WELCOME

PTH 59N - PTH 101 INTERCHANGE FUNCTIONAL DESIGN STUDY

PUBLIC INFORMATION SESSION

MONDAY, JUNE 13, 2011

4:00 P.M. - 8:00 P.M.

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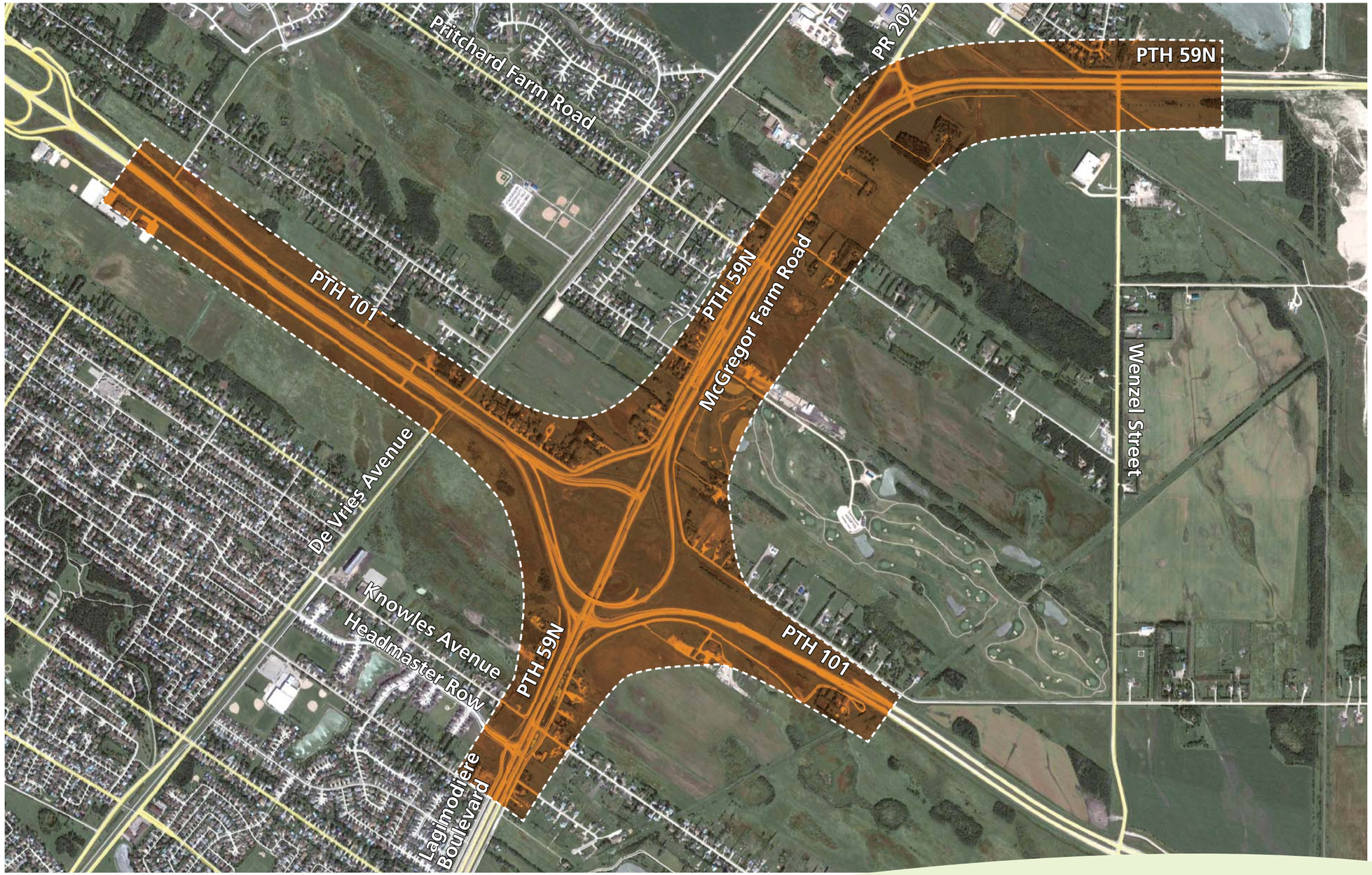
PROJECT STUDY AREA



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INTERSECTION VS INTERCHANGE 2

INTERSECTION

- Road junction where two (or more) roads meet at the same level.
- Controlled by yields or stop signs or traffic lights or roundabouts.
- Example: Provincial Trunk Highway (PTH) 101 (Perimeter Highway) and PTH 6.

INTERCHANGE

- Road junction where two roads meet at different levels.
- Uses different levels and ramps to allow traffic on at least one of the roads to flow freely.
- Many configurations exist; most common in Manitoba is the cloverleaf (four loop) or partial cloverleaf (three or less loop ramps).
- Example: PTH 101 (Perimeter Highway) and PTH 59 South.

PTH 101 (Perimeter Highway) and PTH 6

PTH 101 (Perimeter Highway) and PTH 59 South

PROJECT BACKGROUND

- The original design for the PTH 59N and PTH 101 interchange was completed in the mid 1990's.
- The current configuration, which includes two traffic signal controlled intersections, is the 1996 construction detour that was designed to be in place on an interim basis to allow future construction of the interchange.
- The existing layout is unusual, and operational and safety issues have arisen at the two intersections since their construction, and conditions continue to deteriorate.
- As traffic volumes have increased, the intersection layout has reached the end of its effective service life.

PROJECT BACKGROUND

- The government has approved the full interchange project at PTH 59N and PTH 101 in the current five-year Highway Capital program.
- An update to the design is required to incorporate changes to Manitoba Infrastructure and Transportation (MIT) design standards and practices, as well as to accommodate development that has occurred in the area since the original design.
- The purpose of this project is to ensure the functional design of the interchange meets today's standards and future operating requirements.
- This project will also include the preliminary design of all associated structures.

SUPPLEMENTAL STUDIES 5

- **Geotechnical / Groundwater** – Geotechnical site investigations will be completed and foundation recommendations provided.
- **Drainage** – Drainage requirements will be recommended and incorporated into the functional design.
- **Road Safety Audit** – An independent road safety audit of the functional design will be conducted.
- **Noise / Vibration** – Noise and vibration levels will be monitored; noise forecasts and mitigation strategies will be identified as required.

PUBLIC CONSULTATION 6

Key stakeholders within the study area were identified and contacted:

- **Government Departments and Agencies:** City of Winnipeg, Rural Municipality (RM) of East St. Paul, RM of Springfield, emergency services, Canada Post, and local school divisions.

- **Special Interest Stakeholders:** River East Neighbourhood Network-Trail Committee, and Brokenhead Ojibway Nation (BON).

