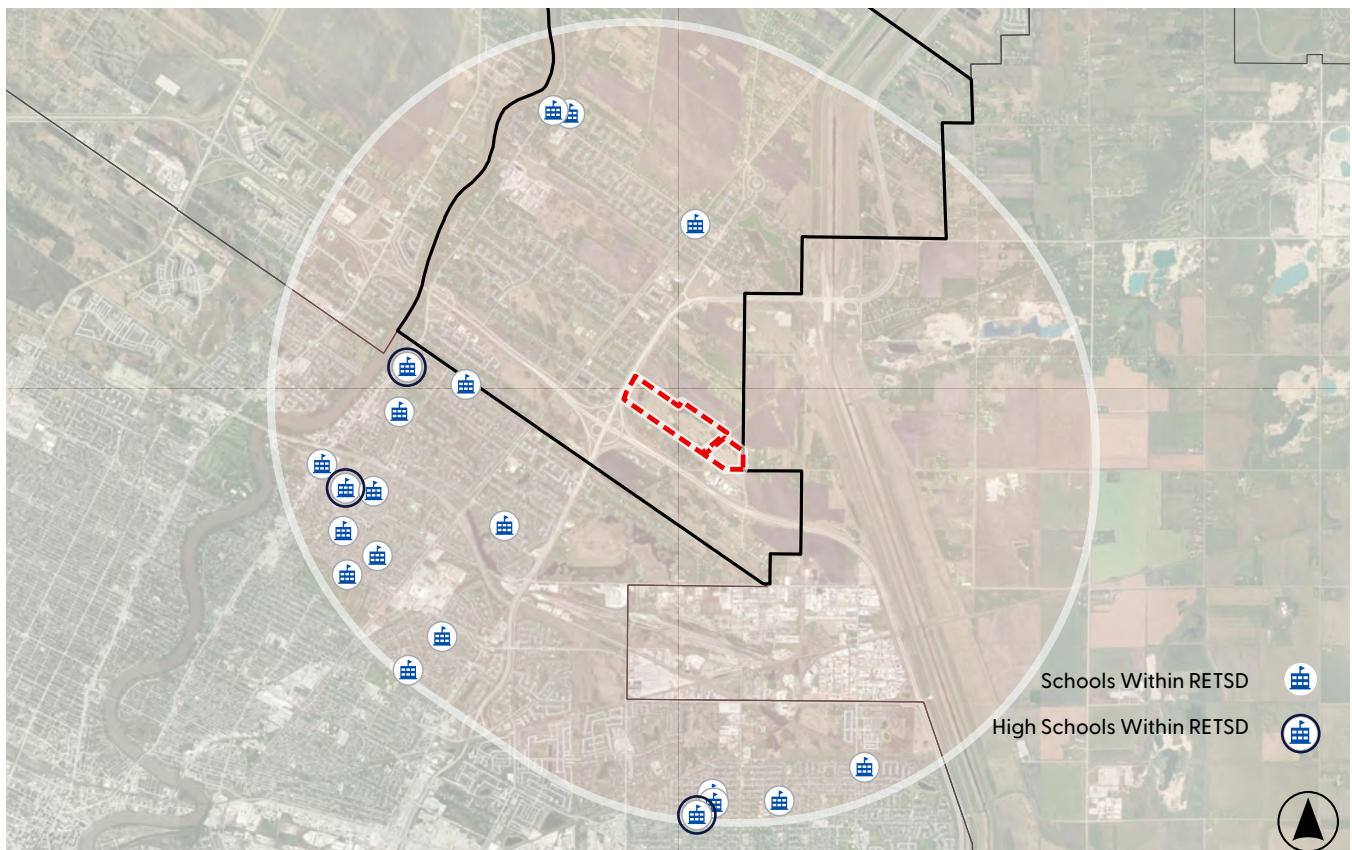
6. Nearby Schools within RETSD

A spatial review using a 5-kilometre buffer from the Meadows site identifies several additional schools within a reasonable driving distance of East St. Paul. These nearby schools are located in the City of Winnipeg and operate within the River East Transcona School Division. As part of the broader RETSD public school system, they contribute to the wider network of schools serving northeast Winnipeg and surrounding municipalities, including East St. Paul.

