
Highway 17 Four-Laning between the Manitoba / Ontario Border & Kenora

Route Planning and Preliminary Design Study

G.W.P. 6053-03-00



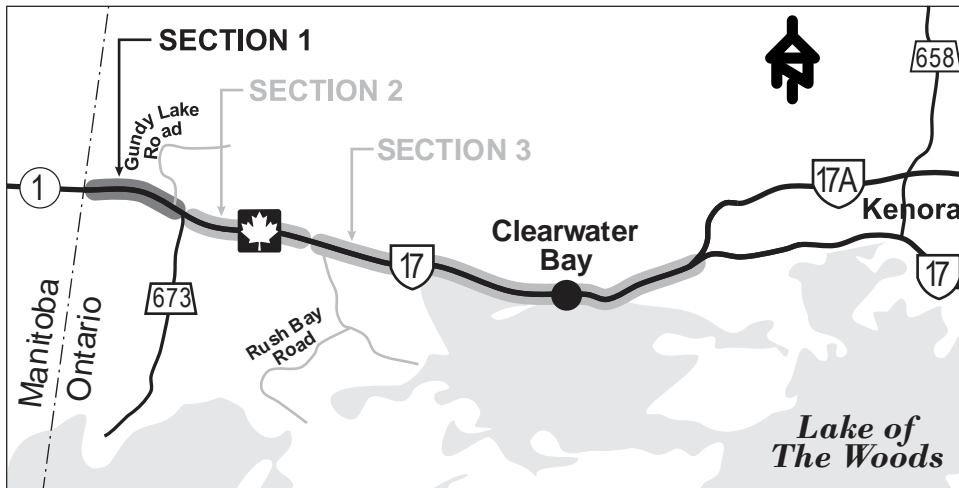
Information Centre 1.S1

Section 1 between the Manitoba /
Ontario Border & Highway 673

Tuesday, November 20, 2018

Welcome to Information Centre 1.S1 for the Route Planning and Preliminary Design Study for Highway 17 Four-Laning between the Manitoba / Ontario Border and Highway 673.

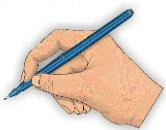
The study is being carried out in 3 sections.



- Section #1:** Between the Manitoba/Ontario Border and Highway 673 (6.5 km)
- Section #2:** Highway 673 and Rush Bay Road (8.5 km)
- Section #3:** Between Rush Bay Road and Highway 17A (24 km)

This Information Centre presents the study purpose and background, alternatives considered and evaluated, and the selected route for Section 1. Next steps and contact information are also provided.

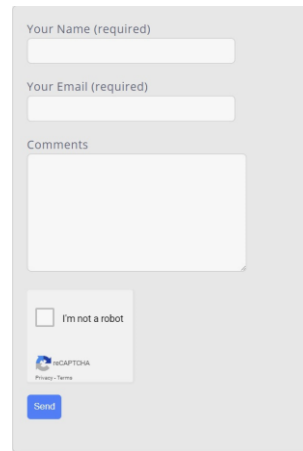
If you have any accessibility requirements to participate in this project, please contact one of the Project Team members.



PLEASE SIGN IN AT THE FRONT DESK

We welcome any comments and questions you may have on the material presented.

After reviewing the displays, please complete a comment sheet, or speak to one of the Study Team members to discuss any questions or comments you may have. You may also submit input using our website: **www.4lanehighway17kenora.ca**.

A screenshot of a web form for submitting comments. It includes input fields for 'Your Name (required)' and 'Your Email (required)', a larger text area for 'Comments', a checkbox for 'I'm not a robot', a reCAPTCHA logo, and a 'Send' button.

Freedom of Information and Protection of Privacy Policy

Information collected during this study will be used to assist the Ministry of Transportation in meeting the requirements of the Provincial Environmental Assessment Act. This material will be maintained on file for use during the study and may be included in the study documentation. Information collected will be used in accordance with the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

Study Purpose

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora



- Highway 17 between the Manitoba / Ontario border and Kenora is a strategic link in the Trans-Canada Highway System.
- There are no alternate highway routes between Kenora and the Manitoba / Ontario Border for inter-provincial traffic. Four laning will provide an opportunity for redundancy of travel lanes if one direction is closed.
- Long distance traffic relies on this section of highway to bring goods and trade to the region and across Canada. Regional and local traffic is focused more on community linkage, shopping, schools, employment and emergency access.
- The highway provides access to many tourist and recreational areas in both Manitoba and Ontario. Traffic volumes increase significantly during summer months, particularly during long weekends.

Four-laning Highway 17 will improve road safety by:

- ✓ Providing increased opportunities for passing
- ✓ Physically separating opposing lanes of traffic
- ✓ Reducing congestion
- ✓ Reducing travel time
- ✓ Minimizing impacts to traffic during maintenance activities

The Route Planning and Preliminary Design Study for Highway 17 Four-Laning between the Manitoba / Ontario Border and Kenora was initiated in 2009. As part of the 2009 study, existing conditions were documented, alternatives were developed and evaluated, and a preferred alternative was selected for Sections 1 and 2. Extensive consultation was undertaken including:

- Correspondence with interested ministries and agencies at key milestones
- Public Information Centres (PICs) 1 to 3 and public consultation
- Engagement with interested Indigenous communities and stakeholders

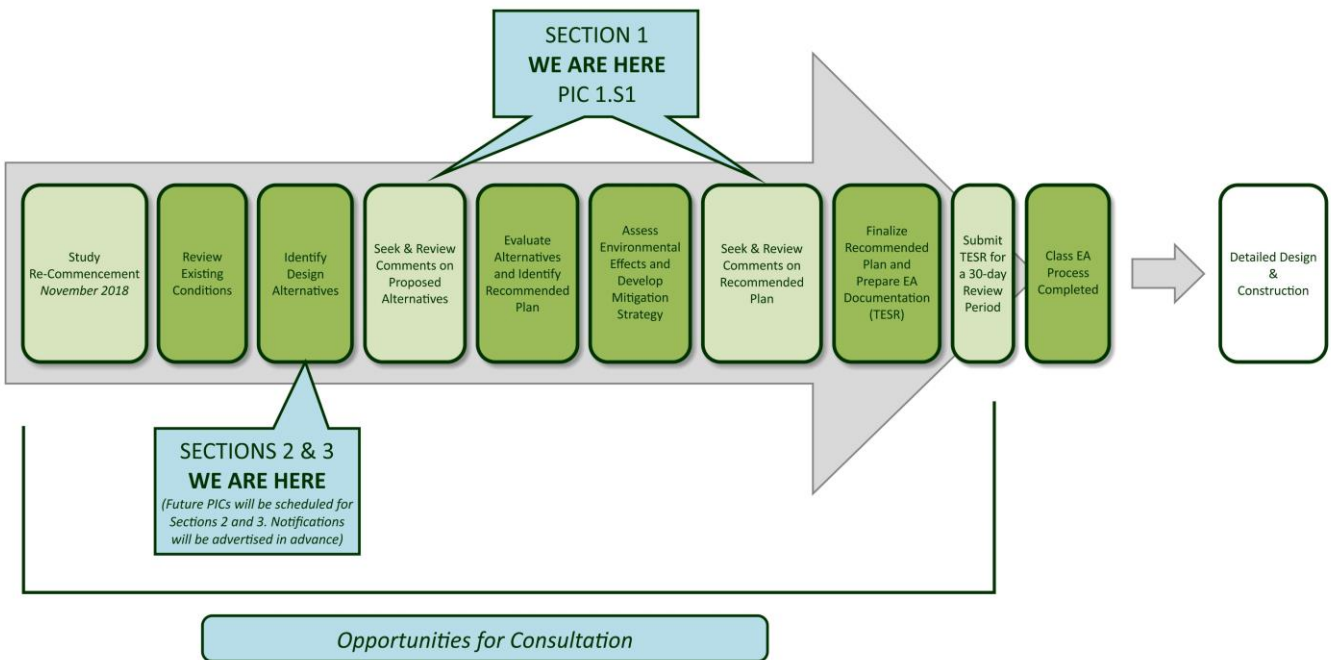
Transportation Environmental Study Reports (TESRs) were filed for Sections 1 and 2. During the 30-day period, concerns were received and a decision was made by the Ministry of Transportation to put the Study on hold until a resolution was reached.