- **Property Owners:** Property owners and individuals directly affected by land acquisitions were consulted individually.

- **General Public:** Information is being provided to the general public through this Public Information Session.

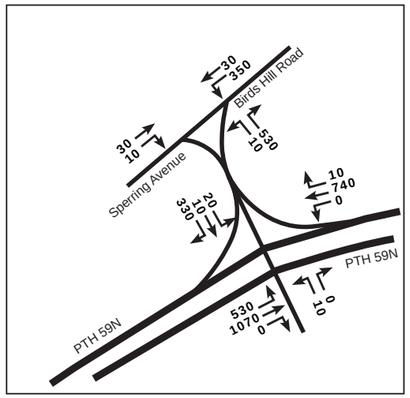
TRAFFIC ANALYSIS 7

- Traffic volumes were examined for current (2010) and forecast conditions (2030) for weekday peak traffic and summer recreational peak traffic flows.
- Movements through the proposed PTH 59N and PTH 101 interchange are forecast to experience little delay during peak periods.
- Some congestion is anticipated to occur at the intersections of Lagimodiere Boulevard at Headmaster Row and at PTH 59N at Provincial Road (PR) 202, primarily due to high through volumes on PTH 59N.

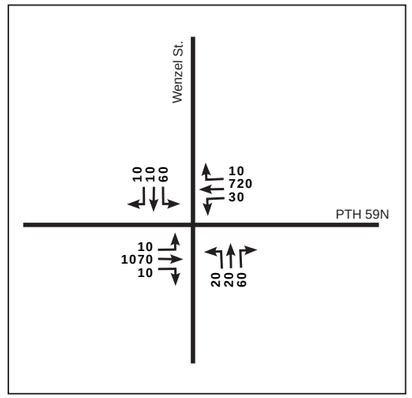
TRAFFIC VOLUMES

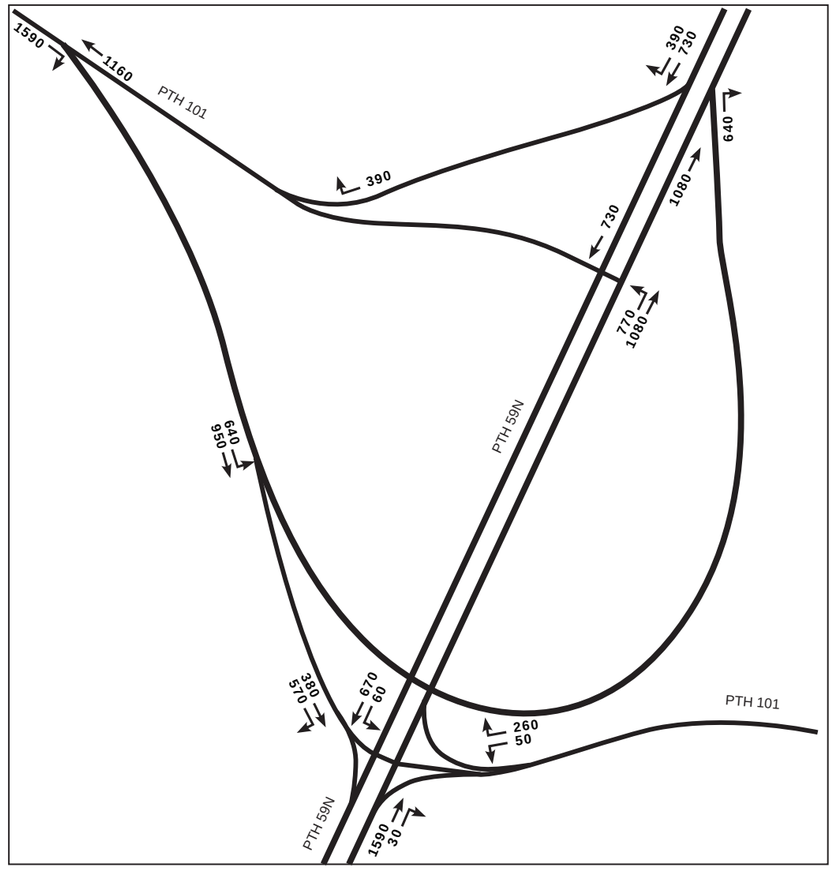
2010 WEEKDAY PM PEAK HOUR CURRENT TRAFFIC VOLUMES

PTH 59N and PR 202

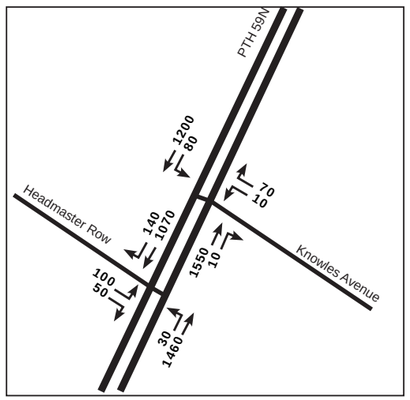


PTH 59N and Wenzel Street

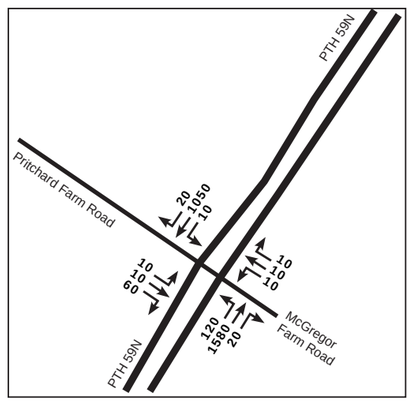




PTH 101 and PTH 59N



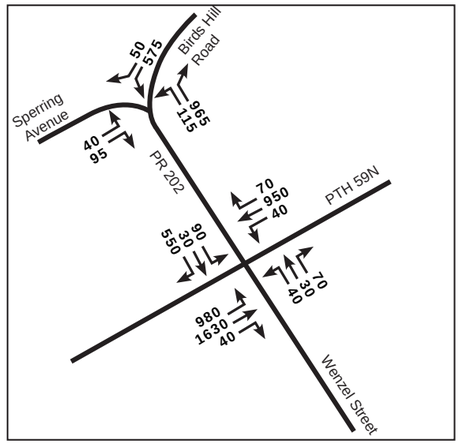
PTH 59N and Headmaster Row/Knowles Avenue