Within the 5-kilometre buffer, there are around 14 Kindergarten to Grade 8 schools and 3 senior high schools within RETSD. The presence of nearby Kindergarten to Grade 8 schools provides additional options for elementary- and

middle-years students. The presence of nearby senior high schools is also significant, as East St. Paul does not contain a senior high school of its own. These nearby senior high schools, therefore, provide educational options for high school-aged children residing in East St. Paul.

Schools within the City of Winnipeg likely serve many students from East St. Paul due to their proximity and their location within the same school division. The broad availability of schools within the River East Transcona School Division provides additional flexibility in accommodating students who may reside within East St. Paul but attend schools within City of Winnipeg catchment areas.



7. Planning Implications

Historic enrolment records show that the three schools within East St. Paul once accommodated significantly higher student populations during the mid-2000s. Enrolment declined through the late 2000s and early 2010s and has stabilized since approximately 2015. Current enrolment trends are generally consistent with recent operating averages but remain below historical peak levels, suggesting that some capacity may exist within the existing schools in East St. Paul.

Several schools located within the City of Winnipeg fall within a reasonable driving distance of East St. Paul and are assumed to serve around 40% of the student population in East St. Paul.

Taken together, the analysis indicates that the education system serving East St. Paul functions as part of a regional network of schools. Existing schools within the East St. Paul have capacity to accommodate additional population growth and associated residential development, at least for the foreseeable future.

The proposed Meadows Development is anticipated to build out at approximately 2,315 dwelling units. This level of residential growth has the potential to generate additional student enrolment over time. This growth will occur gradually, as development is expected to proceed on a phased basis rather than all at once. At full buildout, the Province will ultimately determine whether additional school facilities or capacity measures are required. As development proceeds, student enrolment trends will need to be monitored on an ongoing basis to assess how growth in each phase is affecting local schools and whether further planning responses are needed.

8. Appendix: School Enrolment Data

Bird's Hill School

Enrolment at Bird's Hill School shows a long-term decline followed by stabilization. 2006 enrolment reached 401 students. The school gradually declined through the late 2000s and early 2010s. By 2014 enrolment dropped to approximately 248 students.

After the structural change in grade organization, enrolment stabilized between approximately 200 and 220 students. The most recent figure in 2024 shows 207 students.

The earlier enrolment levels included Grade 6 students. After the grade reorganization the school now accommodates only Kindergarten through Grade 5. This explains part of the reduction.

Bird's Hill School

Kindergarten to Grade 5
3950 Raleigh Street
East St. Paul, Manitoba R2E 0G9
(204) 663-7669

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2006	50	44	45	55	77	52	78	–	–	–	–	–	–	401
2007	31	52	45	42	60	74	53	–	–	–	–	–	–	357
2008	40	32	47	42	44	61	68	–	–	–	–	–	–	334
2009	42	43	36	48	46	47	60	–	–	–	–	–	–	322
2010	34	46	43	37	50	47	47	–	–	–	–	–	–	304
2011	39	39	45	42	37	53	45	–	–	–	–	–	–	300
2012	46	40	39	45	44	40	53	–	–	–	–	–	–	307
2013	32	47	43	43	44	44	41	–	–	–	–	–	–	294
2014	36	36	48	45	38	45	–	–	–	–	–	–	–	248

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2015	33	38	37	45	51	38	–	–	–	–	–	–	–	242
2016	28	39	40	37	44	50	–	–	–	–	–	–	–	238
2017	29	32	34	39	38	44	–	–	–	–	–	–	–	216
2018	31	31	31	34	45	39	–	–	–	–	–	–	–	211
2019	35	33	31	35	35	39	–	–	–	–	–	–	–	208
2020	26	32	33	29	32	37	–	–	–	–	–	–	–	189
2021	31	30	41	40	30	35	–	–	–	–	–	–	–	207
2022	37	33	29	43	41	30	–	–	–	–	–	–	–	213
2023	29	38	35	33	41	44	–	–	–	–	–	–	–	220
2024	36	32	38	33	32	36	–	–	–	–	–	–	–	207

Dr. F.W.L. Hamilton School

Dr. F.W.L. Hamilton School displays a similar pattern. Enrolment was 279 students in 2006 and remained near that level until the late 2000s. Numbers declined gradually through the early 2010s.