In 2018, the Ministry of Transportation placed the Highway 17 Four-Laning between the Manitoba / Ontario Border and Kenora Route Planning Study on a list of priority projects.

The Ministry of Transportation has re-commenced the study and continues to work with stakeholders to resolve any concerns to move forward with the project. As part of the study re-commencement, the Ministry of Transportation has withdrawn the previously issued Notice of Completion issued November 10, 2009 and re-commencing the EA process.

This study is being conducted in accordance with the requirements of the *MTO Class Environmental Assessment for Provincial Transportation Facilities 1999*, as amended in 2000 for Group 'B' undertakings. The process is approved by the Ministry of Environment, Conservation and Parks (formerly Ministry of the Environment) for the planning and design of provincial highway projects. External agency, Indigenous community engagement and public consultation will take place throughout the project to present study findings.

An overview of the Class EA Process and opportunities for consultation and engagement is provided in the following figure:

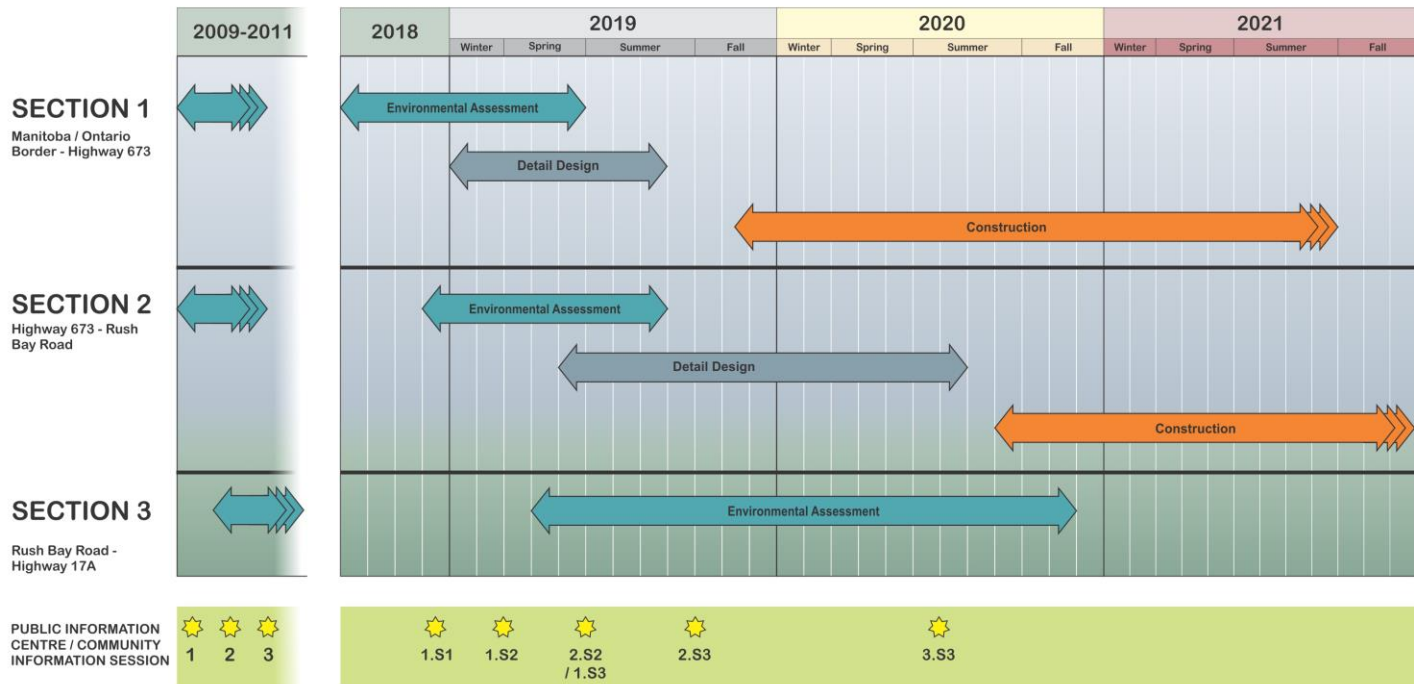


Schedule

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora



The tentative schedule for the EA / design studies and related opportunities for consultation and engagement is illustrated in the figure below :