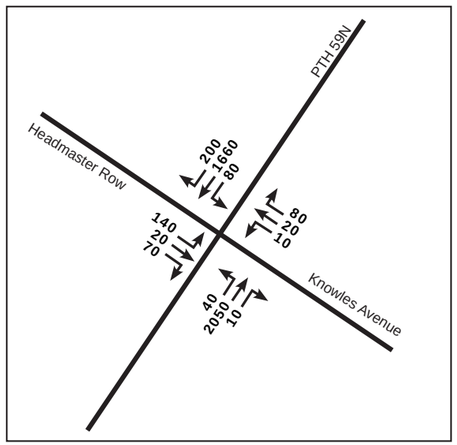
PTH 59N and Pritchard Farm Road/McGregor Farm Road

2030 WEEKDAY PM PEAK HOUR FORECAST TRAFFIC VOLUMES

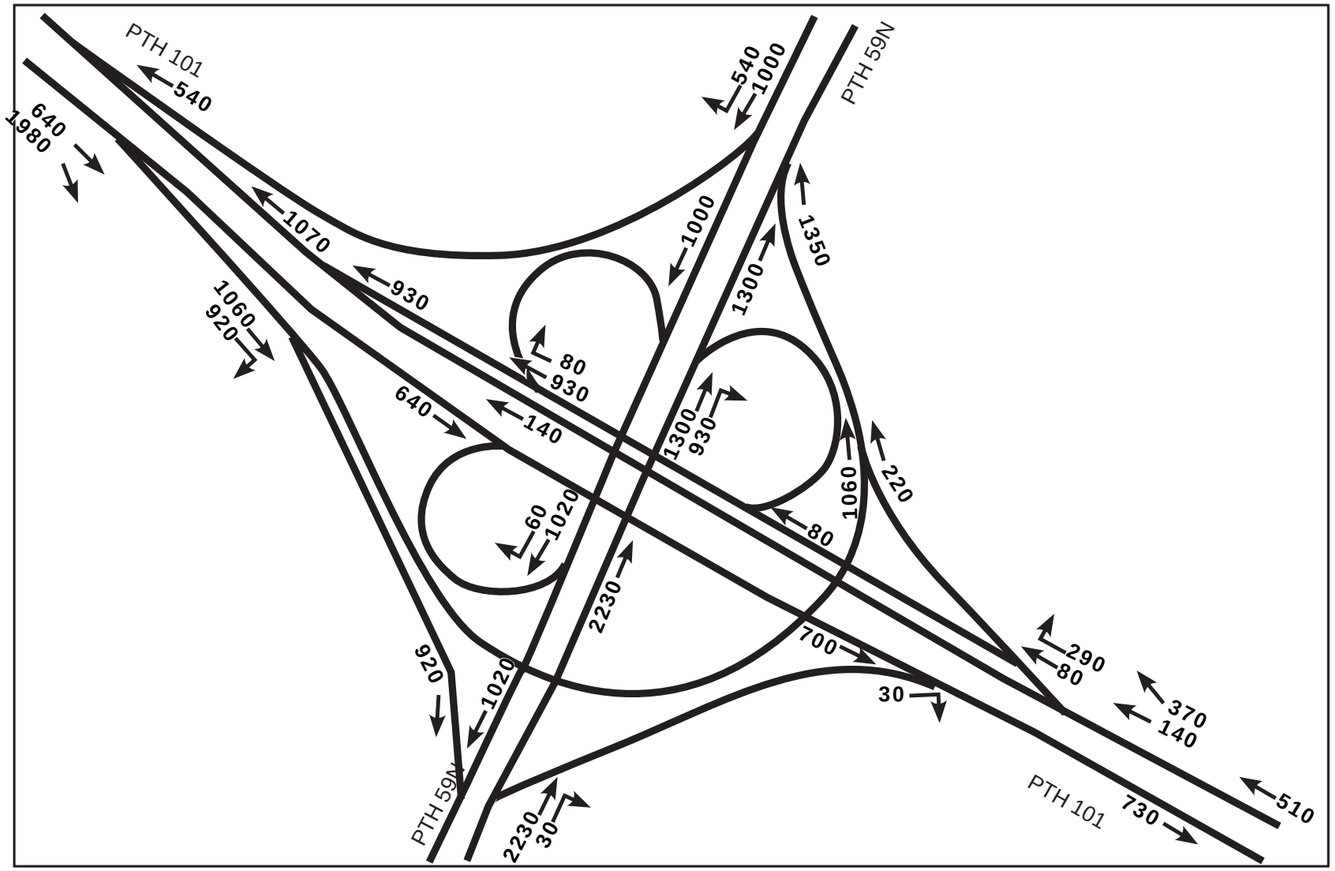
PTH 59N and PR 202/Wenzel Street



PTH 59N and Headmaster Row/Knowles Avenue

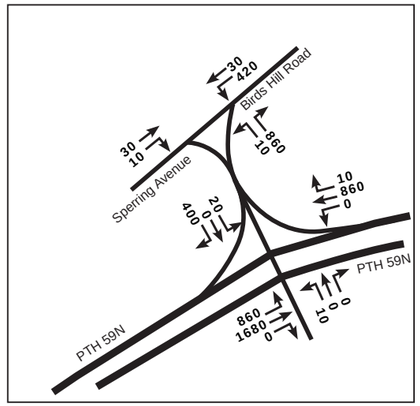


PTH 101 and PTH 59N Interchange

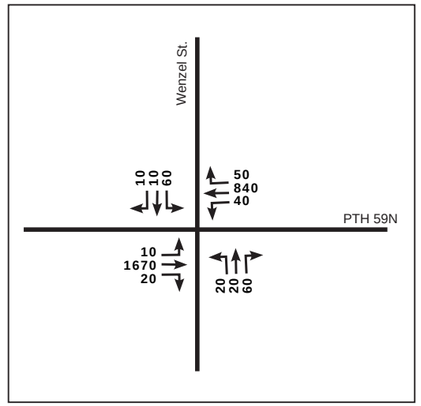


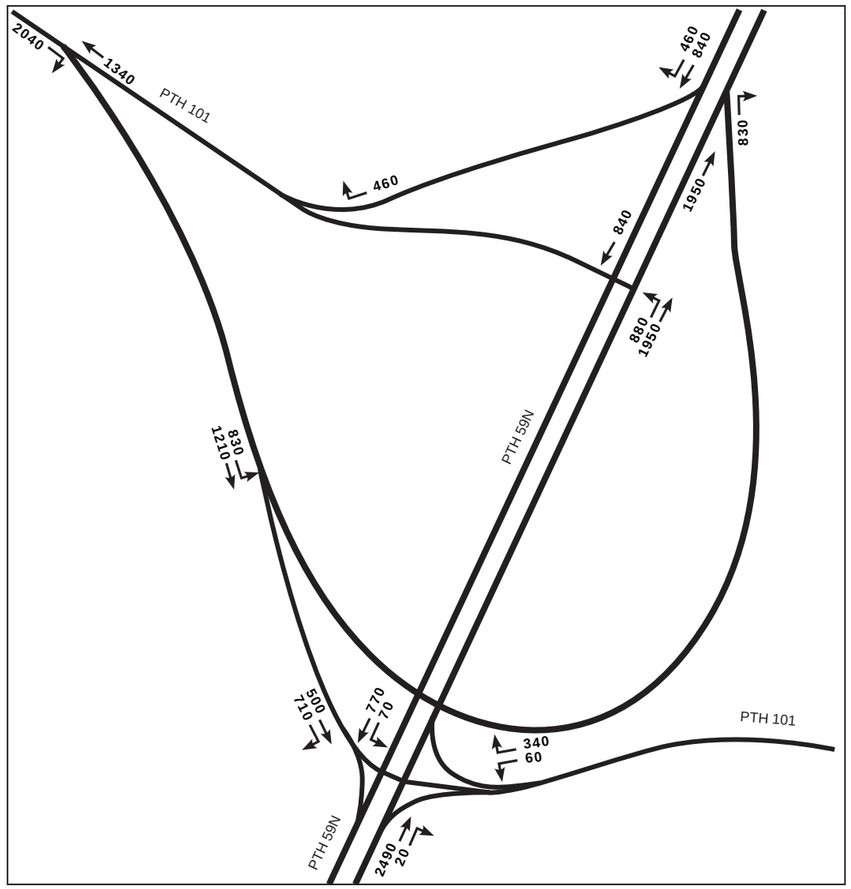
2010 SUMMER FRIDAY PM PEAK HOUR CURRENT TRAFFIC VOLUMES