Following the removal of Grade 6 from the school, enrolment stabilized between roughly 210 and 240 students. The 2024 enrolment is 211 students.

The school therefore appears to be operating at a consistent scale after the grade reorganization.

Dr. F.W.L. Hamilton School

Kindergarten to Grade 5

3225 Henderson Hwy

East St. Paul, Manitoba R2G 0J2

(204) 661-2500

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2006	21	33	34	39	56	45	51	–	–	–	–	–	–	279
2007	31	24	34	34	40	54	39	–	–	–	–	–	–	256
2008	32	37	26	38	36	40	55	–	–	–	–	–	–	264
2009	30	38	38	30	40	35	41	–	–	–	–	–	–	252
2010	32	31	39	39	32	40	34	–	–	–	–	–	–	247
2011	34	35	34	40	42	31	39	–	–	–	–	–	–	255
2012	33	32	32	33	39	44	28	–	–	–	–	–	–	241
2013	28	32	32	31	35	41	39	–	–	–	–	–	–	238
2014	30	29	30	41	31	34	–	–	–	–	–	–	–	195
2015	36	35	32	35	41	33	–	–	–	–	–	–	–	212
2016	34	37	33	32	36	45	–	–	–	–	–	–	–	217

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2017	39	40	37	35	35	36	–	–	–	–	–	–	–	222
2018	34	42	40	37	37	37	–	–	–	–	–	–	–	227
2019	35	37	41	41	37	36	–	–	–	–	–	–	–	227
2020	36	37	35	41	43	40	–	–	–	–	–	–	–	232
2021	31	42	42	37	42	43	–	–	–	–	–	–	–	237
2022	21	31	45	42	42	46	–	–	–	–	–	–	–	227
2023	37	22	33	42	43	42	–	–	–	–	–	–	–	219
2024	24	42	24	37	43	41	–	–	–	–	–	–	–	211

Robert Andrews Middle School

Robert Andrews Middle School serves Grades 6 through 8.

The school enrolled 427 students in 2006 and reached a peak of 431 students in 2007. Throughout the mid-2000s, enrolment remained above 400 students. Enrolment declined steadily through the early 2010s, reaching approximately 240 students by the mid-2010s.

After the grade reorganization the school stabilized around 240 to 250 students. The most recent enrolment in 2024 is 252 students.

The transfer of Grade 6 students from elementary schools likely contributed to stabilizing enrolment in the middle school during the later years.

Robert Andrews Middle School

Grade 6 to 8

3230 Manlius Street

East St. Paul, Manitoba R2E 0H7

(204) 661-5838

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2006	–	–	–	–	–	–	141	147	139	–	–	–	–	427
2007	–	–	–	–	–	–	142	145	144	–	–	–	–	431
2008	–	–	–	–	–	–	104	140	146	–	–	–	–	390
2009	–	–	–	–	–	–	134	103	141	–	–	–	–	378
2010	–	–	–	–	–	–	114	133	104	–	–	–	–	351
2011	–	–	–	–	–	–	95	115	128	–	–	–	–	338
2012	–	–	–	–	–	–	93	94	115	–	–	–	–	302
2013	–	–	–	–	–	–	95	92	89	–	–	–	–	276
2014	–	–	–	–	–	–	81	83	98	–	–	–	–	262
2015	–	–	–	–	–	–	78	79	83	–	–	–	–	240

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2016	–	–	–	–	–	–	74	79	84	–	–	–	–	237
2017	–	–	–	–	–	–	91	75	81	–	–	–	–	247
2018	–	–	–	–	–	–	83	84	79	–	–	–	–	246
2019	–	–	–	–	–	–	77	84	82	–	–	–	–	243
2020	–	–	–	–	–	–	76	77	82	–	–	–	–	235
2021	–	–	–	–	–	–	95	75	80	–	–	–	–	250
2022	–	–	–	–	–	–	84	89	76	–	–	–	–	249
2023	–	–	–	–	–	–	79	81	88	–	–	–	–	248
2024	–	–	–	–	–	–	95	81	76	–	–	–	–	252



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