Alternatives to the Undertaking

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora

CRITERIA	ALTERNATIVES				
	DO NOTHING	Transportation Demand Management (Reduce Peak Demand)	Non Roadway Improvements (Rail, Air, Transit)	Localized Operational Improvements (Existing Highway 17)	Highway 17 Corridor Capacity Improvements
Description	Maintain status quo	Reduce transportation demand through methods such as carpooling, telecommuting, road pricing, etc.	Improve other modes of transportation to divert traffic from the provincial highway network	Make minor improvements to the existing highway, such as passing lanes or turning lanes, to improve traffic operations	Increase the number of travel lanes on the highway to improve capacity and traffic operations
LONG TERM NEEDS					
Congestion Decreased	Congestion will increase as traffic volumes increase over long term	Congestion will not decrease significantly	May result in small decrease in congestion over short term as alternate modes are used	Congestion will increase as traffic volumes increase	Congestion reduced with significant capacity improvements
Road Safety Improved	Potential for collisions will increase as traffic volumes increase	No changes to safety	No changes to safety in existing highway corridor	Minor safety improvements	Safety improved with design / capacity changes
Regional Accessibility Improved	Access to the region more difficult as traffic volumes increase	Access to the region may not improve, may be more difficult	May improve regional access. May not improve local access.	Minor effect on accessibility	Access to the region improved with capacity improvements
Serve Local Needs	Will not service local needs due to higher congestion	Will not service local needs due to higher congestion	Will not service local needs due to higher congestion	Will not service local needs due to higher congestion	Will serve local needs. Access changes may be required
Can be Construction Staged	Not applicable	Can be staged	Cannot be effectively staged	Can be staged	Can be staged
MINIMIZE IMPACT					
Minimize Economic Impact	Economic potential may be limited with existing highway	Shifting travel patterns may cause economic impact	Minimal impact on highway businesses. Does not support area tourism focus	Economic potential may be limited with existing highway	Increased mobility is a positive impact however potential change to local business access
Minimize Environmental Impact	No impact	Minimal impact	Minimal impact if existing corridors used	Minimal impact	Some impacts, most of which can be mitigated
Minimize Socio/Cultural Effects	Minimal impact	High Impact Potential (ie. Staggered work hours / caps on development)	Minimal impact	Minimal impact	Some impacts, most of which can be mitigated
CONSISTENT WITH EXISTING SYSTEMS					
Existing Corridor Available	The existing highway corridor is available	The existing highway corridor is available	Existing rail corridor and existing highway, air and marine corridors are available	The existing highway corridor is available	The existing highway corridor is available
Required Different Modes	Possible modes include cars, trucks and buses	Possible modes include cars, trucks and buses	Requires other modes to access rail/marine/air facilities	Possible modes include cars, trucks and buses	Possible modes include cars, trucks and buses
Cost Effective	The most cost effective solution considering capital cost. Same construction costs.	Is a cost effective solution considering capital cost	Not cost effective since significant additional infrastructure required to achieve local access	A cost effective solution considering capital cost. Reduced construction costs.	More costly solution. Economic benefits to the area and improved highway safety and operation offset capital costs. Reduced road
COMMENTS					
	Will not meet the area's future needs. Minimal impact. Consistent with existing systems	Will not meet the area's future needs. Potential impact on development. Consistent with existing systems	Will not meet the area's future needs. Not consistent with existing systems. Does not adequately address long term needs as highways are the major means of transportation	Will not meet the area's future needs. Minimal impacts. Consistent with existing systems	Will meet the area's future needs. Some impact requiring mitigation. Consistent with existing systems
RECOMMENDATION					
	Eliminate from further consideration	Consider with other options	Eliminate from further consideration	Eliminate from further consideration	Carry forward for further analysis

Topography is variable, with frequent bedrock outcropping and in some areas, significant bedrock ridges. Watercourses and wetlands occupy the low-lying areas.

Upland vegetation includes typical upland mixed forest associations dominated by Trembling Aspen, Balsam Poplar, White Birch, Jack Pine and White Spruce.

Wetlands and watercourses are commonly influenced by beaver activity. Wetlands include:

- Treed swamps, which are most often dominated by Black Spruce, with Black Ash, Balsam Fir, Balsam, Poplar and White Birch as common associates
- Marshes dominated by cattail and sedges with shrub thicket patches dominated by Speckled Alder and dead trees
- Beaver meadows/meadow marshes dominated by grasses and sedges are common.



Watercourse East of Rest Stop



Study Area between Gundy Lake Road and Baubee Lake

Most of the watercourses are small, warmwater tributaries or wetlands that ultimately drain to larger systems such as Baubee Lake. A large number of features within the study area are beaver-modified. Baubee Lake and supporting tributaries have been found to support Northern Pike fisheries and in some cases support spawning habitat for Northern Pike. There are numerous small lakes and beaver ponds in the area as well. The larger of the small watercourses also support baitfish species.

The area supports a typical range of wildlife species common to the general area. The Eastern Wolf sub-species occurs in the area, and Bald eagle forage locally.



Typical Marsh



Beaver Pond

Aggregates

Sand, gravel and crushed rock are a vital construction material required for Ministry of Transportation projects. The Aggregate Resources Act ensures that environmental concerns associated with aggregate activities (i.e. extraction, transportation, site rehabilitation and processing) are addressed. In accordance with these Acts, environmental concerns are identified and appropriate mitigation is determined for site specific aggregate activities.

Archaeology

Stage 1 and 2 archeological assessments (AA) were carried out as part of the initial study in 2009. The Stage 1 identified a large number of registered archaeological sites located in and near the project area, however no known archaeological sites are within the project footprint. No significant archaeological impacts were identified as part of the Stage 2 AA, therefore no additional archaeological work is required and the Stage 2 AA report has been filed with the Ministry of Tourism, Culture and Sport.



Cultural Heritage

A Built Heritage and Cultural Landscapes Existing Conditions Report was prepared to identify heritage resources present within the project area. Based on the desktop survey, the following principal, person-made cultural heritage landscapes 40 years and older were located within and adjacent to Section 1:

- King’s Highway 17;
- Abandoned sections of Highway 17; and
- Local roadscaapes.

No significant built heritage resources were identified from the desktop survey and therefore no mitigation is required.



REST AREA (IMPROVEMENTS UNDER CONSTRUCTION)



WATERCOURSE SOUTH OF EXISTING HIGHWAY



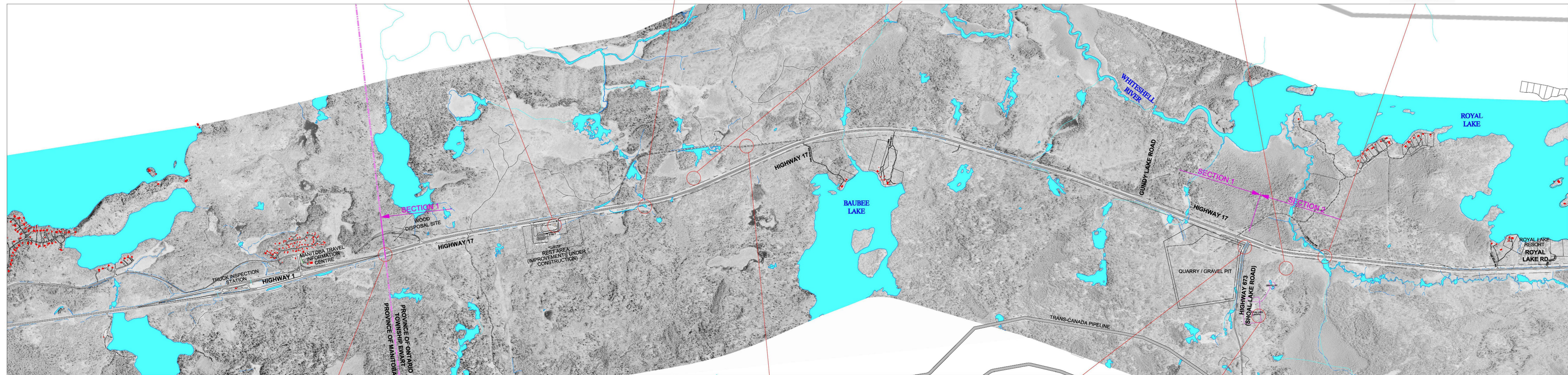
WETLAND NORTH OF EXISTING HIGHWAY



HYDRO DISTRIBUTION CORRIDOR



MOTH-ROYAL LAKE TRIBUTARY



PROVINCIAL BOUNDARY



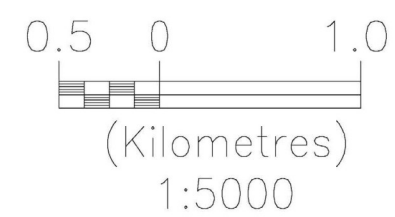
ABANDONED SECTION OF HIGHWAY 17



SECONDARY HIGHWAY 673 (SHOAL LAKE ROAD)