PTH 59N and PR 202

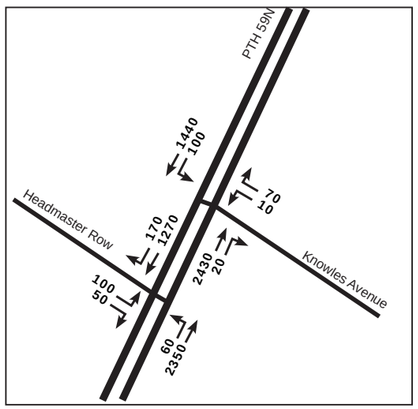


PTH 59N and Wenzel Street

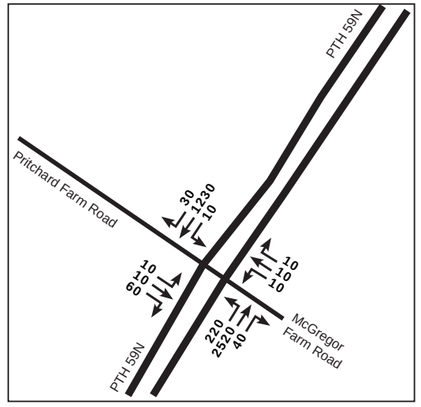




PTH 101 and PTH 59N



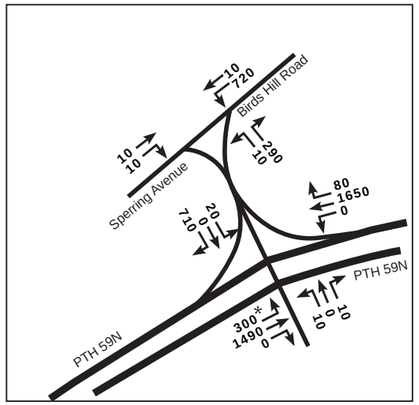
PTH 59N and Headmaster Row/Knowles Avenue



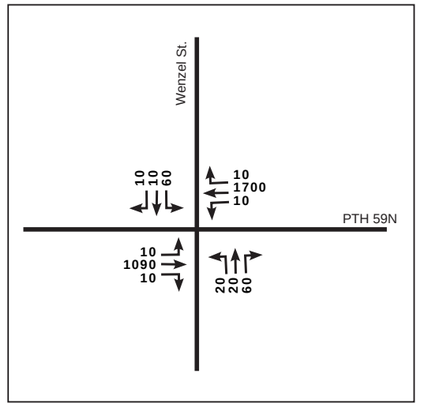
PTH 59N and Pritchard Farm Road/McGregor Farm Road

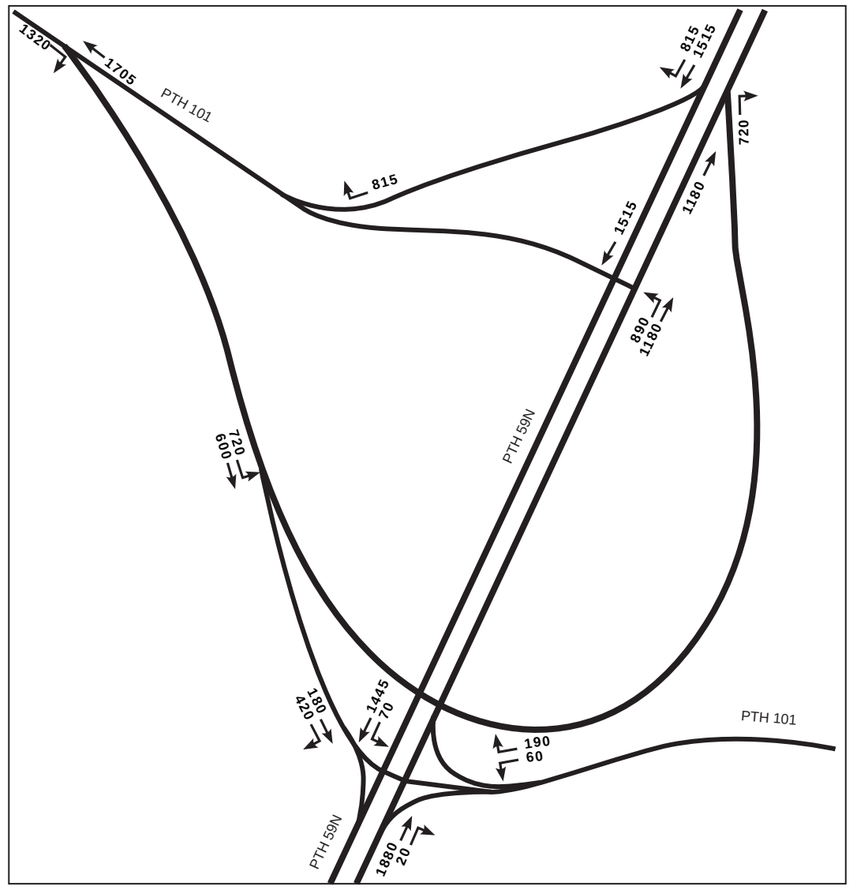
2010 SUMMER SUNDAY PM PEAK HOUR CURRENT TRAFFIC VOLUMES