LANDFILL EAST OF HIGHWAY 673 (CLOSED)



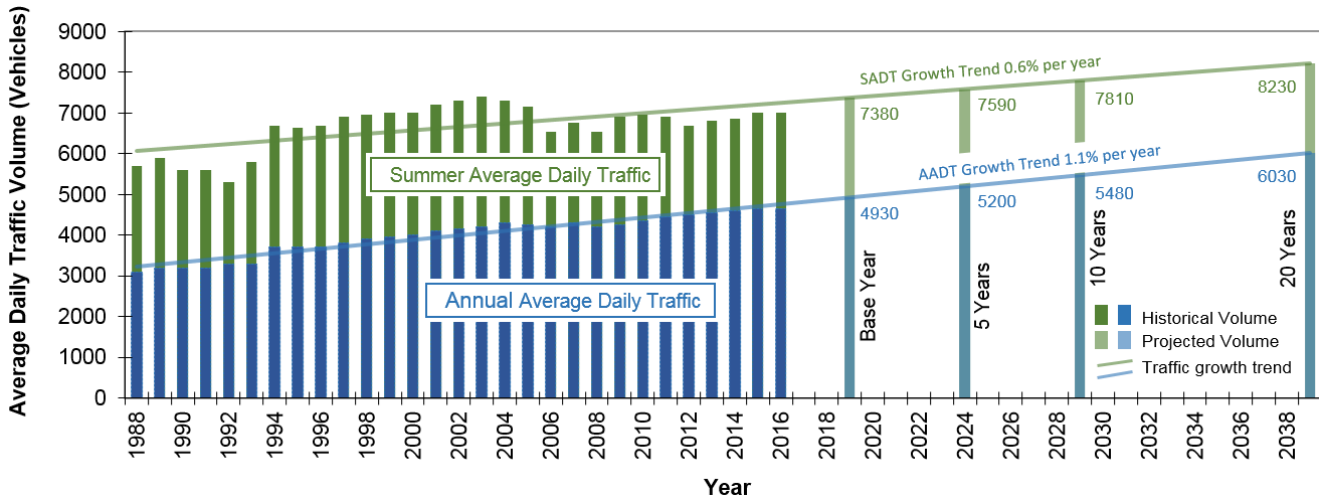
HIGHWAY 17 FOUR-LANING BETWEEN THE MANITOBA / ONTARIO BORDER & KENORA
 G.W.P. 6053-03-00
 SECTION 1: BETWEEN THE MANITOBA BORDER & HIGHWAY 673

EXISTING CONDITIONS

INFORMATION CENTRE 1.S1

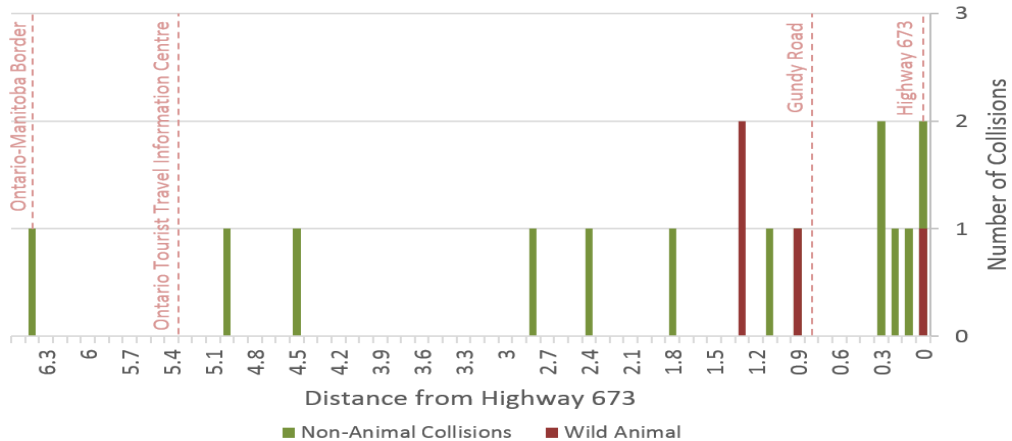


Average Daily Traffic Volumes between the Manitoba/Ontario Border and Highway 673



- Annual Average Daily Traffic volumes increased 50% between 1988 and 2016
- Summer Average Daily Traffic volumes increased 23% between 1988 and 2016
- Annual Average and Summer Average Daily Traffic volumes are growing at rates of 1.1% and 0.6% annually
- Forecast average daily traffic growth of 12% to 18% is expected between 2016 and 2029
- Forecast average daily traffic growth of 18% to 30% is expected between 2016 and 2039
- Most of Highway 17 in the study area reflects higher traffic levels on weekends than weekdays, and an increase in traffic levels in the summer months, particularly on weekends

Highway 17 Collision Frequency between the Manitoba/Ontario Border and Highway 673 (2013 to 2017)



- Total of 18 collisions over 5 years between Highway 673 and Ontario-Manitoba border
- Collision rate of 0.33 collisions per million vehicle-km is below provincial average collision rate
- Five (5) of the 18 collisions were related to a wild-animal strike or debris that had fallen from a leading vehicle
- Driver fatigue or inattentiveness was a contributing factor in 4 of the remaining 13 collisions
- Seven (7) of the remaining 9 collisions involved only a single vehicle and the remaining 2 included a rear-end and a side-swipe collision
- Road surface conditions appear to be a contributing factor for 5 of the 9 collisions
- Based on the collision frequency and the characteristics outlined above, the collision history does not reflect any trend that may be related to highway geometry

Border Area Improvements

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora

Due to the close proximity of the study area to the Manitoba border, it is important to coordinate future plans for the Trans-Canada Highway through the inter-provincial border area:

- The majority of the Trans-Canada Highway is already four lanes in Manitoba.
- In Manitoba, the Trans-Canada Highway near the Ontario border is two lanes.



Highway 17 at Ontario/Manitoba Border (two-lane)



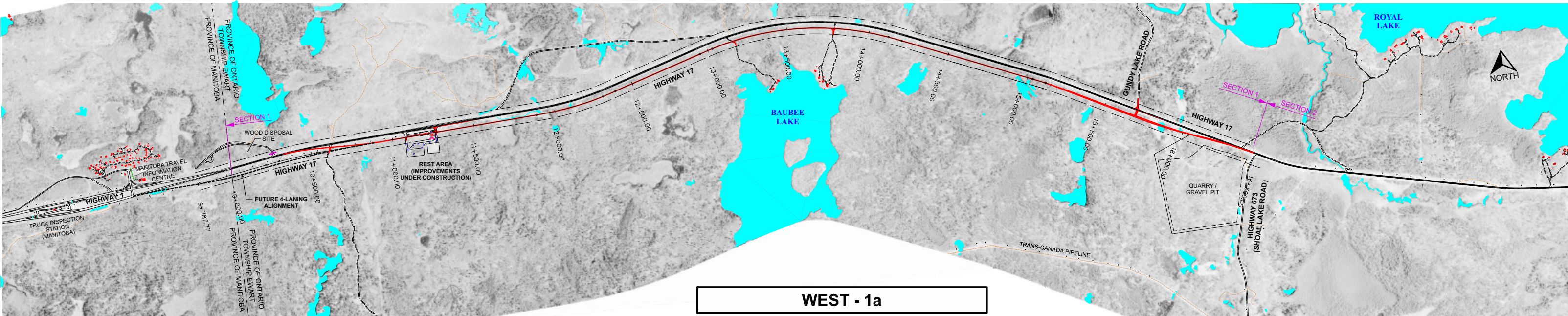
Evaluation has been carried out for alternative highway improvements between the Manitoba / Ontario border and Highway 673. An analysis and evaluation summary table of the potential advantages and disadvantages of each alternative has been prepared based on consideration of the following factors and criteria:

EVALUATION FACTOR	CRITERIA
NATURAL ENVIRONMENT	Effect on Fish and Aquatic Habitat
	Effect on Terrestrial Habitat & Vegetation
	Effect on Naturally Significant Areas
	Effect on Surface Water and Groundwater
SOCIO-ECONOMIC ENVIRONMENT	Residential Property Impacts
	Business Impacts
	Recreational Impacts
	Noise Impacts
	Property Waste and Contamination
	Effect on Natural Resources
CULTURAL ENVIRONMENT	Effect on Known Archaeological Resources
	Effect on Built Heritage Resources
	Cultural Landscape Resources
TECHNICAL CONSIDERATIONS	Highway Geometrics
	Access Impacts
	Compatibility with Existing Transportation System
	Constructability
	Drainage
	Traffic Operations
	Cost

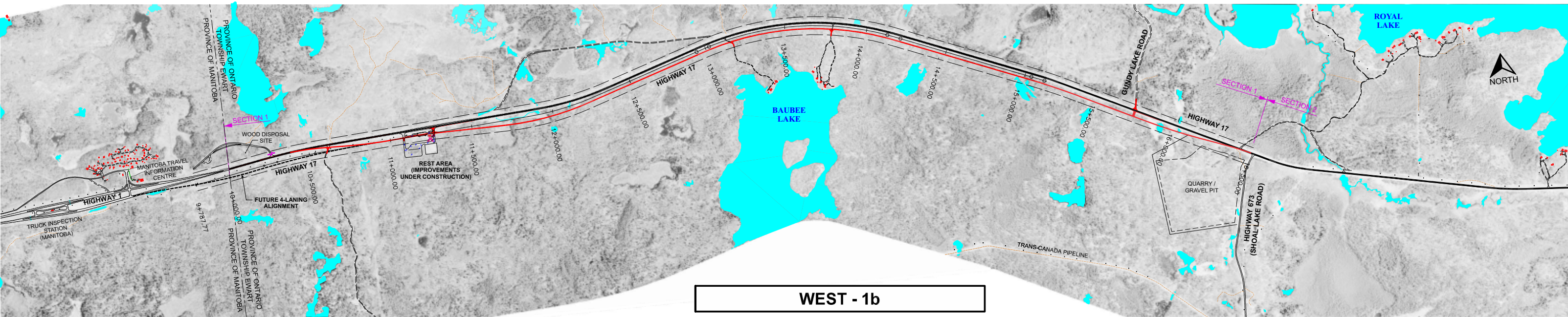
Note: the above list is subject to change based on consultation and study area features.

Route Alternatives - Section 1

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora



WEST - 1a

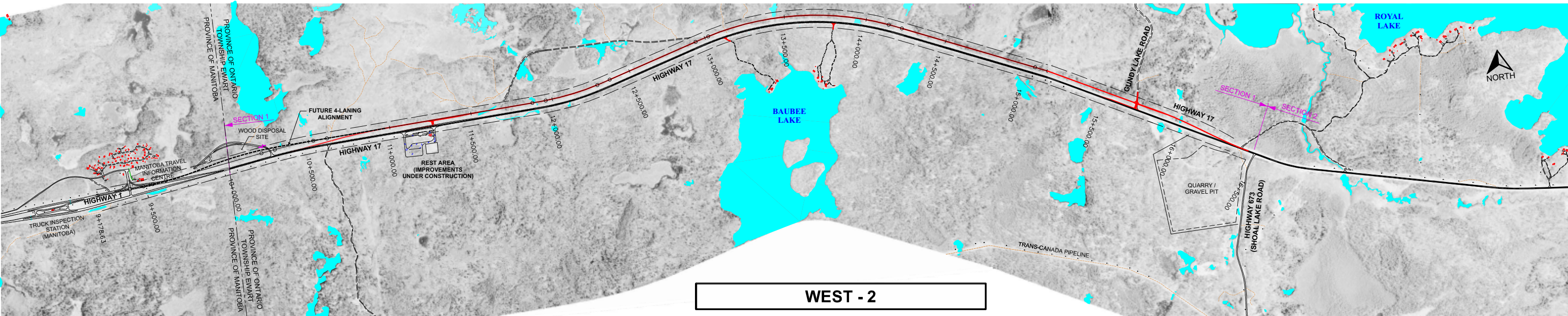


WEST - 1b

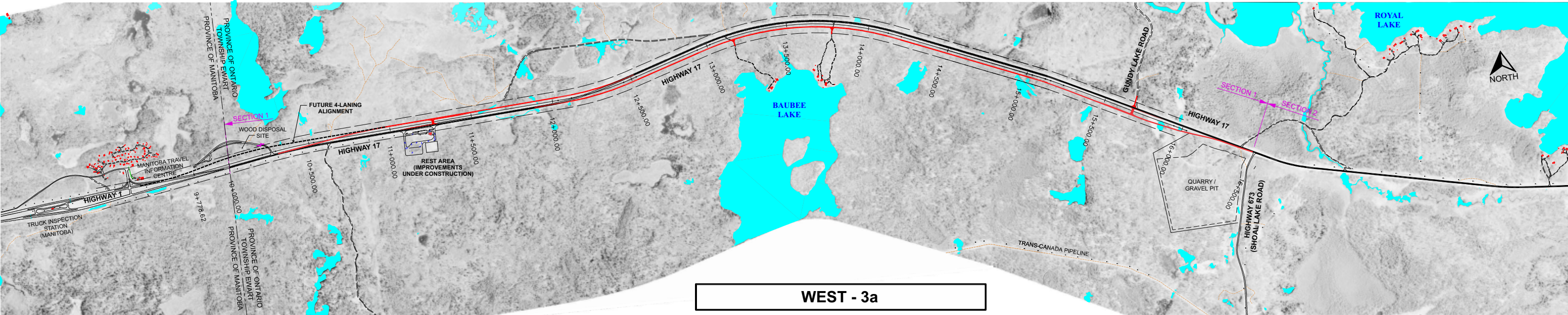
Legend:	
	Lanes Using Existing Highway 17 Alignment
	New Construction
	Displaced
	Existing Paved Road
	Existing Unpaved Road / Access
	Trail
	Existing Building
	Removal
	Access Closed