PTH 59N and PR 202

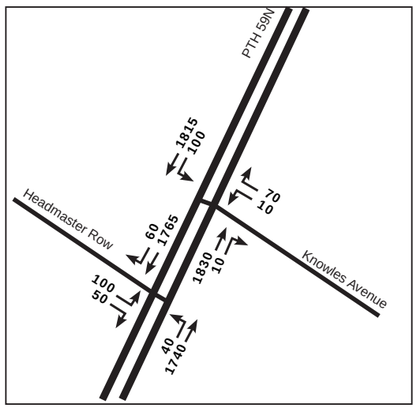


PTH 59N and Wenzel Street

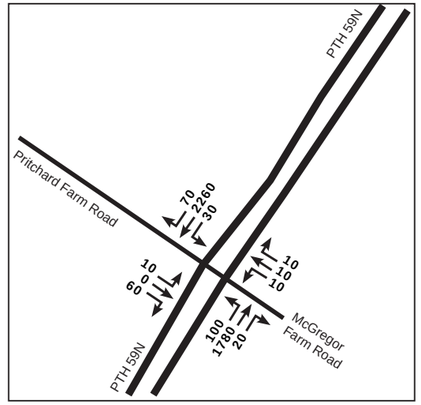




PTH 101 and PTH 59N



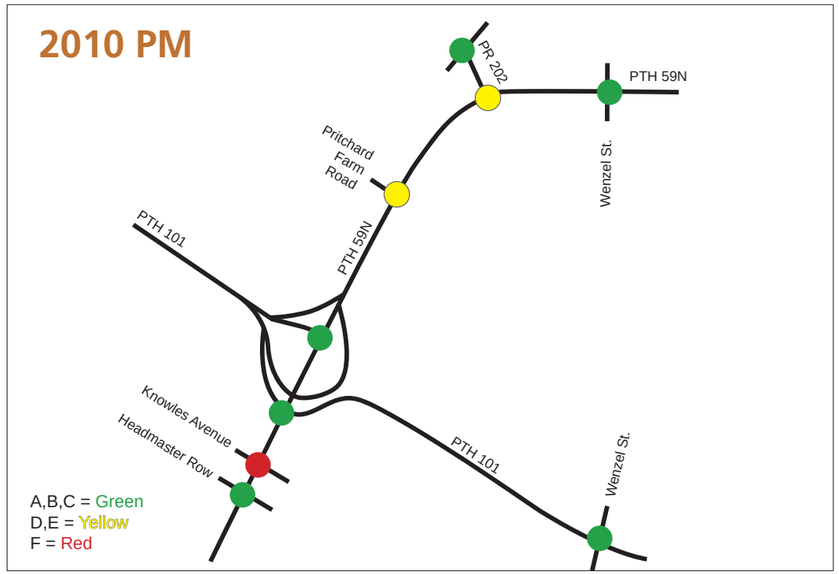
PTH 59N and Headmaster Row/Knowles Avenue

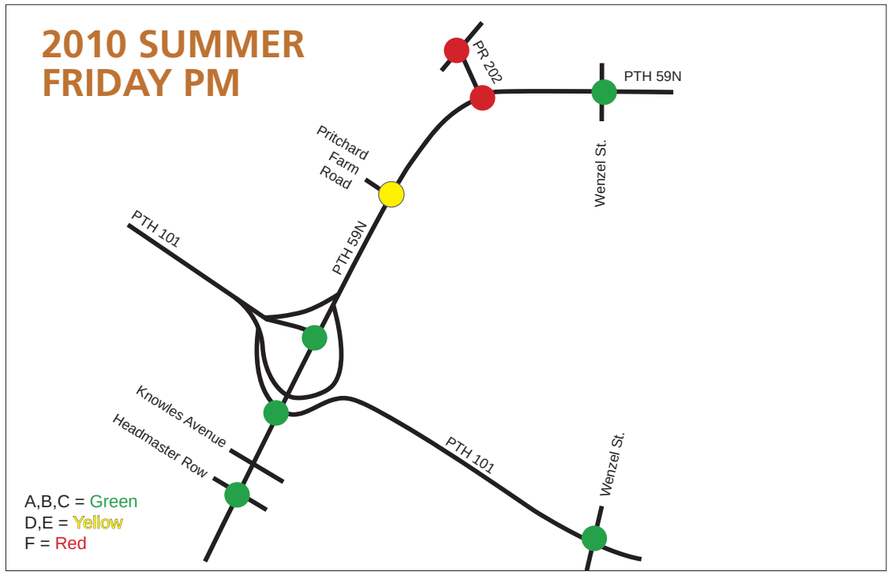


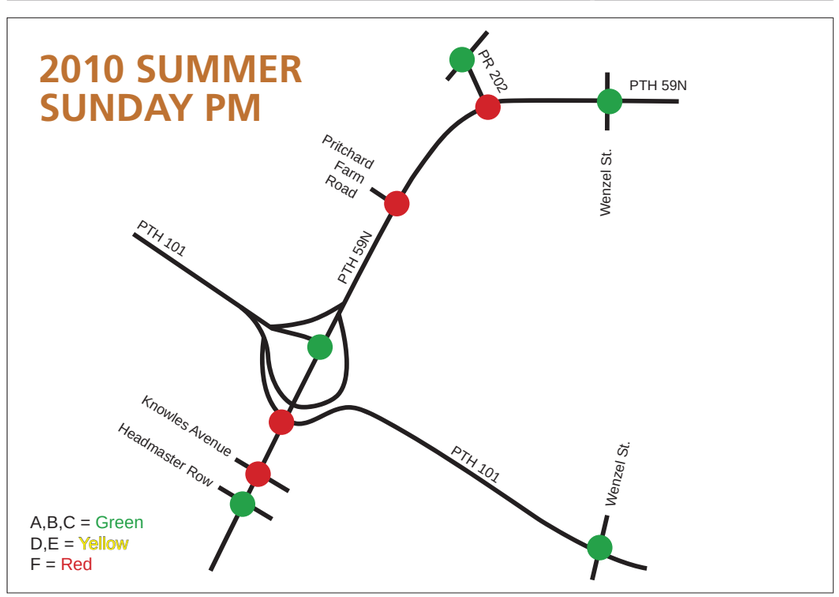
PTH 59N and Pritchard Farm Road/McGregor Farm Road