Route Alternatives - Section 1

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora



WEST - 2

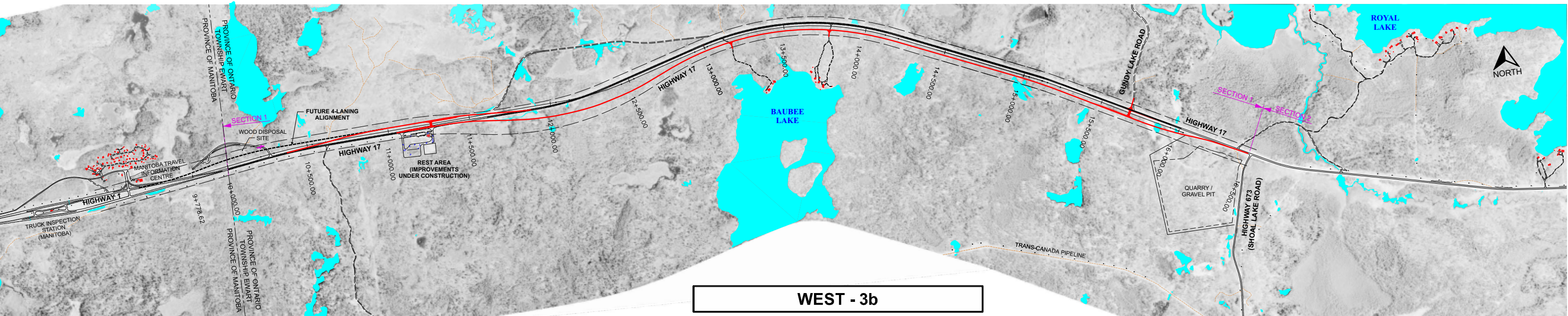


WEST - 3a

Legend:	
	Lanes Using Existing Highway 17 Alignment
	New Construction
	Displaced
	Existing Paved Road
	Existing Unpaved Road / Access
	Trail
	Existing Building
	Removal
	Access Closed

Route Alternatives - Section 1

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora



WEST - 3b

Legend:	
	Lanes Using Existing Highway 17 Alignment
	New Construction
	Displaced
	Existing Paved Road
	Existing Unpaved Road / Access
	Trail
	Existing Building
	Removal
	Access Closed

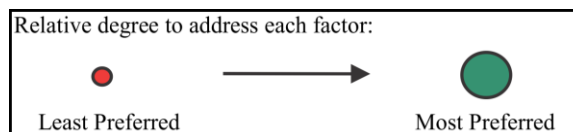
Evaluation of Route Alternatives – Section 1

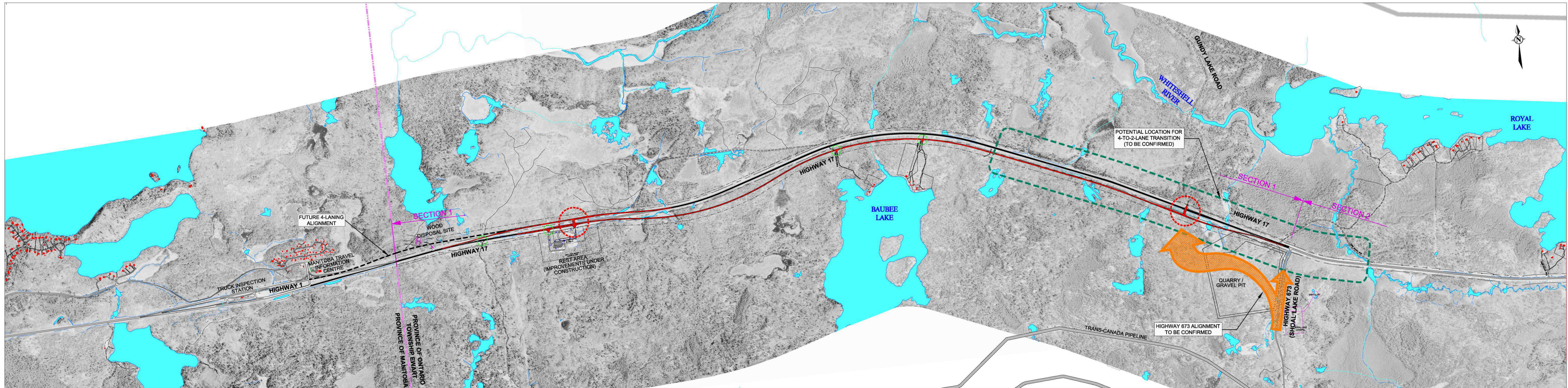
Between the Manitoba / Ontario Border and Highway 673

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora

Criteria Key features	Alternatives					Comments
	1A	1B	2	3A	3B	
Natural Environment <i>Watercourse</i>						Alternatives 1A has high impacts on key natural environment features. Alternatives 1B, 3A and 3B have moderate impacts on natural environment features that can be mitigated. Alternative 2 has the least impacts on natural environment features.
Socio-Economic Environment <i>Travel Information Centre</i>						Alternatives 1A and 1B have high impacts and result in displacing the Ontario Visitors Travel Information Centre. Alternatives 2, 3A and 3B have low impacts on key socio-economic features.
Cultural Environment						Alternatives have similar potential impacts to cultural environment features.
Transportation Considerations <i>Wetland Crossing</i>						Alternatives 1A and 1B avoid impacts to wetland crossing east of the Ontario Visitors Travel Information Centre. Alternative 1B has fewer constructability challenges. Alternative 2 results in constructability challenges due to high impact to wetland crossing west of the Travel Information Centre. Alternatives 3A and 3B avoid impact to wetland crossings. Alternative 3B allows for improved constructability.
Construction Cost						Alternatives 1A and 1B result in moderate costs due to the relocation of the Ontario Visitors Travel Information Centre. Alternative 3 results in moderate costs due to constructability challenges of infilling a wetland crossing. Alternative 2 results in high costs due to constructability challenges of infilling a wetland crossing west of the Travel Information Centre. Alternative 3B results in the least costs.
Overall Summary						Alternative 1A was not chosen due to high impacts on the natural and socio-economic environments, and technical considerations. Alternative 1B was not chosen due to impacts on natural and socio-economic environments, although it has fewer constructability issues. Alternative 2 has less impact on natural and socio-economic environments, but was not chosen due to constructability and cost considerations. Alternative 3A was not chosen due to its impacts on natural environment and some constructability challenges. Alternative 3B is the selected alternative, as it has relatively few direct socio-economic and natural environment impacts and has fewer constructability challenges, resulting in lower costs.
Recommendation	Not Selected	Not Selected	Not Selected	Not Selected	Selected	

The evaluation of alternatives was carried out based on project specific criteria, taking into consideration the Project Team’s knowledge of existing conditions.