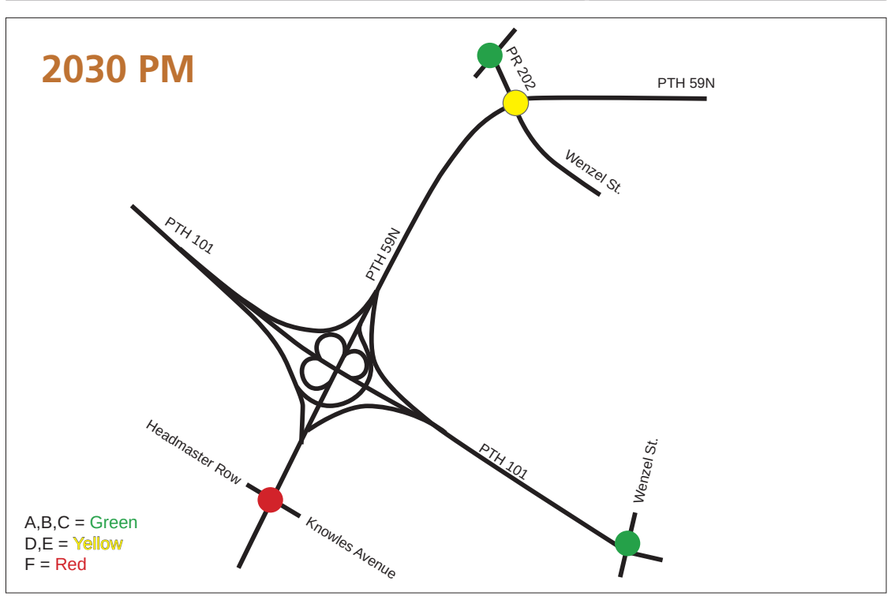
PTH 59N & PTH 101
LEVEL OF SERVICE

11B









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PEDESTRIAN/CYCLIST AMENITIES 12

- Northeast Pioneer Greenway is located southwest of the proposed PTH 59N and PTH 101 interchange.
- Ultimate plan is to extend the Greenway to Birds Hill Park.
- An overpass over PTH 101 would link North Kildonan with the RM of East St. Paul along the Gateway/Raleigh corridor.
- The proposed roadway plans include shoulders similar to those existing elsewhere on PTH 59N and PTH 101 within the study area.

COLLISION ANALYSIS

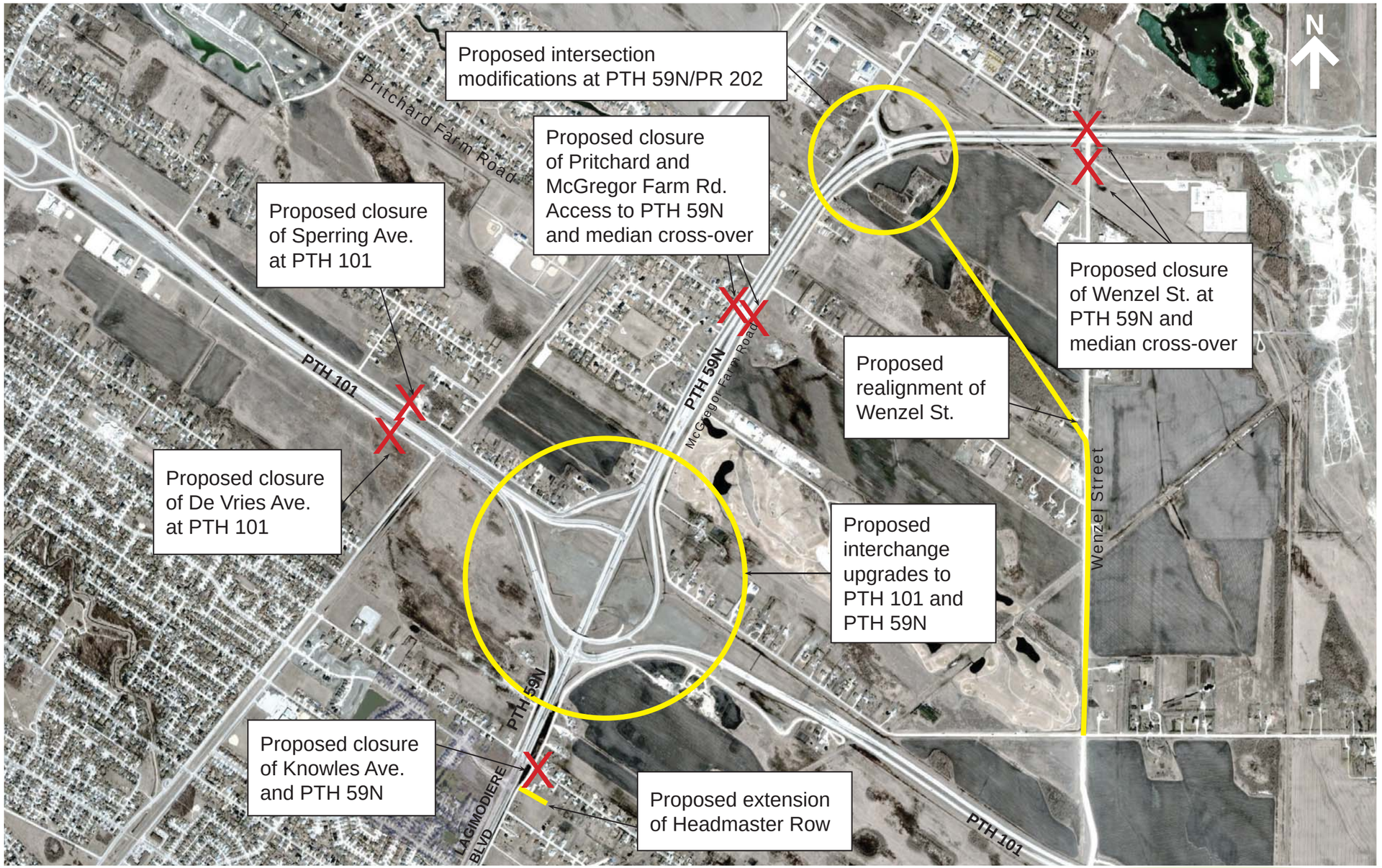
- Collision analysis involves a review of the collision history to establish collision rates and identify possible relationships between collisions and the geometric features and operational conditions of the road facility.

- Collision rate is a measure of the risk faced by the road user and is based on the number of collisions that occurred and the volume of traffic during a specified period.