LEGEND	
	LANES USING EXISTING HWY 17 ALIGNMENT
	NEW CONSTRUCTION
	INTERSECTION WITH MEDIAN CROSSOVER
	RIGHT-IN / RIGHT-OUT ACCESS
	PROPOSED ACCESS CLOSURE

Highway Four-Laning

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora

Highway four-laning is accomplished by twinning the existing highway and / or creating segments of new highway alignment.

Twinning:

- Two new lanes are constructed carrying traffic in one direction. The existing two-lane highway is retained, with both lanes carrying traffic in the other direction
- Transitions from one side of the existing highway to the other may be required to avoid local constraints
- Sections of the existing highway may be upgraded over the long term as appropriate (e.g., horizontal / vertical alignment improvements, etc.)

New Highway Alignment:

- Where segments of the existing highway alignment are not suited to twinning due to geometry or local constraints, a new four-lane alignment will be required
- Existing highway may be maintained as a local access road where required



Example of curvilinear alignment not suited to twinning



Example where new alignment can minimize impacting existing community

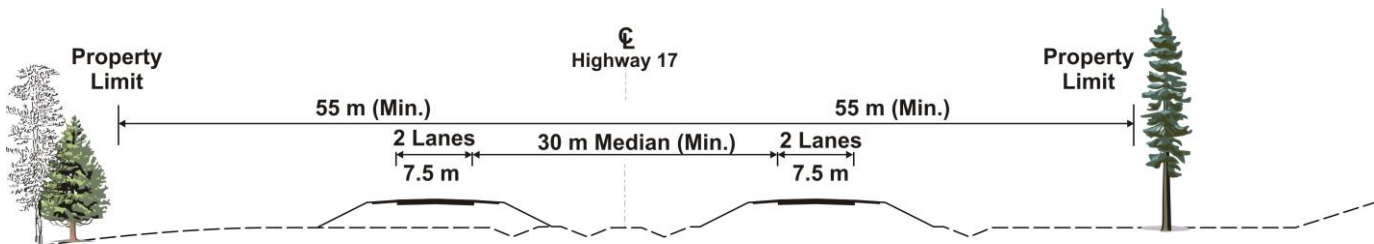
Typical Configuration

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora

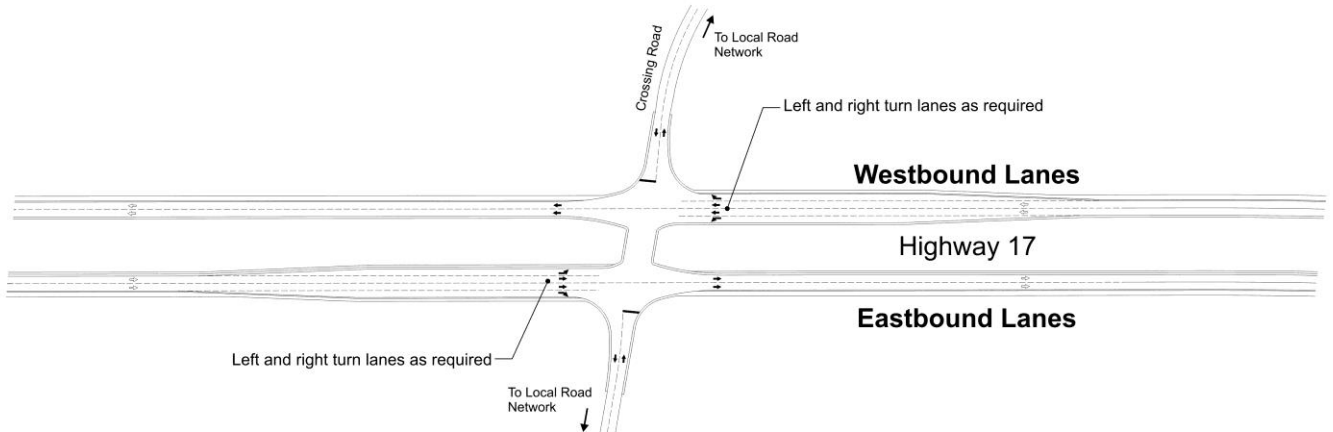
Highway 17 as a Four-Lane Highway would have the following characteristics:

- Two lanes in each direction, separated by a minimum 30-metre median
- A wider median will be used where required to address access, constructability and other considerations
- At-grade intersections after initial construction
- Limited property access: some entrances will become right-in/right-out and/or consolidated with others
- Long-term improvements will include grade-separated interchanges

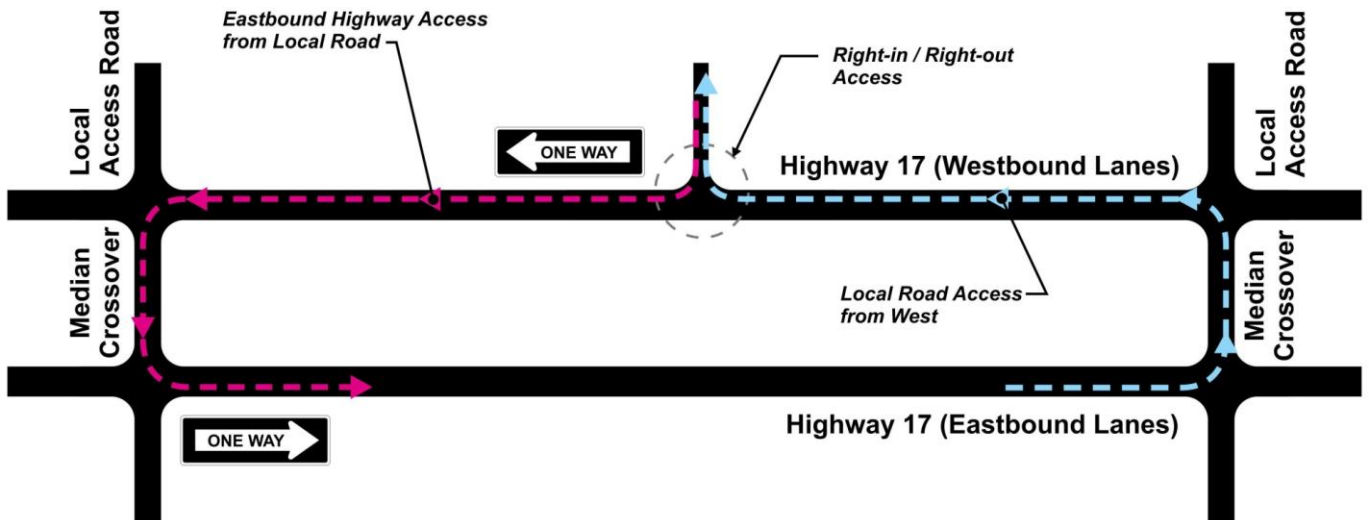
Typical Cross-Section



Typical Four-Lane Intersection



Typical Right-in / Right-out Access Configuration

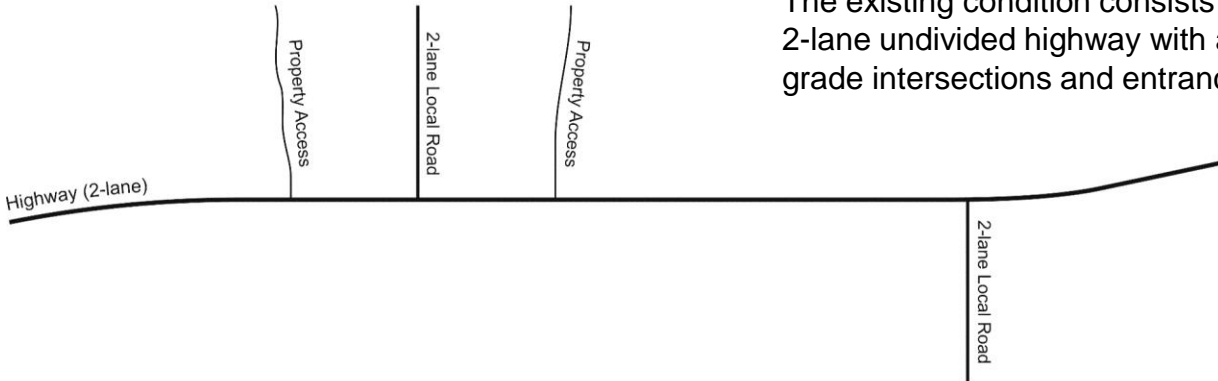


Approach to Staging Improvements

Highway 17 Four-Laning between the Manitoba/Ontario Border and Kenora

EXISTING

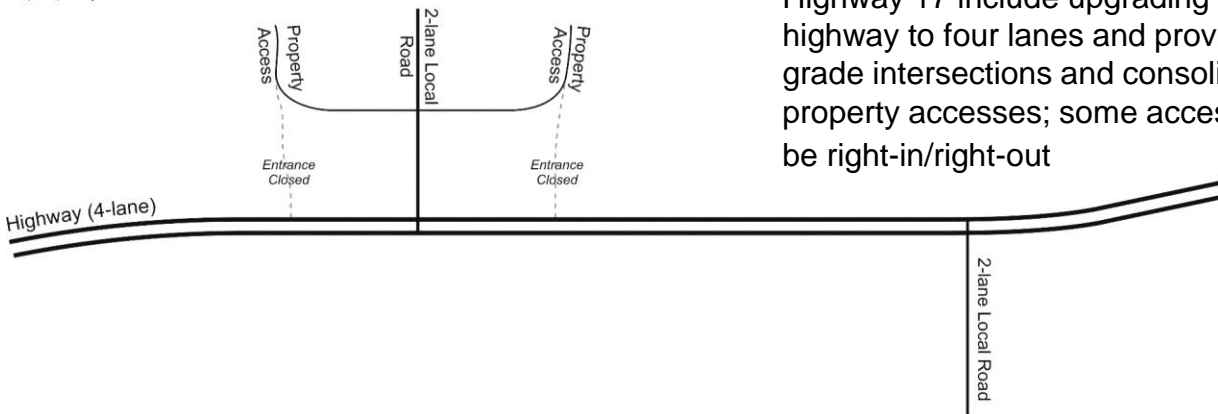
2-lane undivided highway with at-grade intersections and numerous entrances



The existing condition consists of a 2-lane undivided highway with at-grade intersections and entrances

INITIAL IMPROVEMENTS

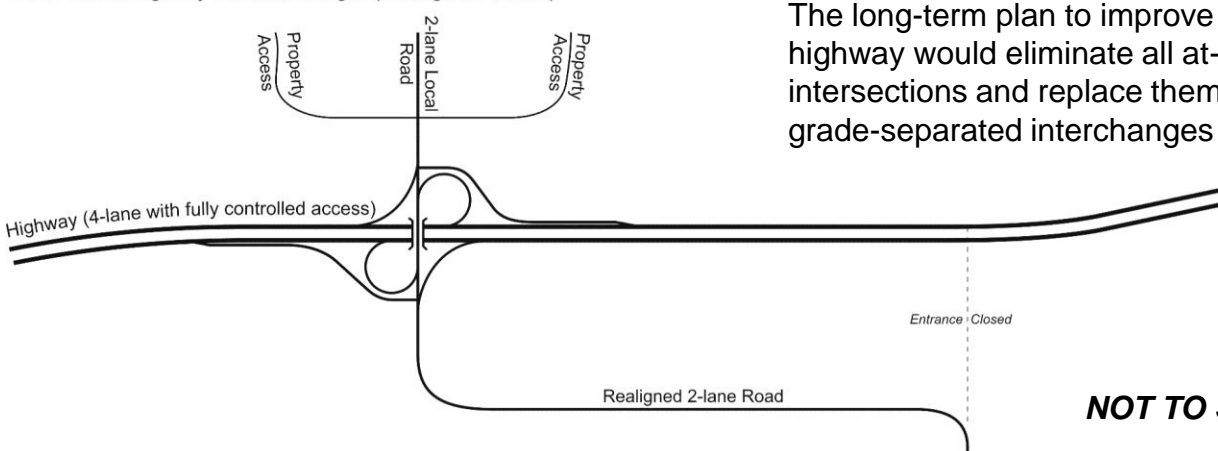
4-lane divided highway with at-grade intersections and consolidation of property access



The proposed improvements for Highway 17 include upgrading the highway to four lanes and providing at-grade intersections and consolidating property accesses; some accesses will be right-in/right-out

LONG-TERM IMPROVEMENTS

4-lane divided highway with interchanges (no at-grade access)



The long-term plan to improve the highway would eliminate all at-grade intersections and replace them with grade-separated interchanges

NOT TO SCALE

After this Information Centre, the following activities will be carried out:

For Section 1:

- Review the comments received and respond to any questions/concerns
- Develop mitigation measures to address potential environmental impacts (natural, socio-economic, cultural)
- Complete the preliminary design of the selected alternative
- Prepare the Transportation Environment Study Report (TESR)

For Sections 2 and 3:

- Develop and evaluate additional alternatives and select a route
- Present alternatives and the selected route at future PICs

Transportation Environmental Study Reports (TESRs) will be prepared separately for each section. Notices will be published when each TERS is completed to explain the 30-day public review process and identify the locations where the TERS is available for viewing.

Thank You for Attending!

Please feel free to ask any questions before you leave.

We also welcome your comments on the materials presented.

Please complete a Comment Sheet or submit input using our website:

www.4lanehighway17kenora.ca

**We ask that comments on the materials presented be submitted by
Wednesday, December 19th.**

General comments regarding the study or requests to be added to the Project Contact List can be submitted through the following Study Team members at anytime for the duration of the study:

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