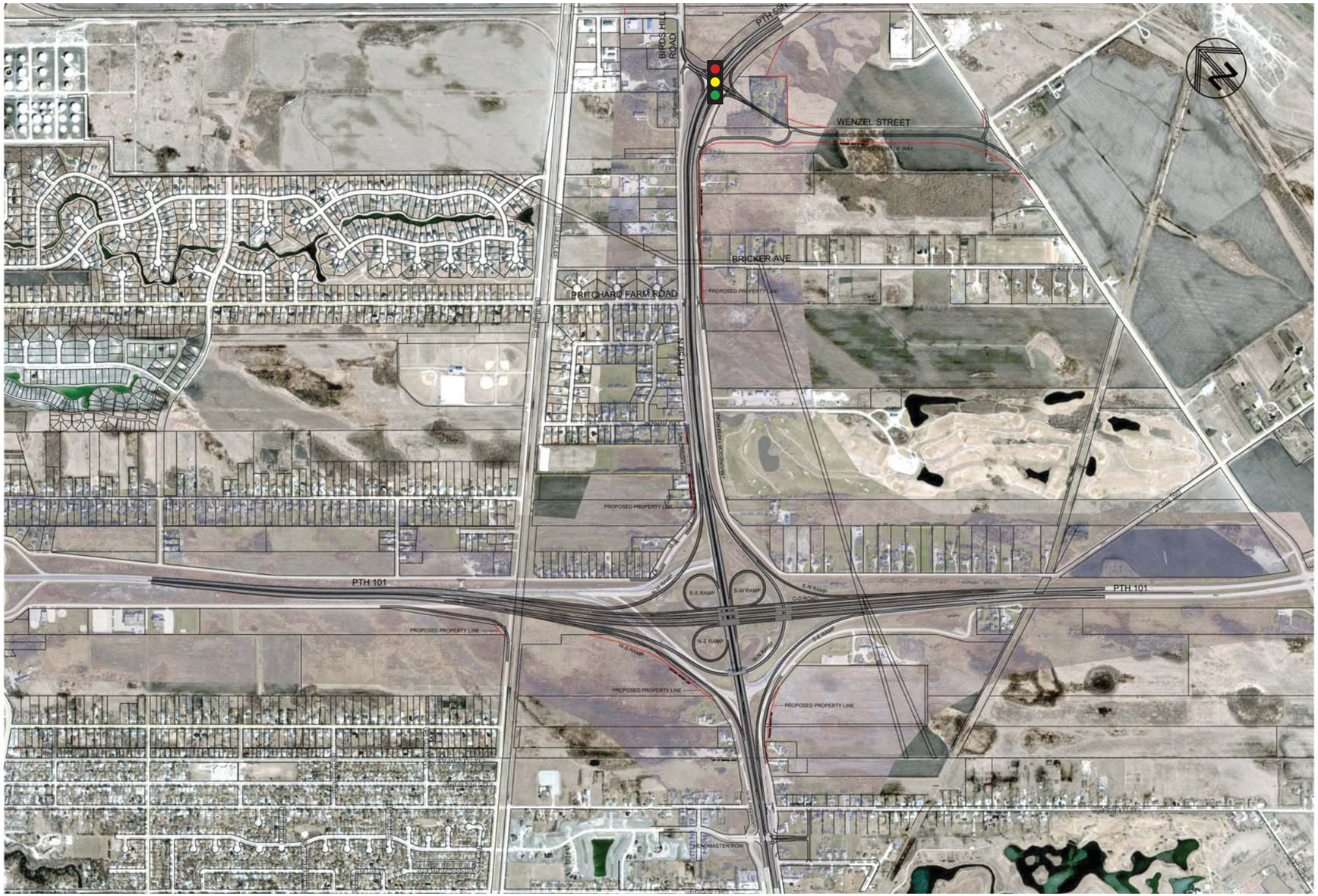
- Collision rates for road links exceeding 1.5 incidents per MVKT (million vehicle-kilometres of travel) warrant further review. There are no locations within the study area that had a collision rate greater than 0.81 incidents per MVKT.

- Collision rates for intersections exceeding 1.5 incidents per MEV (million entering vehicles) warrant further review. All intersections within the study area had a collision rate at or below 0.25 incidents per MEV.

ACCESS MANAGEMENT



PROPOSED INTERCHANGE DESIGN



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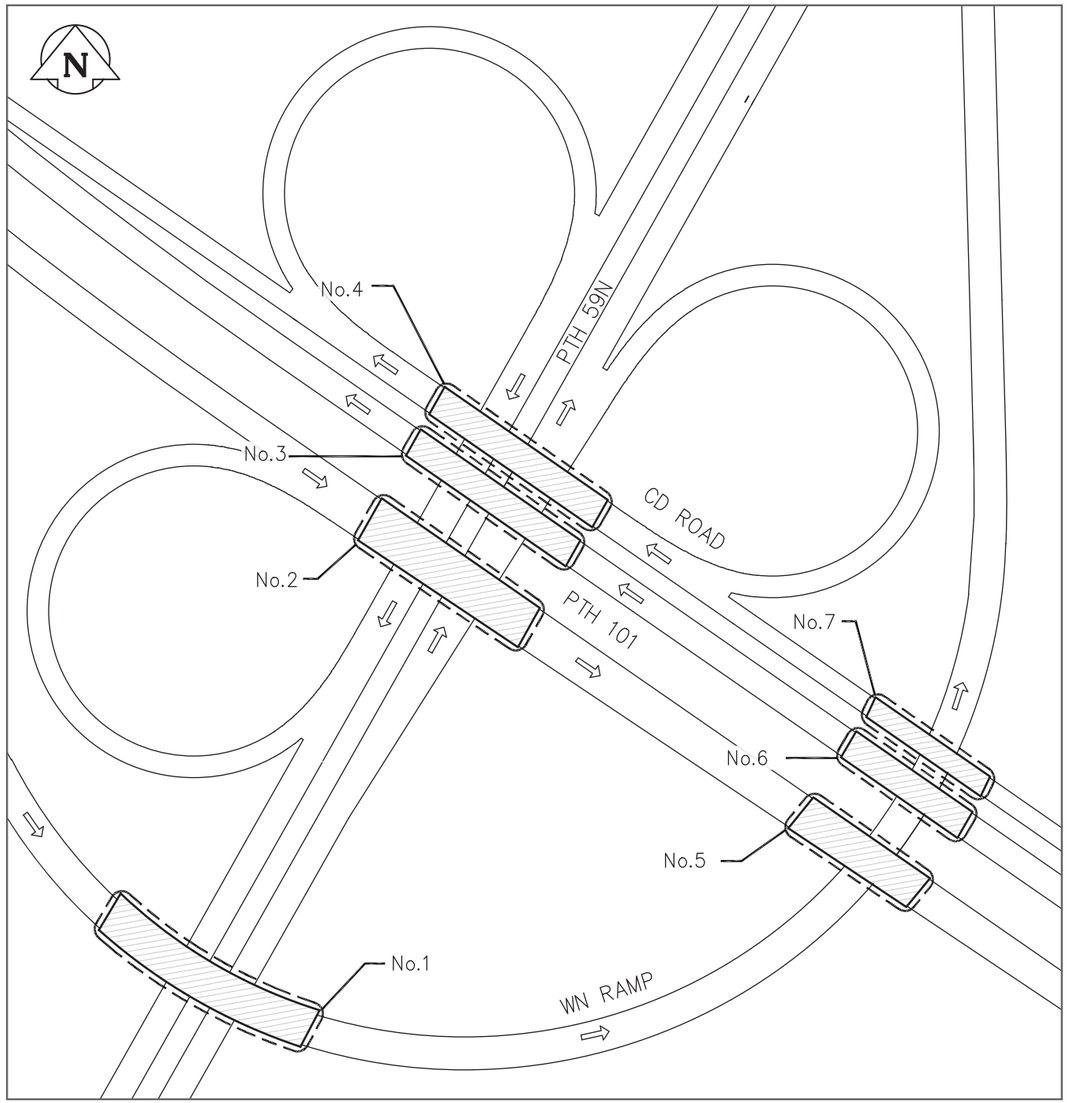
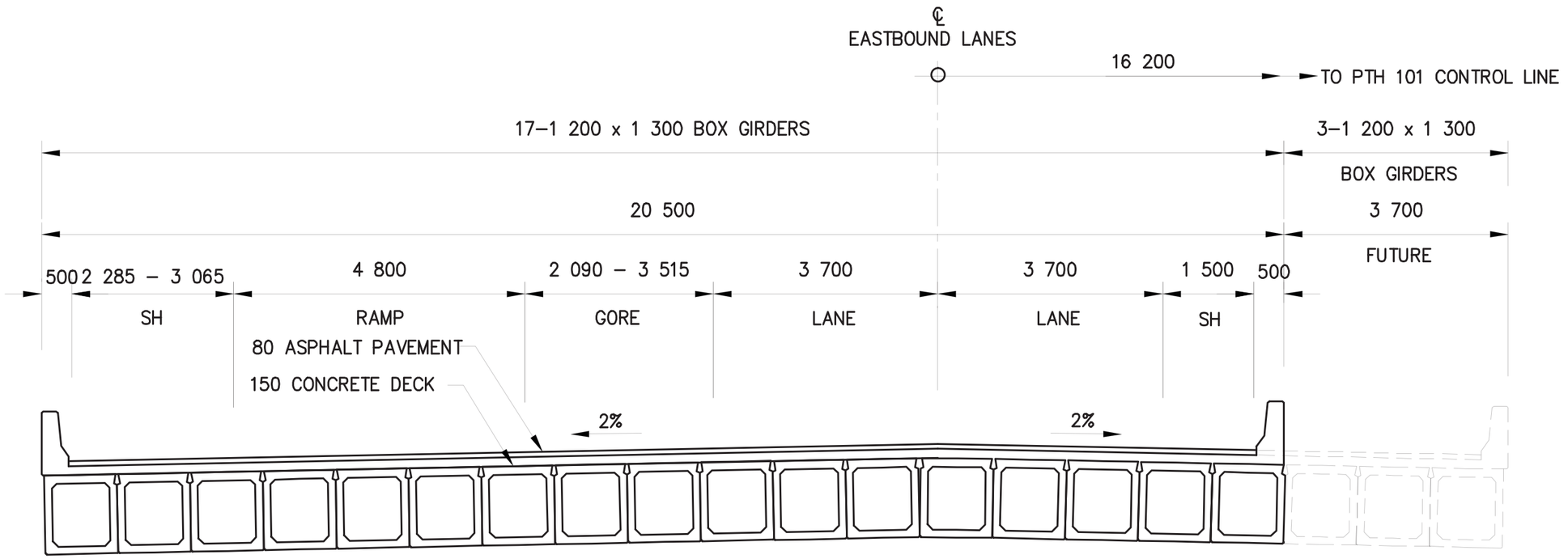
BRIDGES

- Seven bridges are required.
- Six new locations:
  - Three on PTH 101 over the east-bound to north-bound (EB-NB) Ramp to PTH 59N (No. 5, No. 6, and No. 7).
  - Three on PTH 101 over PTH 59N (No. 2, No. 3, and No. 4).
- One Reconstruction:
  - One on east-bound to north-bound (EB-NB) Ramp over PTH 59N (No. 1).



TYPICAL DECK SECTION FOR MAIN BRIDGES

SECTION LOOKING WEST ON PTH 101



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DRAINAGE DESIGN FEATURES

- Ditch slopes shall be as steep as possible to adequately convey the flow and prevent unwanted ponding
- Culverts have been sized to control the flow of water downstream at a rate compatible with the ditch section
- No long-term retention ponds shall be incorporated into the design

DRAINAGE - KEY POINTS

- Flows from areas outside of the proposed interchange are a significant portion of the total flow that is eventually discharged into the Red River
- The proposed interchange will improve the performance of the overall drainage basin by slowing down and reducing the peak flows into the Red River
- The proposed drainage system:
  - Optimizes the use of culverts, ditches and local depression areas in order to reduce peak flows
  - Adequately conveys up to a one-in-50 year 24-hour City of Winnipeg storm event
  - Incorporates emergency spillways to prevent water levels from rising higher than the roadway surface
- The current outfall at the Red River, although adequate in size to discharge the design flow, should undergo a complete condition assessment.

OVERALL DRAINAGE PLAN

PROPERTY IMPACTS

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PROPERTY IMPACTS

PTH 59N AND PR 202 INTERSECTION

- Controlling the number of access points to PTH 59N and providing for acceleration and deceleration of vehicles entering and exiting the highway are two areas that significantly improve roadway safety.
- By closing access points along PTH 59N, traffic levels at the intersection of PTH 59N and PR 202 will increase. The intersection will be signalized as a result of the increased traffic volumes.
- Wenzel Street will be realigned to form the eastern leg of the intersection.
- The long-term plan for this location is an interchange.

PTH 59N AND PR 202 INTERSECTION UPGRADES AND PROPERTY IMPACTS 24

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LONG-TERM PLAN FOR PTH 59N AND PR 202

PROJECT TIMELINE

END OF 2011

- Functional Design Study Completion

2012 - 2013

- Detailed Design
- Land Acquisition
- Environmental Approvals

2014 - 2017

- Finalize Project Staging
- Construction

THANK YOU

PLEASE FILL OUT AN EXIT SURVEY BEFORE LEAVING AND DROP OFF IN THE BOX PROVIDED.

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